Assessment of Speech Impairment and Language Problems to Children

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ABSTRACT

The study sought to assess the speech impairment and language problems to children. Individuals with specific learning disability can face unique challenges that are often pervasive throughout the lifespan. Speech is defective when it deviates so far from the speech of other people that it calls attention to the speaker, interferes with normal communication, or causes embarrassment to the impaired individual. Children learn language skills by following this hierarchical development. Each successive skill is built upon a firm foundation of preceding abilities. The study revealed that speech impairment is characterized by difficulty in articulation of words. Each successive skill is built upon a firm foundation of preceding abilities. It is usually expected, for example, that a child will acquire adequate listening skills prior to developing the expressive skills of speaking. The study concluded that speech impaired children often feel isolated and different from their peers, and teachers are expected to exhibit positive and encouraging attitude towards theses children in order to motivate them to speak and associate more. It was therefore recommended that government should adopt a multidisciplinary approach that positions speech disorders as both a health and educational responsibility, recognizing the educational implications of speech disorders and the need for additional school-based learning support including the provision of speech services as part of a holistic development program.

KEYWORDS: speech impairment, language problems, children, learning disabled

Introduction

At time a child may have difficulty producing certain sounds and thereby making it difficult for people to understand what he says. Talking involves precise movements of the tongue, lips, jaw and vocal tract. There are a few different kinds of speech impairments: Articulation disorder is difficulty producing sounds correctly. A child with this type of speech impairment may substitute one speech sound for another, such as saying wabbit instead of rabbit. Voice disorder is difficulty controlling the volume, pitch and quality of the voice and a child with speech impairment may sound hoarse or breathy or lose his voice. Another type of speech impairment is Fluency disorder which is a disruption in the flow of speech, often by repeating, prolonging or avoiding certain sounds or words. A child with this type of speech impairment may hesitate or stutter or have blocks of silence when speaking (Carlson, 2013).

Language-based learning disabilities, which refer to difficulties with reading, spelling, and/or writing, are evidenced in a significant lag behind the individual's same-age peers. Most children with these disabilities are at least of average intelligence, ruling out intellectual impairments as the causal factor. Specific Learning Disability is a disorder in one or more of

the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Disorders not included: When the term "learning disorder" is used, it describes a group of disorders characterized by inadequate development of specific academic, language, and speech skills.

Speech Impairment

Speech is the representation of the vocal symbols of a language, which enhance the exchange of ideas. In school, effective speech is very important if the pupil is to gain and maintain friendship and membership or get recognition and status, which are often given to fluent speakers. Speech is defective when it deviates so far from the speech of other people that it calls attention to the speaker, interferes with normal communication, or causes embarrassment to the impaired individual.

Symptoms and Characteristics

- Struggles to say sounds or words (stuttering)
- Repetition of words or parts of words (stuttering)
- Speaks in short, fragmented phrases (expressive aphasia)
- Says words in the wrong order (expressive aphasia)
- Struggles with using words *and* understanding others (global aphasia)
- Difficulty imitating speech sounds (apraxia)
- Inconsistent errors (apraxia)
- Slow rate of speech (apraxia)
- Slurred speech (dysarthria)
- Slow or rapid rate of speech, often with a mumbling quality (dysarthria).

Speech Impairment is characterized by difficulty in articulation of words. Examples include stuttering or problems producing particular sounds (articulation). Articulation refers to the sounds, syllables, and phonology produced by the individual. Voice, however, may refer to the characteristics of the sounds produced—specifically, the pitch, quality, and intensity of the sound. Often, fluency will also be considered a category under speech, encompassing the characteristics of rhythm, rate, and emphasis of the sound produced. Disorders associated with speech and language includes: Developmental verbal dyspraxia, Apraxia of speech, Dysarthria, Orofacial myofunctional disorders, Speech sound disorder, Stuttering, Voice disorders, Selective mutism, and Aphasia. Treatments can be applied to correct these impairments (Carlson, 2013).

Stuttering

Stuttering, also known as stammering is a speech disorder in which the flow of speech is disrupted by involuntary repetitions and prolongations of sounds, syllables, words or phrases as well as involuntary silent pauses or blocks in which the person who stutters is unable to

produce sounds. The term stuttering is most commonly associated with involuntary sound repetition: repetitions of consonant or vowel sounds especially at beginning of words, but it also encompasses the abnormal hesitation or pausing before speech, referred to by people who stutter as blocks, and the prolongation of certain sounds, usually vowels or semivowels.

According to Watkins, Smith, Davis, Howell (2008), stuttering is a disorder of "selection, initiation, and execution of motor sequences necessary for fluent speech production". For many people who stutter, repetition is the main problem. The term "stuttering" covers a wide range of severity, encompassing barely perceptible impediments that are largely cosmetic to severe symptoms that effectively prevent oral communication. In the world, approximately four times as many men as women stutter, encompassing 70 million people worldwide or about 1% of the world's population

Voice Disorder

Comprise abnormal vocal quality, pitch, loudness, and resonance for a speaker's age or sex. Voice disorders are abnormalities in the production of vocal tone. They include abnormalities in the volume of the voice (inordinate loudness or softness) and also abnormalities of the vibratory quality of the vocal cords (hoarseness or a raspy voice quality). Voice depends on the vibratory characteristics of the vocal folds, setting the air above the level of the larynx into vibrations as well. The intonation and stress patterns of conversation and connected discourse require rapid changes in the delicate laryngeal musculature.

A common voice problem in children is caused by stress on the laryngeal tissues from excessive screaming and shouting. Loudness can be generated without damage, as in the case of actors or opera singers. However, in young untrained children, the effect of frequently using a loud voice may be edema and inflammation of the vocal chords. In the long-term, such vocal abuse can cause polyps, necessitating surgical intervention. Speech therapy can reeducate children to vary their voice patterns and thereby prevent these complications.

Challenges of Speech Impairment for Children

The schooling environment presented the children with a range of challenges. The children were reported by their parents and teachers as having lowered self-confidence in school and reduced engagement in learning activities, particularly those involving spoken language. Class presentations were particularly difficult for many of the children.

Self-Confidence

The early years of schooling are a significant time in children's development, with implications for their educational achievement, future lives, and society. While most children are competent communicators by school-age, some do not have speech and language skills that are equivalent to their peers (Campbell, Shaw & Gilliom, 2000). For these children, their speech and language competence can limit their engagement with others in social and learning environments.

In a study conducted by Graham and Sharynne (2017), they observed that all of the participants were reported to experience reduced self-confidence in the school context in general, or in particular learning activities within the classroom. This was mostly reported by parents.

Participation in Classroom Learning Activities

Children with speech disorders are more likely to have reduced social and educational outcomes than typically developing children (Walsh, 2017). For example, these children are at increased risk for difficulties with reading and are more likely to require additional support at school. Children with speech disorders experience frustration and are more likely to be bullied. They have been reported as experiencing the world in two significantly different ways, being at ease when at the home or when with those close to them, while being more reserved and withdrawn when in public spaces (Walsh, 2017).

The focus on engaging students in classroom discussion within contemporary learning theory and practice was concerning for teachers and parents due to the observed withdrawal from interactions with other students, as well as the limitations of their speech on their engagement in discussions. Several of the parents in the study were concerned about the educational implications of their child's speech sound disorders. Teachers of two of the focus children noted the children's reduced participation in the classroom in activities that involved verbal responses and student discussion (Graham & Scott, 2016).

Learning Outcomes

Children with speech disorders benefit from targeted interventions to increase their ability to produce speech sounds, resulting in increased intelligibility and acceptability within social situations. Children's frustrations with communication in public settings, strategies children adopt to assist in communicating with others, and avoidant behaviours including withdrawal in public environments have been reported previously (Carpenter, Ashdown & Bovair, 2017). Previous research has identified children with speech sound disorders have an increased likelihood of experiencing reading difficulties (Nelson, 2014).

Intervention

Early intervention is believed to help significantly in the remediation of this problem. Pupils with a severe impairment in the uses of words (aphasia) require extensive services. Speech pathologists are indispensable specialist in speech correction. In order of importance, the following factors are listed as contributing to success of therapy:

Elementary Level

1. Consistence attendance
2. Motivation
3. Parent cooperation
4. Therapist's interest

Secondary Level

1. Student's motivation
2. Consistence attendance
3. Attitude of others as seen by pupil
4. Therapist's interest.

Counseling and teachers' roles

Because speech impaired children often feel isolated and different from their peers, especially older pupils when their disability persists, counseling is required. The teacher's role in this regard is very important. When the child with speech problems comes to school, he should be allowed to mix freely and interact with other children in situations where speech occurs

spontaneously. The teacher's attitude will determine to a large extent the attitude of other children to the speech-impaired child in the classroom.

Terms Associated with Speech Disorders

Apraxia of speech - Apraxia of speech is the acquired form of motor speech disorder caused by brain injury, stroke or dementia.

Developmental verbal dyspraxia- Developmental verbal dyspraxia refers specifically to a motor speech disorder. This is a neurological disorder. Individuals suffering from developmental verbal apraxia encounter difficulty saying sounds, syllables, and words. The difficulties are not due to weakness of muscles, but rather on coordination between the brain and the specific parts of the body (Souza, Payão & Costa, 2009; "Child Speech and Language", 2009).

Dysarthria- Dysarthria is a motor speech disorder that results from a neurological injury. Some stem from central damage, while other stem from peripheral nerve damage. Difficulties may be encountered in respiratory problems, vocal fold function, or velopharyngeal closure, for example.

Orofacial myofunctional disorders - Orofacial myofunctional disorders refers to problems encountered when the tongue thrusts forward inappropriately during speech. While this is typical in infants, most children outgrow this. Children that continue to exaggerate the tongue movement may incorrectly produce speech sounds, such as /s/, /z/, /ʃ/, /tʃ/, and /dʒ/. For example, the word, "some," might be pronounced as "thumb" ("Child Speech and Language", 2009).

Selective mutism- Selective mutism is a disorder that manifests in a child that does not speak in at least one social setting, despite being able to speak in other situations. Selective mutism is normally discovered when the child first starts school (ibid).

Aphasia - Aphasia refers to a family of language disorders that usually stem from injury, lesion, or atrophy to the left side of the brain that result in reception, perception, and recall of language; in addition, language formation and expressive capacities may be inhibited.

Acquired disorders - Acquired disorders result from brain injury, stroke or atrophy, many of these issues are included under the Aphasiaumbrella. Brain damage, for example, may result in various forms of aphasia if critical areas of the brain such as Broca's or Wernicke's area are damaged by lesions or atrophy as part of a dementia.

Specific Learning Disabilities

Learning disability, learning disorder or learning difficulty (British English) is a condition in the brain that causes difficulties comprehending or processing information and can be caused by several different factors. Given the "difficulty learning in a typical manner", this does not exclude the ability to learn in a different manner, some people can be more accurately described as having a "learning difference", thus avoiding any misconception of being disabled with a lack of ability to learn and possible negative stereotyping. In the United Kingdom, the term "learning disability" generally refers to an intellectual disability, while difficulties such as dyslexia and dyspraxia are usually referred to as "learning difficulties".

While learning disability, learning disorder and learning difficulty are often used interchangeably, they differ in many ways. Disorder refers to significant learning problems in

an academic area. These problems, however, are not enough to warrant an official diagnosis. Learning disability, on the other hand, is an official clinical diagnosis, whereby the individual meets certain criteria, as determined by a professional (psychologist, pediatrician, etc.). The difference is in degree, frequency, and intensity of reported symptoms and problems, and thus the two should not be confused. Types of learning disorders include reading (dyslexia), arithmetic (dyscalculia) and writing (dysgraphia) (Reeder, Arnold, Jeffries & McEwen, 2011).

The unknown factor is the disorder that affects the brain's ability to receive and process information. This disorder can make it problematic for a person to learn as quickly or in the same way as someone who is not affected by a learning disability. Some interventions can be quite simplistic, while others are intricate and complex. Teachers, parents, and schools can create plans together that tailor intervention and accommodations to aid the individuals in successfully becoming independent learners. A multi-disciplinary team frequently helps to design the intervention and to coordinate the execution of the intervention with teachers and parents (Reeder, et al 2011). This team frequently includes school psychologists, special educators, speech therapists (pathologists), occupational therapists, psychologists, ESL teachers, literacy coaches, and/or reading specialists (Dougherty & Katherine, 2016).

The Learning Disabled (LD) Child and Language Problems

Some LD child may have difficulties with language development involving skills in listening, speaking, reading and writing. Children learn language skills by following this hierarchical development. Each successive skill, according to Lerner (1971), is built upon a firm foundation of preceding abilities. It is usually expected, for example, that a child will acquire adequate listening skills prior to developing the expressive skills of speaking. Most of the language problems had been discussed earlier, others include auditory, receptive language and expressive language.

Auditory Receptive Language

Auditory receptive language is the ability to understand verbal language. Children, with difficulties in this area usually hear what is said but they are unable to understand its meaning. The problem is not hearing what is said but processing it. For example, a child was asked during a diagnostic evaluation to describe his mother. The examiner asked the child, ’what is your mother like?’ the child replied ‘Rice and Stew’. The child understood the question to mean ‘What does your mother like?’ in the child’s intervention programme he was taught the differences between “is” and “does”. Other examples were included in the remedial programme.

Another symptom of auditory receptive language or auditory imperceptions is “auditory span”, which refers to the ability to remember what we hear. Children who have impaired auditory span recall only a minimal number of words in a spoken message. In reading, this may show up as an inability to remember the sequence of sounds within a word. Wilkins (1969) research indicated that there are considerable interrelationships among auditory discrimination, auditory spans. This suggests that children experiencing severe difficulty with auditory span would not make much progress with a reading approach emphasizing letter-sound relationship (that is phonics) unless they are given intensive auditory training. Wilkin also observed that variability in auditory perception is present not only among children with learning disabilities but also among normal children. Tests can help to identify children who need to be closely observed in various language settings (Detheridge, 1997).

The Learning Disabled (LD) Child and Reading Disabilities

Knowledge of the many possible causes of reading failure will aid the teacher in collecting data on a student's ability to read. Some of these causes may include poor family background which of course is outside the teacher's domain of responsibility. On the other hand, knowledge that a child is not making progress in reading because of an inability to learn by an auditory approach is extremely helpful to the teacher and within his influence. Most LD children have problems with word analysis and comprehension. The teachers should divide the class into groups, according to their strengths and weaknesses and should focus his programme on individuals according to need. The teacher should read informally with each child, encourage children to talk about themselves, school, interest and their attitude towards reading.

Other Types of Reading Problems

Visual Discrimination:

Children with reading difficulties are unable to discriminate visually among various letters or words. Their difficulties may be with letters that look alike, such as h-n, I-j, v-w.

The concepts to be learned have nearly infinite numbers of examples. In a programme on "rhyming words", the concept of final letters being alike might be presented by models as follows:

The teacher says: "we have to make pairs of words in which the last letters are the same-like these: cot –cut, another would be: not- pot.

Cot-cut, hot –pot, boy-toy, are all models of the response the students will have to recognize or produce when he rhymes words according to final letters. The words would be left as model for the students to use when he is required to identify or say pairs of words like the models.

Diagnosis of Learning Disabilities

Some specific learning deficits may be identified by regular classroom teachers. Remedial programmes should be planned after careful diagnosis of the deficit areas. Repeating each step over until success is achieved.

Further Management Practices

Spell checkers is one tool for managing learning disabilities (Bausch & Hasselbrig, 2004). Others are:

- ***Mastery model:***
    - Learners work at their own level of mastery.
    - Practice
    - Gain fundamental skills before moving onto the next level

Note: this approach is most likely to be used with adult learners or outside the mainstream school system.

- ***Direct instruction:***

- Emphasizes carefully planned lessons for small learning increments
- Scripted lesson plans
- Rapid-paced interaction between teacher and students
- Correcting mistakes immediately
- Achievement-based grouping
- Frequent progress assessments

- ***Classroom adjustments:***
  - Special seating arrangement
  - Alternative or modified assignments
  - Modified testing procedures
  - Quiet environment
- ***Special equipment:***
  - Word processors with spell checkers and dictionaries
  - Text-to-speech and speech-to-text programmes
  - Talking calculators
  - Books on tape
  - Computer-based activities
  - Classroom assistants Note-takers (Dorman, 1998)
  - Readers
  - Proofreaders
  - Scribes
- ***Special education:***
  - Prescribed hours in a resource room
  - Placement in a resource room
  - Enrollment in a special school for learning disabled students
  - Individual education plan (IEP)
  - Educational therapy

Early remediation can greatly reduce the number of children meeting diagnostic criteria for learning disabilities. The focus on learning disabilities and the provision of accommodation in schools fails to acknowledge that people have a range of strengths and weaknesses, placing undue emphasis on academic success thereby making people receive additional support in

this arena but not in music or sports. Researchers have pinpointed the use of resource rooms as an important—yet often politicized component of educating students with learning disabilities.

Depending on the type and severity of the disability, interventions, and current technologies may be used to help the individual learn strategies that will foster future success as enumerated above. Some interventions can be quite simplistic, while others are intricate and complex. Current technologies may require student training to be effective classroom supports. Teachers, parents, and schools can create plans together that tailor intervention and accommodations to aid the individuals in successfully becoming independent learners. A multi-disciplinary team frequently helps to design the intervention and to coordinate the execution of the intervention with teachers and parents. This team frequently includes school psychologists, special educators, speech therapists (pathologists), occupational therapists, psychologists, ESL teachers, literacy coaches, and/or reading specialists (Dougherty, Katherine, 2016).

The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantages (From IDEA). The "halo" effect of preconceived notions about learning disability children and responses set by parents and teachers alike is a major part of the problem of handling problem behaviours in learning disability children. Learning disabilities are often linked through genetics and run in the family. Children who have learning disabilities often have parents who have the same struggle.

Conclusion

This study provides the intervention strategies to such children through the adoption of appropriate teaching and learning styles even from the early stage. These strategies include mastery model, Direct instruction, Classroom adjustments, Special equipment, etc. It is also concluded that because speech impaired children often feel isolated and different from their peers, especially older pupils when their disability persists, counseling is required. Besides, teachers are expected to exhibit positive and encouraging attitude towards theses children in order to motivate them to speak and associate more.

Recommendations

1. The government should adopt a multidisciplinary approach that positions speech disorders as both a health and educational responsibility, recognizing the educational implications of speech disorders and the need for additional school-based learning support including the provision of speech services as part of a holistic development program.

2. Parents of learning disabled children need effective counseling services. A guidance counselor, who is trained in a psychological perspective, should allay the fears of parents. The emotional health of the learning disabled child should be the primary focus of his concern. In addition to serving the child with learning disabilities by directly counseling him or her, many guidance counselors work indirectly by offering management suggestions to classroom teachers.

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