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COMBATING DYSGRAPHIA- A NEUROCOGNITIVE INTERVENTION AMONG GRADUATE TEACHER TRAINEES

[1]M.Parimala Fathima, [2]N.Sasikumar and [2]M.Panimalar Roja

[1]Alagappa University College of Education,
Tamil Nadu, India.
[2]*Center for Research in Education,
Thava Thiru Kundrakudi Adigalar College Campus,Kundrakudi,Sivagangai District - 630 206.
Tamil Nadu, India.
Email:sasismile25@gmail.com

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ABSTRACT

Language provides a way for people to communicate with each other. There are other methods of communicating as gesturing, body language and sign language. The Communication Process between two people consists of sending a message and receiving a message. The important communication is written communication. Writing is a highly complex operation requiring the coordination of multiple neural Networks. It involves the blending of attention, fine motor coordination, memory, visual processing language and higher-order thinking. When an individual is writing, the visual feedback mechanisms are at work checking the output, adjusting fine motor skills, and monitoring eye-hand coordination. Mean while, kinesthetic monitoring systems are conscious of the position and movement of fingers on space, the grip on the pencil, and the rhythm and pace of the writing. Teachers of writing should realize that, like reading the brain does not perceive writing to be a survival skill. To write an initial draft requires construction in penmanship and learning the rules of written language including spelling, capitalization, punctuation and sentence structure. Unfortunately, complex rules in the English language are loaded with expectations and require substantial practice for mastery.

Key words: Dysgraphia, Neurocognition, Intervention, communication, neural Network.

1. INTRODUCTION

Language provides a way for people to communicate with each other. There are other methods of communicating as gesturing, body language and sign language. The Communication Process between two people consists of sending a message and receiving a message. The important communication is written communication. Writing is a highly complex operation requiring the coordination of multiple neural Networks. It involves the blending of attention, fine motor coordination, memory, visual processing language and higher-order thinking (Souse and David, 2001). When an individual is writing, the visual feedback mechanisms are at work checking the output, adjusting fine motor skills, and monitoring eye-hand coordination. Mean while, kinesthetic monitoring systems are conscious of the position and movement of fingers on space, the grip on the pencil, and the rhythm and pace of the writing. Cognitive systems are also busy, verifying with long-term memory that the symbols being drawn will indeed produce the sounds of the word that the writer intends (Reisberg and Daniel, 1997). Accomplishing this task requires visual memory for symbols, Whole-Word Memory, and spelling rules.

Whatever the neurological cause of writing difficulties, some children struggle because so much time is spent on the process that they often lose track of the content they are working on (Parimala Fathima and Mohan, 2007). The Persistent condition of not being able to put thoughts into writing or accomplish other parts of the writing process (such as letter formation) is known as dysgraphia. Teachers must realize that dysgraphia is a disorder and is not the result of laziness, not caring, not trying, or just carelessness in writing. To help students, educators must first determine the point at which a student begins to struggle. Does the

problem occur as the student begins to write or does it appear later on the writing Process? Is there a problem with organization of thoughts? Is the struggle more evident when the student changes from just copying material to generate complex ideas and trying to commit those to writing? Is the struggle because of confusion over printed and cursive letters, over grammar, or because of punctuation once the struggle area is identified then it becomes a matter of selecting the appropriately combination of accommodation, modification and remedial techniques for the students.

2.DISCUSSION

Environmental causes for writing

Difficulties with writing can be environmental, that is, too little time was spent in the child's early years on practicing correct writing, or they can stem from deficits within one or more of neural networks needed for legible and clear writing to occur. Let's deal first with how the school environment may contribute inadvertently to writing problems. Teachers of writing should realize that, like reading the brain does not perceive writing to be a survival skill (Souse and David, 2001). That is the brain has no "writing centre" comparable to those for spoken language. Instead, writing requires the coordination of numerous neural networks and systems, all of which have to learn new skills. Learning to write therefore requires direct instruction-it is not innate to the brain. Hard work and lots of practices are needed just to learn the fine motor skills for reproducing the printed and cursive letters of the alphabet. In some schools, little time is given to formal instruction in writing. To converse time, it is often taught as an ancillary activity to other learning tasks (Mohan, 2002). Some of the difficulties students experience with writing may be due to unfortunate combination of learning the difficult skills of writing with very little practice time.

All teachers need to emphasize that writing is more than handwriting. The notion of transferring thoughts and ideas from inside the brain to an outside device-paper or computer-requires teaching how to organize thoughts, analyze material, and sort out material differently, depending on whether students plan to relate and incident or persuade another person (Begley, 1997).. To write an initial draft requires instruction in penmanship and learning the rules of written language including spelling, capitalization, punctuation, and sentence structure. Unfortunately, complex rules in the English language are loaded with exceptions and require substantial practice for mastery. Even after the initial draft is written, students need to learn how to edit and revise their material for clarity.

How The Special Needs Brain Learns

The point here is that demonstrate difficulty with writing need full assessment to determine whether their obstacles are environmental or systemic. Teachers should look first at the learner's background knowledge of writing and assess the type and degree of writing instruction that has been providing in the past. Simply by providing more and sustained practice of writing skills and written languages rules, teachers can help many students to eventually overcome their writing difficulties.

Neurological Causes

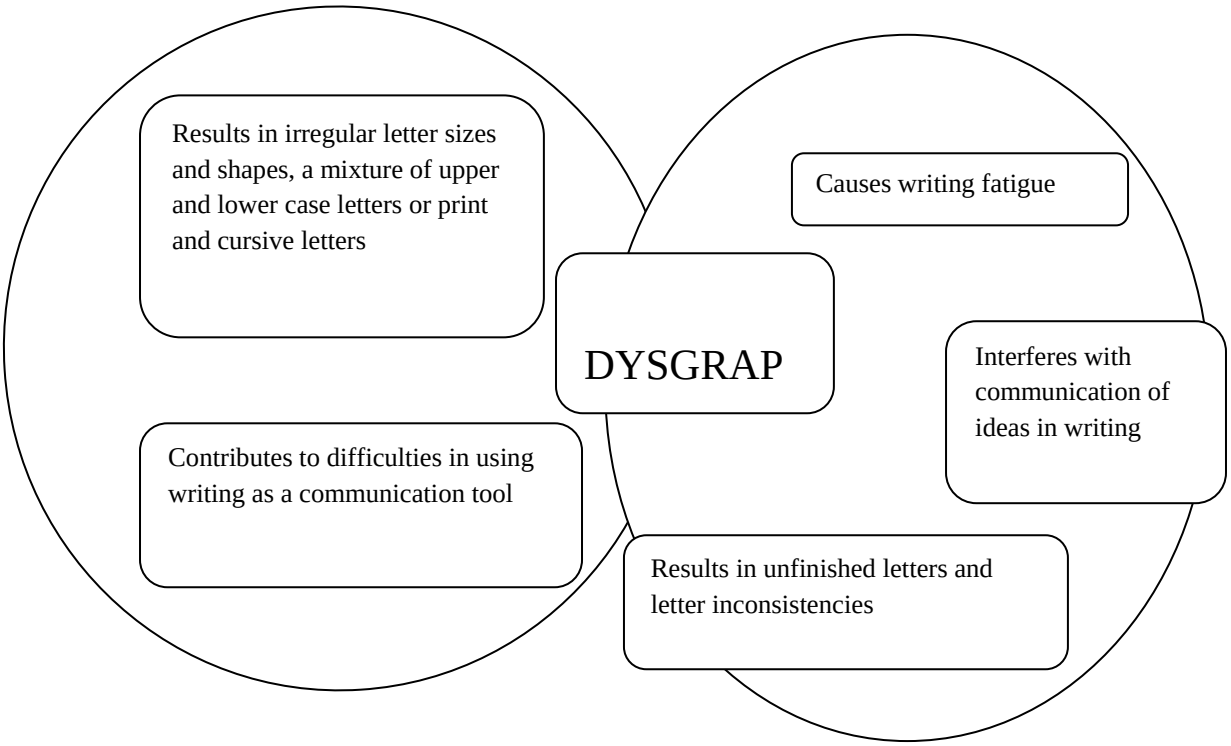
Given that such a complex order of operations involving several neural systems is necessary for accurate writing (Parimala Fathima and Mohan, 2007). Difficulties can arise anywhere along the way. Because writing is so dependent on the brain's parietal lobes, for instance, problems (e.g., lesions or stroke) in this area especially significant. On the other hand, research on brain functioning has not found much evidence to support the visual basis for most writing difficulties, even though conventional wisdom has pointed in that direction.

Whether the neurological cause of writing difficulties, some children struggle because so much time is spent on the process that they often lose track of the content they are working on. The persistent condition of not being able to put thoughts into writing or accomplish other parts of the writing process (such as letter formation) is known as dysgraphia. Teachers must realize that dysgraphia is a disorder and is not the result of laziness, not caring, not trying, or just carelessness in writing.

Suggestions to build confidence in students with writing disorders

Lack of confidence is one of the major difficulties with writing disorders. Here are a few suggestions to give to students with dysgraphia to help them regain confidence and overcome the frustrations they often experience when writing.

1. **Organize your thoughts:** First try to get our major ideas down on paper, then go back and fill in the details.
2. **Use a tape recorder:** If we are feeling frustrated with our writing, stop and dictates what we want to write into a tape recorder. Listen to the tape later and write down our major ideas.
3. **Use the Computer:** Even if we are not great at the beginning, It is important to practice our keyboarding skills. we will get better and faster at it once we have learned the pattern of the keys. Computers can help us organize our thoughts, put them in the proper sequence and even check your spelling. In the long run, it will be faster and than handwriting.
4. **Continue to practice handwriting:** No matter how frustrating handwriting is we will need to be able to write things down in the future. Like any other skills, our handwriting will get better with continued practice.
5. **Talk while writing:** Talk to ourself while writing. This auditory feedback is a valuable tool to help us monitor what and how we write.
6. **Use Visual Aids:** Drawing a picture or diagram can help us organize our thoughts. Some computer programs also have the capability of producing your graphic organizers.



Accommodation Strategies for students with writing disorders

1.Allow more time for students to complete written tasks, such as note-taking, written tests, and copying. Also, allow these students to begin written projects earlier than others. Consider including time in the student's schedule for acting as an aide, and then have the student use that time for making up or starting new written work.

2.Encourage developing keyboarding skills and using the computer students can begin to learn keyboarding in first grade. Encourage them to use various word processing programs. Teaching handwriting is still important, but students may be more likely to produce longer and more complex writing with the computer.

3.Have students prepare worksheets in advance, complete with the required headings, such as name, date, and topic. Provide a standard template for them with this information already on it.

Remediation strategies for students with writing disorders

Students should not be allowed to avoid the process of writing, no matter how severe their dysgraphia, writing is an important skill that they will eventually use to sign documents, write checks, fill out forms, take messages or make a grocery list. Thus they need to learn to write even if they can do so for just a short time.

Remediation strategies focus on researching information or a particular skill to help students acquire mastery and fluency. Substantial of all strategies is essential for the students to be successful. Here are some suggested areas for remediation (Richars, 1998; Jones, 2000).

1.Teaching Handwriting Continuously: Many Students would like to have better handwriting. Build handwriting instruction is to the student's schedule.Provide opportunities to teach them this, keeping in mind the age, aptitude and attitude of each student.

2.Helping with Spelling: Spelling difficulties are common for students with dysgraphia, especially if sequencing is a major problem. The students with dysgraphia who also have dyslexia need structured and specific instruction in learning to spell phonetically. This skill can help them use technical tools. That relies on phonetic spelling to find a word.

3.Correcting the pencil grip: Young children should be encouraged to use a proper pencil grip from the beginning of their writing experience. Descriptive research indicates that, for the best results, the grip should be consistently between ¾ inch to 1 inch from the pencil tip. Moderate pressure should be applied and the angle of the pencil to the paper should be about 45 degrees and slanted towards the students writing arm. Accomplishing the proper will be difficult for left hand writers.

3.CONCLUSION

To help students, educators must first determine the point at which a student begins to struggle. Does the problem occur as the student begins to write or does it appear later on the writing process? Is there a problem with organization of thoughts? Is the struggle more evident when the student changes from just copying material to generating complex ideas and trying to commit those to writing? Is the struggle because of confusion over printed and cursive letters, over grammar, or because of punctuation once the struggle area is identified then it

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