People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
Dr. Moulay Tahar University, Saida
Faculty of Letters, Languages and Arts
Department of English Language and Literature

Effective Approaches to Overcome Stuttering among Primary School   Children: Primary School Pupils as a case study at Boudia Abdelkader, Saida

---

Dissertation submitted as partial fulfillment of the requirements for the degree of *Master* in Didactics.

Presented by: **Supervised by:**

Miss. Souhila Grib   Dr. H. Hichour

Board of Examiners

Dr. K. Naceri	Chair Person	University of Saida
Dr. H. Hichour	Supervisor	University of Saida
Dr. N. Ali Rabeh	Examiner	University of Saida

Academic Year: 2020/2021

Declaration of Originality

I hereby declare that this submission is my work and that, it contains no material previously published or written by another person, nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution.

.

Dedications

I dedicate this humble work to my parents, brothers, friends, and all who supported me to achieve this stage.

Acknowledgements

I would like to acknowledge, and give my warmest thanks to my supervisor, Dr. Hichour, who made this work possible.

I would also like to thank the committee members; Dr. Ali Rabeh and Dr. Naceri who have spent their time reading and evaluating my dissertation.

I would like to express my feelings of gratitude to all who helped me a lot in finalizing this project in some difficult moment.

Abstract

It is well documented that children may encounter multiple problems which can influence their social and pedagogical experiences. Stuttering is then, one of the major issues that hinder their communicative abilities. This paper aims at addressing the reasons behind this dilemma, and its impact on pupils' academic incomes, alongside with the remedies that primary school teachers can opt for to help them overcome it. For this reason, two questionnaires were addressed to a sample of 49 primary school instructors from different institutions, 22 parents whose toddlers are stutterers, in addition to a test designed for 4 school-aged children at Boudia Abdelkader school in Saida. Moreover, observation was used to support the findings. The collected data were analyzed quantitatively and qualitatively. The findings reveal that psychological traumas and genetics are amongst the major factors, which by role impede the learning achievement. They also puts into evidence, the necessity for creating an appropriate learning atmosphere, establishing a good-peer relationship, and modeling an effective communication in the classroom.

Key words: Stuttering, psychological traumas, remedies, genetics.

Table of Content

Table of Content

X

List of Figures

List of Tables

List of Abbreviations:

CWS: Children who stutter

FLA: Foreign Language Anxiety

NIDCD: National Institute on Deafness and Other Communication Disorders

PWS: People who stutter

List of Appendices

General Introduction

General Introduction

Throughout the millennia, learning has been the most important process through which the human mind is developed. Thus, school is a place, where people learn and acquire knowledge. Despite the fact that school-aged children may succeed easily, others may exhibit different problems, among which; stuttering. When trying to talk, stuttering is a speech problem that leads a person to repeat, interrupt, or extend syllables, sounds, or words.

Modern studies came to stress the fact that stuttering does not mean the way a person talks, but more specifically, the message conveyed and its meaning. However, mastering vocabulary and pronunciation do not ensure good language ability, and a successful use of that language in real life circumstances.

Stuttering may adversely impact their educational achievement of this stratum due to the various obstacles they may face with teachers, peers, and even the pressure received from family members. In developmental countries such as Algeria, Primary school teachers usually seem to ignore multiple strategies that should be taken into account while dealing with those pupils in the classroom settings. Teachers may come to schools with a high amount of knowledge, but with so little skills on how to cope with the diversity of children. However, teaching stutterers requires an equipment of both; pedagogical and psychological tools.

General Introduction

The current study puts more emphasis on the effective approaches opted by instructors to affectively aid primary school pupils overcome stuttering. Second, it aims at investigating the influence of stuttering on the academic achievement. Finally, recommendations on how to conquer the fear of public speaking are presented.

The study comes across to answer three main questions including:

- What are the reasons that provoke stuttering?

-Does stuttering affect the pupils' academic incomes?

-What is the role of the teacher in improving stutters' achievement?

Accordingly, it is hypothesized that:

-Genetics, neurological, physiological, and psychological problems are the basic factors of stuttering.

-Stuttering affects negatively pupils in terms of their communication with peers, teachers, and thus leads to unsuccessful academic results.

-The role of the teacher is to establish a good teacher-pupil relationship, boosting confidence, and creating appropriate rules for speaking in the classroom that accommodate all the learners.

General Introduction

This work is divided into three main chapters. In the first one, a literature review is presented to clarify the different features of stuttering, as well as its psychological and pedagogical impact on society members. The second chapter is devoted to a practical study comprising research tools, in addition to the analysis and the interpretation of the findings. Whereas the last one offers some self-therapies for the toddler, medical implications, teachers' roles, presented in a form of suggestions and recommendations.

Chapter One

Chapter One: Literature Review

Introduction:

Communication is a crucial aspect in human beings' lives. It is widely known as the act of delivering ideas, thoughts, and knowledge to other people. It can be either; verbal, non-verbal, or written. In the verbal communication, some people struggle to transfer their intended messages as correctly as they want. This issue is mainly labeled "Stuttering", which is a speech disorder that is characterized by repetition of sounds, syllabus, or words; prolongation of sounds; and sometimes blocks. This section attempts to offer an overview about stuttering, how it can be affected by society, as well as its effect on schooling.

1.1 Overall Analysis of Stuttering:

1.1.1   Definition of Stuttering:

Stuttering is considered as a speech disfluency that creates frequent problems with normal fluency. It is also known as stammering, and Dysphemia. Experts generally agree on what stuttering is, yet a great disagreement often results when they try to operationally define it. Accordingly, Espir and Rose (1980) advocated that stuttering is considered a deviation of speech that draws attention and adversely impacted the speaker and the

audience, due to a disruption of the traditional speaking rhythms by involuntary repetition, prolongation, or arrest of sounds. For children, those symptoms clearly show that stuttering is concerned with the language abilities which are not enough developed to permit them produce what they want to say.

In his book *Anatomy of A Block*, Robben (2005) found that this illness is related to a psychiatric problem. He claimed that: "There is more to your non-fluency than the non-fluency itself. You might for obvious reasons, as you will find out, belief that is a thing just like other specific features of yourself, but it is not. There is in fact a formula inside your mind that is creating the sum that renders you non-fluent." (p.4)

In the same vein, Cohut (2017) has supported this idea claiming that stuttering is mostly linked with unbalanced brain activity, and thus the mental health. Conversely, Block (2020) elucidated that stuttering is a type of speech impediment, characterized by dysfluent or stammering speech and it is sometimes referred to as childhood-onset fluency disorder. Moreover, he admitted that it is frequent in children aged 2 to 6, and usually goes away on its away.

Stuttering is a childhood problem for roughly 4% of people. However, for approximately 1% of people, it can last their entire lives (Pasely, 2019).

It is notable that about 5% to 10% of preschool-aged children are harmed by this sickness. For that sake, an International Stuttering Awareness Day (ISAD) was established on October 22nd, 1998, sixteen years ago. The goal of this day is to raise public awareness about it.

Chapter One: Literature Review

1.1.2   Stuttering VS Stammering

While there has been much more researches on the overall aspects of stuttering, few studies have taken into consideration, the distinction between stuttering and stammering. The word "stammer" first occurred in English before the 12th century, according to the Merriam-Webster dictionary. The word "stammer" comes from an Old Norse verb that means "to obstruct, to dam up," which makes sense when you imagine speech being kept behind a dam. However, the verb "to stutter" is derived from the Middle English word "stutten" and is related to the Dutch word "stotteren." In addition, to stutter can refer to both; the condition of stuttering, and the act of moving, or acting in a halting manner. Besides, stuttering is mostly a British term, whereas stammering is commonly used in the US, as well as Australia and New Zeeland (Great Speech, 2021).

1.1.3   The Nature of Stuttering:

Stuttering is a complicated and a multi-faceted condition that can entail a combination of learned behavior and a variety of neurological, physiological, and psychological components, depending on the individual. The majority of persons who stutter can communicate smoothly at least some of the time. As a result, it is usually not due to a lack of ability to talk, but rather to a disruption with the stutterer's existing ability to speak (Parry, 2014). He added that the level of severity fluctuates a lot depending on the situation. Stutterers normally have no issue silently mouthing words, whispering, or singing. Besides, when speaking with an assumed accent or acting out a role, some stutterers become fluent.

Therefore, Parry (2014) claimed that even before they try to articulate a word, those who stutter typically view it as having a "brick wall" or "block." This foresight suggests that stuttering blocks begin in the brain, most likely in the neurological motor

programming for speaking rather than in the execution of the movements themselves. However, some stutterers master covert stuttering by changing words and avoiding circumstances where they could stutter.

In reverse, Williamson indicated that blocking is a key sign of stuttering because it is not typically present in normal dysfluency. When two articulators come together with too much power, for example, when the two lips come together to create the consonant sound 'b,' as in the words book, ball, and bird, blocking occurs (2014). In such cases, the speaker is unable to release the contact between the two articulators quickly and readily, and a significant lot of stress may develop. Then, he may be unable to expel a blocked sound for up to 10 seconds in severe instances.

Williamson (2014) advocated also, that talking can become rather exhausting due to the negative consequences on the individual's breathing, because the person is often holding his breath during a block. Furthermore, increased muscle tension around the head and neck, as well as in the chest, might enhance the feeling of exhaustion when speaking.

Although many people who stutter expect to have trouble saying words that begin with certain consonants, this is not the case. A person who repeats the /p/ in "puh-puh-puh-Peter" or prolongs the /s/ in "Ssssssss-sam" is actually saying the /p/, and the /s/, perfectly well. The lips and tongue are in the correct posture even when straining a consonant (Parry, 2014). Yet, the real issue in each case is the speaker's inability to produce the subsequent vowel sound. In words that begin with vowels, the glottal stop, a generally brief closure of the larynx to build up and release air pressure to emphasize the beginning of an initial vowel sound, may be repeated or forced.

The fact that stuttering usually does not occur when voicing is not required, such as when silently mouthing words or whispering, is more evidence that stuttering is a "voice

disorder." Because phonation is not involved, the speech mechanism does not have to wait for the larynx to be ready to voice the vowel sound, and the lips and tongue are free to articulate (Parry, 2014).When singing, on the other hand, stuttering is virtually never an issue since the larynx is always ready to articulate the melody, which is carried on the vowel sounds. As a result, the lips and tongue are free to express themselves because the larynx is not yet ready to vocalize the vowels (Parry, 2014).

1.1.4 Types of Stuttering:

Many scholars distinguished three different types of stuttering: Developmental, neurogenic, and psychogenic.

1.1.4.1 Developmental:

It is most common in children under the age of five, in which males are more affected, and it arises when the child's speech and language abilities evolve (Nall, 2019). Then, excitement, tension, or worry may trigger stuttering in this situation. Stuttering in children is usually temporary, and most children recover within four years after the commencement of symptoms (Encyclopedia Britannica, n.d.). Additionally, Cunha (2018) believed that hereditary factors play a role in this type of stuttering.

1.1.4.2 Neurogenic:

Stuttering is widespread in children aged 2-5, and signaling anomalies between the brain, nerves, and muscles are present. Similar to the previous type, females are less influenced than males (Nall, 2019). Moreover, this type of stuttering is linked to structural abnormalities in the brain's motor speech center (Encyclopedia Britannica, n.d.). Damage

to this area can develop as a result of a stroke or other types of brain trauma, as well as congenital brain problems in rare situations.

1.1.4.3 Psychogenic:

In this type, stuttering can start at any age and originates in the area of the brain that is responsible for reasoning and thinking. Here, males and females are both affected (Nall, 2019). Furthermore, psychogenic stuttering is an uncommon disorder that appears to affect nearly almost people who have suffered extreme emotional stress or have a history of mental illness (Encyclopedia Britannica, n.d.). The fast repetition of initial word sounds is the most common symptom of this type of stuttering.

1.1.5   Etiology of Stuttering:

The factors leading to stuttering are still representing vagueness for speech pathologists and therapists. It is postulated that stuttering may be caused by genetics, and heredity. Those genetics can strongly influence the way the child's brain evolves its neural pathway for speech and language (Parry, 2014). For instance, a toddler may stutter just because his mom, dad, or other relatives stutter too. He also added that there are other brain activities that lead to the disruption of speech such as emotions.

On the other hand, Yaruss (2005) offered a divergent perspective where he claimed that the onset childhood stuttering appears due to improper behaviors from caregivers and family members, language planning, and speech motor challenges, among others.

Accordingly, Smith and Weber (2017) pointed out that in some cases, the inception of stuttering appears in childhood, while children are still learning to communicate. Stuttering then, can be stimulated by a brain damage, or a significant psychological

trauma. Unlike the developmental stuttering, this type is known as the "acquired" stuttering. Though, many of these theories have showed promise in explaining various aspects of stuttering, no single theory has thoroughly defined those who stutters' internal and external experiences.

Whereas Ambrose (2004) and Onslow (2004) reported that stuttering has a complex etiology that encompasses a genetic susceptibility as well as environmental, neurological, physiological, psychological, and learned behavioral factors. Yet, Nicholls (2013) reported that PWS have varied combinations of these elements, due to the distinctive character of symptoms (As cited in Millard, Nicholas, & Cook, 2008).

Along with speech and language impairments, Nicholls (2013) mentioned Tourette's syndrome, Autism Spectrum Disorders, and Attention Deficit Hyperactivity Disorder as ailments that can affect fluency (ADHD) (As cited in Blood et al., 2003 and Manning, 2010). According to him, stuttering is often more common in people with mental disabilities, and it is especially common in those with Down Syndrome (As cited in Wingate, 2002).

1.1.6 Historical Discredited Theories:

The search for the cause of stuttering has a long and varied history. Nicholls (2013) stated that stuttering was linked by Aristotle to difficulty in moving the tongue between sounds (As cited in Bloodstein & Bernstein Ratner, 2008), while Hippocrates blamed the disorder on tongue dryness (As cited in Kraft &Yairi, 2012). He also mentioned that by the early 1800s, a disruption in the larger speech apparatus, particularly the tongue, was widely acknowledged as the origin of stuttering (As cited in Buchel &Sommer, 2004).As a result of this theory, he advocated that extreme procedures were performed, often resulting in mutilation and additional problems (As cited in Buchel &Sommer, 2004). Nicholls

(2013) claimed that as the eighteenth century proceeded, etiological ideas developed to incorporate psychological trauma and mental anxiety, in addition to physiological factors (As cited Gilman &Yaruss, 2000).

Moreover, stuttering, according to Nicholls (2013), is the result of emotional trauma, and persons who stammer regard communication as a hostile act, with words serving as weapons (As cited in Gilman &Yaruss, 2000). People who stutter, according to this hypothesis, are ashamed of their unreasonable hatred, therefore, they try to suppress it, resulting in speech blocks.

In contrast, Johnson's *Diagnosogenic Theory* (1955) was widely regarded as the time's etiological explanation and zeitgeist (Nicholls, 2013). Nicholls (2013) asserted that this theory proposed that stuttering was produced by parental negativity causing anxiety in a youngster, which then altered a previously normal speaking pattern (As cited in Ambrose, 2004; Buchel &Sommer, 2004; Cooper & Cooper, 1996; Kraft &Yairi, 2012). Despite being disproved, Johnson's idea continues to affect speech-language experts and laypeople alike, as indicated by the commonly held belief that pointing out dysfluent speech in early infants will produce stuttering (Nicholls, 2013).

1.1.7   Genetics and Familial Links:

Stuttering according to Nicholls (2013) has a hereditary component, which is widely accepted (As cited in Ambrose, 2004; Newbury & Monaco, 2010; Onslow, 2004). As maintained by him, twin studies have found evidence that one twin is more prone to stutter if their other twin does as well (As cited in Ambrose, Yairi, & Cox, 1993). He also mentioned that this is especially true for twin pairs that are monozygotic (MZ) (As cited in Ambrose et al., 1993).

Moreover, Nicholls (2013) stated that the genetic component of stuttering' etiology is most likely a hereditary diathesis that is aggravated by external variables, resulting in the condition (As cited in Kraft &Yairi, 2012; Wingate, 2002). That is, some persons stutter because they are genetically predisposed to it, and the problem develops owing to other factors like environmental or neurological dynamics. Persistence and recovery appear to be inherited features (As cited in Dworzynski, Remington, Rijsdijk, Howell, &Plomin, 2007), with some tendencies spanning generations (As cited in Hall, Wagovich, & Ratner, 2007). Despite this fact, not all studies have proved it, and only around half of stutterers have a familial history of the problem.

1.1.8   Physiological Theories:

When experiencing a block, many people who stutter describe tightness and even pain in their throat and/or chest, which could be caused by the speaker losing control of muscles and the diaphragm due to the "miscoordination of an otherwise normal respiratory, vocal, and articulatory system" (Nicholls, 2013, as cited in Montgomery, 2006, p. 162).

Likewise, speech with varying pace and timing (Nicholls, 2013, as cited in Olander, Smith, &Zelaznik, 2010) and, in certain situations, clumsiness of speech can also indicate motor control impairments (Nicholls, 2013, as cited in Manning, 2010). Even when no stuttering behaviors are visible, data shows that people who stammer have problems with their speech motor control system (Nicholls, 2013, as cited in Montgomery, 2006; Olander et al., 2010).

Chapter One: Literature Review

1.1.9   **Neurological Theories:**

Several studies have attempted to determine whether neurological abnormalities are the cause of stuttering. Nicholls (2013) revealed that in 2000, Fox et al, employed positron emission tomography (PET) imaging to look into a possibility that stuttering was linked to speech-motor areas in both hemispheres and the cerebellum. The mechanics of speech for fluent persons are primarily controlled by left hemisphere activity, which contains the fine motor control neural networks, according to PET and electroencephalography (EEG) technology (Nicholls, 2013, as cited in Fox et al., 2000). Furthermore, persons who stutter have an overabundance of activity in the right hemisphere, which is the center of emotional activity.

Neurotransmitters on the other hand, have been studied in relation to the origin of stuttering. Neurotransmitters, such as dopamine, serotonin, and norepinephrine, are substances released by one neuron that impact another neuron (Nicholls, 2013, as cited in Kalat, 2007). Neurotransmitters travel from the right to the left hemisphere during speech, triggering extra activity in the left brain's speech centers. Nicholls (2013) boosted this idea claiming that chemical activity in the right hemisphere rises in proportion to the degree of emotional or environmental stress, which exacerbates disturbance of the brain connections that govern speech. As a result, the brain networks that control the laryngeal muscles, articulator coordination, and aural feedback (how the person who stutters hears himself) are influenced.

Each person who stutters will experience the pattern in a different way and to a different degree. Onslow (2004) supported theories like this as one component of a complex etiology. The opposite side of any debate on a neurological basis for stuttering is the question of whether stuttering causes differences in brain activity or if stuttering causes changes in brain activity?

When it comes to brain function and stuttering, there are a few common features. First, those who stammer have different brain networks when they are stuttering versus when they are not. Second, the degree of activity in the cerebral areas connected with motor speech and language production is different in a stutterer's brain than it is in the brain of a non-stutterer (Nicholls, 2013, as cited in, Ingham et al., 2004).

There is evidence that those who stutter have an auditory processing defect that is limited to speech sounds (Nicholls, 2013, as cited in, Liotti et al., 2010). Third, there is no proof that stuttering is limited to a single neuronal pathway or structure. Finally, stuttering appears to be linked to hemispheric irregularities in the motor centers of the non-dominant hemisphere, which is usually the right side (Nicholls, 2013, as cited in, Buchel and Sommer, 2004). Therefore, the majority of stuttering studies agrees that there are "possible neuromotor influences" and that a psychological cause is doubtful (Nicholls, 2013, as cited in, Ramig and Dodge, 2010, p.239).

1.1.10   Psychological Factors :

As youngsters become more conscious of their stuttering, unpleasant sentiments about speaking may intensify, affecting their capacity to communicate further. Some youngsters may be more emotionally aroused and anxious when speaking than others, depending on their disposition.

Then, many experts, like Sermas and Cox (1982), believe that a child's temperament has a role in stuttering development and maintenance. Temperament differs from characteristics in that it is based on physiological factors (Nicholls, 2013). Likewise, Nicholls (2013) asserted that theorists have argued in the last decade or two that CWS have a more delicate or sensitive temperament, which could be a contributing factor in the onset, maintenance, or recovery of stuttering (e.g., Conture, 2001; Guitar, 1998;

Zebrowski &Conture, 1998). In addition to temperament as a whole, it has been suggested that certain aspects or dimensions contained in temperament play a role in stuttering, such as paying attention to problems. These problems refer to distraction, perseverance, frustration, inability to focus on tasks, and low tolerance for problems (Nicholls, 2013, as cited in, Riley and Riley, 2000).

However, other scholars argue that emotional elements are difficult to quantify and cannot be regarded as the primary cause of stuttering. Negative emotions, on the other hand, may add to the cognitive load for children who stammer at a vital stage of language development (Nicholls, 2013, as cited in Smith and Weber, 2017). In other words, anxiety, low self-esteem, tension and stress do not cause stuttering. Yet, they are the result of living with stigmatized speech problems, which can sometimes aggravate symptoms (Nicholls, 2013, as cited in Newman, 2017).

1.1.11 Symptomatology:

As maintained by Nicholls (2013), stuttering symptomatology can be difficult to discuss because, while stuttering behavior is typically evident and observable, symptoms are "surface signals of some illness that cannot be witnessed directly" (As cited in Wingate, 2002, p.58). As a result, stuttering is a bit contradictory in that it has both visible overt symptoms and asymptomatic hidden behaviors. Focusing on the visible signs of stuttering often ignores the disorder's hidden side. A person who stutters will only be regarded as a stutterer once he starts speaking, and because no one stutters all of the time, his dysfluency may not be immediately apparent to listeners.

Previously, Block (2020) gave a clear description for symptoms that accompany stuttering. He mentioned that it comprises of overt and hidden symptoms. Overt symptoms are visible to others. They are noted by sounds that are repeated or extended,

and blocks when speaking. Whereas covert (hidden) signs are not obvious, they are marked by omission, substitution, or circumlocutions of items.

Conversely, Nicholls (2013) suggested three different types of symptoms which are, overt symptoms that are classified into primary and secondary features, and covet symptoms. The audible, visual, and observable elements of stuttering are the overt symptoms. The basic symptoms of stuttering are auditory aspects, which are divided into three categories: repetitions, prolongations, and blocks. It is noteworthy that each stutterer has a unique set of symptoms that are rarely stable and frequently change over time.

While some stutterers just block or repeat harsh consonants, others may experience blocks, repetitions, and prolongations at separate times or at the same moment (Nicholls, 2013, as cited in, Freeman &Friman, 2004; Onslow, 2004). Individuals who stutter frequently develop behavioral patterns for specific words or sounds, in which attempting to vocalize a specific phrase or sound may result in a specific set of symptoms. These patterns of behavior can be predictable or completely random (Nicholls, 2013, as cited in Manning, 2010).According to Nicholls (2013), people who stutter, tend to have a particular "phonemic consistency of dysfluencies... for example, a tendency to become blocked on one or more specific sounds," (Ramig and Dodge 2010, p. 240). Even though symptoms appear to be random and varied, Wingate (2002) claims that stuttering is not random since it "does not occur randomly in the speech structure", it is then, "a result of a variety of features of word use including word type... and structure" (p. 80).

Moreover, PWS acquire secondary features (additional or redundant features, coping mechanisms, or tricks) to improve their fluency, sometimes consciously, but more often unconsciously (Nicholls, 2013, as cited in, Hughes, Gabel, &Irani, 2011). Furthermore, there are several secondary characteristics that come with stuttering. Blinking or closing eyes, moving the brow, grimacing, mouth distortions, jaw tremors, gritting the teeth,

forced inhalation or exhalation, nodding the head, clenching a fist, and tapping or stamping hands or feet are examples of secondary features (Nicholls, 2013, As cited in, Hughes et al., 2011; Ramig & Dodge, 2010; Wingate, 2002). Secondary elements can also include mainly hidden processes including seeing and reading out loud a word's letters, speaking to a beat, breathing fluctuations, or word avoidance (Nicholls, 2013, as cited in Panico, Daniels, &Claflin, 2011).

Additionally, Nicholls (2013) stated that listeners' responses, at least in part, reinforce secondary behaviors in children who stutter. A secondary behavior that results in fluent speaking and earns a positive response from a listener may improve the likelihood that the child would repeat the behavior in a similar setting in the future. Communication can become a source of worry and anxiety for a PWS as secondary symptoms are incorporated into their regular speaking patterns, aggravating the stuttering cycle. In order to communicate, a person who stutters can become dependent on secondary symptoms that have been reinforced. Secondary symptoms, on the other hand, strengthen the stutter.

While the overt signs of stuttering are usually obvious and audible, there is another aspect of stuttering that is mostly unseen but can have severe effects for the stutterer. These include non-visible symptoms, such as cognitive and psychological processes, as well as avoidance behaviors. Covert symptoms, like overt symptoms, have a wide range of effects on people. Because they typically result from the response of the person who stutters or other listeners to the overt symptoms, it's disputed whether they should be called covert symptoms or covert reactions (Nicholls, 2013). Frustration, worry, wrath, guilt, hostility, embarrassment, and expectations of trouble talking, which lead to inhibitory and avoidance behaviors, are examples of covert symptoms (Nicholls, 2013, as cited in, Fogle, 2012, p. 206).

Similarly, Amaritha (2019) mentioned that, when attempting to communicate, frustration arises, refusal to say anything, pauses or hesitation before starting to talk, adding extra sounds or words such as "uh" or "mm", facial expressions, lip tremors, eyes blinking, and tension in the face and upper body.

Chapter One: Literature Review

1.1.12   The Developmental Phases of Stuttering:

Disfluency is a typical element of speech and language development for young children, especially across the preschool years (between the ages of 2-5). When learning to talk, almost every child will experience a period of developing speech disfluencies. Disfluencies frequently emerged when a youngster is trying to understand a language and is faced with decisions about how to construct words by thoughts, choose appropriate grammatical structures, and effectively produce sounds and words.

In 1960, Oliver Bloodstein suggested four phases that covers features of stuttering symptomatology in preschool aged children, school aged children, and adults. He pointed out that the age at which a person displays symptomatology associated with each phase varies significantly.

The first phase is a preschooler. It is episodic in nature where stuttering is still in its early stages. It occurs for weeks or months between long internal or normal speech, and the rate of spontaneous recovery appears to be quite high. In this stage, disfluencies are witnessed when the child is under the pressure to communicate. Therefore he tends to repeat initial syllabus or whole words. Usually, children who are in the early stages of stuttering, exhibit little anxiety over interruptions in their speech (Bloodstein, 1960).

The second phase occurs in the elementary school, where stuttering alters to be severe, and there are few, if any, intervals of normal speech. This is because the child has a stuttering self-concept. Unlike the previous stage, stuttering is most common in nouns, verbs, adjectives, adverbs, and there are fewer people who stutter simply on the first few words of sentences and phrases, and whole-words repetitions are less common (Bloodstein, 1960).

Despite a self-concept as stutterers, children frequently show little or no anxiety about their speech disorder.

The third period begins in late childhood and early adolescence, in which stuttering comes and goes in reaction to specific stimuli. Besides, it is mostly done as a reaction to frustration, and only on rare occasions (Bloodstein, 1960).

Furthermore, the last stage is regarded as an extremely massive time. It is characterized by an intense, terrifying fear of stuttering, sensitivity to certain words, and sounds, in addition to an avoidance of public speaking situations, fear and embarrassment (Bloodstein, 1960).

1.1.13   Anxiety Disorder and Stuttering:

Different scholars discussed the obstacles that PWS tend to face when they are trying to learn, and maintain a fluency shaping technique. One of the main vivid examples is anxiety. In fact, if children become adults who stutter, anxiety and stress often become part of the problem (Iliades, 2011). Both they share a reciprocal relationship, and they go in harmony. Likewise, anxiety contributes to stuttering, and stuttering leads to anxiety. He added that, PWS are more socially nervous, and children with speech difficulties are more likely to develop anxiety disorders as adults. He also asserted that stress raises the chances of stuttering, aggravates existing stuttering, and may be one of the reasons that stuttering persists over time.

Accordingly McAllister et al (2017) argued that some stutterers are so ashamed of their speech impairment, that they go to considerable measures to hide it through avoidance methods; in such conditions, the stutter is classified as "covered", "masked", "interiorized". Hence, they become more dysfluent in situations that enhance their social

anxiety. For that reason, a new research reveals that the psychological aspects of stuttering must be addressed before speech treatment can be effective.

A cognitive study done by Mathews (1985) suggests that when processing information, anxious and non-anxious people use their attention differently (McAllister et al., 2017). According to them, the emotional Stroop test, for examples, requires participants to name the color in which words are printed as rapidly as possible, anxious people take longer to color-name words with negative connotations (like failure), than neutral words(such as feature). Although, various explanations have been given, this finding is commonly regarded as demonstrating interference between the automatic processing of emotional information, and the color-naming process.

1.1.14   Contemporary Celebrities and Famous People Who Stutter:

People of all ages and walks of life, are affected by stuttering. Stutterers often believe that they are alone, and are ashamed by their speech impediments. However, the truth is that they are not alone, even celebrities are presently dealing with it, such as; Prince Albert of Monaco, Rowan Atkinson (Mr. Bean), Butch Baird, Senator Joseph Biden, Emily Blunt, Peter Bonerz, Nicolas Brendon, Patrick Campbell, Rubin Carter, Mrs. Annie Glen, Horace Grant, James Griffin, Samuel. L. Jackson, Dr. Jonathan Miller, Gareth Gates, Bo Jackson…etc (Kuster, 2020).

1.2 Stuttering and Society:

1.2.1   Gender Role Issues:

Stuttering is prominent in men than in women. Hence, gender is one of the major predisposing variables. It has been also hypothesized for a long time that genetic factors

contribute to the gender disparity in stuttering (likely affecting brain structures associated with speech language processes). Namely in some families, fathers stutter more than moms, and brothers more than sisters (Yairi, 2005). As stated by the Speech-Language Insitute (SLI) in 2019, stuttering affects about five to ten percent of all children at some point in their lives, and it can last anywhere from a few weeks to several years. Then, boys are two to three times more likely than girls to stutter, and the gap widens as youngsters get older; older boys are three to four times more likely to stutter than older girls. Meanwhile Alfianda et al., (2010) suggested that with any degree of certainty, males are more likely than females to stammer. Male stutterers are thought to outnumber female stutterers by around three to one. This state of affairs is attributed to both neurological and environmental influences. Thus, some researchers favor the cultural explanation, believing that parents are more likely to respond negatively to males' disfluent speech than to girls'. The fact that girls are more advanced in verbal ability in childhood than boys is one likely constitutional cause. They develop speech early and are more verbally fluent in general. Nevertheless, no strong arguments have been set to prove those findings (Alfianda et al., 2010).

1.2.2   Stuttering and Sociology:

One of the most fundamental human activities is conversation. PWS generally approach this type of conversation with apprehension and trepidation, whereas most people take it for granted. Based on George Mead and Ervin Goffman, Acton and Hird (2004) proposed that a fundamentally sociological perspective offers specific insights into stuttering as a social interaction effect (Nicholls, 2013). They argued that the strategies that stutterers use when passing and covering, as well as the accounting practices that all individuals use in social interaction to define the difference between stuttered and non-

Chapter One: Literature Review

stuttered speech, are sociologically interesting insofar as they provide valuable insights into the interaction of self and society, the flimsy distinction between 'normal' and 'abnormal,' and the complexities of defining the difference between stuttered and non-stuttered speech (Nicholls, 2013). The stuttering stereotype might be then, one of the most explicit sociological features.

Kalinowski et al. (1993) identified two variables that contribute to the existence of a negative stuttering stereotype: listener physiological response and resistance to amelioration Nicholls, 2013). These two variables can combine to generate or perpetuate a negative stuttering stereotype by causing the listener to have involuntary physiological responses to stuttering, resulting in unpleasant feelings that last as long as the speaker stutters. First, listeners have a visceral reaction to episodes of stuttering that are marked by physical effort, struggle, and stress (Nichols, 2013, as cited in Kalinowski et al., 1993). Listeners' perceptions of people who stutter are likely to be influenced by these frequent overt physical characteristics. Furthermore, stuttering has been shown to be resistant to long-term improvement; Kalinowski et al. (1993) speculate that this is due to speech-language pathologists' (SLPs) unfavorable opinions of people who stutter, blaming the person who stutters for poor treatment outcomes (Nicholls, 2013).

On the contrary, stuttering stereotypes and how persons who stutter are seen, have been the subjects of numerous studies. Nicholls (2013) suggested that people who stutter are described as fearful, timid (as cited in Williams, 2012), anxious, passive (as cited in Doody, Kalinowski, Armson, & Stuart, 1993), tense, shy (as cited in Kalinowski et al., 1993), introverted, withdrawn (as cited in Betz et al., 2008), guarded, sensitive (as cited in, Klassen, 2002), insecure, they try to avoid talking (as cited in Nicholls, Blood et al., 2011), nervous (as cited in Hughes, Gabel, Irani, &Schlagheck, 2010).

Chapter One: Literature Review

Similarly, in a study that focused on anxiety, CWS were found to have statistically significantly higher levels of state and trait anxiety, as well as a greater dread of being negatively assessed than their peers (Nicholls, 2013, as cited in Mulcahy et al., 2008). Because PWS occasionally demonstrate behaviors that support their stereotype, and behavioral manifestations differentiate persons who stutter from people who do not stutter, the stuttering stereotype may be difficult to eradicate once created (Nicholls, 2013, as cited in Kalinowski et al., 1993).

1.2.3   The Impact of Stuttering on An Individual:

Living with stuttering is difficult, and for many people, it is a lifelong issue. According to parent reports, CWS are aware of their stuttering, soon after its inception. As a result, the possibility for social interaction impairment might start at a young age. Even as young as three and four years old, children who stutter have been observed to have more negative attitudes toward speech than those who are ordinarily fluent, and these negative attitudes appear to intensify with age and stuttering severity (Beilby, 2014).

Yet, the nature and the extent of the harmful impact of stuttering speech on vulnerable school-aged and adolescents age groups have not been determined by researchers. This age group has been termed "invisible" be health researchers as these children and teenagers are at a high risk for mental health issues. Okutoyi (2014) claims that many PWS in the United States; see their stuttering as a barrier to build relationships and conversing with people of the opposite sex. He further states that in the United States, people with disabilities are stereotyped as quiet, shy, guarded, worried, and nervous people, though they are friendly, bright, and cooperative. Furthermore, researchers discovered that stuttering had a significant impact on people's interpersonal connections. In fact, how PWS manage with their communication issue and form social relationships is heavily influenced by how non-stuttering listeners react to them.

Chapter One: Literature Review

Subsequently, Abhilipsa (2017) declared that the consequences of stuttering extend well beyond what we can see. It affects people at various periods of their lives, including childhood, adolescence, and adulthood. It has an impact not only on the individual, but also on the family in the long run. Then, the effects of stuttering during speaking make it difficult for the youngster to express his inner feelings, which can lead to frustration and anger.

1.2.4   The Impact of Stuttering on Parents:

The stuttering child's relationship with his or her parents is the most challenging of all. Previous research on stuttering disorders has focused on aspects of parent-child attachment such as the parent's communicative styles, speech traits, attitudes, and stuttering expertise. In fact, school-aged children, ages 6 to 12, have distinct psychological, affective, and behavioral developmental patterns that distinguish them from pre-schoolers and adolescents (Belbei, 2014). As children reach adolescence, adolescents demonstrate increased independence from their parents while also increasing their social, emotional, and academic reliance on their friends. In addition to a growing awareness of future socialization, school-aged youngsters show preliminary conceptions about their sense of self and personal identity.   As a result, stuttering' disruptive character may limit how young people engage in and practice social dialogue. The rising pressures on school-aged children to have adult-like social skills might worsen communication anxiety.

Therefore, the quality of the parent-child relationship is becoming increasingly crucial in giving models of social competence, coping skills, and life motivation to the child. According to research from psychology and psychiatry, excellent parenting prepares children for effective social adjustment and coping resilience. For him, children

who are securely attached to their parents are more energetic and have greater problem-solving skills than those who are not.

On the other side, Bodur (2019) affirmed that, while parents have little control over whether or not their child stutters, once the illness has been recognized and is persistent, they become more concerned and adopt an overprotective manner of contact with their child. This shows that the child's stuttering causes the parents to react in a certain way, thereby exacerbating the disfluency. Evidence that a change in a parent's interaction style can affect a child's fluency demonstrates a bidirectional relationship between stuttering and parent interaction. Recent studies suggest that desensitization of parents is an important part of the therapy process that enables them to understand and manage their own emotional responses to their child's stuttering. Consequently, parents can grasp the complexities within the family system and respond to their child's stuttering in helpful ways that are likely to improve therapeutic success by incorporating them in this process (Bodur, 2019).

However, a lack of empirical research has limited knowledge about the impact of stuttering on parents. Traditionally, treatment has concentrated on what parents can do to help their children, rather than the family crises generated by the stuttering child.

1.2.5   Self-Stigma:

Often, people are unsure about how to respond while talking to PWS. This uncertainty can prompt listeners to do things like look away during instances of stuttering; interrupt the person, fill in sentences, or just not converse to them. However, none of these reactions are very beneficial. Stutters, on the whole, want to be treated the same as everyone else. They are very aware that their speech is distinct and that saying things takes them longer. Unfortunately, this might lead to the person feeling pressed to speak

rapidly (Alfianda, Erai, Intan, &Miftahul, 2010). This state is labeled "the self-stigma" or "private-stigma". Stigmatization, according to researchers, is a process in which a condition or attribute (such as stuttering speech) is associated with a bad social identity, and stereotypes are developed. PWS typically have even harder time saying what they want to say in a smooth, timely manner under such situations. As a result, impatient or irritated listeners may make it more difficult for persons who stutter to talk.

However, Boyle (2013) maintained that self-stigma refers to what stigmatized people do to themselves by internalizing the stereotypes, prejudice, and discrimination they encounter from the general public. Thus, prejudice is viewed as a negative emotional reaction to internalized negative attitudes, and stereotypes become negative beliefs about the oneself.

He also stated that these negative cognitive and affective reactions can lead to self-discrimination, where people refuse to pursue work, independent living, meaningful relationships, or other social chances. In addition, because of their stuttering, PWS fear being labeled as "mentally defective," "stupid," "strange," "not good enough," "a fool," "incompetent," "freak of nature," "not a whole person," "mentally retarded," "inferior," "socially crippled," "not normal," "an imbecile," "an idiot," or "crazy." Despite this, no study has justified factors that lead to those emotions.

From another angle, Boyle (2013) admitted that some scientists created a theoretical model of self-stigma that includes four degrees of progression(as cited in Corrigan & Watson, 2002; Corrigan et al., 2010, 2012; Corrigan, Rafacz, &Rüsch, 2011; Corrigan et al., 2006). The first phase is stereotype awareness, in which stigmatized people become aware of societal perceptions of their condition (e.g., "I believe the public thinks PWS are less competent"). The second level is stereotype agreement, in which people with a stigmatized condition agree with and express stereotypes held by the general public about

other members of the stigmatized group (e.g., "I agree with the general public, most people who stutter are less competent and they make me uncomfortable"). Self-concurrence, or application, is the third level, in which people internalize and apply unfavorable public beliefs to themselves(for example, "Because I stutter, i am less competent"). The ultimate step is harm, which is characterized by a decline in well-being, including a decrease in self-esteem.

1.2.6 Public Stigma:

Various anti-stigma methods, such as education, protest, and direct interaction with PWS, are crucial in challenging, reducing, and preventing the public stigma associated with stuttering. Public stigma involves a process of unfavorable reactions from the public to an individual or individuals who are considered to exhibit a trait or attribute that is undervalued by society.

Individuals with those conditions are removed from the non-stigmatized group through avoidance, segregation, or discrimination as a result of the conditions or qualities causing unfavorable emotional reactions in members of the public (Boyle, 2017). He added that individuals who are socially stigmatized lose their social status and are limited in their capacity to fulfill their life goals owing to a lack of possibilities in the social, academic, and vocational arenas. Moreover, hundreds of research studies undertaken in the United States over several decades have found that people with stuttering face negative public views and responses (as Cited in St. Louis, 2015).

Specifically, it has been proved that PWS are assessed as having unfavorable personality traits such as timidity, anxiety, non-assertiveness, and shyness. In addition, PWS are intensely aware and often scared of potential unfavorable reactions from listeners, which can significantly decrease their social participation and activities.

Chapter One: Literature Review

1.2.7   **Alexithymia**

Alexithymia is a logical result of emotional restriction that is both intrinsically and extrinsically reinforced.It is characterized by an inability to recognize and express emotions, a lack of imaginative life, and an excessive focus on details or minutiae (Haley, 2009).

Haley (2009) stated that Alexithymia has been defined as "an accumulative process that begins in early life and develops and reinforces itself in a social setting," but it's also been suggested that genetic predisposition has a role. Alexithymia is characterized by a problem retrieving emotion-related vocabulary, which limits the breadth of affective expressiveness.

From another perspective, Cherney (2020) noted that Alexithymia is a general term that refers to difficulties in feeling emotions. In fact, this Greek concept is loosely translated as "no words for feeling" in Freudian psychodynamic theories. Despite the fact that the condition is not well-known, it is estimated that one out of every ten persons has it. Alexithymia and stuttering can be linked in two ways (Haley, 2009).

First, stuttering frequently results in avoidant and suppressive actions, which limit a stutterer's prospects for meaningful interpersonal contact and growth. Emotional expressiveness, on the surface, appears to be one area where growth could be hindered. Clinical alexithymia can be caused when this growth is impeded to a pathological degree. Haley (2009) claimed that while stuttering is not a psychosomatic condition, it can be linked to past psychological trauma and perceived as a predictor of current or future behavior. When giving a speech in front of a big group of peers, for example, the constriction of the throat and other visible indicators of strain are common; this is typically aggravated by growing feelings of helplessness and irritation as a result of

developing disfluency. Hence, he suggested that attending to somatic stuttering symptoms and detachment from cognitive or emotional awareness could indicate an Alexithymic reaction as well as a maladaptive use of emotion-focused coping (Haley, 2009).

Furthermore, Haley (2009) argued that stuttering men may be more susceptible to alexithymia because they are sensitive to stress as a result of their chronic disease, have delayed language development, and are more susceptible to conformity and gender role socialization. By contrast, this issue has not been widely investigated, and many questions remain understandable.

1.3 Stuttering and Schooling:

1.3.1   Foreign Language Stuttering:

The majority of the world's population is bilingual, able to switch between languages seamlessly when necessary and exhibiting the value of interlingual and intercultural communication. Words and action are closely intertwined, and how students weave language into their experiences, hopes, concerns, and desires defines who they are. Indeed, living in other languages is a unique enriching experience that should be valued by anyone who has the opportunity to do so. Students who stutter face a unique set of challenges when learning a foreign language, as they must deal not only with the strains and stresses of the learning process, but also with the generation and acquisition of new sounds and linguistic patterns (Weiss, 1979).

The challenge is exacerbated by the fact that modern language objectives emphasize oral communication development. Speech pressure, which can be induced by numerous parts of the foreign language lesson, is a commonly recognized concern for stutterers. Stuttering is a condition in which creating words is frequently accompanied by a variety

of bodily symptoms. In this sense, learners can really feel words running through them, grating and grinding, and then flowing again at moments (Ronan, 2018). He clarified that learning a foreign language is an enormously important life skill that may have a huge impact on an individual's personal and professional growth in multiple ways.

Furthermore, evidence suggests that learning a new language is a cognitively advantageous activity that promotes white matter growth and keeps the brain in shape (Ronan, 2018). Ronan (2018) noted that this learning, on the other hand, can be frightening. For students who stutter, a focus on spoken engagement, assessment of oral performance, and a new phonetic system can make it all the more difficult. Foreign language class, in many ways, includes many of the more intimidating parts of spoken communication and may become a kind of wicked distillation of everything the student who stutters fear. The author pointed out that anxiety has been recognized as a significant element in this setting, since it can inhibit learning, decrease motivation, and impair student performance (Ronan, 2018).

The subject of whether learning a foreign language can help people with stuttering because it is a fresh way of communicating that is free of old connections requires more research.

1.3.2   The Impact of Stuttering on Learners:

As stated by Nicholls (2013), bullying and other forms of victimization, such as teasing, can be an issue for CWS (as cited in Turnbull, 2006). Several studies have looked into the prevalence of stuttering-related teasing or bullying, and concluded that between 44 percent and 83 percent of children who stutter are bullied or victimized by their peers (Nicholls, 2013, as cited in Blood et al., 2011; Ivoskuviene &Makauskiene, 2009; Turnbull, 2006). Blood et al. (2011) also found that children who were bullied as a result

of their stutter had more anxiety, lower self-esteem, and a weaker life orientation than children who did not stutter (Nicholls, 2013). This understanding is useful in the classroom because it allows teachers to advocate for and understand mistreated stuttering students.

Accordingly, the academic growth and the development of stuttering children can be hampered by hidden symptoms such as low self-esteem and anxiety. It has been suggested that in order to benefit from traditional schooling, children with communication disorders, including stuttering, need to have a certain level of proficiency in "social and behavioral regulation skills... managing time, and interacting with their peers" (Nicholls, 2013, as cited in Thatcher, Fletcher, and Decker, 2008, p.580).

For Nicholls (2013), the social repercussions of disparities in the development of socio-emotional skills are another possible long-term consequence of stuttering. CWS may find it difficult to make friends or engage with their peers (as cited in Panico et al. 2011). Similarly, stuttering was described as a social handicap that can lead to social rejection (Nicholls, 2013, as cited in Freeman &Friman, 2004, p. 249), and because of a lack of internal locus of control, stuttering can have a negative impact on self-perception and self-esteem (Nicholls, 2013, as cited in Yovetich, Leschild, &Flicht, 2000), as well as humiliation, increased self-consciousness, and feelings of powerlessness (Nicholls, 2013, as cited in Ginsberg, 2000).

In classroom settings, stuttering expectancy is a taught component that can be considered a hidden symptom. As for Nicholls (2013), expectancy occurs when a stutterer's thinking is disrupted by a previous unpleasant speaking experience, influencing his current speaking experience (as cited in Montgomery, 2006). Saying one's own name is a common negative speaking experience for PWS; the issue is likely related to an inability to substitute another word for one's own name, as well as heightened

anticipation. Thereby, the learner recalls earlier difficulties in pronouncing his name, as well as bad thoughts and feelings that accompanied him (Nicholls, 2013). The stutterer eventually expects to stutter on his own name. The excitement can easily spread to other words that start with the same sound (Nicholls, 2013, as cited in Montgomery, 2006). As a CWS gets older, it's possible that negative behaviors, beliefs, and expectations get stronger.

1.3.3   Stuttering and Psychopedagogy:

While most people's speech development is easy and effortless, learning to talk is a complex process in which most youngsters "repeat sounds and phrases, pause, and stumble over words during the formative stage of speech" (Nicholls, 2013, as cited in Ramig& Dodge, 2010, p. 239). Most children's dysfluencies are normal, whilst for others; they may be the first indicators of stuttering.

Besides, it is clear that stuttering children "may have modest but significant challenges in one or more aspects of the sentence planning/production process" (Nicholls, 2013, as cited in Ntourou et al., 2011, p. 163), whereas fluent children perform with ease.

Furthermore, Nicholls (2013) advocated that neurological functioning, motor skill development, and the ability to interpret linguistic cues are all factors that could have a role in the development of stuttering (as cited in Millard et al., 2008). As young children learn to notice their peers, distinguish themselves from their classmates, and critically analyze their own speech, the start of school can promote stuttering behaviors (Nicholls, 2013, as cited in Ivoskuviene &Makauskiene, 2009). Many CWS according to Nicholls (2013) find it unpleasant and embarrassing, and as a result, they may act out in class or avoid speaking situations (as cited in Ramig and Dodge, 2010).

Chapter One: Literature Review

Moreover, Nicolls (2013) suggested that when a young person stutters and also has another problem, the process of learning to communicate in the classroom properly becomes more complicated, and the young person may begin to assume that communication is difficult. As a result, the child's current skills may be exceeded by the demands imposed on him or her at the time (as cited in Blood et al., 2003).

Listeners to stuttering samples reported physiological stimulation and unpleasant sentiments (Nicholls, 2013, as cited in Guntupalli et al. 2006). As for Nicholls (2013), the quick onset and offset of stuttering behavior, as well as the seeming loss of control of speaking mechanisms, are suggested to heighten physiological arousal in listeners who aren't habituated to such symptoms (as cited in Guntupalli et al., 2006). Listeners often show indicators of discomfort and duress as a result of such physiological responses, such as failing to keep eye contact and diminishing their own speech. This situation represents the same conditions where stuttering pupils tend to orally perform in front of their peers and teachers.

More precisely, people can understand the feelings and acts of others through internal simulation, according to the brain process mirror neurons, and due to the distinctive nature of stuttering behavior, teachers and peers first notice stuttering, then cognitively record the event, and then feel an emotional or physiological response, or a mix of the two. As a result of the involuntary responses, they have a simulated experience comparable to that of a pupil who stutters, leading in the formulation and growth of inferences about PWS (Nicholls, 2013, as cited in Guntupalli et al., 2006).

School-aged children who stutter can become caught in a vicious cycle. If they are seen negatively or stereotypically, teachers' expectations of children who stutter may be influenced, and over time, the children may adopt these constructs for themselves, posing a stereotype threat (Nicholls, 2013, as cited in Turnbull, 2006).

Chapter One: Literature Review

1.3.4   Teachers and Peers' Perceptions:

Stuttering has been shown to have a negative influence on academic performance and socio-emotional functioning in stutterers. Having to interact with a stuttering youngster on a regular basis can bring up concerns that a teacher may not have previously encountered (Nicholls. 2013). He found that teachers' negative attitudes toward stutterers "may have an adverse effect on the evaluation, instruction, and educational advancement of CWS in their classes".

Whilst, it is critical to understand how students interpret their teachers' attitudes about stuttering; youngsters as young as three years old are aware of how their speaking abilities compare to those of their peers. In a typical study done by Yeakle and Cooper (1986), and Crowe and Walton (1981) concluded that teachers who were exposed to stuttering were more confident and effective in their interactions with stuttering students, as well as having more positive views toward them (Nicholls, 2013).

Closely, he suggested that CWS are more likely to have limited educational possibilities (Kateb &Mwewa, 2018). They frequently have lower classroom engagement during discussions and group-based learning activities, and they find it challenging to read aloud or make oral presentations in front of peers. They may be perceived as shy, apprehensive, withdrawn, tense, worried, self-conscious, insecure, sensitive, hostile, and less bright by teachers and peers alike. They think that learners who stutter are more likely to be harassed and taunted, and they may face social hurt and rejection from misinformed peers and teachers. Teachers' negative attitudes toward students with special education needs can also be linked to a lack of awareness and information about their needs (Nicholls, 2013). Obviously, no two people share the same perspectives. Therefore, not all primary school educators have negative attitudes towards children.

Moreover, some CWS can face bullying and peer rejection that have serious and long-term consequences. A previous study has indicated that CWS are more likely to be bullied and have a worse social status than their classmates who do not stutter (Cooke, Davis & Howell, 2002). It has been also discovered by Sharpe (1996) that students who were bullied at school for a long time were more likely to suffer from physical illness, insomnia, and difficulty concentrating on schoolwork.

Because stuttering children are often reluctant or unable to participate verbally in school activities, it is reasonable to believe that social acceptance may have an impact on them (or social groups in general). As a result, they may be viewed as shy or withdrawn, and may experience difficulties in peer relationships due to these perceived features, making them targets of bullying (Cooke, Davis & Howell, 2002).

1.3.5   Competitive Oral Tasks:

CWS, like their classmates, are frequently expected to participate in oral reading and oral presentations as part of normal classroom activities. These activities may create distinct issues for them, since the increased speaking demand and time pressure may increase the child's likelihood of stuttering dramatically. According to the National Stuttering Association (n.d.), when youngsters stutter, their performance may be greatly influenced by their stuttering, and they may appear to have less reading fluency.

Besides, The Stuttering Foundation (n.d.) mentioned that many children can successfully complete oral reading assignments in the classroom if they are encouraged to practice at home, while other will stutter excessively when reading loudly.

Chapter One: Literature Review

On the other hand, the American Speech-Language-Hearing Association (ASHA) (n.d.) has stated that for the sake of measuring and monitoring a student's reading achievement, school districts employ oral reading fluency scores. This type of "speed-reading" exam has the advantage of swiftly identifying pupils who are falling behind in their reading skills and placing them in programs with the appropriate interventions. Nevertheless, when pupils are "timed" while reading aloud, some pupils, such as those who stutter, do not perform well. Even if they read well silently and comprehend what they read, those pupils are at danger of being placed in a lower reading group.

On the contrary, Society for Neuroscience (2010) have indicated that stutterers' brain activity is abnormal even when reading or listening, as reported by a new imaging research. The findings revealed that those who stutter have speech problems as a result of a typical brain circuits affecting numerous language processing areas, not only those involved in speech production.

Conversely, oral tasks can be easier than reading, since pupils can substitute words by others, unlike reading where they keep the original items. Stutterers are usually left-handed and have difficulty writing with their right hand; this situation revealed that the left hemisphere of the brain is not dominant in these people as it is in normal people, causing problems in coordination between voice, pronunciation, respiration, and muscle and aero-dynamic structures, and it is for this reason that stuttering is claimed to occur (Sari, 2017).

In oral performances, some pupils are able to avoid stuttering by employing synonyms and reformulating sentences in such a way that they appear to talk fluently (escape behaviors). They are always avoiding their stuttering in this manner. This is not only exhausting for the stuttering speaker, but it can also be perplexing for the listener, who may not understand what has been stated as a result of escape behaviors(Pertjis, 2009).

Others attempt to stop stuttering by saying a word. This extra effort will almost always worsen the stuttering (fighting). Accordingly, the most extreme technique a stuttering student may employ is to ensure that he never has to speak. Others may perceive him as a "nerd" or less capable as a result of his inactivity.

1.3.6   Stuttering and The Educational Outcome:

Verbal communication abilities are highly valued in educational institutions, from preschool to university. In addition to the development of social skills, there are reading requirements to talk in front of a group, to read aloud, to discuss activities with peers, to ask and answer question from authority figures. These activities put a lot of pressure on PWS. O'Brien et al (2011) noted that adults' usual speaking rate is roughly 250 syllables per minute, but stuttering can significantly decrease this rate, occasionally to less than 50 syllables per minute. They declared that stuttering disturbances can continue up to 30 seconds in severe situations, rendering the pupil functionally mute. This combined with the disorders, usually associated redundant body movements, the disorder's unpredictable character, and the dread of negative peer judgement, can make seemingly ordinary educational activities complex and anxiety-inducing.

There is evidence that these early conditioning experiences generate negative attitudes about speech and communication by the end of the preschool years. According to O'Brien et al (2011), these deficiencies have been linked to unfavorable attitudes toward school and lower academic performance. Many pupils believe that their stuttering prevented them from reaching their full academic potential, hence reducing their academic achievements (as cited in Hugh-Jones & Smith, 1999). Excessive anxiety and avoidant conduct were common side effects of stuttering, and in some cases, students were forced to drop out of school due to difficulty with ordinary speaking duties (O'Brien et al., 2011, as cited in Corcoran & Stewart, 1998; Crichton-Smith, 2002). At the very least, many

people report having trouble concentrating and learning as a result of expanding too much energy on the possibility of stuttering or managing it (O'Brien et al.,2011, as cited in Daniels, 2007).

Likewise, it is believed that these issues began to develop during the school years. As a result, children who stutter may not be able to participate fully in class or perform as well as they should (O'Brien et al., 2011).

Conclusion:

This chapter has reviewed the literature on stuttering' pupils around three main areas; the major characteristics of stuttering, its effect on society, as well as on the educational outcome. What emerged from the evaluation of the literature is that both; parents and teachers have a significant impact on children, and thus, they can positively contribute in overwhelming the illness. Whilst the literature is an investigation of the key factors influencing stuttering, and what role do teachers have to assist this category of pupils, future researches could be conducted around the real factors causing this issue, so that every child should be treated according to his situation.

Chapter Two

.

Chapter Two: Research Methodology

Introduction:

The current chapter deals with effective approaches followed by parents and primary school teachers to decrease stuttering for primary school pupils. The purpose of this chapter is to design the methodology of the research approach through mixed types of research techniques. The research plan, including the methodology, study participants, procedures, analysis method, and ethical concerns are also primary components of this chapter. To curry out the target of the study, the following tools were utilized to gather information; two different questionnaires; one for primary school teachers, and another one for parents whose children are stutterers. For primary school stammers, two different tests were used; Observation of Accessory Behaviors, and Less Typical Disfluencies. This study sought to build a theory in answer to the following research questions:

RQ1: What are the reasons that provoke stuttering?

RQ2: How can stuttering affect the pupils' academic incomes?

RQ3: What is the role of teachers in improving stammers achievement?

2   Research Methodology and Research Design:

The word research is composed of two syllabus;"re", and "search"."Re" is a prefix meaning again, a new, or over again."Search" is a verb meaning to examine closely and carefully, to test and try. Together, they form a noun describing a careful, systematic,

24

patient study, and investigation in some field of knowledge, undertaken to establish facts or principles.

Research methodology and research design are two terms that are often confused as one and the same. Strickly speaking, they are not so, and they show differences between them. One of the primary differences between them is that: Research methodology is the procedures by which researchers go about their work of describing, explaining, and predicting phenomena (Goundar, 2012).Whereas Creswall (2008) argues that research design is the plan, and procedures for a research, that span the decisions from broad assumptions, to detailed methods of data collection and analysis.

Moreover, research methodology is characterized by two main types: Quantitative and qualitative methods. According to Kothari (2004), quantitative research is useful when it is concerned with a phenomenon that can be expressed in terms of quantity. However, qualitative research is related to qualitative theory.

2.1 Research Tools:

2.1.1   Questionnaire:

It is a research instrument researchers rely on to gather primary data. A questionnaire is defined by Kumar (2019) as "a list of written questions, that the respondents should read, interpret them, and note down the answers". For the sake of collecting multiple responses, the questions must be clear and understandable for the reader. It was developed in 1838 by the Statistical Society of London. Similar to the other tools, researchers may opt for questionnaires for many reasons:

-They offer the chance to assemble various facts from a large number of people in a short period of time.

- Answers are always kept anonymous.

-They are inexpensive, if they are made via social networks.

-They are effortless, where researchers need only to distribute the questions for the respondents, and wait for their feedbacks.

-They can cover a wide range of details, as far as the length is not limited.

-Responses are given freely and randomly, unlike the interview.

In this study, two questionnaires were used; one for primary school teachers and one for parents whose children are stutterers.

2.2 Key Assessment Parameters:

2.2.1   Observation of Accessory Behaviors:

It is a test used by researchers, and language therapists to observe, and evaluate non speech behaviors associated with the child's stuttering. According to Eicorn and Fabus (2012), this test is variously termed Accessory Associated, or Secondary Behaviors, as well as Physical Concomitants(as cited in Bloodstein, 1987;Van Riper, 1982; Wingate, 1964).

Chapter Two: Research Methodology

With compelling evidence, accessory behaviors appear since the early growing ages, and they become part of the child's stuttering pattern. Likewise, they stated that sometimes, children exhibit associated behaviors in only one month after the inception of stuttering (as cited in Zembrowsky and Killy, 2002).To measure these symptoms, clinicians should examine carefully and note every single behavior that can occur during moments of fluency and disfluency, such as:

-Closing eyes

- Blinking rapidly

- Squeezing eyes shut

-Looking around

-Moving eyes vertically or laterally

-Consistent loss of eye contact

-Throwing Head back

-Limp movement

-Foot, hand, or finger tapping

-Audible inhalation or exhalation

Chapter Two: Research Methodology

-Gasping

-Visible tension around face or mouth

-Facial grimacing

-Lip pursing or pressing

-Tongue clicking

-Sudden changes in vocal pitch

-Words substitution or circumlocutions

-Stalling

Hence, it is important to know that sometime, stuttering cannot be accompanied with any symptoms, where the person has become proficient in substituting words to avoid embarrassment when talking. This last is known as a hidden part of the "iceberg" that can be a negative powerful energy within a stutter's personality. In this case, the diagnosis should be based on other criterion such as; shame, anxiety, and frustration (Eicorn and Fabus, 2012).

2.2.2   Less Typical Disfluencies:

As stated by Eicorn and Fabus (2012), typical disfluencies are often studied in preschool-aged children since they occur during periods of rapid language development(as cited in Colburn and Maysak, 1982;Wexler,1982; and Yiari,1981).The most commonly recorded typical disfluencies, include sounds repetitions, prolongation, blocks, silent poses, and fear (sometimes called avoidance).

2.3 Questionnaire for Primary School Teachers:

2.3.1   The Sample:

49 primary school teachers from different Wilayas (Saida, Annaba, Oran, Naama, Algiers, and Tlemcen) have answered the questionnaire. Besides, they were chosen randomly, and their responses were strictly kept anonymous. Therefore, some questions concerning their personal information were included.

2.3.2   Description of the Questionnaire:

This questionnaire is composed of 14 various questions:

Open Ended Questions: Are type of questions where respondents are required to answer freely.ie (they are not guided by specific answers).Those questions allow them to offer their feedback using their own words. (Q3,7, 9, 11,13,14).

Multiple Choice Questions: Also known as close-ended questions. They are the most popular type of questions, in which the answerer is in front of different options to be chosen (Q1, 2, 4, 6, 8, and 10).

Chapter Two: Research Methodology

Likert Scales Questions: They are mainly concerned with the respondents' feelings, attitudes, and perspectives toward a certain subject. They are represented in a form of ordered options such as: Agree, strongly agree, disagree, and strongly disagree. (Q12).

Dichotomous Questions: Are generally Yes/No questions. In this case, respondents have either to agree (yes) or totally disagree (no). (Q5).

The present questionnaire is divided into three main sections.

Section One: Background information (Q 1-4)

It includes teachers' gender, the diploma they have obtained after graduating, as well as the time they have spent during their professional career. The last question in this section, seeks to explore teachers' perception towards teaching.

Section Two: Teachers' Experiences with Stutterers (Q 5-11)

Its main purpose is to investigate educators' views towards stutterers, and their prior-experiences with them as ex-learners. In addition, it involves the strategies taken by them for the sake of maintaining a good relationship. Aside from this, the remaining questions are about the number of stammers those educators are teaching, along with the factors that provoke their stuttering, as well as the impact of stuttering on students' academic incomes.

Section Three: Teachers' Effective Approaches in Overcoming Stuttering (Q 12-15)

It revolves around whether or not teachers have a great impact in assisting learning getting-rid from this disfluency, how do they encourage those students to fight embarrassment in moments of talking, and how do they improve their success in learning. Besides, as they are more proficient in the field of teaching, they offer some practical tips for the novice educators who might face some obstacles when dealing with this category of learners.

2.3.3   Analysis of the Results:

Section One: Background Information

1. Gender:

a. Male ☐

b. Female ☐

Data obtained demonstrates that 72% of teachers are females, whereas only 28% are males. The results are shown in the following graph (Graph 2.3).

Gender
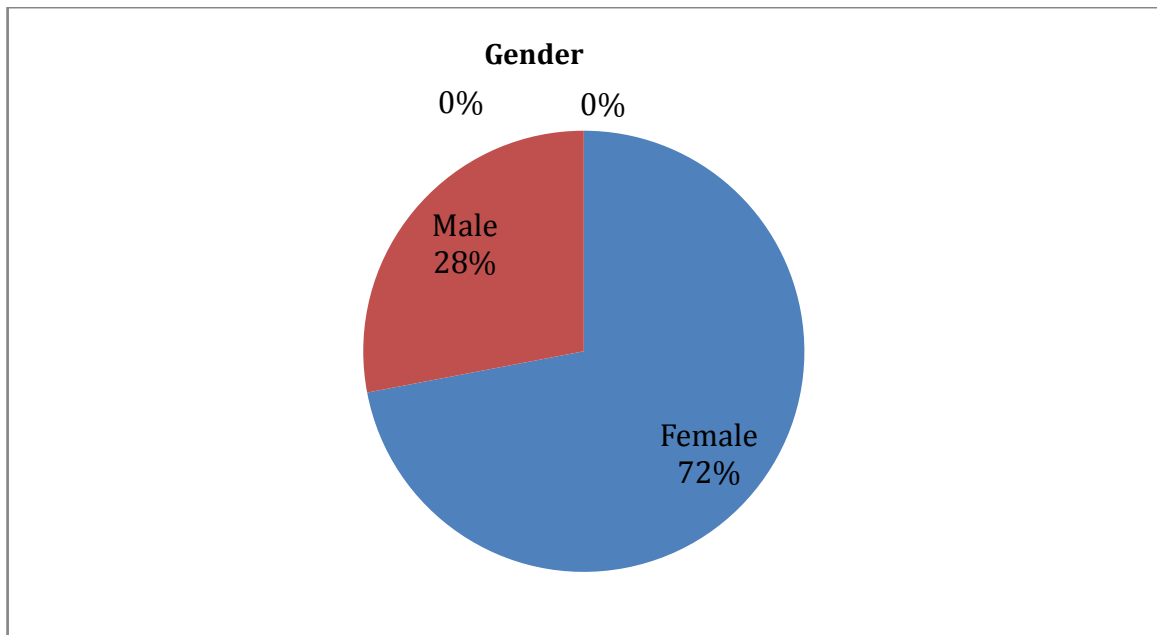
0%   0%

Male
28%

Female
72%

Figure 1: Techers' Gender

2. Teachers' educational level:

a. License☐

b. Master ☐

45 teachers have responded on the question. Therefore, the results have shown that 64%of them have a License degree, whereas 36% have a Master degree. Results are represented in the (Graph 2.2).
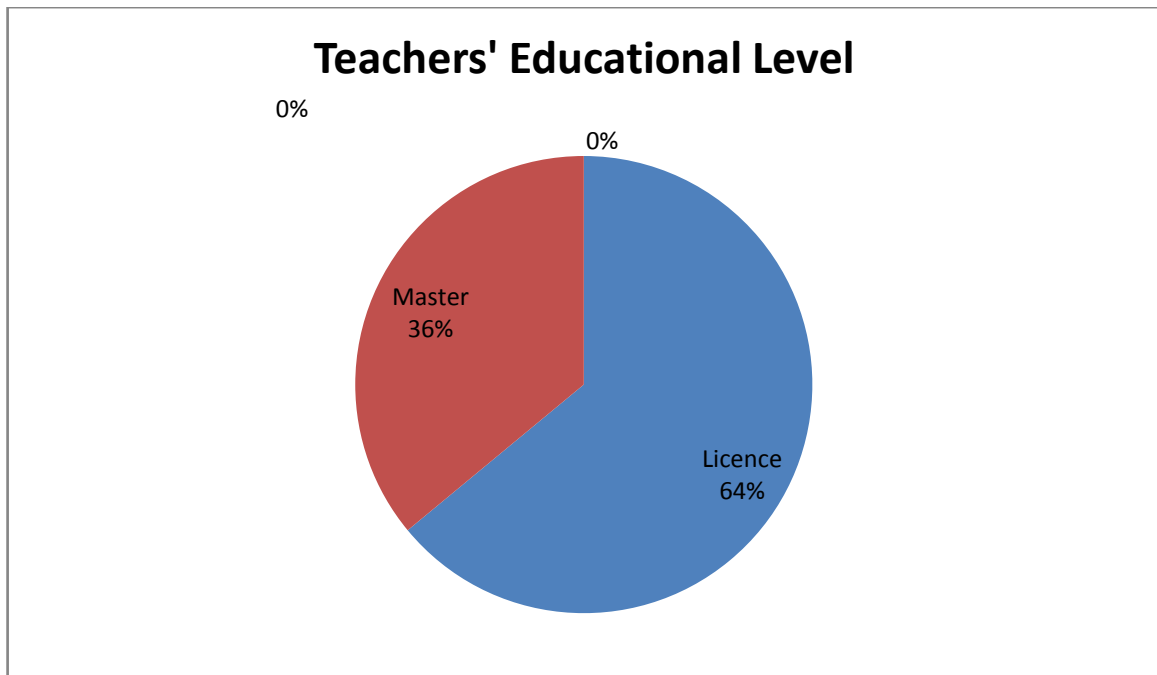
Figure 2: Teachers' Educational Level

3. Teaching Career (how long have you been teaching in the primary school?)

Graph2.3. shows that 36 teacher answered the questionnaire. Accordingly, 3% of teachers are experiencing teaching for 5 months, 11 years, 14, 16, and 18 years, while, 6% of them have the experience of 6 years, and 10.In contrast, the rate of 8% represents the time of 1 year, 2 years, and 3. Another 11% are teachers who are working since 4, and 7 years. However, 27% of the respondents argue that they are teachers from 5 years.

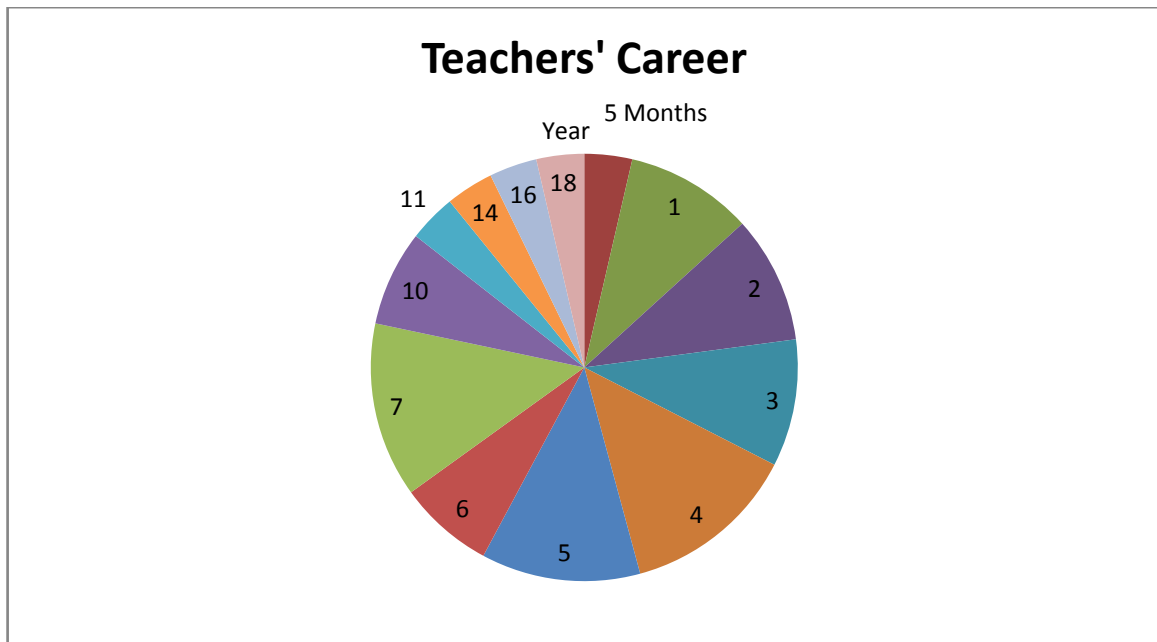**Teachers' Career**

Figure 3: Teaching Career

4. How do you perceive teaching?

a. A job ☐

b. A way to earn money

c. An occupation in which you apply your knowledge

10 teachers believe that teaching is a job, while 5 claimed that it is only a way to gain money. On the other hand, the remaining teachers perceive it as an occupation where they transfer their knowledge to pupils.

Teachers' Perceptions

0%

a job
21%

A way to get
money
11%

An occupation to
transfer knowledge
68%
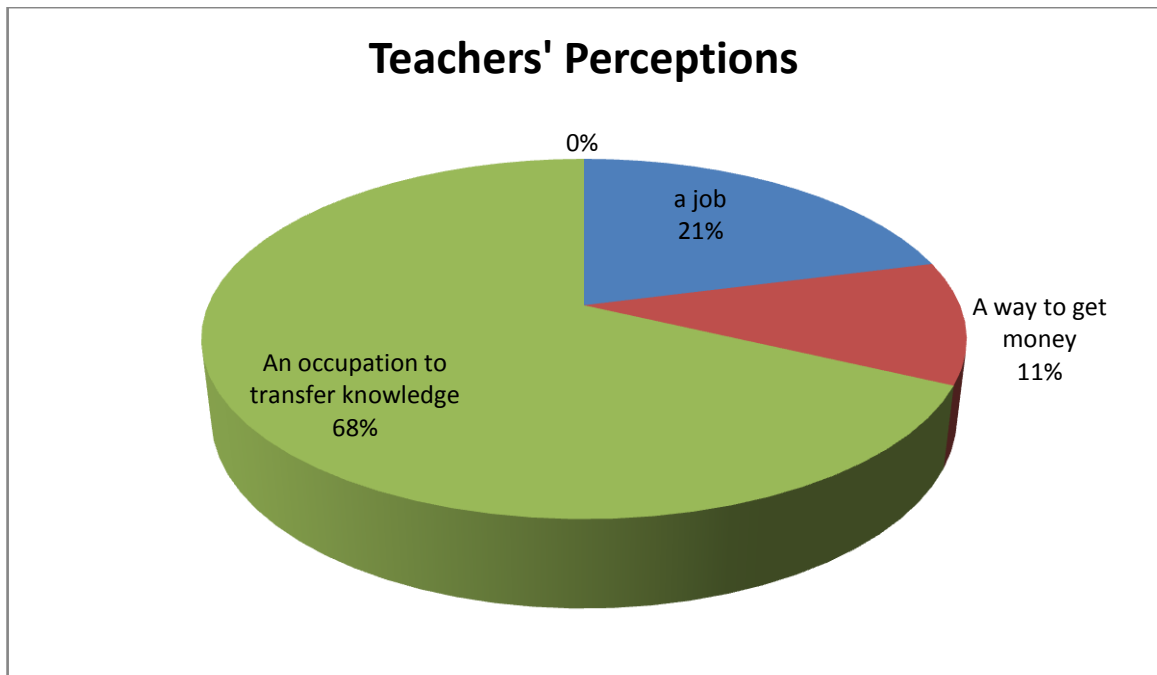
Figure 4: Teachers' Perception

Section Two: Teachers' Experiences with Stutterers

5. Do you find that a stammer is?

a. A normal person

b. Someone that has speech disfluencies, and different from the others

c. Someone who has high capacities but he/she can't improve them
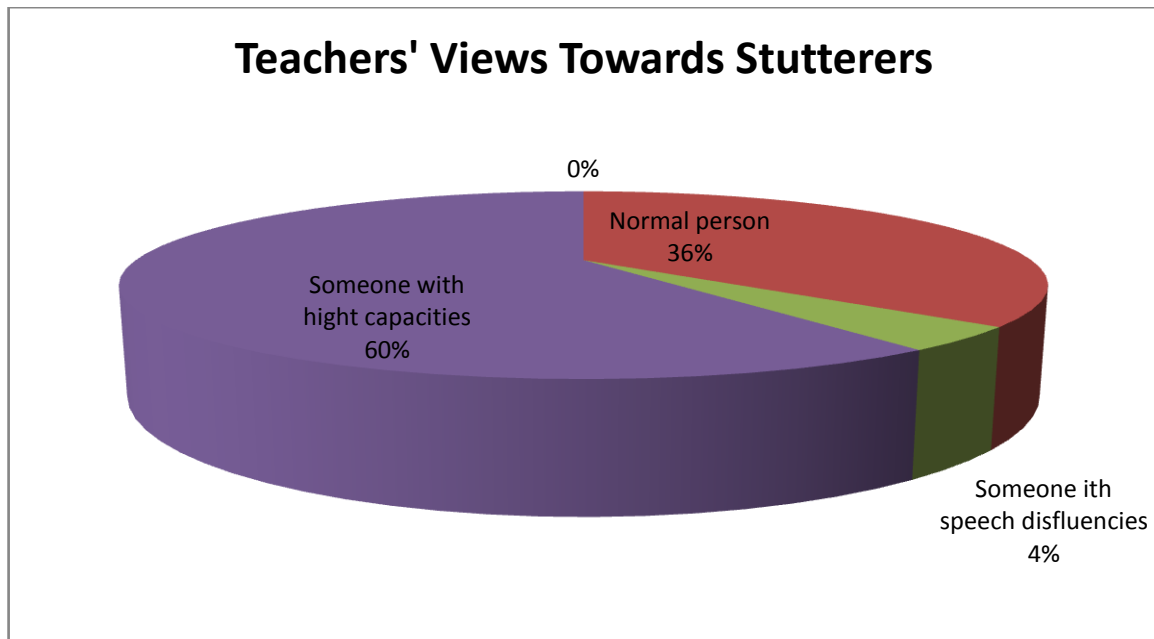
Figure 5: Teachers' Views towards Stutterers

In this question, participants did not agree on the same answer. 36% view a stutterer as a normal person, and a few proportions (4%) see them as people who have problems in their speeches. Unlike the two previous responses, 28 teachers agree on the fact that the stutterers have great abilities but they struggle in improving them.

6. When studying, have you ever had a classmate who stuttered?

a. Yes

b. No

Educators As Ex Students
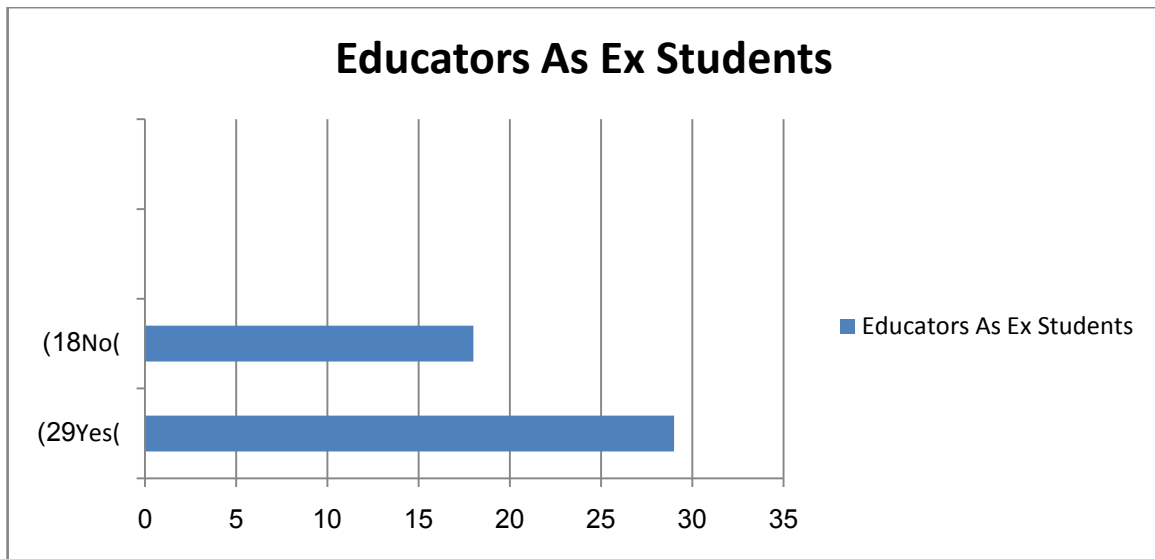
Figure 6: Educators as Ex-Learners

The results presented in this graph, show that almost all of the educators (29) had some classmates who were facing the problem of stuttering. Meanwhile, the remaining ones (18) had no peers with this speech issue.

7. Were your classmate?

a. A boy

b. A girl

25 participants have answered the question. They claimed that boys were more affected by this illness in compare to girls.
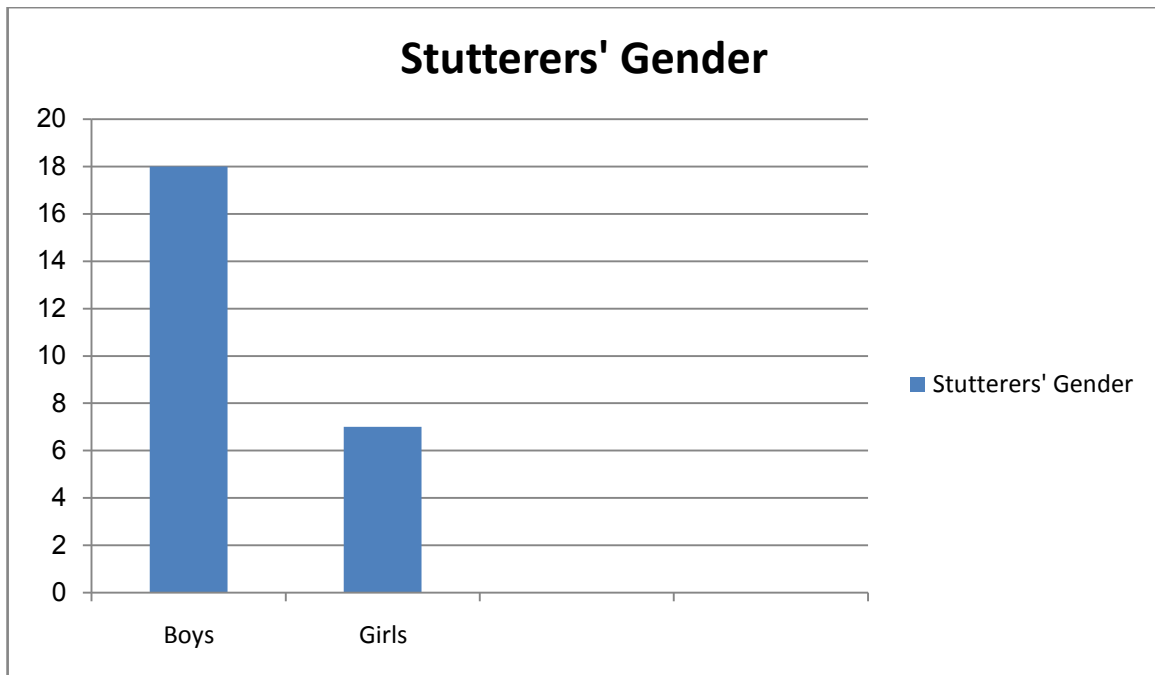
Figure 7: Stutterers' Gender

8. How did you deal with them?

The findings demonstrate that 25 participant answered.15 teachers said that they had no problem with their peers, and they dealt with them in a normal manner. However, 5 stated that they had to listen to them attentively, so that they cannot feel offended. Others (4) claimed that in order to make their classmates feel comfortable, they tried to involve them in teams, and group discussion, while one teacher advocated that he used to give a

great   importance   to   those   people.

Participants' Ways of Dealing With Stutterers
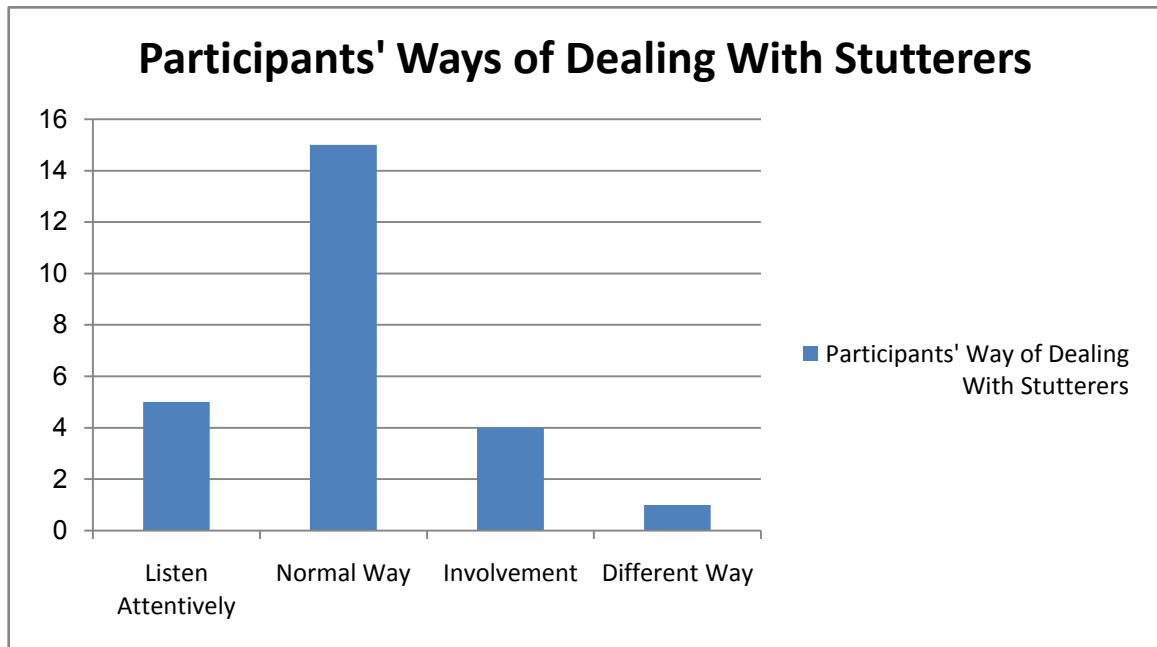
Figure 8: Teachers' Ways of Dealing with Stutterers

9. How many stammers have you teach?

44 teachers answered the question**.** Data in this graph demonstrates that 43% of teachers met only one stutterer when teaching. The amount of 25% represents the number of 2 stammers, 13% of participant state that they met three stutterers. Meanwhile, only 5% declare that they had four and seven pupils who suffered from this illness. 9% on the other hand, argue that among their pupils, six of them were stammers.

Stutterers' Number

Legend: ■ One Person ■ Two Persons ■ Three stammers ■ Four Stammers ■ Six Stammers ■ Seven Stutterers

Pie chart values: 43%, 25%, 13%, 5%, 9%, 5%
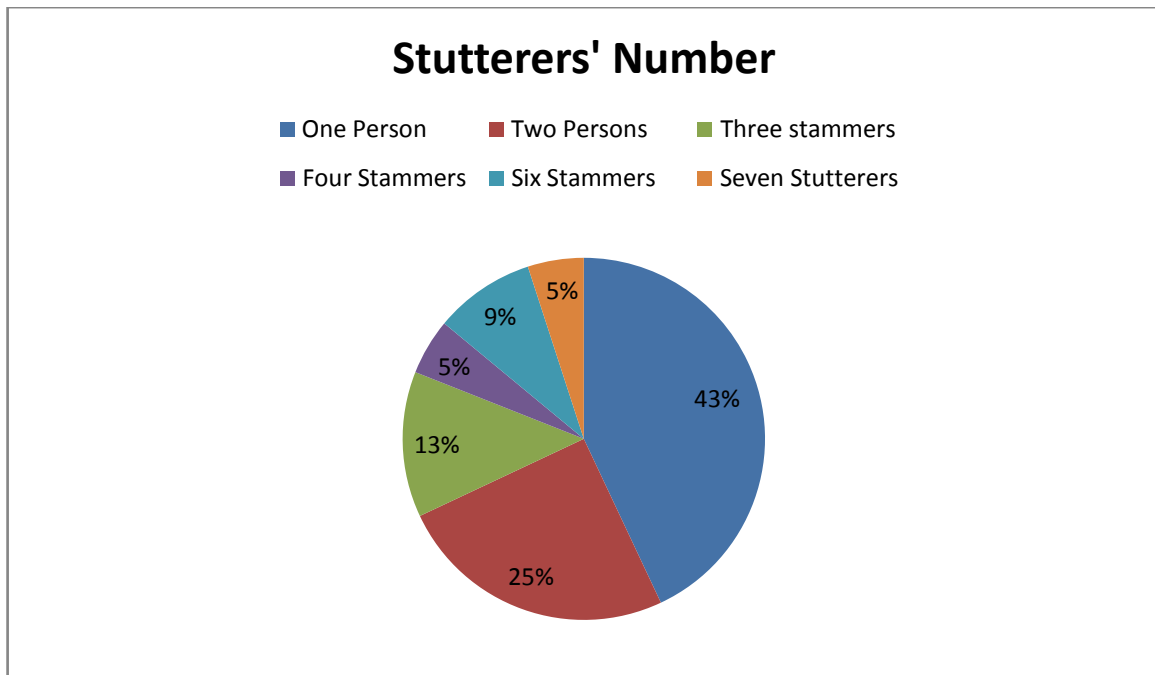
Figure 9: Statistics

10. Their stuttering was due to

a. Psychological problems

b. Social problems

c. Others

86% of teachers claimed that psychological problems are the most common reasons that push a pupil to stutter.14% declared that pupils' stuttering was mainly due to social problems.

40

Reasons Behind Stuttering

Others
1%

Social
13%

Psychological
86%
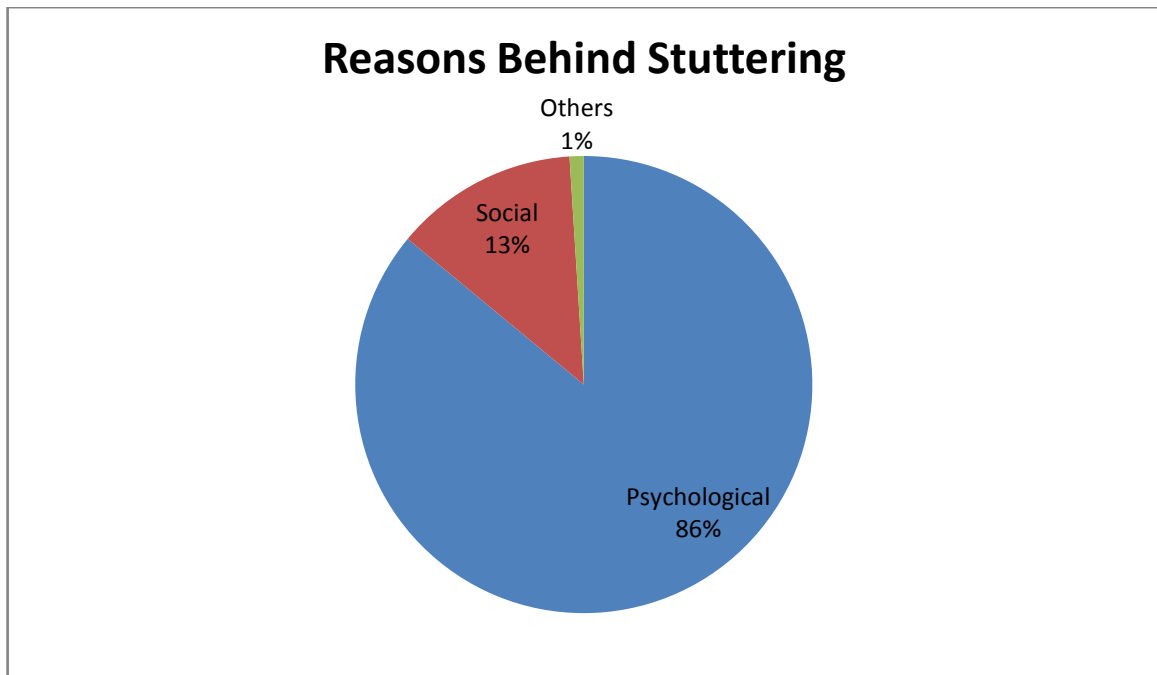
Figure 10: Main Reasons behind Stuttering

11. Have you benefited from your prior-experiences with stutterers to deal with your pupils?

a. Yes

b. No

The same previous number of teacher answered. The majority declared that they benefited from their past experiences with their peers, and they apply it when dealing with
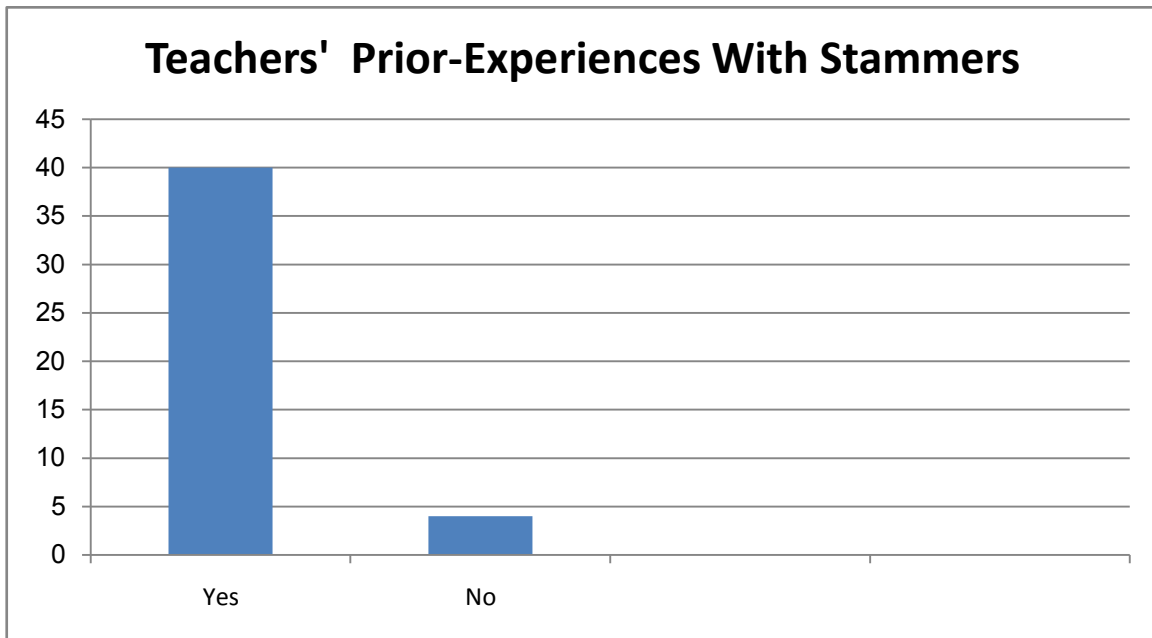
their   pupils.

Figure 11: Teachers' Prior Experiences with Stammers

Section Three: Teachers' Attitudes towards Stutterers

12. Do you believe that teachers have a crucial role in overcoming the fear of stuttering for their pupils?

a. Agree

b. Strongly Agree

c. Disagree

D. Strongly Disagree

42

Chapter Two: Research Methodology

Among 44 teachers who answered, 23 agree on the fact that teachers have an important role in helping pupils overcoming stuttering. In addition, 20 teachers opted for the choice b (strongly agree),while 1 person was against (disagree). Hence, non from the participants chose the choice D (disagree)

Answers	N	%
Agree	23	52
Strongly Agree	20	45
Disagree	1	3
Strongly Disagree	0	0

Table 1: Teachers' Views towards Their Roles in Overcoming Pupils' Stuttering

Justify your answer

Teachers' main perspective on their role as stakeholders was building a sense of confidence on their pupils (9 answers). Another 9 respondents stated that dealing with all the pupils equally can also be beneficial. Been patient when they are talking (4 answers), Integrating them in group discussions (4 answers), telling them to speak slowly (4 answers), prevent their peers to mock on them (3 answers), as well as providing them

with verses of Quran, and ordering them to read in a loud voice (2 answers). Aside from this, Encouragement can also be affective (2 answers).

13. How can a teacher support a pupil to challenge his embarrassment when talking?

Teachers' answers can be categorized into four main categories as shown in the following table:

Suggestions	N	%
Patience	13	33
Encouragement	11	28
Confidence	8	21
Praising	7	18

Table 2: Effective Methods of Support

14. What are your suggestions and recommendations for novice primary school teachers, who may face some obstacles with those pupils?

36 participants responded, and they suggested adaptation from the part of the teacher and giving a great importance to the pupil (14 answers). However, 13 educators

recommended building a friendly relationship with the pupil, as well as dealing with them politely (9 answers).
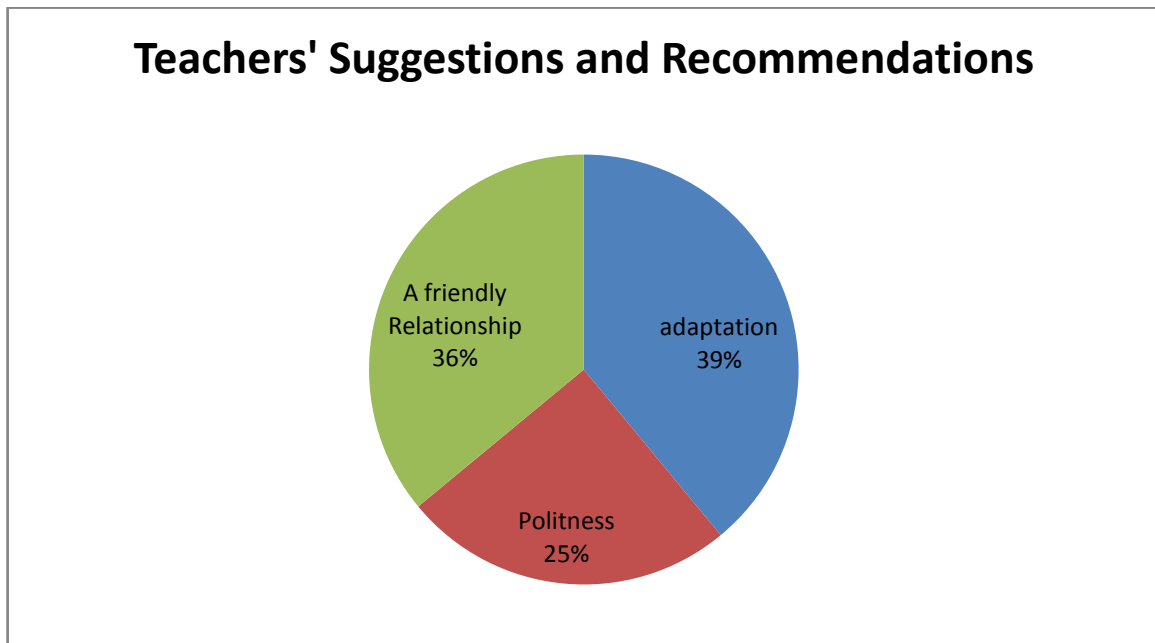
Figure 12: Further Suggestions and Recommendations

2.3.4   Interpretation of the Results:

The majority of primary school teachers are females, and those who have License degree are much more than teachers who are graduated in Master. Moreover, nearly all of them are old educators, and they have been teaching from long years. Accordingly, 68% perceived teaching as an occupation where they transfer their knowledge to their pupils. This indicates that males are less interested in teaching than females, and since they have only a License certificate, they are not proficient in the field of teaching, than the ones who practice their job based on what they have learnt as specialists in their Master studies. Additionally, most of the participants (5%, 6%, 11%, and 27%) experienced a

long period of time in their working position. Consequently, they are expected to be aware enough and skillful. Although, teaching remains a job that enables educators to gain money, a large number of contributors opted for the choice (c) that refers to teaching as an occupation, in which they convey their understanding to their primary school learners. This leads us to draw a link between this answer, and the previous one, because the much a person spends a large phase working on something, the more he becomes competent, and thus he gives a great importance to his business.

As for teachers' views towards stutterer, more than half of them (60%) view a stammer as someone who has great abilities, but due to his speech disorder, he faces obstacles in improving them. This reveals that educators believe in stutterers' innate ability to succeed, and have positive attitudes towards them.

Concerning their experiences with stutterers, 29 claimed that as ex learners, they had some peers who were affected by stuttering. In addition, they stated that girls were less influenced. This proves that teachers had a prior-knowledge about stuttering, which might help them in dealing with their pupils. Furthermore, it can be concluded that males are more likely to stutter than females.

As for the way of dealing with this category of pupils, 15 teachers (60%) claimed that they used to deal with them the same as their classmates. 5 (20%) stated that they used to listen to them attentively without interruption. However, 16% and 4% asserted that they managed to integrate them in group discussions, as well as giving them a great importance, since they are different than others. This shows that peers play a crucial role in assisting them, and reducing their stress.

As instructors, 43% said that they met only one stutterer during their teaching career. The remaining ones (25%, 13%, 5%, and 9%) noted that they had between 2 to 7 pupils

who suffered from this speech disorder. Along with this, and due to their prior-experiences with stammers, 40% of the educators agreed on one answer that is they have taken advantages from what they had done with their peers, and then they apply it on their learners. Those findings reveal that the ratio of people overlapped by stuttering symptoms is few. Then, relying on what they have passed with their ex-colleagues, teachers built a strong understanding about what stuttering is, and how should deal with them.

On the other hand, highest scores (52% and 45%) went to a total agreement upon the fact that teachers have a significant impact in decreasing the fear of stuttering. Then, it can be noticed that almost all of primary school instructors are responsible for their learners. Therefore, they followed some approaches they believe that they are beneficial such as; increasing their self-confidence (24%), creating equality between all the pupils (24%), integrating them in group discussions where communication takes place (11%), advising them to talk slowly (11%), avoiding interruption from teachers and classmates too (11%) ,and preventing any act of bullying from their peers. Similarly, requesting them to read some verses of Quran loudly, as well as encouraging them to their best is also advantageous. Respondents answers for Q12 (teachers' strategies in supporting learners for challenging moments of embarrassment when speaking) were quite similar to the previous ones, that lie into patience (from the part of the teacher), encouragement, confidence, and praising.

The last question (Q13) offers further suggestions and recommendations for novice primary-school teachers, as they should adapt with the pupil's situation (39%), establish a good relationship with the learner (36%), and try to deal with them politely (25%).Those findings strongly indicate that teachers are self-conscious in promoting a low-anxiety learning environment which leads to increasing the learners' frustration, and make them feel comfortable. As a result, the outcomes of teachers' support appear to be highly positive and thus, stutterers' academic achievement and progress can be apparent.

2.4 Parents' Questionnaire:

2.4.1   The Sample:

In this study, the sample was drawn from 22 mothers and fathers whose children are stutterers. It is worth mentioning, that the respondents have been chosen randomly, and the questionnaire was shared through Facebook groups.

2.4.2   Description of the Questionnaire:

Parents' questionnaire is made-up of 15 questions. Some of the questions are Open ended questions (Q4, 6, 11, 12, 14, and 15), multiple choice questions (Q1, 2, 5), and Dichotomous questions (Q3, 7, 8, 9, 10, 13). It is divided into three sections:

Section One: Personal Information (Q1-3)

This section aims at exploring participants' gender (Q1), their educational level (Q2), and a request about whether or not they face some problems in their lives (Q3).

Section Two: The Developmental Phases of Stuttering (Q4-8)

It tries to investigate the inception of stuttering for each child (Q4), the main factors that provoke their stuttering (Q5), and their parents' reactions (Q6). It seeks also to know the impact of stuttering on the child's psychology and his educational achievement (Q7), and if parents have a member of family who stutterers too (Q8).

Section Three: Stuttering Therapy

In this section, parents were required to give their feedbacks on seven questions that are related to; whether or not they coped with the situation their children are in (Q9), if they sought for the help of a psychologists or a speech pathologists (Q10), the progress they have gained from those specialists (Q11), and the methods they have followed to make their children feel at ease when talking (Q12). It revolves also around bullying in school and outside (Q13), the strategies adopted by parents to challenge it (Q14), and the last question offers them the opportunity to present their suggestions for parents whose children are new-stutterers (Q15).

2.4.3   Analysis of the Questionnaire:

Section One: Personal Information

1. Gender:

a. Male ☐

b. Female ☐

Data obtained show that 32% of the respondents are males, whereas 68% are females. The results are presented in the following graph.
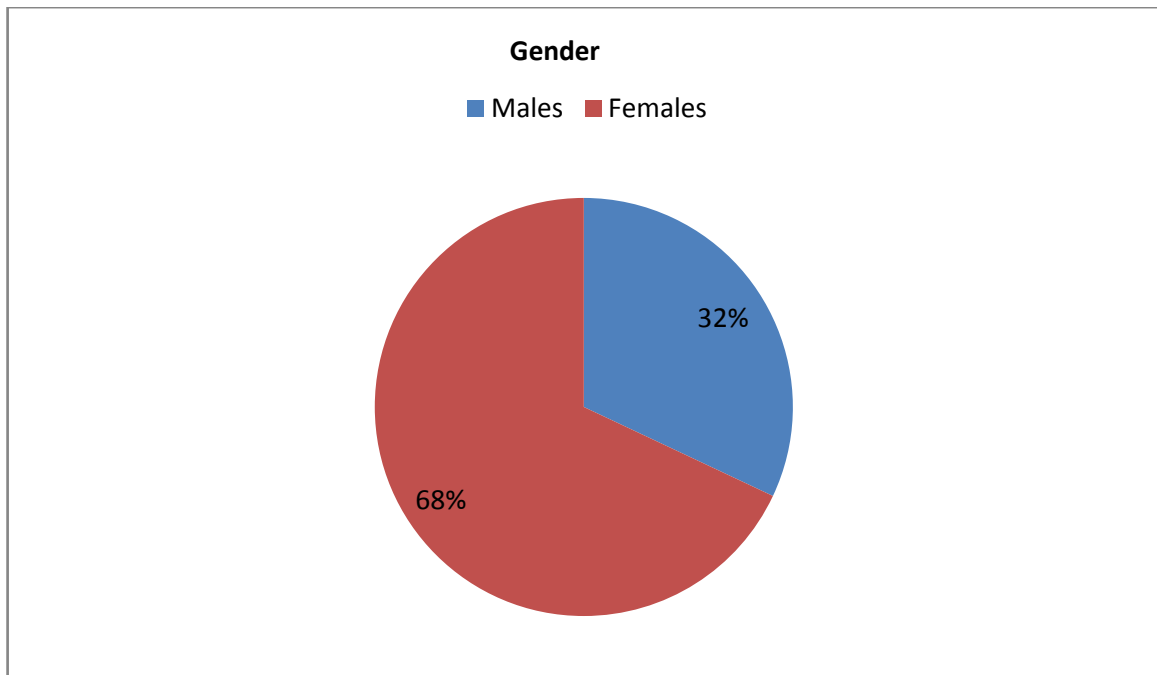
Figure 13: Parents' Gender

2. What is your educational level?

a. Tertiary ☐

b. Secondary ☐

c. Less than the two previous levels ☐

The results indicate that 7 parents have a tertiary level (32%), 7 others have a secondary level (32%), while the remaining ones (8 persons) have either stopped their

schooling in the middle, or the primary school (36%).

Educational Level

Less
36%

Tertiary
32%

Secondary
32%
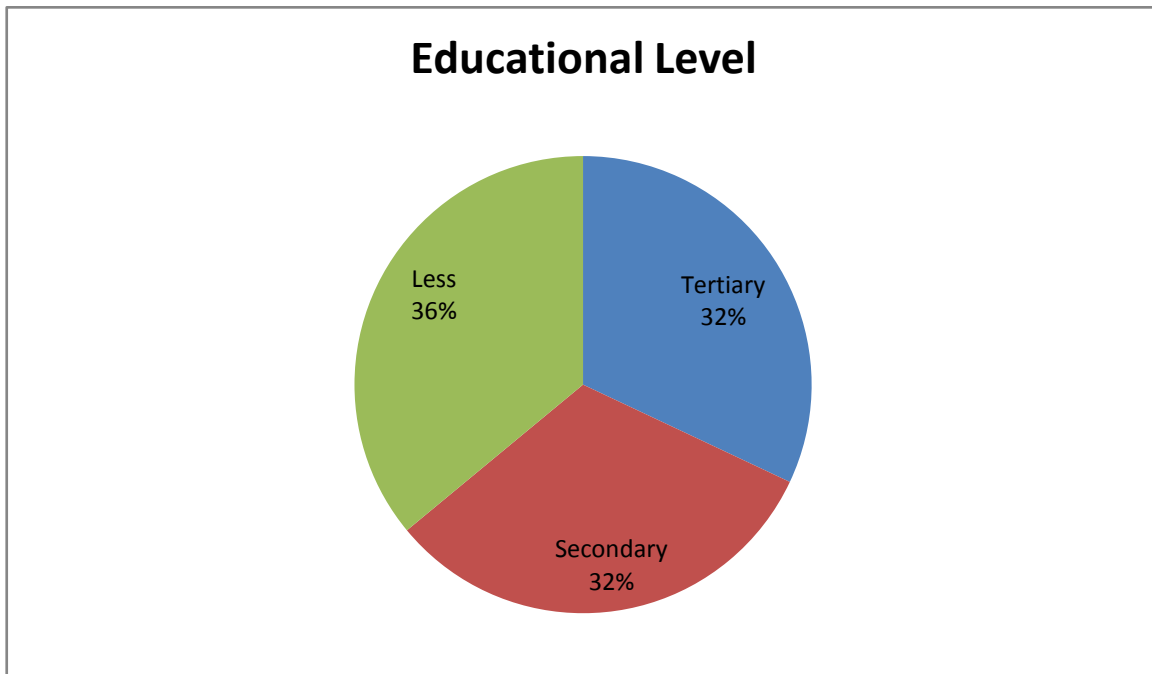
Figure 14: Parents' Educational Level

3. Do you struggle some problems in family?

a. Yes ☐

b. No ☐

19 Participants (86%) opted for the choice a (Yes), whereas only 3 (14%) have chosen the choice b (No).
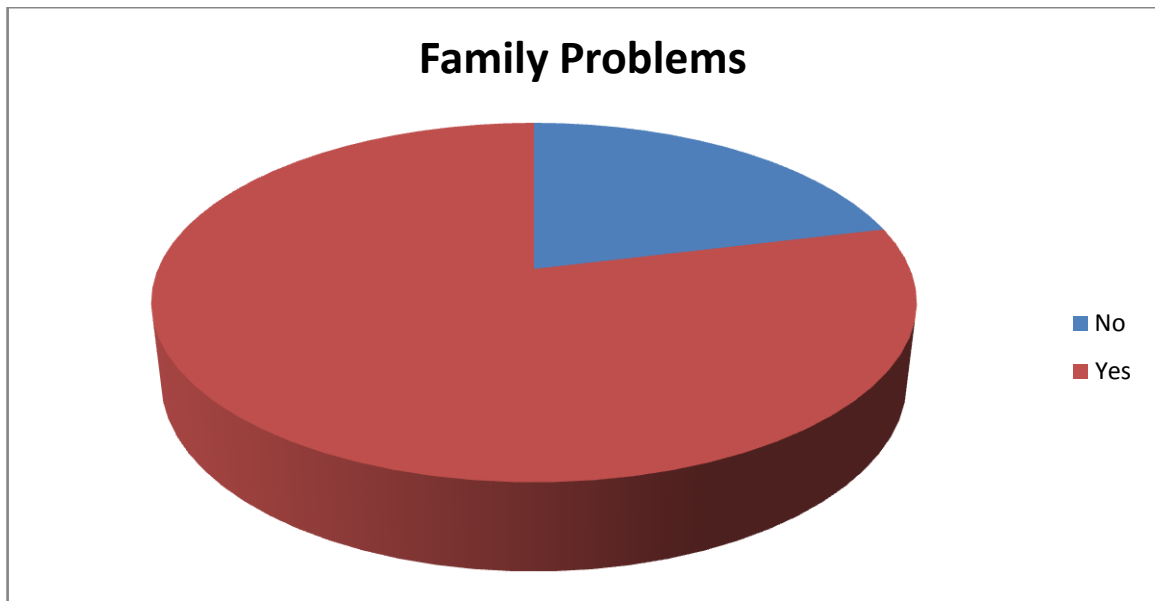
Figure 15: Family Problems

Section Two: Stuttering Developmental Phases

4. At what age did you child begin to stutter?

18 of the respondents have answered this question. Responses varied from age 9 years old (2 answers), 3 years old (3 answers), 4 years old (4 answers), 5 years old (5 answers),

and   only   one   answer   for   age   2,   6,   7,   and   8.
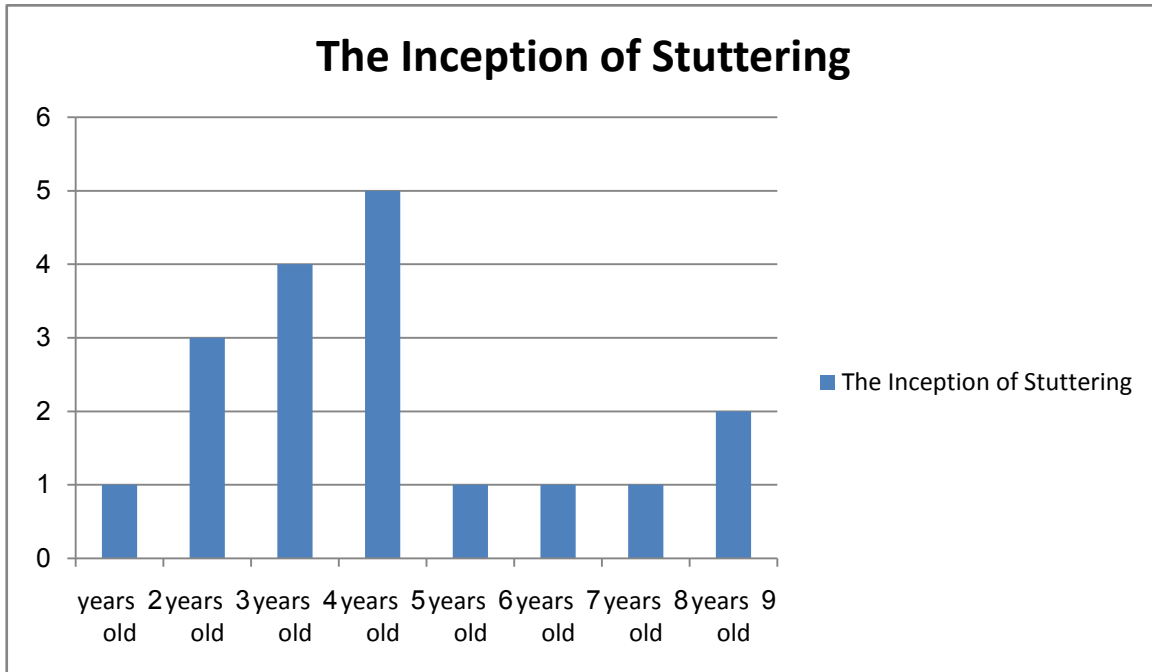
Figure 16: The Inception of Stuttering

5. Were the root causes behind your child's stuttering?

a. Psychological ☐

b. Social ☐

c. Other reasons ☐

53

Reasons Behind Stuttering

Legend:
- Social
- Psycological
- Others
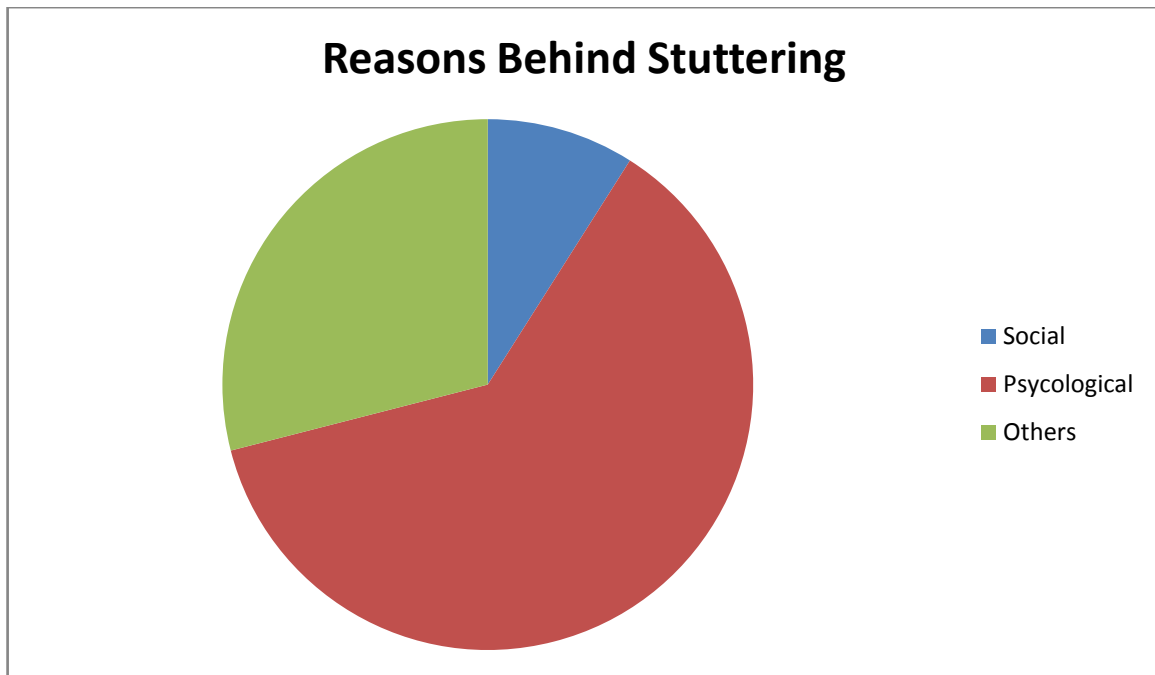
Figure 17: The Root Causes of Stuttering

In this question, 13 parents declared that the main reasons which provoked stuttering for their children were psychological (62%). Others said that there were other reasons (29%), while 2 persons (9%) chose the option b (social problems).

6. What was your reaction at the first time you saw your child stutters?

Table2.3.indicates that at the first the time parents saw their children stutter, 5 of them (31%) felt anxious. The rate of 50% was divided into two categories; 25% (4 people) felt sad, while the second half (4 persons=25%) stated that they accept it. On the other hand, 2 persons said that they acted frustrated on the future of their children (13%),and just one person stated that he/she did not accept it at all.

Reactions	N	%
Acceptance	4	25
Sadness	4	25
Anxiety	5	31
Did not accept it	1	6
Frustration	2	13

Table 3: Parents' Reactions

7. Did stuttering influence his/her psychology and his/her educational achievement?

a. Yes ☐

b. No ☐

This question has been answered by 20 persons. 11(55%) stated that stuttering have impacted their children psychology, as well as their educational progress. Whereas, 9 (45%) claimed that stuttering has not left any impact.
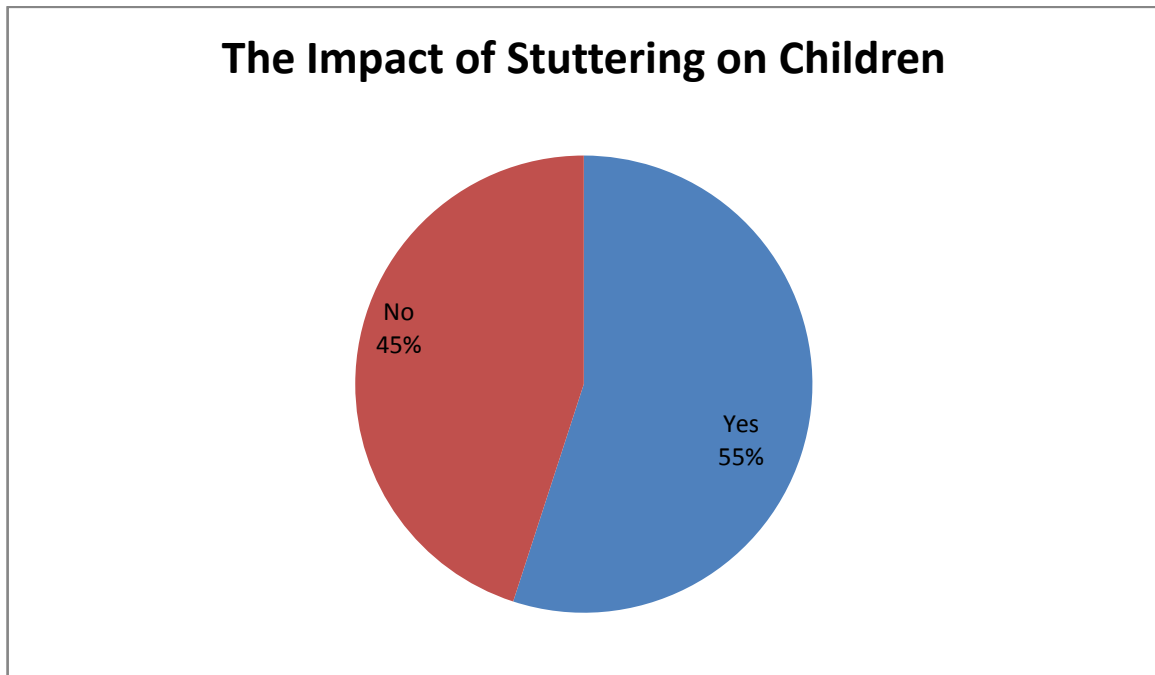
Figure 18: The Impat of Stuttering on The Child

8. Do you have a member in the family who suffers from stuttering?

a. Yes ☐

b. No ☐

Data obtained revealed that 13 answers (72%) were for the choice a, whereas 5 answers (28%) were for the choice b.
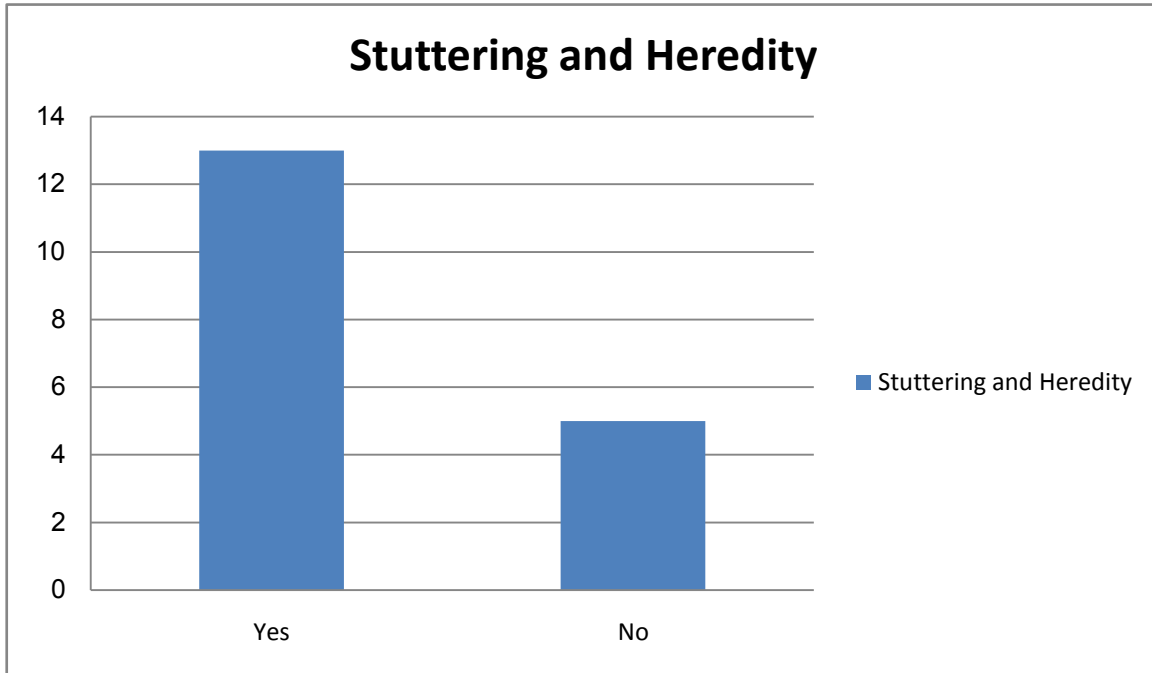
Figure 19: Stuttering and Familial Links

Justify your answer

Parents declare that they do have a son who stutters a daughter, a cousin, a brother, and the mother herself too.

Section Three: A Therapy for Stuttering

9. How did you and your family cope with your child's illness?

Only 14 respondents shared their experiences with their children. 5 stated that they used empathy and patience when dealing with them, 2 contributors argued that they did not cope at all. 2 mothers on the other hand, asserted that they coped with the situation by themselves. However, 3 parents declared that they adopted with the situation their children were in, while 2 others said that family did not cope too.
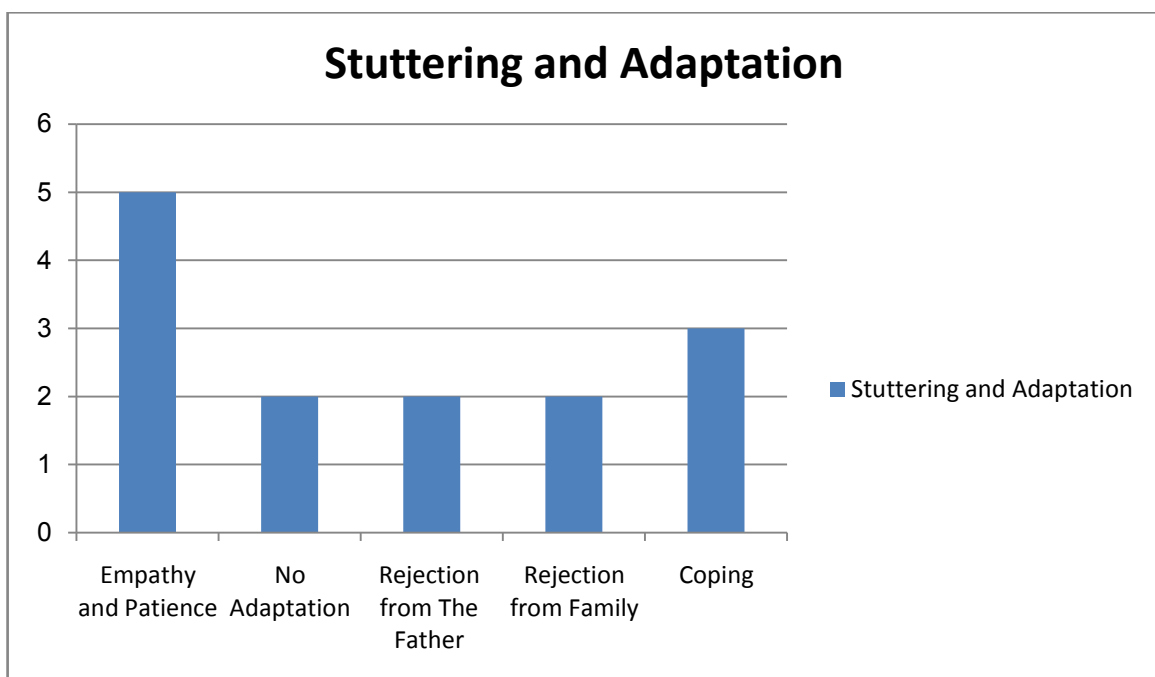
Figure 20: Stuttering and Adaptation

10. Did you sought for the help of a psychologist or a psychotherapist?

a. Yes ☐

b. No ☐

7 participants (41%) asserted that they took their children to either a psychologist or a psychotherapist, while 10 (59%) did not.
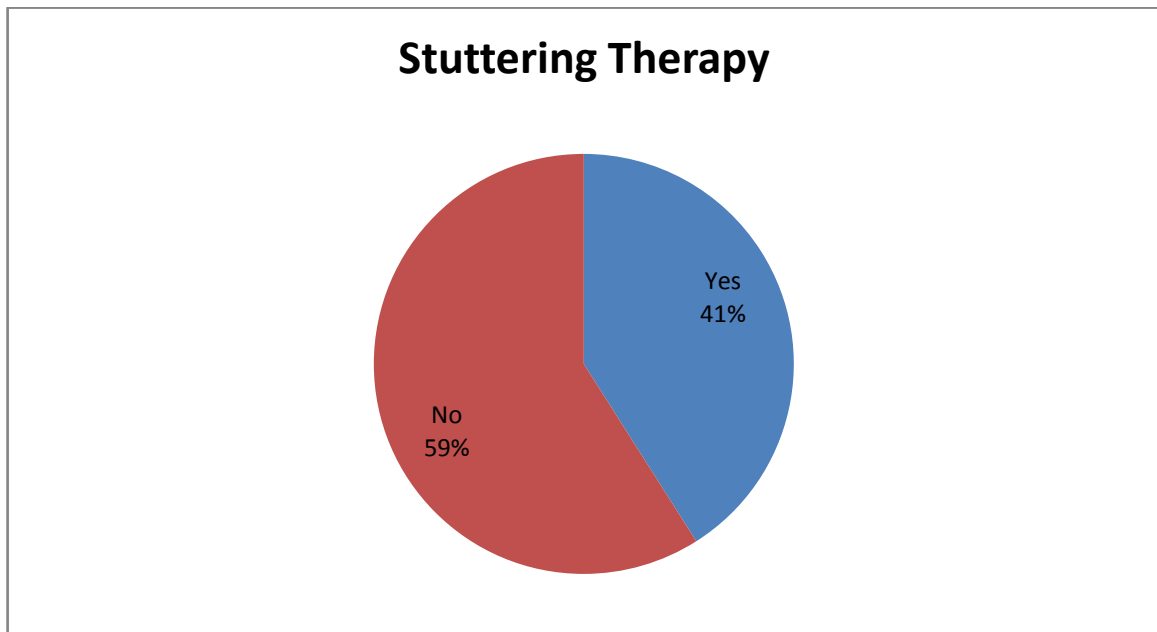
Figure 21: A Therapy for Stuttering

11. Has your child shown a progress in recovery after treatment?

a. Yes ☐

b. No ☐

11 respondents have answered.6 agreed on the answer that the treatment was fruitful, while 5 disagreed.

The Benefits of The Treatment

■ yes ■ No

45%

55%
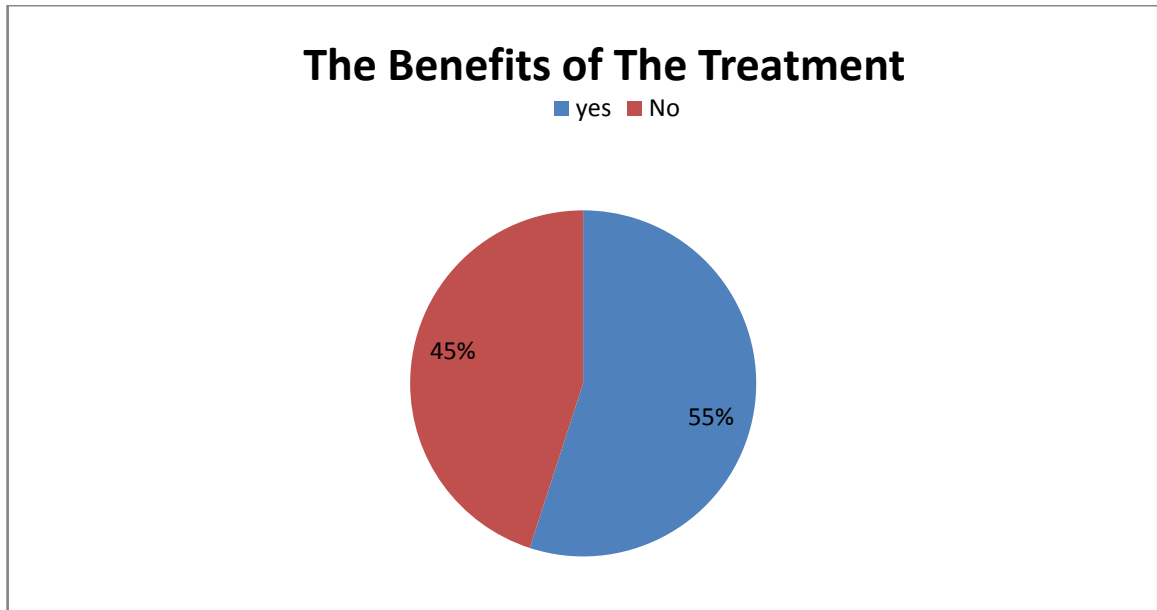
Figure 22: Parents' Attitudes towards The Treatment

12. By which method(s), you made your child feel comfortable when uttering?

As for the sake of making their children feel comfortable when talking to others, parents gave multiple strategies that they have followed such as, advising them to talk slowly (8 answers), they don't interrupt them (4 answers), they strengthened their

confidence (2 answers). For them, dialogue (3 answers) is also fruitful.
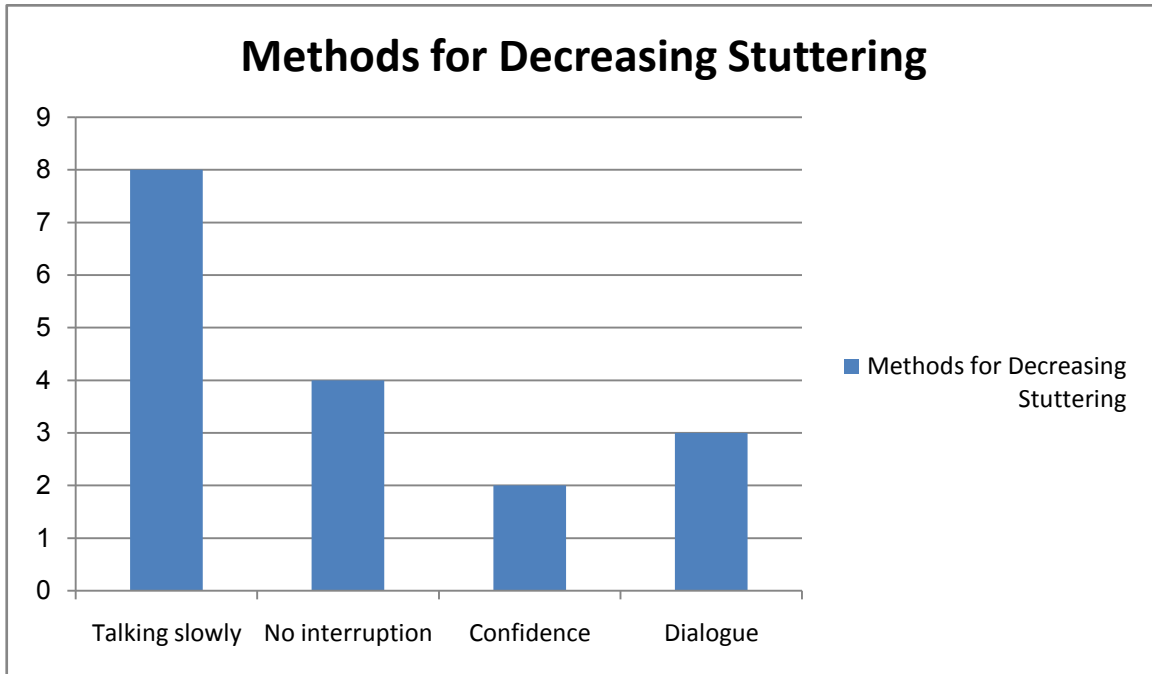
Figure 23: Approaches to Decrease Stuttering

13. Was your child exposed to bullying in school and outside?

a. Yes ☐

b. No ☐

Among 20 participants, 13 (65%) opted for the choice "a", whereas 7 (35%) have chosen "b".
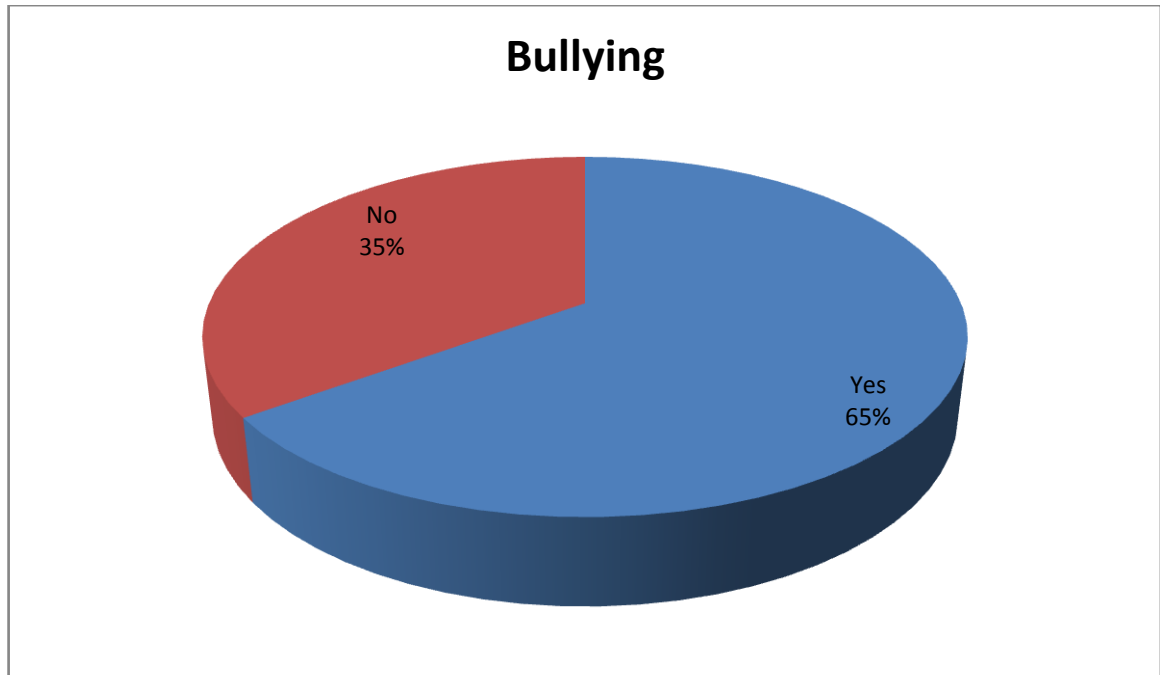
Figure 24: Stammers and Bullying

14. How did you manage to make him safe from bullying?

Strategy	N	%
Confidence	9	56
Avoiding Shyness	4	25
Society	3	19

Table 4: Strategies for Avoiding Bullying

Table2.4 indicates that the most useful strategies parents followed in order to make their children save from bullying are: Increasing confidence (56%), avoiding shyness (25%), and it is the role of society members to be conscious (19%).

15. What are your recommendations for parents whose children are stammers, and their illness leaded to an academic failure?

13 parents have answered.6 among them (46%) suggested assistance as a remedy, as well as not giving-up, (23%) suggested coping with the situation, and increasing confidence (8%). It is also important to take into consideration that mothers (8%) have a crucial role in helping their children.
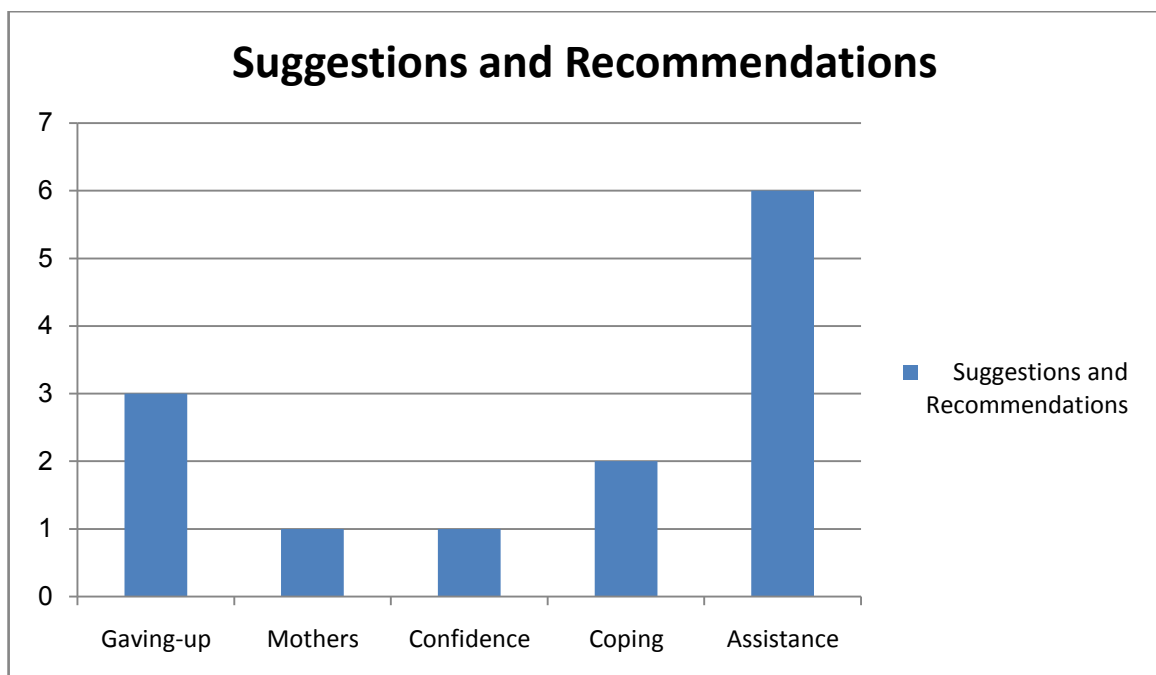
Figure 25: Suggestions and Recommendations

2.4.4   Interpretation of the Results:

The results of Q1 reveal that mothers (68%) take care to their children, more than fathers (32%). Besides, an equal rate (32%) of contributors who have a tertiary and a secondary level, indicate that they are cultivated and conscious. Thus, they are able to understand their children and feet their needs (Q2). On the other hand, the findings of Q3 show that a big portion of participants (86%) struggles with some familial issues. This may leads us to conclude that problems, and mainly between parents can negatively influence their children.

When it comes to the inception of stuttering (Q4), most of the participants (3, 4, and 5 participants) claimed that their children begun to stutter at early ages (3, 4, and 5 years old). This means that adults are less likely to stutter, and psychological problems (62%) were the root causes behind their stuttering. Furthermore, data obtained from Q6 and Q7; demonstrates that they felt sad (25%), anxious (31%). While others (25%) accepted the situation, their children were in. Besides, this speech disorder has adversely impacted their children psychological and educational achievement (55%).Those results denote that stuttering has a great impact on children, and parents. Q8 also shows that stuttering' mains causes result from heredity.

In Q9, respondents declared that they coped with their children illness (3 answers), through empathy and patience (5 answers). However, children received rejection from the part of their parents (2 answers), fathers (2 answers), and their family too (2 answers). This clearly demonstrates that stammering is somehow difficult to be adopted by people. In order to boost stutterers' therapy, some parents (41%) sought for the help of a psychologist and a psychotherapist, since they are aware that specialists can remedy this sickness (Q10). Consequently, the treatment was fruitful (55%) (Q11).

Likewise, participants did not only rely on the treatment of the specialists, but they assisted their children by their own, mainly by: Advising them to talk slowly (8 answers), avoiding interruption (4 answers), increasing confidence (3 answers), and dialogue (3 answers). Concerning the stutterers who were exposed to bullying (Q13), 20 participants agreed upon the fact that their children suffered from teasing. Accordingly, parents should be the first persons who give aid, taking into consideration various methods to defend bullying. For that sake, confidence (56%), boldness (25%), and society (19%) represent the threshold to a new positive beginning in stutterers' life (Q14).

The last question stands as a solution to defeat failure, like dependence (8%), coping (23%), support (46%), and patience (23%).

2.5 Informal Analysis of Stuttering Behaviors:

2.5.1   Target Population:

This study was conducted at Boudia Abdelkader primary school in Saida. A total of four pupils were selected to take part in the study. Children were between the age of 6 and 11 years old. It is noteworthy that not all of them share the same behaviors and symptoms. The same sample was used in the two following tests.

2.6 Observation of Accessory Behaviors:

Results are shown in the following table:

Pupil	Gender	Age	Educational Level	Accessory Behaviors
Pupil "A"	Male	6 years old	1 year	Closing eyes.
Pupil "B"	Male	7years old	2 year	Looking around, eyes blinking, words substitution.
Pupil "C"	Female	8 years old	3 year	Eyes blinking.
Pupil "D"	Female	11 years old	5 year	Facial grimacing, sudden changes in vocal pitch.

Table 5: Observation of Accessory Behaviors

2.7 Less Typical Disfluencies:

Pupils	Sounds Repetition	Prolongation	Blocks	Silent Poses	Fear/Avoidance
Pupil "A"	⨯				
Pupil "B"	⨯		⨯		
Pupil "C"	⨯			⨯	⨯
Pupil "D"	⨯	⨯	⨯		⨯

Table 6: Speech Disfluencies Related to Stuttering

2.8 Interpretation of The Findings:

As it has been noted in the Observation of Accessory Behaviors, findings reveal that stuttering resolves by childhood and it influences both; boys, and girls. Besides, stuttering' behaviors varies from one child to another, and they represent the stuttering' symptoms, as well as stuttering severity.

Therefore, data obtained from table2.7, indicates that repetition is the most common aspect in all the children. Accordingly, Pupil "A" is affected only by sounds repetition; so he has what is called as "a very mild stuttering". Pupil "B" on the other hand, is influenced by a mild stuttering, since he has sounds repetition, and blocks.

However, sounds repetition, silent poses, and fear are the main disfluencies observed in pupil "C". Her silent poses are known as "The Acquired-Late Onset Stammering", that occurs due to a psychological trauma. It is then, a severe stuttering.

In contrast, the last pupil (pupil "D") has also a severe degree of stuttering. She suffers from sounds repetitions, fear, blocks that last to over three minutes, and a sound prolongation. This last is termed as "Negative Reactions".

Conclusion

This chapter seeks to analyze and interpret results that are related to teachers and parents' questionnaires and the two tests too. The two questionnaires revealed that the root causes behind stuttering are more likely to be psychological. Heredity also seems to affect stuttering. This last, negatively influences students' psychological, as well as their educational side. With the progress in the field of medicine, parents on the one hand, are no more downplaying the role of a psychologist, or a language pathologist, in order to

find a good therapy. Increasing confidence on the other hand, is a key element that all teachers agree upon it to demonstrate stammers' achievement.

Chapter Three

.

Chapter Three: A Pathway to Recovery

Introduction:

Teacher and parents' questionnaires revealed that stuttering children is of high value for them. Though, teachers and parents are aware of what do primary school pupils need, stuttering is not treated affectively, and thus, no affective therapy is used. Teachers specifically ignore the necessary skills that must be used to help such pupils getting-rid from this dilemma. This chapter provides natural therapies, clinical implications from speech pathologists and psychopathologists, most useful techniques that teachers should opt for, as well as further suggestions and recommendations.

3   A Self-Therapy for Stuttering:

3.1.1   Famous People Who Overcame Stuttering:

Stuttering is a type of speech problem that can affect persons of all ages, even various celebrities have experienced it. Their stories were and still encouraging a lot of people to know that they are not alone in their fight and that they can overcome their speech difficulties.

Among the celebrities, King George VI represented bravery and courage for the British people. Prior to the commencement of World War II, George served in the

military and was crowned king. He battled a severe stutter he had since childhood (Shark, 2021). Despite this, on September 3, 1939, when Britain entered World War II, King George VI was able to deliver an impressive live radio broadcast. During the Battle of Britain, he visited his soldiers on many battlefronts and stayed in the United Kingdom. Therefore, his bravery and determination impressed the British people.

Moreover, Bruce Willis, the brilliant actor, struggled with stuttering for a long time. Acting helped him overcome his stuttering. He struggled with stuttering for many years until he was able to work with the speech therapy department at college, where he was able to shed a lot of his stuttering (Shark, 2021).

Another well-known actor, Samuel L. Jackson, suffered with stuttering as a child. People would make fun of him and mock him. He didn't talk in class for about a year and dealt with the humiliation by doing well in school. Reading about breathing techniques helped him conquer his stuttering. He was also able to act as if he was not a stutterer (Shark, 2021).

In the Algerian community, Mustapha Ziatine, a famous journalist in El Badil channel struggled with stuttering since childhood, and it was like a monster in his life. He used to be bullied by his peers in the primary school, what frightened him to enter the classroom and learn. At university, he was passionate about writing books and poems, but he faced obstacles when attempt to present them in front of people. It was due to his parents and an Arabic language teacher that he came-up to conquer his fear and became a popular Arabic journalist, whose story inspired a lot of parents whose children are stutterers (Rabai, 2021).

Chapter Three: A Pathway to Recovery

3.1.2   An Inspiring Story of Joe Biden:

The story of the vice president of the United Stated Joe Biden would be very impressive for people who suffer from this dilemma. For the young Joe Biden, few things were as intimidating as speaking in front of his class. Biden, as a Catholic school student, struggled with a stutter, a speech disorder that was once thought to be a sign of poor intelligence. His teacher, a nun, was among those who mocked him most fiercely (Taddonio, 2020). Biden's efforts to manage his stutter would be equally formative. Biden, determined to overcome it, took action in a way that would come to define his life and political career: he just kept pushing. "Biden would stand in front of his bedroom mirror with a flashlight to his face and recite Yeats and Emerson," says John Hendrickson, a senior editor for The Atlantic who has profiled Biden and who stutters, detailing a tactic Biden used to control his stutter and acquire confidence.

Biden's persistence would be rewarded. The bullied student eventually became president of his senior class. "Many people would argue Biden's stammer is one of, if not the most noticeable, flaws," Hendrickson adds. "However, it is also a source of power for him. It's also where he gets his guts and determination from, simply being there competing." In a 2010 appearance on ABC's *The View*, President Biden discussed how tough it was to overcome his stutter (The Stuttering Foundation, 2021). He penned an essay about his experience for *People Magazine* in 2011.President Biden serves as an example to those who stammer, demonstrating that stuttering does not have to limit one's own accomplishment.

President Joe Biden, as the Vice President of the United States, is expected to appear in public at high-profile occasions more frequently than most. It's no secret that Vice

Chapter Three: A Pathway to Recovery

President Joe Biden has struggled with stuttering throughout his life, but it's all the more impressive and motivating that he has risen to the highest office in the country.

3.1.3   The Power of Observation:

In 2011, John C. HARRISSON has published a book entitled *Redefining Stuttering*, where he wrote about every single detail about this illness, as well as suggesting various therapies. As it has been mentioned by him, the power of observation is often overlooked. Thus, individuals who have an extremely high esteem for authority are more likely to sit back and let those with letters after their names preempt their thinking and establish their beliefs simply because they "know" what they're doing as professionals. By doing so, PWS minimize their own capacity for making meaningful discoveries through self-awareness and observation of others' behavior (HARRISSON, 2011).

Therefore, people who have recovered from stuttering, whether partially or completely, have proved themselves to be expert observers. Each was able to talk from a distinct authority position—that is, from the perspective of his or her own personal experience. These people have figured out how to use their observations to help them navigate through the complexity of their own stuttering syndrome (HARRISSON, 2011).

To recover, HARRISSON (2011) claimed that by looking at what he was doing in a different perspective, he was able to eliminate stuttering from his life long before the blocking habits did. When he stopped looking at his problem through the narrow lens of "stuttering," the stuttering itself vanished (that is, he stopped recognizing behavior as "stuttering"), and in its place were a slew of other issues in a unique relationship that needed to be addressed. Physical blocking behaviors gradually faded and disappeared as a result of resolving these difficulties on an individual basis. Accordingly, a few valuable

rules have arisen from this experience. One of the most useful is that all personal development starts with observation (p.149).

However, the same familiar sights and realities will keep appearing if parents keep looking at their children experiences through the same familiar glass. The "window" through which they view the problem, has a significant impact on how toddlers perceive it. What matters to a children and what he or she expects to see has a significant influence on what he or she actually see (HARRISSON, 2011). Teaching children how to observe objectively is thus the challenge for parents.

3.1.4 Developing Healthy Communication Attitudes:

Stuttering can hinder a child's ability to achieve academically and socially, but this does not have to be the case. The way a youngster reacts to stuttering determines how much of a detrimental impact stuttering has on him or her. In other words, a person's ability to communicate is determined by how he feels about himself and his communication abilities, not by how many times he stutters.

Because children's reactions are so important in the development of stuttering, one of the most important things parents can do is to assist them in developing healthy, appropriate communication attitudes. This reduces the likelihood of their developing poor self-image, humiliation, or embarrassment, which are common in older children, adolescents, and adults who stutter. The acceptance of their parents and others in their environment is extremely important for young children's self-esteem (Yaruss &Coleman, 2009). Of course, no parent wants their child to be a stutterer.

However, if a parent conveys the sense that stuttering and disfluencies are harmful, the child is more likely to have negative feelings about his or her own speaking ability. In

contrast, when a child is self-conscious about his or her speech, he is more likely to suffer in his attempts to become fluent. As a result, positive attitudes are vital not just for a child's social, emotional, and educational development, but they also aid to reduce the risk that the disorder will develop (Yarusss & Coleman, 2009).

Although many parents see the need of assisting their children in developing healthy speech habits, they may struggle to accept their children's stuttering in their own minds. Parents understandably worry about the impact of stuttering on their children's scholastic, social, and occupational chances if it persists into adulthood. Even so, parents cannot transmit acceptance of their child's speaking ability if they themselves have unfavorable beliefs. Some parents claim they "can't stand to listen to their child" when he stutters because they believe stuttering sounds "awful." Others believe they don't need to modify their attitudes towards stuttering since they think that their children will improve on their own (Marshall, n.d,).

While these are understandable reactions, it's crucial to remember that children learn how to react to stuttering by witnessing their parents react. Consequently, when parents express frustration, worry, or annoyance, their children are more inclined to do the same.

In addition to overcoming their own stuttering difficulties, there are numerous things parents may do to help their children acquire normal, healthy communication attitudes. Parents should model a calm and objective response to their children's stuttered speech; listen to their concerns about speaking and focus on their message rather than the way they are speaking; and, when appropriate, talk with children about stuttering in a matter-of-fact, supportive manner so they will understand what is happening when they have difficulty speaking. Notably, these strategies should be used sparingly and only when necessary to help children feel more confident in their ability to communicate (Marshall, n.d.)

Chapter Three: A Pathway to Recovery

3.1.5   Boosting Confidence:

Often, when a child stutters, he feels helpless and less confident. The major role of parents then, is to boost their self-confidence. This can be achieved through various strategies. First of all, for a child, speaking smoothly can be difficult, and every time parent tells him to "slow down," they are merely reminding him that he is doing something wrong. A better method is simply been patient and remain focused on what he is saying. Then, when it is possible, parent should give praises to their child. The praise may or may not be related to his improved speaking. The objective is to make the youngster feels as though he is accomplishing something worthwhile, giving him hope that his speech impediment will be overcome. Besides, setting realistic goals for them and their toddler will go a long way toward making him or her feel better about themselves ("Learning Loft", 2017).

Because stuttering youngsters have to fight so hard to get sentences out, it's no surprise that they prefer to be quiet the majority of the time. For that sake, parents should find ways to make communication pleasurable for their child to increase their confidence, such as teaching him to sing instead of speaking, or playing games that demand to describe or offer directions in order to improve his speaking ("Learning Loft", 2017).

Additionally, it might be difficult for parents to know how to treat a stuttering child in a group setting. Therefore, they should not force the child to speak, but keep him away from feeling intimidated or uncomfortable, and strike a balance between being helpful and taking control of the conversation ("Learning Loft", 2017). Hence, if they treat the child with respect, he or she will be treated with respect by others.

Chapter Three: A Pathway to Recovery

3.1.6 **Building Resilience:**

Strength could be a person's capacity to bounce back from troublesome experiences. It comes from sturdiness and tenacity, additionally from trust and self-compassion. Although some children are born with more resilient personalities than others, all children can benefit from parental/caregiver support in order to strengthen it. Resilience is vital for managing with stuttering and growing into independent and successful persons, especially for CWS ("Stuttering Association for The Child", 2021). It has been mentioned that growing up entails adjusting to change and developing self-esteem. Even in the most accommodating school, a stuttering youngster may face difficulties. Hence, Children will have more skills to respond to challenges elsewhere in life if they are raised in a supportive environment at home and have their self-esteem boosted.

Then, a loving, nurturing home does not come with a magic formula. Listening and exhibiting empathy are two of the most powerful ways that any parent or guardian can be present for their child. The more a youngster feels heard or understood, the more validated they feel and the more they believe their voice matters. It can make a difference if you listen to what your child has to say before offering advice or arguing your own point of view. Children, like adults, occasionally need to express themselves ("Stuttering Association for The Child", 2021).

Trying to listen to what is said rather than how it is said, even if it is difficult at times, is one of the most important ingredients of resilience. That isn't to say that stuttering should be ignored; after all, a child's stutter may be the first thing on his or her mind. However, you can lay the groundwork at home to teach your children that they are more than their words, and that what they say counts ("Stuttering Association for The Child", 2021).

Chapter Three: A Pathway to Recovery

3.1.7   **Singing without A Stutter:**

It is obvious that the brain works in mysterious ways, but it's just every now and again that it is reminded of how amazing it is. This is especially true when it is looked at how it responds to music as a speech treatment strategy in people with language difficulties. As stated by Holly (2013), Melodic Intonation Therapy (MIT) has long been a popular therapy option for Speech Pathologists, and it was recently highlighted as an important part of Congresswoman Gabby Gifford's recovery. Autism, stuttering, preterm, and brain injury patients are among the developmental and acquired illnesses for which music is employed.

Clearly, music has unique properties that stimulate different parts of the brain. Prosody, stress, pitch, and inflection are some of them, and they're all fairly comparable to language (Holly, 2013).

As a result, when a person listens to or participate in music, multiple portions of his brain must operate together. Thereby, music activates the auditory cortex that processes notes, melodies, speed, and frequencies in songs; the cerebral cortex which is responsible for recalling the lyrics; cerebellum that controls body movements and muscles; as well as the limbic system that serves for the emotions expressed through lyrics or melodies. For her, singing has a shared auditory-motor route with speech and allows for longer phonation duration (holding a sound for a long time). One distinguishing element of music is its rhythm; the beat we hear in songs is essentially predictable and may aid in anticipating what will happen next (Holly, 2013).

This timing hint could be very useful for CWS. Because rhythm is predictable and ordered, it aids in the timing and coordination of speech output by providing cues. The lyrics and melody of a song are always the same (Holly, 2013).

Conversation, on the other hand, is always changing, and most children cannot predict what they will exactly say. The importance of song memorization and recall may also help to reduce the stress and anxiety associated with needing to speak spontaneously. These are all beneficial components of a stuttering treatment program for CWS, which often includes building and strengthening breath support and oral-motor coordination for speech (Holly, 2013).

Yet, song and live music can help with relaxing, pace, and providing a pleasant environment for practicing and gaining confidence in speech. For patients with anxiety or suffering due to disfluency, the confidence-building component of singing stutter-free can be a powerful outlet. Thus, music can open doors of recovery to children (Holly, 2013).

3.1.8 Bullying and Self-Esteem:

Children are subjected to teasing at some point in their lives for a variety of reasons. Parents cannot eradicate teasing, but they can and must empower the stuttering child with skills for dealing with it on his or her own. The purpose behind this is to boost children confidence and self-esteem (National Stuttering Association, 2021).

Social contacts in school and on the playground are difficult enough for a child who stutters. Bullying, on the other hand, can cause kids to withdraw into a shell of loneliness and isolation. As children who stutter, they and their parents must follow some instruction that might aggravate the progress that has being made in embracing their speech impediment (Stamurai, 2020). The first step toward progress is acceptance. Parents must first recognize their child's speech impairment. He/she will only admit it and learn to never be ashamed of it, if they welcome and encourage him/her. Second, it is their responsibility to create a safe environment for the youngster to acknowledge that he/she is being bullied.

Chapter Three: A Pathway to Recovery

It is also necessary to create and maintain a positive social network among the numerous individuals who have a significant impact on their children' lives. Setting a good example for their youngsters by surrounding him or her with confident grownups who value his or her thoughts, building the child's self-esteem and equipping him or her with the tools needed to confront life's challenges is also beneficial (Stamurai, 2020).

Furthermore, the easiest method to cope with or display a bullies' timidity is to use comedy. Children can be taught how to use wit as a weapon by speech therapists and parents. Humor can assist a stuttering child overcome his inherent timidity in social situations and better withstand peer pressure (Stamurai, 2020).

3.2 Medical Implications

3.2.1   The Iceberg Theory:

Stuttering was described by Joseph Sheehan (1970) as an iceberg (Bloodstein; Brundage; & Ratner, 2021). He pointed out that the visible symptoms of stuttering, such as speech disruptions and struggle behaviors, were just the top of the iceberg, and that there was a lot more to stuttering than meets the eye, including feelings of guilt, shame, and fear. Dr. Sheehan was a giant in the area, inspiring other doctors to see the stutterer as a full person. Direct assistance in gaining fluency can be beneficial in the short term (much like blasting the top layers of an iceberg and not being aware of the dense body of ice below) (Pang, 2014).

Chapter Three: A Pathway to Recovery

When it comes to stuttering intervention, many Speech Language Pathologists only address the tip of the iceberg. The stuttering habits we see and hear are just the tip of the iceberg, such as the repetitions, the blocks, and the prolongations of spoken sounds (Kaleid Scope, 2019). When speaking, SLP sometimes concentrate on increasing eye contact and posture. If, on the other hand, just the visible symptoms are addressed, the client is receiving insufficient speech treatment. Below the surface, there is an area that has to be addressed and that draws on the stutter SLP's counseling abilities and training.

More specifically, stuttering behaviors like repetitions of noises, words, or syllables are represented by the tip of the iceberg, which is visible above the water's surface. This is the visible component of a stutter. The buried part of the iceberg is much larger than the upper part (Magic Words, 2019). This undersea section symbolizes the hidden features of a person's stutter that are often overlooked by others, including anxiety about speaking, avoidance of speaking or circumstances, feelings about stuttering, and attitudes a stutter have towards himself that result from this dilemma ("Magic Words", 2019)

On the contrary, Dr. Rick Arena, an associate professor at the University of New Mexico, and a stutter too, describes stuttering as an "iceberg beast."Rick adds that the beast is a cohesive collection of faulty ideas that stutters allow to negatively effecting how they conduct their lives. As a clinical therapy, CWS are advised to employ some "weapons" to weaken and minimize the iceberg beast and therefore diminish the stutter's influence over him. Among them; daring to talk about his stutter openly, allowing himself to freely stutters, and being honest about himself about how stuttering affected his life ("Magic Words", 2019).
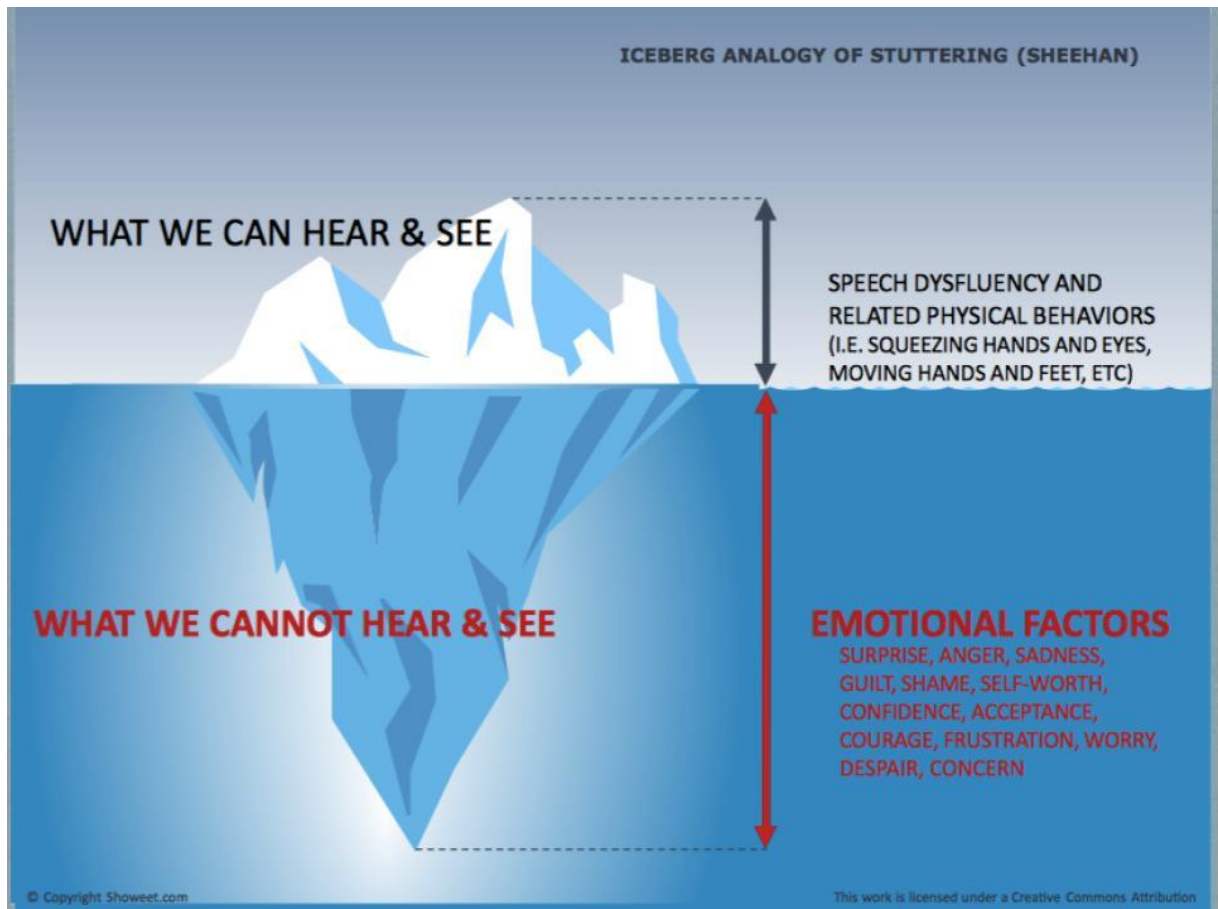
Figure26: The Iceberg Analogy of Stuttering (Shneider Speech, 2021)

3.2.2 Solution Focused Brief Therapy:

When working with CWS, speech and language therapists in the field of fluency problems have traditionally used a variety of psychological techniques. Traditional treatment components such as speech fluency control and social communication skills, as well as a focus on the emotional and cognitive aspects of stuttering, are commonly

combined in therapy. In the early 1980s, Insoo Kim Berg, Steve de Shazer, and their Milwakuee Brief Family Therapy Centre colleagues and clients created Solution Focused Brief Therapy (SFBT) (Nicholas, 2014). In many ways, SFBT differs from traditional treatment approaches in that it places less emphasis on the problem and instead focuses on the solution, explores a child's preferred future, what life will be like once the problem is gone, and draws on the child's resources and strengths to achieve that future. Speech and language therapists are increasingly using Solution Focused Brief Therapy (SFBT) to treat a variety of communication impairments, including stuttering. Moreover, in order to ensure that questions are understood and accessible when working with children, therapy must be tailored to the child's developmental and language level (p.2).

Accordingly, Parents are an important component of the therapy process, even though this study focuses on how to adapt solution centered strategies when working with children who stammer. In certain cases, working directly with parents is preferable, especially for younger children who may lack the cognitive or verbal abilities to engage in solution-focused dialogues (Nicholas, 2014).

One of the techniques of this therapy is that clients are not asked to describe the problem that brought them to the session in SFBT sessions. Instead, they begin with a period of "problem-free conversation." The goal is to get to know kids as a person first, and to discover more about who they are. He added that toddlers are questioned about their hobbies, interests, favorite activities, skills, and so on. Yet, this is not considered "idle chit chat," but rather a real desire to learn more about elements of their lives other than their problem, as well as to recognize and emphasize their personal characteristics, talents, abilities, and competences (Nicholas, 2014).

Besides, goal setting is a distinguishing feature of SFBT. It's critical that a client's goals are clear so that both the client and the therapist know where therapy is going and

when progress has been made. ST may often ask children about the best hopes from their chatting, and most frequently, the answer would be based on the absence of the problem, like:" I want to be fluent speaker". The duty of the therapist according to Nicholas (2014) is to assist clients in framing their objectives in terms of the presence of solutions (as cited in George et al., 1999) such as "I will be more fluent."

After a child's goals have been determined, a series of questions are asked to allow him to express in detail his highest hopes or desired future, as well as what his life will be like once the problem has been resolved. The therapist will need to encourage clients to express their best wishes in positive, concrete, and practical terms, as well as to include the viewpoints of others, a description of their replies, and the impact they have on him (p.3). In order to push the child expresses his best wishes "a Miracle Question" should be utilized. Along with this, the "Miracle Question" can be offered to a CWS with a prop such as a fairy godmother or a magician waving their magic wand or gazing into a crystal ball to help him pictures his difficulty dissipating. Drawings can also help kids define and imagine their ideal future (Nicholas, 2014).

3.2.3   Neuro-Linguistic Programming:

The Neuro-Linguistic Programming is a psychological method that entails evaluating and using successful people's strategies to achieve a personal objective. It is a term that encompasses the three most important aspects of human experience: neurology, language, and programming (Kumar, 2017).

In the 1970s, at the University of California, Santa Cruz, Neuro-Linguistic Programming was invented (Good Therapy, 2018). It was co-founded by linguist John Grinder and information scientist and mathematician Richard Bandler. It ties specific consequences to taught beliefs, language, and behavioral patterns. The NLP provides a

number of methods for modeling undesirable states like anxiety related to stuttering or stammering. NLP also provides ways for developing new and empowering states as alternatives for those that hold a person who stutters back in life (Bodenhamer, 2017). According to him, this approach is based on the idea that if a person can communicate fluently in one setting, he can learn to speak fluently in any context.

To do so, a child needs to learn to recognize the "state of mind" he is in when he is fluent, as well as the various states he is in when he is blocking or stuttering, and then learn to step into that fluent state of mind, at will (Stuttering Jack, 2009). It is based on the idea that stuttering is a "thinking problem" that leads to a "speaking difficulty." NLP aims to shift the meanings the child has assigned to particular situations in his life from fear-based to useful, by the aid of a psychotherapist.

3.2.4 Cognitive Behavior Therapy:

Classical therapy has concentrated on giving the child a toolbox of skills to manage his fluency, which can be supplemented with diagnosis and desensitization of the ideas and emotions related with stuttering. Even at an early age, therapy aimed at assisting children in identifying their ideas and feelings, as well as assisting their comprehension of the relationship between cognitions and emotions can have a significant impact on children's speech.

Epictetus, a first-century philosopher, remarked that "people are upset not so much by events themselves, as by what they create of them" – unpleasant reactions are triggered by how events are interpreted, not by the events themselves (Kelman &Wheeler, 2014). In the same perspective, Aaron Beck suggested in the 1960s that human beings are continuously filtering and interpreting information in order to make sense of the world and their experiences, but that some people develop systematic, unhelpful biases in their

interpretation of information. Beck (1976) also hypothesized a cycle linking cognitions, emotions, physiological, and behavioral reactions. CBT then is a type of psychotherapy that assists people in exploring the impact of their thoughts, feelings, and physiological responses on their behavior, as well as experimenting with challenging their thoughts and predictions in order to build more beneficial responses, whereby it may be beneficial for CWS, as evidence suggests that they may face social exclusion and negative peer reactions (Langevin et al., 2009).

Initially, therapists may focus on the emotions of the children to introduce the cognitive model. This will allow youngsters to recognize their emotions, normalize their experiences, and begin to question any negative thought patterns that have evolved. Children are more likely to notice changes in mood and emotions than specific cognition. Activities such as emotions face charts/flashcards (depicting a range of positive and negative emotions), emotions pairs games, identifying feelings of characters in stories and films, and differentiation activities (e.g. identifying thoughts versus feelings) can all be used to teach emotional recognition.

Another strategy can be done through finishing a story that replicates a circumstance that the kid is experiencing. Story stems (Fuggle et al., 2013) can help youngsters recognize the thoughts and feelings of a fictitious character. This removes the problem from the youngsters, allowing them to access their own ideas and feelings about the situation more easily. Supporting youngsters in growing more competent at expressing their feelings and desensitizing to emotions may help them have a less negative impact. As a result, if youngsters are less easily emotional stimulated, their fluency may be less likely to suffer as a result (Karrass et al, 2006). This interaction with children should be built on previous work with parents to improve their ability to support their children's emotional reactions in their daily lives.

Chapter Three: A Pathway to Recovery

Friedberg and McClure (2002) also described a child-friendly way of exploring a simple cognitive cycle by using a "thought flower garden," in which the child is asked to draw a picture of the situation that triggers the negative emotion (the ground), with thoughts (the stem) and feelings (the petals) growing out of the soil. Additionally, simple cognitive cycles can be investigated with CWS to determine how their ideas and emotions influence their actions. Safety behaviors (such as not communicating, avoiding words or circumstances, and avoiding eye contact) can be discovered, labeled, and normalized as a coping reaction to fear or anxiety.

Alternatively, harmful thought patterns (e.g. "I will stutter...people will laugh" or "they will think I'm an idiot") can cause physiological changes such as greater physical tension or higher speaking rate, which can lead to increased stuttering. These connections can be made explicit to children and young people through psycho-education, allowing them to acquire awareness and the ability to begin to confront these thoughts and create more adaptive coping behaviors (Friedberg and McClure, 2002).

3.3 Teachers Roles:

3.3.1   Modeling A Good Communication:

Because of the reason, nature, and the degree of non fluencies that differs from one child to another, there is no simple treatment for stuttering. Furthermore, some children are unaware of their lack of fluency. They are comfortable with their speaking and enjoy engaging in classroom discussions, although others are aware of it. Many people feel self-conscious from a young age and are afraid of speaking in public. Despite this diversity, teachers can substantially aid stuttering pupils by improving their fluency. This can be done by presenting a good speech model.

First, parents of stuttering children speak far faster than parents of non-stuttering children. Young children frequently emulate their parents' and other prominent adults' speech rates in their environment (Gary et al, 1994). This rate is possibly too quick for the child's motor and verbal abilities. Slower speaking will provide the child the time he or she needs to arrange his or her thoughts, choose language and grammatical form, and motorically plan the speech act.

Furthermore, teachers need to create silences and appropriate timed pauses in conversation, which aid pupils in the creation of a comfortable communication environment, a slower rate of speech, and a more natural speech cadence. Then, educators must demonstrate a simple vocabulary, and grammatical structures. Besides, longer words, fewer frequently used vocabulary, and more grammatically complex sentences are more likely to cause stuttering. Thus, it is crucial to simplify linguistic structures and reiterate the child's complex utterances when a pupil is experiencing a high number of non fluencies (My Health, n.d.).

Another important strategy lies into modeling regular non fluencies. Hence, if the teacher is a highly fluent speaker, he may need to make a conscious effort to employ typical non fluencies like interjections ("um" or "ah"), whole-word repetition, phrase repetition, or silence on occasion. Children on the other hand, need to know that even fluent communication, has non fluencies. This will help them accept their inability to communicate fluently and diminish their dread of speaking (My Health, n.d.).

3.3.2   Improving Pupil' Self-Esteem:

Disregarding moments of non fluency can also be a stepping stone to boost pupils' self-esteem. This could be achieved through reinforcing moments of fluency while disregarding non fluencies to create a healthy communication environment, and avoiding

teaching a child how to speak fluently. For instance, "Slow down," "Take a deep breath," or "Stop and start over" all imply that the child isn't working hard enough. This could lead to feelings of guilt and low self-esteem.

Additionally, an instructor should accept the child's words rather than the manner in which they are expressed, through requesting to repeat the parts of the utterance that he or she did not understand, not the parts that were fluent. This shows that the teacher was paying attention and that the message was significant to him. Rephrasing what the youngster has said on occasion helps to focus attention on content rather than production too.

As mentioned by those scholars, a pupil who stutters should be treated equally as his classmates, and because of his speech disorder, teachers should not lower their expectations. Therefore, all classroom assignments should be completed by the stuttering child, while oral presentations may require additional time. It is also important to recognize non fluencies without putting a name on them, and avoiding using the term "stuttering" to describe the situation. Instead, he might use adjectives like "bumpy" or "rough" that the youngster uses to characterize his or her speech.

3.3.3 Establishing A Good Speech Environment:

A youngster who stutters requires appropriate time to formulate concepts and motorically arrange utterances. Yet, interruptions can cause the youngster to become distracted and increase non fluencies. Therefore, it is the duty of the teacher to establish good conversational rules on the one hand. On the other hand, it is compulsory for the educator to avoid absent-minded responses, by paying attention to the child's words, which allows him to recognize that the content is significantly important. Teacher' response must be genuine in the eyes of the youngster. As a result, instead of general

72

words like "Good talking!", employing naturalistic comments like "Yes Johnny, that is a large blue truck," demonstrates a complete acceptance of the child's words (Gary, 1994).

Likewise, it can be challenging to do two different motoric acts at the same time, such as coloring and conversing. Consequently, asking the youngster to put down other things while speaking will help them speak more fluently, as well as reducing speaking expectations during periods when the kid is asked to accomplish other tasks, such as during art class, gym, or recess (Gary, 1994). .

When a child gets thrilled, stuttering is more likely to occur. Birthdays, holidays, class trips, and changes in the daily schedule can all generate anxiety and make stuttering worse. As a result, discussing forthcoming events can help children overcome their dread of the unknown and improve their fluency (Gary, 1994).

3.3.4   Overwhelming Foreign Language Anxiety for Pupils:

School is where children spend a substantial portion of their life. What happens in school, and a teacher's capacity to effectively support a child who stammers, can have long-term impact. Although a child's social environment does not cause stuttering, what happens around them; both favorably and badly, can have a profound impact on their fluency, and this is especially true during their time at school (Action for Stammering Children, n.d).

With compelling evidence, instructors' participation and understanding can help pupils who stutter. Classroom activities that require these students to talk in front of the teacher and their peers may be temporarily exchanged for one-on-one interviews with the former as a means of facilitating progress toward more difficult tasks (Miller, & Pastor, 2018).

Chapter Three: A Pathway to Recovery

Because speaking is so important in learning a language, allowing LWS to avoid communication may provide temporary respite, but it may also promote avoidance behaviors that prevent them from achieving their educational goals (Miller and Pastor, 2018, as cited in Daly, 1999). Furthermore, pupils who stutter believe that there are days when they rarely have blocks and days when they stutter regularly. Hence, teachers should allow students to intervene whenever they feel safe, rather than having them wait, which might cause anxiety. In this regard, the teacher and the pupil may want to agree on a specific signal that they may both utilize, so that the latter can make their readiness to talk obvious without alarming their peers. In the same vein, pupils can be organized into groups to make reading more of a collaborative effort, which may assist to decrease FLA among stuttering learners.

With the advanced technology, using web-based software which allows pupils to read aloud scripts and practice pronunciation, while the teacher assesses their work individually, could also be beneficial (Miller and Pastor, 2018, as cited in Talaván and Lertola 2017). Eventually, teachers should encourage listening and writing tasks by establishing routine listening activities in the classroom (Miller and Pastor, 2018, as cited in Bekleyen 2009; Vogely 1998), so that students develop a habit of "quick judgment and appropriate timing" when decoding information (Miller and Pastor, 2018, as cited in Kim 2002, 4), as well as more collaborative writing tasks in which students share information and experiences.

3.3.5   Supportive Teachers:

The teacher and pupils in the classroom work together as a bidirectional team. The perception of each of his students is shaped by the teacher's expectations for their school achievement and behavior. As a result, a youngster who performs poorly in school is viewed with rejection. Teachers on the other side, frequently have trouble deciding what

to do when a student stutters in class. For that reason, there is a need that the school community has to make measures that allows children that stutter to fully participate in everyday activities and are accepted from school environment (Fradeloss &Charalampos, 2015).

Thus, teachers should be thoroughly aware of proper instructional methods as well as alternate evaluation strategies that do not rely on speech and verbal procedures. Classmates and parents should also be informed so that such youngsters can be accepted and participate equally in the classroom. Similarly, it is critical for parents to remind all persons who have contact with their child at school, such as teachers, about the necessity of speaking to him or her in a smooth, calm manner (Fradeloss &Charalampos, 2015).

Repetition, explanation, and reinforcement are all important components of an educational and training program that should be tailored to each student's specific needs, talents, intelligence, and interests.

Further Suggestions and Recommendations:

As it has been revealed by data collection, primary school teachers play a significant role in assisting pupils getting-rid from stuttering, and they offer a keen awareness of the overwhelming needs of learners. Accordingly, the following suggestions are recommended:

-Teacher should assist everyone in the class in learning to take turns speaking and listening. When there are minimal interruptions and the listener's concentration, all students, notably those who stammer, find it much easier to speak.

Chapter Three: A Pathway to Recovery

-They should expect the same quality and quantity of work from the stuttering student as from the non-stuttering ones.

-It is also compulsory to build a one-on-one chat with the stuttering student regarding the classroom adjustments that are required, as well as respecting the student's needs, but not making them easier.

-It is critical to avoid making stuttering a source of embarrassment. However, it should be discussed in the same way as any other topic.

-Slower speech in the classroom may be beneficial to students with rough speech. Instead of saying slow down, the teacher should speak slowly. Thus, if a youngster is advised to slow down frequently, he or she may become frustrated and decide to speak less.

-It is practical before starting to speak, to wait around 2 seconds after the child has stopped talking. The teacher can demonstrate he is interested and listening by using body language, nodding his head and smiling, or sounds like "mm-hmm".

-When a student is speaking, the instructor should look at him or her and listen intently. It is also mandatory to make an effort to speak with the child face to face, and reassuring a child with stuttering speech by saying he is listening or that he has time to listen.

Chapter Three: A Pathway to Recovery

Conclusion:

Teaching primary school pupils who stutter without taking into account the needed strategies, is a useless activity. Teachers then should integrate practical methods and apply useful rules in the learning environment to guarantee a full engagement for those pupils.

General Conclusion

General conclusion

General Conclusion:

Stuttering is such a complex issue that should have a great importance. This research intended to shape the affective approaches to overcome stuttering among primary school pupils. However, researches on this topic, has not been widely investigated in the Algerian universities. This study elucidates teachers and parents' perceptions towards stuttering, the suggested tips that should be followed by both of them, as well as some medical implications that might be helpful to control the problem.

To map teachers and parents' perceptions, two questionnaires were implemented. Hence, pioneers on this investigation, have created a set of methods and tools. Likewise, to measure the severity of stuttering, a test was used in addition to an observation. It has been concluded through data collection from the questionnaires, that they are aware of children' needs, either in community or in the classroom. Besides, they hold positive views towards them.

Parents' questionnaire on the one hand, indicates that most of them are responsible for their kids, and that they are enough cultivated to rely on specialists like psychologists and psychotherapists, who might assist them in the recovery. Then, they claimed that psychological problems and genetics are the basic factors. It has been also suggested, that boosting self-confidence and self-esteem is a challenging matter for them.

Teachers' questionnaire on the other hand, reveals that they do establish pedagogical instructions and rules to accommodate pupils' needs, and a range of implications are set to facilitate leaning, and enhance a better academic income.

Furthermore, the analysis of the test and the observation pointed out that, stuttering severity varies from one pupil to another, and that most of them are impacted by a psychological trauma. Yet, it is the role of the teacher to hide their weaknesses, and strengthen their capacities. It is worth mentioning, that they all present a willingness to succeed and practice the same as their peers. Hence, they are in need of an effective

General conclusion

communication that enables them to freely express themselves, and fight their speaking anxiety in front of their classmates.

Through the use of the previous tools, it has been assumed that:

-psychological problems and familial links, are the primary factors of stuttering.

-Some pupils would stutter just because they do have members in the family who do the same.

-Stuttering may first influence the emotional side of a learner, and turn his positive attitude to negative ones.

-Learners' achievement may also be impeded by stuttering, as long as the kid does not receive an intrinsic motivation from others.

-As educators of primary school children, empathy should always be present to make stutterers feel at ease, so that they can enjoy leaning, and classroom activities.

-Patience may be one of the essential norms all teachers should have, to guarantee a full engagement of the learner.

-Good communication between the child and all members of the institution, might have deep impact on the learner' academic income.

Nevertheless, this study has been triggered by some limitations. First, it was difficult to find respondents, as far as the topic is somehow sensitive. Some parents were even shy to describe the state of their children. Others have also neglected to name the institutions where their children study. Therefore, it took a long time to find four pupils, and it is a fewer number to build upon them real facts. Second, some parents have shown a partial refuse to fulfill the questionnaire, while others were totally against, so that it was hard to

General conclusion

gain their acceptance and receive the whole answers. Also, mainly all the answers were the same, and no distinction was noticed. Lastly, books that emphasis on teachers' strategies to deal with CWS, were not available.

For future investigations, this study can be a threshold to new researches on the field, and thus it can dust-off the out-dated thoughts to a new insight, that might empower teachers' skills, and straighten learners' capacities.

List of References

(PDF) Assessment of Stuttering Disorders in Children and Adults ® Chapter in A Guide to Clinical Assessment and Professional Report Writing in Speech-Language Pathology. (n.d.). Retrieved from ResearchGate website: https://www.researchgate.net/publication/263083905_Assessment_of_Stuttering_Disorders_in_Children_and_Adults_R_Chapter_in_A_Guide_to_Clinical_Assessment_and_Professional_Report_Writing_in_Speech-Language_Pathology.January

10 Advantages and Disadvantages of Questionnaires. (2019, March 8). Retrieved from Survey Anyplace website: https://surveyanyplace.com/questionnaire-pros-andcons/#:~:text=Questionnaires%20are%20inexpensive&text=Especially%20self%2Dadministered%20questionnaires%2C%20where

Acton, C., &Hird, M. J. (2004).Toward a Sociology of Stammering.*Sociology*, *38*(3), 495–513. https://doi.org/10.1177/0038038504043215

Beilby, J. (2014). Psychosocial Impact of Living with a Stuttering Disorder: Knowing Is Not Enough. *Seminars in Speech and Language*, *35*(02), 132–143. https://doi.org/10.1055/s-0034-1371756

Bloodstein, O. (1975). *A handbook on stuttering.* Chicago, National Easter Seal Society For Crippled Children And Adults.

Bloodstein, O., & Nan Bernstein Ratner.(2008). *A handbook on stuttering*. Clifton Park, Ny: Thomson Delmar Learning.

List of References

Bloodstein, O., Ratner, N. B., &Brundage, S. B. (2021).A Handbook on Stuttering, Seventh Edition.In*Google Books*. Retrieved from https://books.google.dz/books?id=Abw0EAAAQBAJ&lpg=PR7&ots=DWjt3L4kP2&dq=the%20iceberg%20theory%20of%20stuttering&lr&hl=fr&pg=PR7#v=onepage&q=the%20iceberg%20theory%20of%20stuttering&f=true

Boyle, M. P. (2013). Assessment of Stigma Associated With Stuttering: Development and Evaluation of the Self-Stigma of Stuttering Scale (4S). *Journal of Speech, Language, and Hearing Research*, *56*(5), 1517–1529. https://doi.org/10.1044/1092-4388(2013/12-0280)

Boyle, M., P. (2012).*Self Stigma of Stuttering: Implications for Self-Esteem, Self-Efficacy, and Life Satisfaction* (Doctoral Thesis; p. 162). The Pennsylvania State University, The Graduate School, Departement of Science and Language Disorder.

Causes of Stuttering.(n.d.). Retrieved from National Stuttering Association website: https://westutter.org/causes-of-stuttering/

Cunha, J. P. (2018). Stuttering Causes, Treatment, Definition & Types. Retrieved from MedicineNet website: https://www.medicinenet.com/stuttering/article.htm

Dr. Abhilipsa Nanda. (2017, April 24). Stammering and Its Effects on an Individual's Life. Retrieved July 31, 2021, from Icliniq.com website: https://www.icliniq.com/articles/diseases-and-disorders-common-medical-conditions/stammering-and-its-effects-on-an-individual-s-life

Dysprosody - an overview | ScienceDirect Topics.(n.d.). Retrieved July 31, 2021, from www.sciencedirect.com website: https://www.sciencedirect.com/topics/neuroscience/dysprosody

List of References

Famous People Who Stutter.(n.d.). Retrieved July 31, 2021, from www.mnsu.edu website: http://www.mnsu.edu/comdis/kuster/famous/famouspws.html

Haley, J. T. (n.d.-a).*Stuttering, emotional expression, and masculinity*. https://doi.org/10.17077/etd.hbmz8q5h

Haley, J. T. (n.d.-b). *Stuttering, emotional expression, and masculinity*. https://doi.org/10.17077/etd.hbmz8q5h

Harrison, J. C. (2011). *A guide to redefining stuttering : what the struggle to speak is really all about*. San Francisco, Calif.: Words That Work.

How to Help Your Child Overcome Stuttering. (n.d.). Retrieved July 31, 2021, from Learning Loft website: https://www.learning-loft.com/blogs/learning-loft-blog/how-to-help-your-child-overcome-stuttering

International Stuttering Awareness Day.(n.d.). Retrieved from Stuttering Foundation: A Nonprofit Organization Helping Those Who Stutter website: https://www.stutteringhelp.org/content/international-stuttering-awareness-day

Kelman, E., & Wheeler, S. (2015). Cognitive Behaviour Therapy with children who stutter. *Procedia - Social and Behavioral Sciences*, *193*, 165–174. https://doi.org/10.1016/j.sbspro.2015.03.256

Kothari, C. R. (2004). *Research methodology : methods and techniques*. New Delhi: New Age International (P) Limited, Publishers.

List of References

List of Famous People Who Stutter | SpeechEasy | Anti-Stuttering Device. (2019, April 5). Retrieved from SpeechEasy website: https://speecheasy.com/list-of-famous-people-who-stutter/

Magic Words - Stammering and the Iceberg Beast.(n.d.). Retrieved July 31, 2021, from Magic Words website: https://www.magicwordstherapy.co.uk/blog-posts/2019/9/17/stammering-and-the-iceberg-beast

McAllister, J., Gascoine, S., Carroll, A., Humby, K., Kingston, M., Shepstone, L., …Hodgekins, J. (2017). Cognitive bias modification for social anxiety in adults who stutter: a feasibility study of a randomised controlled trial. *BMJ Open*, *7*(10), e015601. https://doi.org/10.1136/bmjopen-2016-015601

Minimizing Bullying for Children Who Stutter.(n.d.). Retrieved July 31, 2021, from National Stuttering Association website: https://westutter.org/who-we-help/minimizing-bullying-children-stutter/.

Menzies, R. (n.d.). Stuttering severity and educational attainment. *Journal of Fluency Disorders*. Retrieved from https://www.academia.edu/22617611/Stuttering_severity_and_educational_attainment

More Detail About Stuttering. (n.d.). Retrieved from National Stuttering Association website: https://westutter.org/who-we-help/more-detail-about-stuttering/

Neuro-Linguistic Programming. (2017, December 19). Retrieved from Neuro-Linguistic Programming website: https://neurolinguisticprogramming939896778.wordpress.com/2017/12/19/39/

List of References

Nicholls, J. R. (2013). *Teachers Perception of Stuttering* (MED; p. 105).Massey University, Albany, New Zealand.

On the Gender Factor in Stuttering.(n.d.). Retrieved from Stuttering Foundation: A Nonprofit Organization Helping Those Who Stutter website: https://www.stutteringhelp.org/gender-factor-stuttering

People who stutter show abnormal brain activity when reading and listening. (2010). Retrieved from ScienceDaily website: https://www.sciencedaily.com/releases/2010/11/101116205137.htm

President Joe Biden. (n.d.). Retrieved February 1, 2021, from Stuttering Foundation: A Nonprofit Organization Helping Those Who Stutter website: https://www.stutteringhelp.org/content/president-joe-biden

Reeves, N., Scott, K., Young-Campbell, L., & Paul, D. (n.d.).*Understanding How Oral Reading Assessment Affects Children Who Stutter*. Retrieved from website: https://www.asha.org/siteassets/practice-portal/fluency-disorders/reading-fluency-parents.pdf

Reining in the Bullies. (2020, April 20). Retrieved July 31, 2021, from Stamurai Blog – Stuttering Information, Advice & News website: https://stamurai.com/blog/reining-in-the-bullies/

Roy, R. (2016, July 17). Survey Questions, Question Types and Answer Types. Retrieved from Questionpro.com website: https://www.questionpro.com/article/types-of-questions-question-types.html

Salus Health - Stuttering Awareness.(n.d.). Retrieved July 31, 2021, from www.salusuhealth.com website: https://www.salusuhealth.com/Speech-Language-Institute/News/News-Stories/Stuttering-Awareness.aspx

List of References

Salihovic, N. (n.d.). CHARACTERISTICS OF VOCABULARY IN SCHOOL-AGE STUTTERING CHILDREN. *Sosyalarastirmalar.com*. Retrieved from https://www.academia.edu/1376544/CHARACTERISTICS_OF_VOCABULARY_IN_S CHOOL_AGE_STUTTERING_CHILDREN

Sari, H., Assist, R., &Gökdağ. (2017). *An Analysis of Difficulties of Children with Stuttering Enrolled in Turkish Primary Inclusive Classes Who Encounter in Academic and Social Activities: From Their Perspectives*. *8*(2). Retrieved from https://files.eric.ed.gov/fulltext/EJ1131778.pdf

Singing without a Stutter: Music as a Speech Therapy Tool - Melodic Intonation Therapy as a Treatment Technique for Stuttering. (2013, January 31). Retrieved July 31, 2021, from Speech Buddies Blog: Speech, Language & Pronunciation Guides website: https://www.speechbuddy.com/blog/speech-therapy-techniques/singing-without-a-stutter-music-as-a-speech-therapy-tool/

Speech, G. (2021, June 29). What is the Difference Between Stuttering and Stammering? Retrieved from Great Speech website: https://greatspeech.com/what-is-the-difference-between-stuttering-and-stammering/

Stuttering. (2015, August 18). Retrieved May 4, 2021, from NIDCD website: https://www.nidcd.nih.gov/health/stuttering#what

Stuttering - Symptoms and causes. (2017). Retrieved from Mayo Clinic website: https://www.mayoclinic.org/diseases-conditions/stuttering/symptoms-causes/syc-20353572

Stuttering: Symptoms, diagnosis, and causes. Retrieved from www.medicalnewstoday.comwebsite: https://www.medicalnewstoday.com/articles/10608

List of References

Stuttering: The Role of the Classroom Teacher.(n.d.). Retrieved from www.mnsu.edu website: https://www.mnsu.edu/comdis/kuster/InfoPWDS/lablance.html

Survey Questions 101: Best Practices, Examples, and Tips | Typeform. (2019). Retrieved from Free Beautiful Online Survey & Form Builder | Typeform website: https://www.typeform.com/surveys/question-types/

The nature and treatment of stuttering as revealed by fMRI: A within- and between-group comparison. (2003). *Journal of Fluency Disorders*, *28*(4), 381–410. https://doi.org/10.1016/j.jfludis.2003.07.003

The Nature of Stuttering. (2014, January 30). Retrieved from SLT info website: https://www.sltinfo.com/the-nature-of-stuttering

Travelling between stuttering, foreign language learning and bilingualism – Ronan Miller.(n.d.). Retrieved July 31, 2021, from http://www.ronanmiller.me/blogpost/travelling-between-stuttering-foreign-language-learning-and-bilingualism/

Types of Questions in Questionnaire Design - Outsource2india. (2019). Retrieved from Outsource2india.com website: https://www.outsource2india.com/kpo/articles/questionnaire-types-of-questions.asp

Valsalva Stuttering Network - Introduction.(n.d.). Retrieved from www.valsalva.org website: https://www.valsalva.org/introduction.htm

What causes stuttering and is there a cure? (n.d.). Retrieved from Scientific American website: https://www.scientificamerican.com/article/what-causes-stuttering-an/

List of References

What is a questionnaire - Definition, samples and examples. (2018, September 20). Retrieved January 12, 2021, from QuestionPro website: https://www.questionpro.com/blog/what-is-a-questionnaire/#:~:text=A%20questionnaire%20can%20is%20a

What Is Stuttering? (n.d.). Retrieved June 22, 2021, from Verywell Mind website: https://www.verywellmind.com/stuttering-and-social-anxiety-disorder-connections-3024756

Why We Stutter - Anxiety Disorders Center - Everyday Health. (n.d.). Retrieved from EverydayHealth.com website: https://www.everydayhealth.com/anxiety/why-we-stutter.aspx

. (n.d.).*LEVEL 4*. Retrieved from https://westutter.org/wp-content/uploads/2016/11/Oral-Reading-Fluency-2015.pdf

List of Appendices

Appendix A: Questionnaire for Primary School Teachers

 Dear teachers,

This questionnaire is part of a research work, aiming at eliciting information about the effective approaches to overcome stuttering among primary school children. It would be greatly appreciated if you response honestly the following questions that would take over fifteen minutes. Your responses will remain confidential.

Thanks for your collaboration…

Section One: Background Information

1. Gender

A) Male

B) Female

2. What is your educational level?

A) License

B) Master

3. How long have you been teaching in the primary school?

4. How do you perceive teaching?

A) A job

B) A way to earn money

C) An occupation in which you apply your knowledge

Section Two: Teachers' Experiences with Stutterers

5. Do you find that a stammer is?

a. A normal person

b. Someone that has speech disfluencies, and different from the others

6. When studying, have you ever had a classmate who stutters?

A) Yes

B) No

7. Were your classmate:

A) A boy

B) A girl

8. How did you deal with them?

9. How many stutterers have you teach?

10. Their stuttering was due to

A) Psychological problems

B) Social Problems

C) Others

11. Have you benefited from your prior-experiences with stutterers to deal with your pupils?

A) Yes

B) No

Section Three: Teachers' Attitudes towards Stutterers

12. Do you believe that teachers have a crucial role in overcoming the fear of stuttering for their pupils?

A) Agree

B) Strongly agree

C) Disagree

D) Strongly Disagree. Justify your answer

13. How can a teacher support a pupil to challenge his embarrassment when talking?

14. What are your suggestions and recommendations for novice primary school teachers, who may face some obstacles with those pupils?

List of Appendices

Appendix B: Parents' Questionnaire

Dear parents,

I'm a Master two Didactics student, and I'm completing a research study on stuttering. This questionnaire asks you about your beneficial approaches to reduce stuttering for your children. You are kindly requested to answer the following questions that would consume over ten minutes. Your responses will be strickly kept anonymous.

Thank you for your corporation

Section One: Personal information

1. Gender

A) Male

B) Female

2. What is your educational level?

A) Tertiary

B) Secondary

C) Less than the previous levels

3. Do you struggle some problems in family?

A) Yes

List of Appendices

B) No

Section Two: Stuttering Developmental Phases

4. At what age did you child begin to stutter?

5. Were the root causes behind your child's stuttering?

A) Psychological

B) Social

C) Other reasons

6. What was your reaction at the first time you saw your child stutters?

7. Did stuttering influence his/her psychology, and his/her educational achievement?

A) Yes

B) No

8. Do you have a member in the family who suffers from stuttering?

A) Yes

B) No. Justify

Section Three: A Therapy for Stuttering

9. How did you and your family cope with your child's illness?

10. Did you sought for the help of a psychologist or a psychotherapist?

A) Yes

B) No

11. Has your child shown a progress in recovery after treatment?

A) Yes

B) No

12. By which method (s), you made your child felt comfortable when uttering?

13. Was your child exposed to bullying in school and outside?

A) Yes

B) No

14. How did you manage to make him safe from bullying?

15. What are your recommendations for parents whose children are stammers, and their illness leaded to failure?

List of Appendices

Appendix C: Observation of Accessory Behaviors

It is a test that researchers and language therapists use to examine and analyze non-verbal behaviors linked to stuttering in children. It's also termed as Accessory Associated Behaviors, Secondary Behaviors, or Physical Concomitants. They are known by:

-Closing eyes

- Blinking rapidly

- Squeezing eyes shut

-Looking around

-Moving eyes vertically or laterally

-Throwing Head back

-Limp movement

-Consistent loss of eye contact

-Foot, hand, or finger tapping

-Audible inhalation or exhalation

-Gasping

List of Appendices

-Visible tension around face or mouth

-Facial grimacing

-Lip pursing or pressing

-Tongue clicking

-Sudden changes in vocal pitch

-Words substitution or circumlocutions

-Stalling

List of Appendices

Appendix D: Less Typical Disfluencies

Because typical disfluencies occur during periods of rapid language development, they are frequently examined in preschool-aged children. Sound repeats, prolongation, blocks, silent stances, and anxiety are among the most regularly documented typical disfluencies (sometimes called avoidance).