# ANALYSIS OF DYSGRAPHIA IN CHILDREN AND ITS IMPACT ON THE LEARNING PROCESS

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#### Abstract

This study aimed to determine how dysgraphia affects children's learning and how dysgraphic students can be helped to improve their handwriting. This study found that students with learning difficulties lack motivation and have unadaptive beliefs about what makes them successful or unsuccessful. When it comes to the learning process, they frequently have lower academic self-concepts than their peers, and this shows in skills like reading and writing. This study focused on Rendi, a student in the second grade at an elementary school, to determine how to help the student improve their handwriting. The intervention took one month to finish. Used a copy of the student's handwritten work for one month to collect data. The researchers then compared the beginning and end pieces of the students at the end of the month to see if there was a difference in progress.

**Key words:** Dysgraphia, handwriting, learning process.

#### INTRODUCTION

Children with dysgraphia have trouble writing or expressing themselves in writing (Oktaviani, Mandasari, et al., 2020), (Muliyah et al., 2020) because they are unable to properly arrange words for writing (Oktaviani & Mandasari, 2019), (Adelina & Suprayogi, 2020). Even in this day and age of computers and technology, writing is a skill that is highly valued in our society (Suprayogi et al., 2021), (Pranoto & Afrilita, 2019). Because handwriting was a primary means of communication in the past (Gulö, 2018), (Puspita & Amelia, 2020), it was prized; According to (Puspita & Pranoto, 2021), people needed to send notes that were legible to others. This issue typically arises in children when they begin to learn to write (Samanik, 2019), (Kuswanto et al., 2020), (Afrianto & Restika, 2018). Writing difficulties are typically a major component of a series of learning disorders (Kuswoyo et al., 2020), (Riskiono et al., 2021), particularly in elementary-aged children (Megawaty et al., 2021), (Fakhrurozi et al., 2021). Parents and educators frequently misinterpret writing difficulties as foolishness (Samanik, 2021), (Afrianto et al., 2021). As a consequence of this, the children are frustrated because, fundamentally, they are eager to convey the information and ideas they have learned in writing (Mandasari & Wahyudin, 2019), (Pranoto & Suprayogi, 2020). They simply face obstacles.

Unfortunately, dysgraphia, a difficulty expressing one's thoughts in writing, is a problem that many students face in school (Oktaviani, 2018), (Asia & Samanik, 2018). A child's academic performance may suffer as a result of dysgraphia (Gulö & Rahmawelly, 2019), (Fakhrurozi & Puspita, 2021), (Kuswoyo & Indonesia, 2021). Many children with dysgraphia struggle to write clearly, organize their thoughts coherently, or keep up with written assignments (Kardiansyah & Qodriani, 2018), (Sartika & Pranoto, 2021). Understanding that dysgraphia is not caused by a lack of intelligence, laziness, careless writing (Oktaviani, Aminatun, et al., 2020), (Al Falaq & Puspita, 2021), or a desire to learn is the first step in addressing the condition (Candra & Qodriani, 2019), (Nababan & Nurmaily, 2021). Additionally, neither the child's parents nor teachers are to blame for this disorder, nor are visual motor delays to blame (Ngestirosa et al., 2020), (Kardiansyah & Salam, 2021). Regardless of a child's level of intelligence or ability to read, dysgraphia is a learning disorder characterized by an inability to write (Budiman et al., 2021), (Samanik & Lianasari, 2018). Writing abilities that consistently fall short of expectations in relation to the child's age and intelligence level are known as dysgraphia (Ivana & Suprayogi, 2020), (Endang Woro Kasih, 2018). Reversals (changing the direction in which letter faces are oriented along a vertical axis) (Mertania & Amelia, 2020), inversions (turning letters along a horizontal axis so that the letter is on its side) (Fithratullah, 2021), and transpositions (a word's letter sequence is out of order) are all mistakes that some children do make (Fakhrurozi & Adrian, 2020), (Nurmalasari & Samanik, 2018). Handwriting issues are not the source of these errors; rather, they are symptoms (Qodriani & Kardiansyah, 2018), (Kasih et al., 2022). Reversals are less likely to occur when letter production and memory retrieval have become automatic (Septiyana & Aminatun, 2021), as demonstrated by the earlier automatic letter writing instruction (Qodriani & Wijana, 2020).

In the past, the term dysgraphia was used to refer to both motor coordination difficulties affecting writing (Putri & Aminatun, 2021), as well as persistent difficulty expressing thoughts in writing due to weaknesses in literacy (Novanti & Suprayogi, 2021) and language conventions such as spelling, grammar and punctuation (Fithratullah, 2019), (Journal et al., 2021). To avoid any confusion between the two, a distinction has more recently been made with a specific learning disorder in written expression referring to the language based difficulties involved in constructing meaningful (Aminatun & Oktaviani, 2019) and effectively structured expressive writing and ongoing weaknesses in spelling

and punctuation that affect a student's capacity to express their ideas with clarity. Persistent handwriting difficulties associated with an impairment in motor coordination are now commonly understood to be a particular aspect of Developmental Coordination. Students with Dysgraphia have extreme difficulty getting their thoughts both in order and then down on paper. Many students with Dysgraphia also have Dyslexia.

Many experts view dysgraphia as an issue with a set of skills known as transcription. These skills include handwriting, typing, and spelling. Trouble expressing yourself in writing isn't part of dysgraphia. But when kids have to focus so much on transcription, it can get in the way of thinking about ideas and how to convey them.

## **Research Question**

- 1. How dysgraphia can affects student's learning activities?
- 2. What is the solution for children with dysgraphia?

## LITERATURE REVIEW

Assessing students' school and social efficiency really contributes to spotting possible problems that make their adjustment and efficiency into their school and social environment difficult. As many studies showed, Smits-Engelsman and Van Galen (1997) conducted a study trying to find the cause of dysgraphia in children. The resercher found that poor writers possess either an inherently noisy neuromotor system or exhibit dysfunction in controlling the inherently noisy neuromotor system. Furthermore, their research supported that the failure to control spatial accuracy was the most significant discriminating feature between poor writers and good writers. In other words, writers with dysgraphia fail to obey spatial constraints, exhibit more variability in letter size and shape, and lack consistency in letter formation. This study did not support the opinion that dysgraphia is a temporary developmental delay for children.

Children with dysgraphia usually have some type of problem with automaticity that interferes with the retrieval of letter formation (Richards, 1999). The concentration on how to form the letter overwhelms the child to a degree that the letter is written poorly. Incorrect letter or word formation can also lead to exceeding the margins or lines. The other research, Orton (1937) found that children with dysgraphia tend not to advance as

quickly as other children in school and their handwritten work suffers because of its illegibility. He found that incorrect paper position could lead to cramped fingers, which can directly lead to poor handwriting. In his research he suggests that one correct the paper position and the slant of letters for better handwriting. Orton also found that some students focus on their hand rather than on the formation of letters. Orton blindfolded some students to see the effect on their handwriting. He found that for students who overly focused on their hand, being blindfolded helped them concentrate on the feel of formation and thus, on the legibility of the letters.

#### **METHOD**

This research was focused on students from the second grade of elementary school named Rendi, to find solutions about how to help improve their handwriting. The intervention requires a total of 1 month to complete. This research tested the students in second grade who have weaknesses in reading, understanding, and writing. To gain the data the researchers used a copy of student work for 1 month. Then at the end of the month the researchers compared the students' beginning and an end pieces and notes if there were differences in progress made. Drilling was helped their hand to get used to writing enough so that it hopefully becomes smoother and automatic. Fine motor exercises were expected to strengthen the muscles of his hands and arms to help him feel comfortable writing and for him to have more control about how the pencil moves.

## RESULTS AND DISCUSSION

Writing is a hard task for many students. Students with poor handwriting and difficulty expressing themselves through writing may have a learning disability called dysgraphia. These students may avoid writing tasks or become frustrated during writing activities. They also have trouble writing clearly because they don't understand the information as they put it on the page. Students with poor handwriting may have inconsistent spacing between letters and words, inconsistent letter formation, a mixture of lowercase and uppercase letters. Students with dysgraphia may become overwhelmed with the writing process. There is no specific test for dysgraphia, but the school psychologist can test students you suspect of having dysgraphia using a number of different assessments. There are two types of dysgraphia, specific and non-specific, and several classifications.

Writing is generally the storage of information. The data are written objectively and children can use it in every time and place. From the benefits of handwriting we can refer to the limited amount of data that children memory can hold and the unlimited amount of data that can be stored in written form. The shortcomings of writing are related to the visual motor coordination and dysgraphia. Many children cannot take advantage of the skills of writing by hand, because they have not learned the pre-writing skills. These skills include understanding the relationship between the upper and lower of body, recognition a variety of sizes and shapes, correct pencil grip, and correct paper position.

This research started from the process of rendi and I met after school for half an hour, five days per week, for one month to work on his handwriting. During the first two weeks Sam was given direct instructions and exercises in handwriting. The third 1 week returns to training and the last 1 week is spent on the continued development of rendi fine motor activity. the researchers sought to see whether one type of improvement intervention was more effective than another, the researcher is interested in determining whether an intervention works better so that learning lowly can be optimized. During this research process, the overall performance of Rendi has dramatically improved during the 1 month of training. During the training trial, the researcher taught him how to write each letter. During the fine motor trials, the researchers only focused on strengthening Rendi's hand muscles to better control his pencil and grip.

The result of this study provided evidence that using drill and fine motor activities together greatly improved the handwriting of a second grader with dysgraphia. While the student showed improvement over the 1 month during the after school sessions, he had a hard time generalizing what he learned to his class work. His written work improved, but this student continued to make a few letters the same way he did before the intervention. Over time, it is the researcher hope that he will continue to generalize and remember how to write each letter.

There are several limitations to this action research. One limitation is that this study only used one participant. The purpose of action research is to identify problems in the learning process in the classroom and overcome problems in that specific environment. While this research fulfills the objectives of this action research, this finding cannot be generalized.

However, you can learn from this case study both in terms of knowledge about dysgraphia and options for intervention. Teachers who work with children who struggle with handwriting can obtain information and techniques to help guide handwriting remediation, even if the child is not diagnosed with writing disabilities. Students in all elementary classes can benefit from structured instruction about handwriting and how to form letters. There are some limitations is the inability of students in the learning process to generalize to the extent desired by researchers. While withdrawal to the program after school is gaining skills in a different environment from where the skills will be used, the advantage is intensive one-on-one intervention interventions tailored to the specific needs of students.

So These are several things or solution can do to help children with this disorder. There are:

#### 1. Understand the child's condition

Parents, teachers or assistants should understand the difficulties and limitations that children with dysgraphia have. Try not to compare children like that with other children. That attitude will only make both parties, both parent / teacher and child feel frustrated and stressed. If possible, give short writing assignments every day. Or it could be parents of the childmrequesting policies from the school to give tests to children with this disorder verbally, not in writing.

## 2. Present printed writing

Provide opportunities and possibilities for dysgraphic children to learn to express ideas and concepts using a computer or typewriter. Teach him to use tools to overcome obstacles. By using a computer, children can use the spelling corrector tool so they know their mistakes.

## 3. Build the child's confidence

Give reasonable praise for every effort made by children. Never underestimate or harass because it will make him feel inferior and frustrated. Parent and teacher patience will make children calm and patient towards themselves and the effort that is being done.

## 4. Train children to continue writing

Involve the child gradually, choose a strategy that suits his level of difficulty to do the writing task. Give interesting and interesting tasks, such as writing letters to friends, writing on a postcard, writing messages to parents, and so on. This will improve the

writing ability of children with dysgraphia and help them pour abstract concepts about letters and words in concrete written form

#### **CONCLUSION**

In conclusion, students who suffer from disgraphia frequently experience emotional trauma as a result of the realization that no one can read their writing and that they do not perform at the same level as their peers. Dysgraphia can lead to emotional issues like low self-esteem, low self-efficacy, high anxiety, and depression. Learning to spell can be difficult if you have trouble forming letters. As a result, many dyslexic children struggle with spelling. Additionally, they may write very slowly, which may hinder their ability to express themselves in writing. A child with dysgraphia does not lack intelligence. Additionally, dysgraphic children are not being lazy when they struggle with writing. However, they do require additional assistance and support to boost their enthusiasm throughout the learning process.

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