Journal of University Studies for inclusive Research
Vol.4, Issue 3 (2019), 390-417
USRIJ Pvt. Ltd.

Dysgraphia Problems related to language, perception and thought, and affect fine kinetic activities

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Abstract

The purpose of this study is to discuss the concept of Dysgraphia with the view to shed some more light on the difficulty in writing for pupils at primary school. In this attempt, we focus on three factors from developmental learning disabilities grounds, mainly: Visual perception disabilities, language and memory difficulties. In so doing, we refer to some particular tests. The result of this study comes about to reinforce and emphasize the existing known relationship between Dysgraphia and the other types of developmental learning disabilities.

Keywords: Dysgraphia, writing problems, learning disabilities, language and memory difficulties

Introduction

The difficulty of developmental kinetic synergy is a particular learning disability that affects the individual's ability to synergize the movement and regulate precise and inaccurate movements. The difficulty of developmental kinetic synergy affects the child's acquisition of handwriting skills, leading to problems in the learning process and in acquiring literacy skills and spelling. The term expresses the disorder of sensory integration and includes problems. Balance is the compatibility between hand and look, no failure enables the student to coordinate and control simple movements such as writing and cutting, or more complex movements such as running and jumping (Iwatsuki et al., 2014).

Definition of Dysgraphia

Dysgraphia is Difficulties Kinetics which is due to cognitive problems, especially visual kinetic difficulties and other kinetic difficulties. The definition of Dysgraphia according to the British Dysgraphia Association in England. It is immobility or immaturity in organizing the movement leads to problems related to language, perception and thought (Disparaxia Association, 2001). These difficulties are in processing the above

information seems to relate to the skills necessary for many of the tasks associated with the learning process, and will affect focus, memory and reading. Kinetic difficulties which is due to cognitive problems, especially visual kinetic difficulties.

That is, difficulties in the voluntary kinetic system or sensory integration disorder and include problems of balance - compatibility between hand performance and consideration.

Dysgraphia is basically a difficulty in kinetic synergy. The child has a disability or immaturity in organizing the movement, leading to problems related to language, perception and thought, making the tasks associated with the learning process difficult. This imbalance in the completion of the movement results from a problem in the way the brain sends the information and receives it from a specific organ in the body. The person can be infected with Dysgraphia at any stage of his life due to shock, stroke, accident or illness (Rincon-Gonzalez et al., 2011). It can also be caused by myself. The boys suffer more than girls Baldesberaxia, they begin to have several symptoms of the form, such as:

- Difficulty in eating, sitting, walking, completing movement and standing, in the sense of all that relates to his kinetic development, and the patient needs help from all around him in clothes, eating or washing.

- He cannot organize his objects or even his thoughts.
- He does not like games that need to be analyzed like cubes.
- It is difficult to grasp objects such as writing tools.
- He suffers from difficulty concentrating.
- Also suffers from muscle dysfunction.

Before recognizing Dysgraphia, we have a look at Species learning difficulties. There are many types of learning difficulties probably the most common are (Iwatsuki et al., 2014):

1- Dyslexia: Reading difficulties include problems of "reading, writing, speaking, speaking."
2- Discalkula: The difficulties of calculation include the problems of "making calculations, understanding time, using money".
3- Physically: The difficulties of writing and include the problems of «font, spelling, and organization of ideas».
4- Dysgraphia: a dysfunction or sensory integration disorder that includes problems of "balance - the compatibility of hand and look."
5- Disphasia: It is dyslexia and includes problems of "language comprehension and impaired reading abilities".
6- Hearing Disorder: Hearing difficulties to distinguish the difference between the sounds of characters and include problems «Readers, writing sentences, learning languages».

7- Visual Information Disorder: Problems with the translation of visual information, including problems in reading, mathematical issues, reading maps, and identifying images and symbols.

Difficulty Kinetic synergy (Dysgraphia)

Learning Disability

After defining Dysgraphia to describe and explain the symptoms resulting from distortions in the ability to focus and attention and visual absorption, we stop today the phenomena resulting from an imbalance in the voluntary kinetic system, which does not result from physical disability or forms of kinetic - Anatomi related muscles or nerves related to . Such a defect in the kinetic system at the brain level is called Dysgraphia (Lanska, 2002).

Problem statement

As well as other disorders that result in learning difficulties such as autism, hyperactivity disorder and activity. Dysgraphia difficulty Kinetic synergy, Dysgraphia. This problem is a silent disability that impairs the child's learning and life. He needs the help of parents and everyone around him to overcome them.

These problems cause delays in the performance of the school as well as losing the student confidence, which makes him isolated from his colleagues, and if accompanied by the disorder of lack of concentration and movement, we find that the student also suffers from difficulties in concentration and attention. It is therefore necessary to verify what is happening with the student and turn it into a specialist for proper diagnosis (Alnajjar et al., 2013b).

Control minute motion

Difficulties in coordinating fine movement lead to handwriting problems, which can be due to intellectual or intellectual difficulties. They can be problems associated with this area include the following:

- Learn basic movement patterns.
- Develop desirable typing speed.
- Learn the language characters - for example, Latin alphabet, plus numbers.
- Hold the pen correctly
- Pain in the hand while writing.

Precise traffic problems can also cause difficulties in a wide range of other tasks, such as the use of knife and fork, hook studs, shoelaces, cooking, tooth washing, putting beauty tools, hairdressing, opening jars and bags,

opening and closing doors, shaving, doing household chores. There are many labels for Dysgraphia the most important of which: Developmental coordination disorder (DCD) Developmental Dysgraphia and Clumsy Child Syndrome.

Symptoms and reasons of Dysgraphia

It has the impact on the student's performance and behavioral and social. As of the age of 3 years, it is possible to observe the child's injury when he is late in walking,

And when he has difficulty in not specifying the square and triangle. Here we need to use a doctor or psychologist to distinguish whether there is any intellectual problem or only a kinetic problem and can be surer than injury at the age of 7 years. The cause of Dysgraphia is not known today. Researchers believe that nerve cells that control muscles do not develop properly. Since they are not able to establish a proper connection, the brain will need more time to analyze the information. Dysgraphia can be infected at any stage of his life by shock, stroke, accident or illness (Alnajjar et al., 2013a).

There are no specific factors, overall there is a delay in the growth of the kinetic or there is slow to receive the message from the brain and applied in any exercise in motion, whether the movement of accurate or large. Most

people with Dysgraphia have natural intelligence (Alnajjar et al., 2013b). Of the most important symptoms which can be observed in children delay in kinetic development, for example delayed child sitting, standing, walking, and training on the use of toilet. In addition to the difficulty in sports activities such as jogging, jumping, playing ball, difficulty chewing food and picking up small pieces (Bizzi and Cheung, 2013). On the other hand, when it is difficult to establish a relationship with friends, how to behave in society (Cheung, et al., 2012).

The most important symptoms which can be observed in children and adults:

- Muscle contraction is severe (hypertonia), that is, the muscles are tight, tense, or soft hypotonia) Any child will be like a cloth.
- Delay in kinetic development. Such as delayed child sitting, standing, walking, and toilet training.
- Delay in learning the rise of the ladder and descent.
- Difficulty in sports activities such as jogging, jumping, and playing ball.
- Difficulty chewing food.
- Difficulty picking up small pieces.

- Difficulty in performing daily activities and managing their own affairs such as wearing clothes.
- Slow to learn any skill.
- Falling permanently and looks like a fool.
- Difficulty in holding pen and drawing, and his drawings seem immature.
- Difficulty in locating the place, for example, in front of, behind, inside, outside, center and the like.
- Difficulty in establishing a relationship with friends, and how to act in society.
- Tension.
- Delayed linguistic development and difficulty in pronunciation.

Undoubtedly, Dysgraphia has negative consequences. The first is independence. The child will not be able to feel his independence, such as wearing his clothes alone or managing his own affairs, in addition to the difficulties that can result in school performance (D'Avella and Bizzi, 2005). There is also dictation, especially as the spelling difficulties are associated with a transcription disorder, so the student makes mistakes in copying when he moves from the board to the book. In this case it is very useful to use the "computer" (Day and Guerraz, 2007).

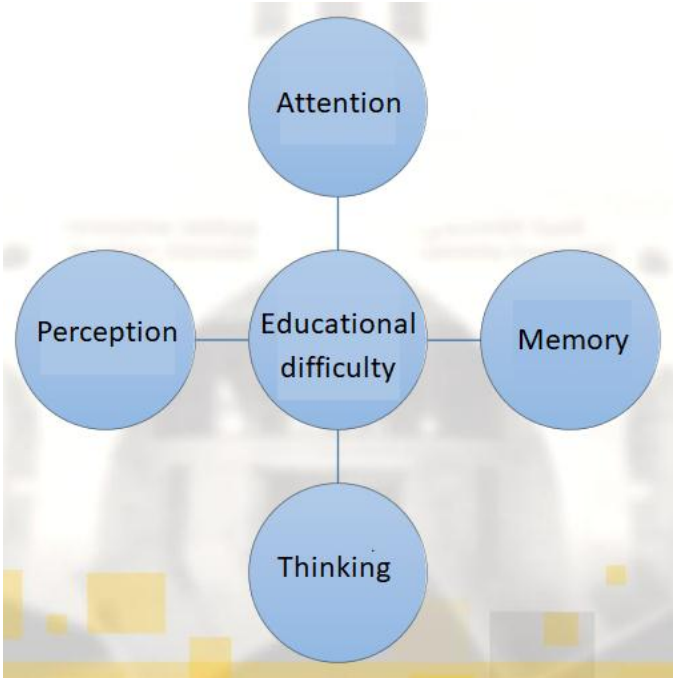

Figure 1: Educational difficulty (Dickstein et al., 2001)

All these problems cause delays in school performance. As well as losing the student confidence, making him isolated from his colleagues,

if accompanied by a disorder of lack of concentration and frequent movement. It is possible for a child to attend a regular school or need a specialized school. He can enter a normal school, but to a certain stage then he will have to become a specialized school with specialized classes. It is possible to detect the infection as soon as the child enters school. Certainly, on condition that the teacher has experience, and thus be able to distinguish between the normal development of the student and abnormal development. One of the most noticeable aspects of a child's difficulty in

dealing with situations that require group work is the difficulty in calculating, writing and copying from the board (Dickstein et al., 2001). There are specific skills or difficulties faced by the student in which the teacher in the nursery can discover a problem (Diedrichsen et al., 2007). One of the most noticeable aspects of the teacher's difficulties in preschool are:

- The difficulty dealing in situations that require collective action.
- Difficulty in calculation, writing and copying of the board.
- Unorganized and messy.
- Suffers from lack of concentration and weakness in auditory skills.
- Unable to follow instructions.
- Avoids sports rides.
- Feel angry, disgusted by himself.

The patient receives experience difficulties in adulthood. Most of the difficulties suffered by a young person will accompany him for life, but it depends on the degree of difficulty experienced by any, whether it is severe, moderate or mild (Hayashibe and Shimoda, 2014). Among the most prominent difficulties in adulthood:

- Difficulty in planning and organizing.
- Difficulty in learning new skills.
- Difficulty in learning to drive a car.

The consequences of Dysgraphia on student performance

Dysgraphia has negative effects on school performance. And directly affect:

- Movement and trends: low maturity of movement, organization and spatial structures. For example, it is difficult for the child to determine the orientation of the lines on the paper.
- Line: The writing is automatic and thus the result appears to be scribble, as the letters are written in a remarkably uneven size.
- Account: Difficult to apply the rules of addition and subtraction, despite his familiarity with it.
- Reading: Be hesitant and slow and tends to confuse similar characters in the form and has difficulty spelling.
- Research writing: The student does not know the search for suitable information for the subject for the impossibility of the structure of the text.
- Dictation: Spelling difficulties are associated with a transcription disorder. So, the student makes mistakes in copying when he moves from the board to the book.
- Singing and imitation: The student cannot reproduce the movements, and also finds it difficult to follow the rhythm of the song correctly.

- Physical education: It is difficult for a student to learn new games, and to catch up with the rhythm of other students.

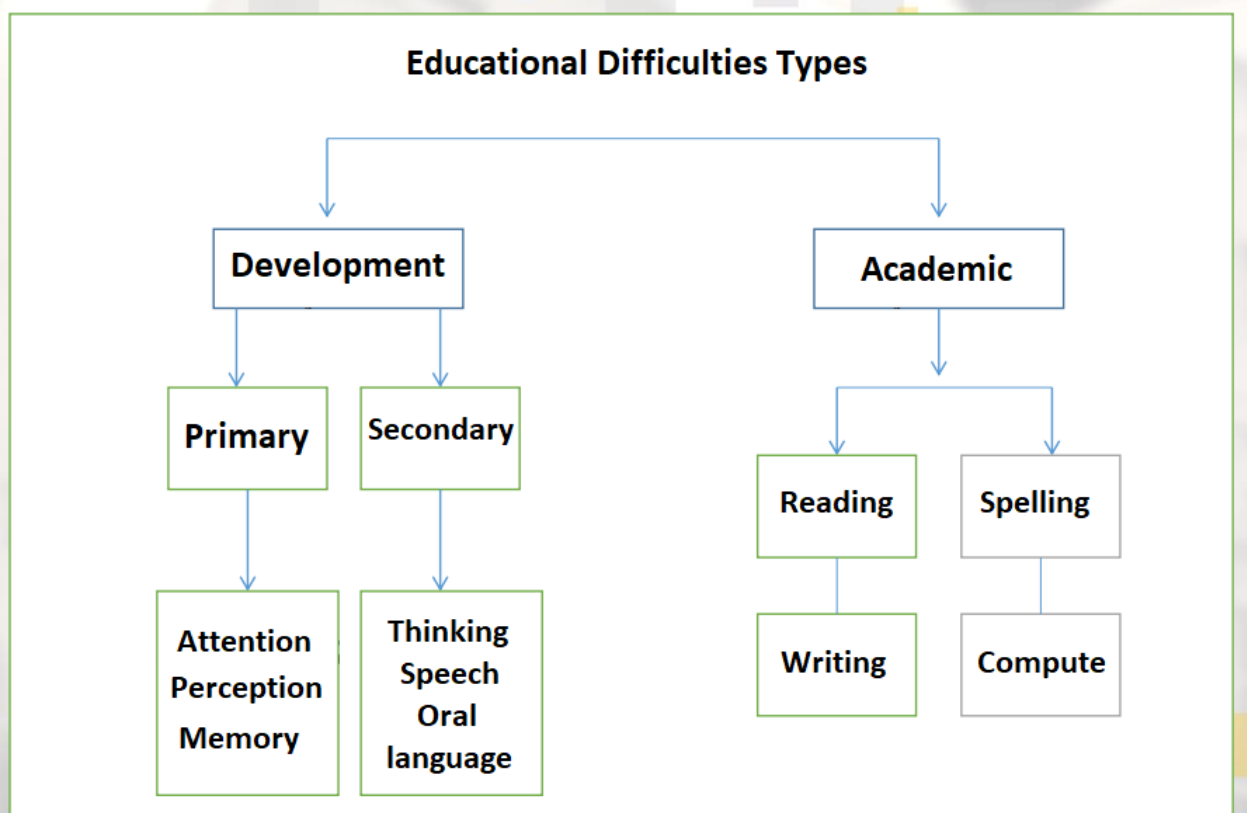

Figure 2: Educational Difficulties Types (Alnajjar et al., 2013b)

Dysgraphia diagnosis

The first stage is the evaluation of physical development that is to build a clear and detailed picture from the beginning of the stages of pregnancy through birth to physical development and the accompanying stages. This

development is compared to peers who are children of the same biological age. Such as sitting, walking, talking, toilet training and the like. And make sure that the child did not suffer from any diseases have similar symptoms (Rincon-Gonzalez et al., 2011).

The second stage is the assessment of mental abilities, i.e. the level of intelligence in the child. We then perform a kinetic sensory assessment to identify difficulties and their degree in the functions of the trunk muscles (e.g. jumping, throwing, walking, jogging, balance) and fine muscles (e.g. lacing, decoding, studying, shearing, writing). Finally, we seek to evaluate kinetic theory Kinetic Visual Perception The speed in kinetic performance after looking at the object is an important indicator that develops with age (Iwatsuki et al., 2014).

The treatment of Dysgraphia

Dysgraphia has been associated with the patient throughout his life, and his condition can improve with early detection and correct treatment (Jerde et al., 2003). Some of the specialists who should work with people with Dysgraphia are:

- **Therapist Occupational:** Therapist to help the child organize and develop his movement to facilitate daily tasks (Jiang et al., 2002).

- **Speech and Language:** Specialist Speech therapist helps him to develop spoken language, written language, thinking and analysis skills (Kargo and Giszter, 2000).

Difficulty in developmental kinetic synergy

Children under school age, Infants, may be late in crawling or fluctuating, and pre-school children may exhibit the following difficulties:

- Difficulty in using tableware and carrying the cup while drinking.
- Difficulty performing activities that depend on fine kinetic skills such as: (tying the shoestring or tightening the garment buttons).
- Difficulty performing activities that rely on inaccurate kinetic skills, such as: walking, jumping, catching a ball, or riding a bike.
- Delayed speech.
- Sovereignty is delayed in the lateral brain (tends to use hands without preference).
- Weakness of direction and tendency to collide with objects.

School-age children:

- Developmental kinetic difficulties may be a problem in physical education classes and other activities.

- The difficulties of developmental kinetic synergy often affect the completion of the homework and may make it frustrating due to difficulty in holding the pen, or slow writing.
- Cannot write clearly, despite the seriousness of their attempts.
- Speech difficulties caused by the difficulty of kinetic synergy may affect social communication and child participation in daily dialogues; they may cause embarrassment, which makes them reluctant to participate in conversation. For example, a child may stutter during conversation with colleagues or family.

Sometimes developmental kinetic synergy is accompanied by other learning difficulties such as dyslexia, dyscalculia, attention deficit difficulties, or attention deficit with hyperactivity (Katsiaris et al., 2012). There is no known therapeutic program for the difficulties of developmental kinetic synergy, but early intervention can improve fine kinetic skills, such as (handwriting, hooking the shoestring), and large kinetic skills, such as: (throwing or holding the ball).

- Training to hold, grab or handle things.
- Cut some simple shapes and stick the cut objects in place.
- The use of materials to form some models, and the formation of words and letters with clay.
- Follow the shapes of letters, words and numbers with a finger.

- Hold the pen and move it right and left, and up and down, and drip.

Not every child suffering from Dysgraphia needs all these specialists, it is based on the degree of difficulty he suffers. In some cases, the child is referred to physical therapy and, in other cases, is referred to psychotherapy. There is no situation like the other and so treatment is based on what the child needs. There are many people with Dysgraphia who have become successful in every aspect of life. This is evidenced by the young actor Daniel Radcliffe, who suffers from "Dysgraphia " and yet the role of Harry Potter in eight parts was one of the most successful films (Kwok, 2013).

The right specialist to diagnose child

Learning disabilities should be diagnosed by a specialist with the appropriate experience to diagnose them, but other professionals may participate in the diagnosis process, such as: language and speech difficulties specialist, occupational therapy specialist, psychotherapist, developmental pediatricians, educational psychologists, psychiatrists, And others with diagnostic experience. Any complacency with regard to the scientific qualifications of the diagnosticians carries a lot of risks for the individual and the family (Neptune et al., 2008).

The educational psychologist should have the following:

- A university degree in psychology, measurement and diagnosis.
- Post-university certificate or training in educational psychology.
- Two years or more of practical training (under supervision) in specialized schools or clinics.
- At least two years of experience in applying mental capacity tests IQ), Spoken language tests, and educational tests.

Before diagnosis make sure the following:

- The diagnosis process is carried out independently without prior ideas about the child and his abilities.
- The general purpose of the diagnosis process is to know the strengths and weaknesses.
- The diagnosis should include information in three main areas:
    - The general mental ability through which we draw the proportion of intelligence and allows the examiner to adjust the expectations of the capabilities of the individual and age.
    - For the collection of basic skills in Arabic language and mathematics is usually the reason for which the process of diagnosis in the first place. This includes tests to measure the skills of oral language, translation and mathematics, and not just some of them.
    - The safety of hearing and sight for your child.

The diagnostic process report should include (Oyama et al., 2013):

- Brief summary of important medical matters, kinetic and linguistic development of the individual, family history and school history.
- A brief description of the diagnostic tests performed during the diagnostic process, and a summary of the test results.
- Analysis and evaluation of the results of the diagnostic process.
- The formulation of the results in the form of a final summary is useful.
- Provide guidance and recommendations for future action.

In order to treat this physiological defect, an early diagnosis must be made based on the results of scientific tests that the child undergoes to determine his level and appropriate treatment (Peerdeman et al., 2011). Some studies and research have shown that children and adolescents of the age of adolescence who suffer from some problems or weakness in kinetic coordination may be more likely to feel despair and frustration and then depression (Rincon-Gonzalez et al., 2011).

The effects that may weaken the child's fine kinetic abilities

Some children may notice that they are unable to use their hands properly during activities, which in turn can frustrate them. This frustration may appear to be resistant or reluctant to perform activities that may require

high coordination in the use of small muscles in their hands and fingers. As a result of their refusal, they cannot properly exercise those skills and miss the opportunity to develop those muscles. This in turn may affect the development of more precise kinetic skills such as typing (Alkhairi, 2007). It will be easy for the teacher or educator to identify the problem by observing the child's behavior or reactions when asked to perform some of those skills, for example, we will review some of the expected responses from the child:

1- Techniques of evasion or avoidance of participation:
    a. Rapid refusal to participate in some activities.
    b. evade participation by asking to go to the water cycle or drink water.
    c. Flicks may appear as shredding paper.
    d. Sadness and crying.
2- The techniques of defeatism:
    a. It may appear in the phrases used by the child such as: I do not know - I am not good - or I appreciate her parents!

Better times to train children on fine kinetic skills

It is preferable to start training on these skills after exposing the child to activities that stimulate his or her large muscles. The time that follows the time of the break or play time is one of the best times for training, because

the activities or movements that the child during his play help to move the big muscles such as shoulders and muscles of the forearm and pelvis and thigh, these muscles in turn are in readiness and readiness to act as an assistant and essential stabilizer and necessary for the muscles of the smallest Or minute. If it is not possible to create a suitable timing for training at some times, light warm-up exercises help stimulate the muscles before starting the training, preferably in a different form, in the sense that they make the teacher in the form of a race to escape from place to place, for example Inventory, and not take a boring and repetitive (Alzuraiqat, 2005).

Teacher helps the child

One of the most important roles of the teacher is to observe children in the performance of activities and the ability to recognize or discriminate children who show signs of weakness in the performance of some skills and activities. The teacher also has a great role in creating the child's motivation to practice the skills they create challenging, as well as working on developing those skills by focusing on the child's weaknesses through classroom activities or through play (Iwatsuki et al., 2014).

The teacher's positive attitude to the child and encourages him not to show a sense of failure, which reduces the fear of the exercise of those skills in the future. It is also necessary to adapt, modify or compartmentalize those

skills to suit the level and abilities of the child, which helps him to achieve a simple success, which in turn can positively support the child. It also helps to reduce the high expectations of the child towards his fear of failure, as well as to increase the child's self-confidence and help to show a marked improvement in performance (Kwok, 2013).

Conclusion

We mentioned earlier that basic skills begin to develop in the child at the age of breastfeeding and in the following years, and these skills are ready to use school tools. Although the majority of children at this stage are fascinated by the use of school tools from pencils and scissors, emphasis should not be placed on writing and cutting skills, especially in the three to four year period, because it would be useful for them to use that time to develop and increase their readiness to find A solid foundation for those skills in the future.

We conclude from the above that working to support and support the child to develop these skills at an early age helps him to achieve success and a sense of satisfaction with his performance both at home and school.

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