



Improving Beginning Writing Ability through Kinetic Sand Media in Grade 2 Severely Deaf Children at SLBN 1 Lima Kaum

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Abstrak

Penelitian ini bertujuan untuk meningkatkan keterampilan menulis awal pada peserta didik tunarungu berat di SLBN 1 Lima Kaum dengan menggunakan media edukasi pasir kinetik. Penelitian ini menggunakan pendekatan kuantitatif dengan metode eksperimen melalui Single Subject Research (SSR) dengan desain A-B-A. Data dianalisis menggunakan analisis visual berupa grafik. Teknik pengumpulan data meliputi tes dan alat pengumpulan data berupa soal tes. Subjek penelitian ini adalah peserta didik tunarungu berat kelas 2 di SLBN 1 Lima Kaum.

Kata Kunci: Media Pasir Kinetik, Kemampuan Menulis Permulaan, Tunarungu Berat

Abstract

This research aims to improve initial writing skills in profoundly deaf students at SLBN 1 Lima Kaum by using kinetic sand educational media. This study employs a quantitative methodology, utilizing experimental techniques through Single Subject Research (SSR) with an A-B-A design.. Data was analyzed using visual analysis in the form of graphs. Data collection techniques include tests and data collection tools in the form of test questions. The subjects of this research were grade 2 profoundly deaf students at SLBN 1 Lima Kaum.

Keywords : Kinetic Sand Media, initial writing skills , Severely Deaf

Introduction

Language is something that has an important role in developing human potential in various fields of life because language does not only function as a communication tool by Zulmiyetri, Z (2017). Regarding language learning, we know that deaf children experience

difficulties in participating in language learning due to the obstacles they experience because deaf children are unable to hear sounds or external stimuli. According to Sulfanita & Zulmiyetri (2018), a condition where an individual, whether a child or an adult, is unable to use their hearing function while speaking is attributed to hearing impairments that can range from mild to very severe. Poor

language mastery is caused by the lack of vocabulary that is absorbed by the sense of hearing (Humaira & Zulmiyetri 2020). This issue arises from the partial or complete dysfunction of the auditory sense, rendering the individual unable to utilize their hearing effectively. Deaf children hear through two requirements that with hearing aids and with training (Elsa E, Zulmiyetri, & Grahita 2020).

The lower classes are beginning reading and beginning writing. After the child is able to read, the child is then expected to be able to learn to write. Letters are secondary symbols of language for young children development, letters have meaning when letters are used in academic development especially for reading and writing (Suharyati & Zulmiyetri 2019). Recognizing letters helps children remember and differentiate letters more easily. (Arifiah, W & Zulmiyetri 2023).

Skills education is often called life skills education. Life skills very important for deaf children as the main capital to achieve independence (Kuntum K & Zulmiyetri 2020). Writing skills is an activity that is not easy for deaf children. This process requires concentration, arm and finger cordination, and memory. Deaf students must also try to match the sound and writing of the letters they read. In using media, in reality the application of learning media in the learning process is still not implemented enough or only uses one media so that it does not increase children's motivation to learn, one of which is in learning to start writing. Nurlaela (2018) In the conditions that occurred in his research, the only learning media available was in the form of books to recognize the letters of the alphabet.

According to an initial study conducted by researchers at SLBN 1 Lima Kaum, It was concluded that one of the deaf children in elementary class 2 had problems in writing the beginning, who should have been in phase a and was able to copy letters, but the child had problems in the ability to write the beginning. Based on the results of the assessment carried out in accordance

with the initial writing ability assessment test initiated by (Sidik dkk, 2018). During the initial testing phase, it was observed that the child's hand movements were relatively unrestricted.

The child demonstrated the ability to move their hands left-right, front-back, and could also manipulate their wrists up and down. Second, in thickening the vertical and horizontal lines, students can be said to be able to do it correctly even though they are not very neat. Third, the author asks students to bold the letters a-z of the 26 letters, students have not been able to bold b, d correctly, only thicken the straight lines without following the semi-circle shape at the front or back. Fourth, students are asked to copy the letters of the alphabet a-z without dotted lines. Of the 26 letters, students are able to write 6 letters, namely c, i, l, n, o, x correctly. For this reason, the author wants to retrain students in writing beginnings starting with the letters a – g first.

Based on these problems, deaf children's initial writing skills still require practice in improving their initial writing skills to support activities in the academic field, namely writing skills. The author chose this kinetic sand medium because children can carry out writing activities freely on the sand and move their hands so that it can stimulate their initial writing abilities. This is expected to improve their initial writing skills as stated by Taufina (2017, hlm. 50-51) When a child writes in a difficult way, fine motor skills, touch sensors, and visual sensors will be activated simultaneously.

Method

The research employs a numerical methodology using experimental techniques. Research involving experiments is utilized to ascertain the presence or absence of symptoms or events resulting from a treatment administered to the subjects. Specifically, the study uses the Single Subject Research (SSR) method, which

focuses on observing and evaluating the effects of the given treatment or interventions on individual subjects. The impact of the intervention is quantified by its influence, expressed as a percentage (Indra, 2021). The single subject research design used was A-B-A. In this research, the evaluated intervention involved use of kinetic sand learning media to help train the fine motor skills of children in the initial writing aspect, namely writing the letters of the alphabet.

According to Marlina (2021), The A-B-A design in Single Subject Research (SSR) consists of specific conditions: the initial Baseline session (A1), which represents the starting a state with no treatment or intervention applied the second phase (B), where treatment is administered, specifically using kinetic sand media in the educational process; and the third phase, Baseline (A2), which returns to observing the students' condition without any treatment or intervention involving the kinetic sand media. In this research, a male student with the initial A elementary class 2 who attendted SLBN 1 Lima Kaum difficulties in writing the beggining (writing the letters of the alphabet a-g).

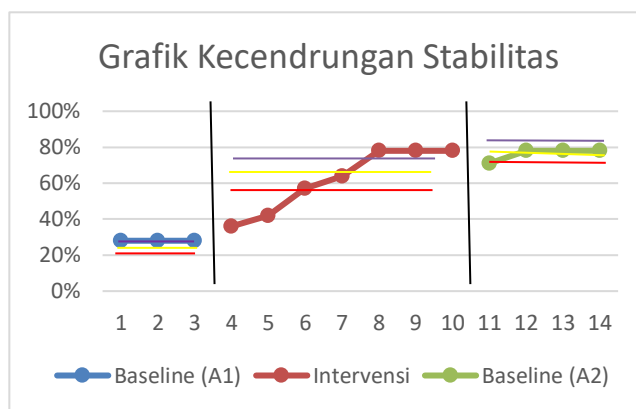
Result and Discussion

The research was conducted over 14 meetings. In the initial baseline condition (A1), 3 meetings were held. During the intervention phase (B), The intervention was administered a total of 7 times. Finally, in the second baseline condition (A2), 4 meetings were held. In condition A1, students' abilities showed stability in the first to third meetings with percentage values of 28%, 28% and 28%. Meanwhile, The implementation of intervention (B) occurred seven times with results of 36%, 42%, 57%, 64%, 78%, 78% and 78%. In condition A2, students' abilities showed stable results with percentages of 71%, 78%, 78% and 78%.

Based on the data collected during the three stages, Baseline (A1), Intervention

(B), and Baseline (A2), the observation was concluded as The data had reached a steady state during the last 4 meetings in the baseline (A2) phase. Below is a summary of the percentages for the three conditions: A1-B-A2.







Graph 1. Ability to the ability to writing beginning the letters of the alphabet



- Data Baseline A1 =
- Data Intervensi (B) =
- Data Baseline A2 =
- Upper limit =
- Mean level =
- Lower limit =

Table 1. Summary of in conditions analysis

Tabel 2. Summary of interconditions analysis




No	Kondisi	A1	B	A2
1	Length of conditions	3	7	4
2	Estimated Directional Tendency	 (=)	 (+)	 (+)
3	Stability Tendency	Stabil (100%)	Tidak Stabil (25%)	Stabil (100%)
4	Data Footprint Trends	 (=)	 (+)	 (+)
5	Stability level and range	Variabel 28%-28%	Variabel 78% - 36%	Variabel 78%-71%
6	Level of change	28-28 = 0 (=)	36 - 78 = 42 (+)	78 - 71 = 7 (+)

The resulting research results are similar to the aim of this research, namely to improve initial writing skills as a method to enhance the alphabet writing skills of deaf students. This was proven when conducting research in 14 meetings at school and at the students' homes.

In this research, students writing skills were trained using kinetic sand media. In this study there were 7 research items, namely the letters of the alphabet a, b, c, d, e, f, and g so that from these seven letters students were assessed as being able or unable to recognize and write these letters correctly and precisely.

Based on data analysis, It has been demonstrated that kinetic sand media can enhance the initial writing skills of deaf students. This is shown by an increase in students' abilities after the intervention. In the pre-intervention phase (A1), the data indicated that students' abilities were consistent, averaging at a level of 28. During

the intervention condition (B), there was an increase and the abilities stabilized at a mean level of 61,85. Then in the baseline condition

No	Condition	A1/B/A2		
1	The quantity of altered factors	1		
2	Shifts in directional patterns and their impacts	 (=)	 (+)	 (+)
3	Changes in stability trends	Stabil – Tidak stabil - Stabil		
4	Level of change a. Level changes to condition B/A1 b. Level changes to condition B/A2	36% - 28% = 8% 78% - 36% = 42%		
5	Overlape percentage a. Percentage overlape on A1 with B b. Percentage overlape on A2 with B	0% 42%		

(A2), students were found to be in a stable condition with a mean level of 76.25.

The analysis of the data results suggests that kinetic sand media can effectively enhance the early writing skills of severely deaf students. This is evidenced by the A1/B data showing no improvement and the A2/B data demonstrating a 42% improvement. Despite the low consistency score in the results of this study, the intervention's impact appears to be positive.

Conclusion

Based on the overall data analysis both within conditions and between conditions, it can be concluded that intervention using kinetic sand media can improve the initial writing ability of profoundly deaf students at SLBN 1 Lima Kaum. To optimize learning, teachers and parents need more frequent practice for students to practice their initial writing skills

in writing letters of the alphabet so that students' abilities improve further.

Upaya keluarga dalam melatih bicara anak tunarungu di lubuk begalung padang. 302–308.

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