Learning Disability (Dysgraphia): A Case Study on a Second Grade Student at Elementary School

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ABSTRACT

Student who had difficulty in writing, especially if asked to write cursive letters. There were several writing difficulties faced by students such as the student's lack of focus in copying the writing on the board, this made student was slow in completing work. This study aims to analyze the learning writing disorder experienced by the student and ways to overcome the student's writing disorder. The qualitative research study that explores a second-grade student's writing issue. This research attempts to define the student's learning (writing) disorder, the type of learning disorder the student has, and solutions to overcome the student's writing issue. To collect data from second-grade students at elementary school the study used a case study design and descriptive approach. This study employed a qualitative research design using descriptive methodology and a case study approach. This study utilized direct observation, interviews, and documentation. Data analysis techniques in this research consisted of three stages: data collection, data reduction, and drawing conclusions. The study's findings indicate that the student problems with arranging written work on paper, spelling, and uneven spacing. The research closes by advising that the student get special education programs to address his or her writing problem.

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1. INTRODUCTION

Learning difficulties refer to conditions that affect how a person learns. These are also called learning disabilities or specific learning disorders. They can impact how a person acquires, organizes, remembers, understands, or uses verbal or nonverbal information. People with learning difficulties often face ongoing challenges in specific areas, such as reading, writing, math, or language skills (Al-Mahrezi et al., 2016; Efriana, 2021). It is important to note that learning difficulties are not mainly caused by intellectual disabilities, sensory issues, or lack of educational opportunities. In addition, researchers define learning difficulties as a group of disorders that cause significant challenges in developing skills (Kharmitah & Narius, 2019; Lapitan et al., 2021). Learning difficulties are believed to be caused by differences in the brain. Conditions like dyslexia or ADHD happen because of atypical development and how the brain works (Al-Mahrezi et al., 2016; Law et al., 2018). These conditions often involve specific problems with cognitive processes. Some common issues include problems with phonological processing (connecting sounds to letters), working memory, executive functions (planning, organizing, and multitasking), or visual-spatial processing (understanding visual information and spatial relationships) (Dindar et al., 2022; Rahman, 2019). The brain may have trouble with specific mental skills needed for learning. This can make learning challenging for those with these conditions. Specific learning...
disabilities (SLDs) are a type of learning difficulty. They involve problems processing spoken or written language (Kohli et al., 2018; Supriatna & Ediyanto, 2021). Specific learning disabilities are developmental disorders that begin in childhood and involve ongoing difficulties with key academic skills such as reading, writing, and math. The Learning Disabilities Association of America has identified seven types: dyslexia, dysgraphia, dyscalculia, and auditory processing disorder, language processing disorder, nonverbal learning disabilities, and visual perceptual deficit. These difficulties can be caused by genetic, neurological, or environmental factors. People with these difficulties may have average or above-average intelligence and can benefit from specialized teaching methods and support to overcome their learning challenges (Ashraf & Najam, 2020; Öskarsson et al., 2020). Learning disabilities are a stumbling block for children, particularly at the start of elementary school. In some countries, children suffer from learning disabilities. A research done in Pakistan found that 39% of participants had indications of particular learning disabilities (SLD), including 33% with dyslexia, 48% with dysgraphia, and 45% with dyscalculia (Ashraf & Najam, 2020). Another research in Indonesia created a test instrument to assess learning difficulties in primary school pupils, such as dyslexia, dysgraphia, and dyscalculia, and discovered that 90% of kids had learning disabilities (Aziz et al., 2021). In addition, an Israeli research examined the difficulties that students with learning disabilities, such as dyslexia, dysgraphia, and dyscalculia, encounter in the higher education system (Sharfi et al., 2022). More study is required to investigate the impact and solutions for particular learning difficulties in elementary school students worldwide.

Based on the above research, one of the most common learning disabilities in schools is Dysgraphia. Dysgraphia is a learning condition that impairs a person's ability to write in a variety of ways. Dysgraphia, in its widest sense, refers to problems with letter formation/legibility, letter spacing, spelling, fine motor coordination, pace of writing, grammar, and composition (Chung et al., 2020; Sharfi et al., 2022). It is distinguished by difficulties with written expression, such as handwriting, spelling, and written language arrangement and output. It is crucial to remember that dysgraphia can cause both spelling and handwriting problems, and it is frequently associated with other learning and mental difficulties (Crouch et al., 2007; McCloskey & Rapp, 2017). Dysgraphia symptoms and severity might differ from person to person. Dysgraphia can negatively affect a student's performance and learning experience. Individuals with dysgraphia, with proper help and accommodations, can overcome obstacles and achieve excellent writing abilities. According to previous study there are a few different types of dysgraphia that people may experience (McCloskey & Rapp, 2017). The first is dyslexic dysgraphia, which is related to dyslexia and involves challenges with spelling, grammar, word spacing, and messy handwriting. The second type is motor dysgraphia, where individuals have trouble with the fine motor skills needed for writing, like letter formation, word spacing, and overall readability. They may also have issues with pencil grip and regulating pressure on the writing tool. Spatial dysgraphia is the third type, characterized by difficulties with spatial organization and awareness when writing, such as inaccurately placing words on the page, inconsistent margins, and irregular letter sizes and slanting. The fourth type is phonological dysgraphia, associated with problems in phonological processing that impact spelling and letter-sound relationships. The fifth type is lexical dysgraphia, which involves struggles with retrieving and spelling irregular or new words, as well as difficulties sounding out unfamiliar words. These types of dysgraphia have distinct features but can also overlap or occur in combination for some individuals (Kendell & Stefanyshyn, 2012; Taufik, 2014). It is important to recognize that people with dysgraphia may exhibit a mix of these characteristics and underlying difficulties.

Several studies have examined dysgraphia among primary school pupils in Indonesia. First, a 2019 study entitled "Specific Learning Difficulty and Model of Evaluation: A Study of Inclusive Primary Schools" aimed to identify particular learning difficulties and suitable assessment models for inclusive elementary schools in Sleman District, Yogyakarta, Indonesia (Syamsi & Haryanto, 2019). The findings showed that out of 465 students, 85 (18.27%) had specific learning difficulties, including dysgraphia (22.10%), dyslexia (19.55%), and dyscalculia (30.60%). The study recommended developing formal and informal assessment guidelines tailored to student learning needs in order to evaluate such difficulties. Another study entitled "Development of Learning Difficulty Test: A Case Study in Elementary Schools" sought to determine procedures and evaluate test instrument quality for measuring learning difficulties, including dysgraphia, among elementary school pupils (Aziz et al., 2021). Results indicated 90% of students had learning difficulties, and the test was considered reliable with very high interpretation across all dimensions. Moreover, there is a study entitled "Development of Identification Instruments for Children with Special Learning Disabilities in Primary Schools" aimed to facilitate the identification of elementary school students with specific learning disabilities like dysgraphia (Nadiyah et al., 2022). The study produced draft identification guidelines for children with special learning disturbances in primary schools. While some research has examined dysgraphia in Indonesian elementary students, it remains limited in scope. Further studies are needed to explore the prevalence and interventions for dysgraphia among primary school pupils in Indonesia. Based on the above research, the researchers are interested in conducting a similar study on writing disorder (Dysgraphia) experienced by elementary school students. The researchers
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intend to study writing disability (Dysgraphia), experienced by a second grade student of SD Dwijendra. Before conducting the study, the researchers conducted an observation in the school by interviewing the teachers at the SD. Based on the results of the interview, researchers found one student who had difficulty in writing, especially if asked to write cursive letters. There were several writing difficulties faced by students such as the student's lack of focus in copying the writing on the board, this made student was slow in completing her work. This study aims to analyze the learning writing disorder experienced by the student and ways to overcome the student's writing disorder.

2. METHOD

This study employed a qualitative research design using descriptive methodology and a case study approach. The research intensively examined a specific subject as a case study (Moleong, 2018). The descriptive method was chosen as it could provide an accurate portrayal of individuals, circumstances, language, and phenomena. The data sources for this study were second grade students from SD Dwijendra Denpasar School, identified as HKM. The primary instrument in this study was the researchers themselves. This study utilized direct observation and subject interviews to collect data regarding the target population. Interviews were conducted to gain insight into subjects' experiences, actions, and perspectives. Concurrently, documentation techniques allowed researchers to gather information on relevant historical events. Both qualitative methods facilitated a comprehensive examination of the topics under review (Arikunto, 2009). Data analysis techniques in this research consisted of three stages: data collection from several writings in subject research course books; data reduction through selecting, focusing on, simplifying, abstracting, and transforming raw data from written field notes, which was then classified and analyzed based on types of writing difficulties; and drawing conclusions and data verification where the analyzed data was concluded and a verification process or re-examination was carried out from the beginning to the end of this research (Miles et al., 2020).

3. RESULT AND DISCUSSION

Result

Aspects that will be covered in this research have been customized to the purposes of the study: 1) describing the forms of learning disabilities (Dysgraphia) that HKM faces; 2) describing the types of Dysgraphia that HKM experiences; and 3) describing strategies for overcoming writing difficulties. Based on an analysis of the data discovered as follows, the discussion is conducted.

Learning disabilities (Dysgraphia)

Students with dysgraphia may experience challenges with spelling, as it is one of the common issues associated with this condition. They also may struggle with spelling words correctly and consistently. They may make letter omissions, additions, or substitutions. The example of spelling difficulties is show in Figure 1.

![Figure 1. Spelling Difficulties](image)

In Figure 1, several words were found that were written incorrectly. In this case, HKM made mistakes in writing, such as: omitting one of the letters in a word, using an incorrect letter in a word, and adding unnecessary letters. For example, in the word “terjamin”, HKM omitted the letter “r” in the word. Moreover, HKM also made a mistake in choosing the letters that should be written, such as in the word “sarana”. HKM should write the letter “r” in that word. However, HKM instead wrote the letter “B” in the word “sarana”. Therefore the word became “sabana”. In addition, it was found that HKM added letters that should not be there or were not needed, as seen in the word “usage”. HKM writes 2 letters “r” where only one “r” should be written.
It might be difficult for students with dysgraphia to maintain consistent space between letters, words, and lines. Their inability to space things out may result in uneven lines, overloaded letters or phrases, or uneven spaces. Inconsistent spacing is shown in Figure 2.

![Figure 2. Inconsistent Spacing](image)

In Figure 2, it can be seen that there are 5 sentences written by HKM. In sentence number 3, 2 words were found that were written connected. These 2 words should be written separately and not connected, because they were 2 different words. Meanwhile, in other sentences, HKM wrote the words in the sentence correctly and balanced spacing. Apart from that problem with spacing words, HKM also made mistakes in filling in numbers in sentences. The number 4 should be in the sentence “Pola kalimat di atas SPO”, but HKM instead wrote the number 4 above the sentence. It might be difficult for students who have dysgraphia to form letters consistently and precisely. Their writing might be difficult to understand because of their irregularly sized, twisted, or badly formed letters. The example of difficulty with letter formation is shown in Figure 3.

![Figure 3. Difficulty with Letter Formation](image)

Several of the letter sizes in Figure 3 were improper. For example, the first letter of each sentence needs to be capitalized. However, the first few characters of sentence number three were found to be lowercase. Despite capital letters being used, the letters in the other sentences like the letter "T" in the word "Televisi" were small and almost the same size as the letters before them. Also, it was found that the letters "r" and "u" in the word "elektronik" had similar shapes. Because of the excessive font size, the letter "r" appears to be a "u". As a result, readers found it difficult to differentiate between the letters.
Students who suffer from Dysgraphia frequently have trouble organizing their written work on paper. This may lead to overlapping text, irregular margins, or uneven spacing. The example of students’ poor spatial organization is shown in Figure 4.

![ Poor Spatial Organization Example ](image)

**Figure 4. Poor Spatial Organization**

In Figure 4, it can be seen that HKM wrote several verbs in the -ing form of English. The words written by HKM looked messy and many of them were written beyond the lines provided. In this case, HKM experienced difficulty in organizing the placement of letters in the words he wrote. Furthermore, when writing, HKM was easily distracted and unable to focus on details, which could lead to overusing the margins and lines. Additionally, HKM had difficulties with copying speed, which could cause improper use of margins and lines. Because of the effort needed to regulate their hand motions, students with dysgraphia may find that writing tasks take much longer. This may cause irritation and make it harder to turn in written tasks on time. The example of slow and labored writing is shown in Figure 5.

![ Slow and Labored Writing Example ](image)

**Figure 5. Slow and Labored Writing**

In Figure 5, the teacher asked HKM to copy the writing on the whiteboard, but HKM was unable to copy the sentence before time ran out. HKM took longer than her peers to complete writing tasks. As a result, HKM was frequently late handing in assignments and sometimes only turned in partial assignments. The teacher
often assigned work that HKM was unable to finish on time. In Figure 5, the teacher writes 5 sentences on the blackboard. Students are asked to copy these sentences in their practice books. At that time, HKM was only able to copy 3 sentences out of 5 sentences in his notebook. This is because the time provided has run out and it is time for a break. HKM took longer than her peers to complete writing tasks. As a result, HKM was frequently late handing in assignments and sometimes only turned in partial assignments. The teacher often assigned work that HKM was unable to finish on time.

**Strategies for Overcoming Writing Difficulties**

Teachers and parents can use the following strategies to help children with writing difficulties. Pre-writing activities are the first strategy used, regardless of the characteristics of the child’s writing challenges. An example is teaching children how to use writing tools properly by focusing on posture and eye-to-book distance. Triangular pencils or pencil grips should be used. Children are first instructed to scribble in a book and make straight lines between existing lines. After that, they practice making circles. Another example is preparing textured media like sand so children’s senses are engaged. Letter tracing activities come next. Children first trace dotted letter shapes or patterns made by parents or teachers. They repeat tracing the letters until they become accustomed to properly forming letters. Moreover, block letter writing uses multisensory learning. The teacher shows a letter, says its name, and demonstrates writing it. The child sees the letter, hears its name, and watches it being written. The child then copies the letter on lined paper using a pencil grip, repeating the same letter until filling the first line. Block letters with straight lines like E, F, H, L, I are taught first. Cursive writing is introduced after block letters. Children first write words using block letters. Then the letters are connected with colored pencil lines to transition to cursive. Cursive teaches children to write neatly along straight lines.

**Discussion**

According to previous study there are a few different types of dysgraphia that people may experience including dyslexic dysgraphia, motor dysgraphia, spatial dysgraphia, phonological dysgraphia, and lexical dysgraphia (Kendell & Stefanyshyn, 2012). Based on the writing learning disorder experienced by HKM, it can be said that the types of dysgraphia experienced by HKM were dyslexic dysgraphia, motor dysgraphia, and spatial dysgraphia (Chung et al., 2020; Roitsch & Watson, 2019). This was reinforced by the writer’s interview with the parents of HKM and teacher of second grade SD Dwijendra. In the interview it was stated that it was true that HKM had difficulty writing. The researcher found HKM difficulties in writing related to several characteristics of dyslexic dysgraphia, motor dysgraphia, and spatial dysgraphia. Students with dyslexic dysgraphia often struggle with spelling words correctly, which is a common difficulty associated with this condition. They may make letter omissions, additions, or substitutions. Additionally, HKM added unnecessary letters. These errors highlighted the need for better spelling and grammar in word processing (Faizin, 2020; Widodo et al., 2020). Moreover, Students with spatial dysgraphia may have trouble maintaining consistent spacing between letters, words, and lines which can lead to uneven spacing in their writing. This was noticeable in HKM’s writing where two connected words. Since these two terms were distinct from one another, they should be written individually and not together. HKM, on the other hand, harmonized the spacing between the words and wrote them correctly in other sentences (Aryani & Fauziah, 2020; Nurfadhillah et al., 2022). Therefore, it could be seen that it might be difficult for HKM in maintaining consistent letter, word, and line spacing which could result in uneven writing spacing. In addition to the issue with word spacing, HKM also caused errors when adding numbers to sentences. Furthermore, those with spatial dysgraphia may struggle to form letters consistently and precisely, making their writing hard to read due to uneven, distorted, or poorly shaped letters. In HKM’s writing, letter sizes were improper, like failing to capitalize initial letters (Ashraf & Najam, 2020; Gargot et al., 2021; Sharfi et al., 2022). Some capital letters were tiny and nearly the same size as surrounding letters, in one word looked so alike that it was hard to differentiate them due to excessive font size.

In addition, Students with spatial dysgraphia often have difficulty organizing their writing spatially on the page which can lead to overlapping text, uneven margins, or irregular spacing. HKM’s writing was out of the lines and disorganized. For example: HKM’s writing in the -ing form of English resulted in messy and unstructured words, indicating difficulties in organizing letter placement. Moreover, she was easily distracted and did not focus on details, resulting in improper use of margins and lines (Istiqoma et al., 2023; McCloskey & Rapp, 2017). Her slow copying speed also contributed to improper margin and line usage. Besides, because regulating their hand motions takes great effort, students with motor dysgraphia may find writing very time-consuming and struggle to complete assignments on time. When asked to copy writing on the board, HKM could not finish copying a sentence before time ran out (Kiuk et al., 2021; Setyawan et al., 2020). She took longer than peers to write and was often late submitting work or only completed half the assignments. This research can make a significant contribution to the understanding of dysgraphia, especially in second grade elementary school students. These implications will help educational professionals, such as teachers and education specialists, to
better understand the characteristics and challenges faced by students with dysgraphia. The findings from this study can be used as a basis for developing more effective educational intervention strategies for students with dysgraphia. Teachers and education experts can adopt learning methods that are more appropriate to the individual needs of students who experience difficulties in writing. However, case studies often have limitations in generalizing findings to a wider population. Therefore, the findings of this study may not be fully applicable to all students with dysgraphia. Training teachers to identify and assist students with writing disorders is also recommended. Further studies are necessary to explore the prevalence and interventions for dysgraphia among elementary students in Indonesia. Before conducting research, the researcher suggest first observing in schools by interviewing teachers at primary school to identify children with writing difficulties, especially dysgraphia. The researcher is interested in carrying out a similar study on the writing disability (Dysgraphia) seen in primary school students. Prior to the investigation, the researcher propose doing an observation in the school by talking to the teachers at the primary school to pinpoint students struggling with writing, particularly those with dysgraphia.

4. CONCLUSION

Based on the investigation of the writing disability (Dysgraphia) faced by a second grade student at SD Dwijendra, it was evident that the student struggles with organizing their written work on paper, spelling, and inconsistent spacing. The research utilized a qualitative approach with descriptive methods and a case study design. The data sources were second grade learners at SD Dwijendra Denpasar School, with initial HKM. The primary instrument in this analysis were the researchers themselves. To address the student's writing disability, providing special education services is advised. These could include occupational therapy to improve fine motor skills and handwriting. Additionally, assistive technologies like speech-to-text software could aid with spelling and writing.

5. REFERENCES


