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Sight Word Learning Approach To Enhance Speech And Language Skills In Children With Intellectual Disabilities

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Abstract: This study investigates the effectiveness of a structured sight word learning approach in enhancing speech and language skills among Children with intellectual disabilities (ID). Children with Intellectual disabilities often face significant challenges in acquiring receptive and expressive language due to cognitive, sensory, and social limitations. Sight word instruction, which emphasizes the recognition of whole words by sight rather than phonetic decoding, offers a potentially effective and accessible method for improving communication skills in this population. The intervention involved the implementation of a multisensory, repetitive, and visually supported sight word program tailored to the individual learning needs of children with mild and moderate levels of intellectual disability. Pre- and post-intervention assessments were conducted using standardized language scales to measure improvements in receptive and expressive language abilities. The findings revealed a marked improvement in word recognition, vocabulary usage, and sentence construction, demonstrating the potential of the sight word learning approach in supporting functional communication development. The study underscores the importance of sight word learning approach to meet the unique learning profiles of children with intellectual disabilities and advocates for the integration this approach into education curricula to foster speech and language skills in CwID

Keywords: Sight word learning, speech and language development, children with intellectual disabilities, receptive language, expressive language.

I.Introduction

Children with intellectual disabilities (ID) often experience significant delays in speech, language, and overall communication development, which can affect their academic progress, social interaction, and functional independence (**Smith & Peterson, 2020**). Difficulties in vocabulary acquisition, phonological processing, working memory, and expressive language are commonly reported among this group, highlighting the need for structured and evidence-based interventions that promote meaningful language use in daily contexts (**Guralnick, 2017).** Among the various instructional methods used to strengthen early literacy and

communication skills, sight word learning has gained increasing attention for its potential to support children with developmental and intellectual challenges.

Sight words are high-frequency words that children learn to recognize instantly without relying on decoding or phonetic analysis **(Ehri, 2014).** Mastery of sight words is essential because it facilitates fluent reading, supports comprehension, and encourages spontaneous verbal communication by expanding functional vocabulary (**National Reading Panel, 2000**). For children with intellectual disabilities, who often struggle with phonological decoding or have limited working memory, sight word approaches offer an accessible pathway to developing meaningful language and literacy skills (**Browder et al., 2009).**

Research has shown that integrating multisensory strategies such as visual cues, tactile prompts, gestures, and repetition significantly enhances retention and retrieval of sight words in learners with diverse cognitive profiles (**Fletcher & Lyon, 2016**). When combined with structured language activities, sight word learning can improve both receptive and expressive language domains by enabling children to identify, understand, and use functional words during communication (**Jones & Reed, 2021).** This makes the sight word approach particularly suitable for children with intellectual disabilities, who benefit from consistent, concrete, and visually supported learning experiences.

Given the growing emphasis on inclusive education and functional literacy, there is a pressing need to explore instructional methods that support the communication outcomes of children with intellectual disabilities. This study examines the effectiveness of a Sight Word Learning Approach in enhancing speech and language skills, with the goal of contributing to evidence-based practices that promote meaningful participation and improved communication for Children with Intellectual disabilities.

II.Review of Literature

Alquraini and Gut (2019) through a comprehensive review, concluded that sight word instruction is an effective approach for learners with intellectual disabilities when instruction is structured, repetitive, and reinforced, though they noted a lack of consistency in instructional models across studies.

Browder et al. (2020, 2021) reported that students with significant and intellectual disabilities can successfully acquire sight words through systematic, explicit, and functional reading instruction, particularly when teaching is individualized and embedded in meaningful contexts; however, most studies focused on literacy outcomes rather than speech or broader language development.

Lemons et al. (2021) found that students with intellectual disabilities are capable of developing functional reading skills, including sight word recognition, when instruction is explicit, carefully sequenced, and supported with visual cues, highlighting the importance of instructional intensity and fidelity.

Ulriksen et al. (2023) Multiple single-case design (n=4), children using AAC without functional speech was found to be good in literacy intervention teaching sight-word reading led to improved single-word reading and generalization to communication contexts

Falth et al. (2023), Decoding intervention for young students with mild intellectual disabilities, Wolff Intensive Program (phonics + fluency), but incorporated some high-frequency sight words. Sight-word reading improved alongside phonemic decoding.

Ulriksen et al. (2023) demonstrated that an adapted literacy intervention incorporating sight words was feasible and effective for children with intellectual disabilities who used AAC, resulting in improved performance on targeted reading tasks, although generalization beyond trained materials was limited.

Aspiranti (2023) demonstrated that tablet-based sight word instruction improved reading accuracy in special education students using a single-case experimental design, suggesting digital tools can effectively support visual word learning.

Ulriksen (2024) reported that children aged 6–10 years with intellectual disabilities showed measurable improvement in word recognition following a structured sight-word-based reading intervention, though the study was limited by a small sample size and restricted outcome measures.

DeWine (2024) found that multisensory sight word instruction, combining visual, tactile, and oral strategies, significantly improved the acquisition of non-decodable sight words among young learners, while long-term retention and transfer of learning were not examined.

Ali & Shukor (2024) Studied the use of structured sight word drills for children with intellectual disabilities. Demonstrated that systematic repetition improved reading and academic participation. Showed that the sight word method is effective across cultural and linguistic contexts. The approach is adaptable to different educational settings and populations

Springer et al. (2024) Recent study on children using Augmentative and Alternative Communication (AAC) devices. Found that combining internal speech prompts and visual cues resulted in significant literacy gains. Improvements were observed in both reading and spelling. Sight word strategies can be tailored to non-verbal learners using AAC.

Barrière et al. (2024) Down syndrome using aided AAC the outcome of the study is about literacy feature improved decoding and encoding of sight words, suggesting gains in communication skills

Objectives of the study

1.To find out the current level of receptive and expressive language skills of Children with Intellectual disabilities

2. To evaluate the effectiveness of the sight word learning approach to enhance the receptive and expressive language skills of children with intellectual disabilities.

Research question

R.Q 1**.** What is the current level of receptive and expressive language skills of children with intellectual disabilities?

RQ 2. To what extent sight word learning approach helps to enhance the receptive language skills of children with intellectual disabilities?

RQ 3. To what extent sight word learning approach helps to enhance the expressive language skills of children with intellectual disabilities?

III Methodology

3.1 Sampling design

Children with mild and moderate intellectual disabilities

Gender	Male	5	10
	Female	5	
Age	6-8yrs	5	10
	9-11yrs	5	
Category	Mild	5	10
	Moderate	5	

3.2 Variables

Demographic variables: Gender (male, female), Age (6 -11yrs), mild and moderate level IQ

Dependent variable: Improvement in speech and language skills (receptive and expressive)

Independent variable: Sight Word Learning Approach (SWLA)

Exclusion criteria: Children with associated conditions and multiple disabilities

3.3 Research Design

This study employed a single- group, quasi-experimental design with a pre-test/post-test design to examine the effectiveness of a sight word learning approach on speech and language development in children with intellectual disability

3.4 Data collection procedure

A. Baseline assessment

The baseline assessment evaluated the existing receptive and expressive language age of children with intellectual disabilities Using standardized tool REELS before the intervention to identify current performance levels and to measure progress after sight word instruction.

B. Intervention programme/plan

Procedure

The intervention was conducted over a period of 24 weeks, with assessments administered before and after the program to measure the improvements in receptive and expressive language skills of children with intellectual disabilities.

The sight word learning intervention was designed to build vocabulary, speech clarity and sentence formation. The following list of sight words (e.g., வா, போ, தா) were selected on the basis of curriculum relevance and the communicative needs of the children.

S.No	Sight words		S.No	Sight words	
1	ஆம்		11	நிறுத்து	
2	இல்லை		12	காத்திரு	
3	வா		13	பார்	
4	போ		14	கேள்	
5	தா		15	திற	
6	குடி		16	மூடு	

7	உட்கார்		17	இன்னும்	
8	நில்		18	முடிந்தது	
9	எடு		19	உதவி	
10	கொடு		20	இங்கே வா	

***Source**: Adapted from Dolch sight words (Dr.Edward William dolch 1936)*

Each session consists of 1 hour. This continues for five times per week. In total the sessions were conducted for 60 days as follows:

Week 1	ஆம்	1 day*1hr*5days=5hrs
	இல்லை	
	வா	
	போ	
	தா	
Week 2	குடி	1 day*1hr*5days=5hrs
	உட்கார்	
	நில்	
	எடு	
	கொடு	
Week 3	நிறுத்து	1 day*1hr*5days=5hrs
	காத்திரு	
	பார்	
	கேள்	
	திற	
Week 4	மூடு	1 day*1hr*5days=5hrs
	இன்னும்	
	முடிந்தது	
	உதவி	
	இங்கே வா	
Week 5 to week 12	Repeated the same 20 sight words	1 day*1hr*5days=5hrs 8weeks*5hrs=40hrs

Total =12*5hrs=60hrs

The intervention was carried with the following instructional aids:

a. Visual presentation of words using flashcards

b. Multisensory activities, such as matching games.

c. Use of low-tech aids, including flash cards and visual cues

C. Post test/evaluation

The post-test evaluated the receptive and expressive language skills of children with intellectual disabilities to determine the effectiveness of the Sight Word Learning Approach among the samples.

IV. Results and Discussion

4.1 Objective 1

To find out the current level of receptive and expressive language skills of Children with Intellectual disabilities

RQ.1What is the current level of receptive and expressive language skills of children with

intellectual disabilities?

Table 1: Baseline assessment result in receptive and expressive language skills of CwID

Child	Gender	Age	IQ	Receptive language (RLA)	Expressive language (ELA)
Child 1	Male	6yrs	Mild	3yrs	2.5yrs
Child 2	Male	7yrs	Mild	3.5yrs	3yrs
Child 3	Male	9 yrs	Mild	5yrs	4yrs
Child 4	Male	10yrs	Moderate	3.5yrs	3 yrs
Child 5	Male	11yrs	Moderate	4yrs	3yrs
Child 6	Female	7yrs	Mild	5yrs	3.5 yrs
Child 7	Female	8yrs	Mild	5yrs	3yrs
Child 8	Female	10yrs	Moderate	5yrs	3.5yrs
Child 9	Female	10yrs	Moderate	4.5 yrs	4 yrs
Child10	Female	11yrs	Moderate	5yrs	3.5 yrs

The study included ten children (5 males and 5 females) aged between 6 and 11 years, all diagnosed with mild and moderate intellectual disabilities. Assessment of their receptive and expressive language abilities revealed language delays ranging from 1 to 6 years. Receptive language skills were generally stronger than expressive skills, with receptive language ages ranging from 3 to 5 years, and expressive language ages between 2.5 and 4 years. These developmental delays highlight the need for targeted language interventions.

4.2 Objective 2

To evaluate the effectiveness of sight word learning approach to enhance the receptive and expressive language skills of CwID

RQ 2. To what extent sight word learning approach helps to enhance the receptive language skills of children with intellectual disabilities

Table 2: Receptive language skills pre and post test scores for CwID

Measure	Mean (M)	Standard Deviation (SD)
Receptive (Before)	6.50	2.32
Receptive (After)	18.50	1.58
Mean difference	12.00	1.56

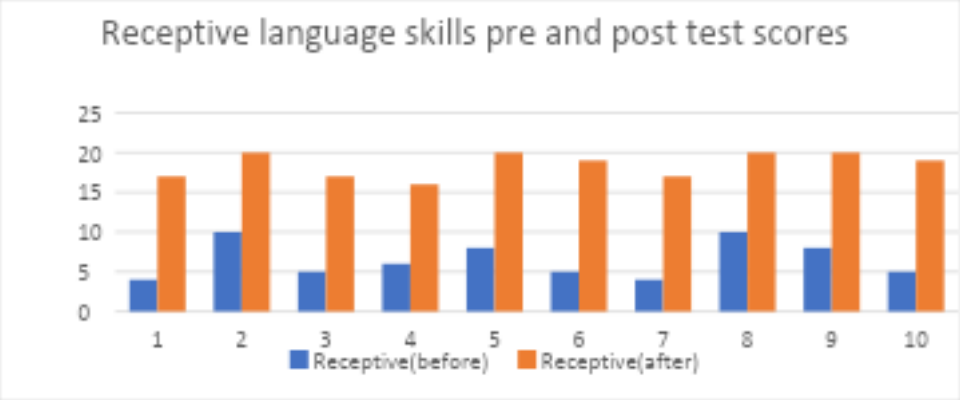

Figure 1: Shows the Pre and Post Scores of Receptive Languge Skills

The findings reveal a notable enhancement in receptive language skills after the implementation of the intervention. The average receptive language score showed a considerable rise from 6.50 (SD = 2.32) during the pre-assessment to 18.50 (SD = 1.58) in the post-assessment phase. The observed mean gain of 12.00 (SD = 1.56) indicates a substantial improvement in receptive language functioning among the children.

Additionally, the reduced standard deviation in the post-test results reflects increased uniformity in receptive language performance following the intervention. As depicted in Figure 1, the contrast between pre- and post-intervention scores is clearly evident, highlighting the positive impact of the intervention on the development of receptive language skills. Overall, the results strongly support the effectiveness of the intervention in enhancing the receptive language abilities of the participants.

4.2.1 RQ 3. To what extent sight word learning approach helps to enhance the expressive language skills of children with intellectual disabilities?

Table 3: Expressive language skills pre and post test scores for CwID

Measure	Mean (M)	Standard Deviation (SD)
Expressive (Before)	6.50	2.32
Expressive (After)	15.20	2.90
Mean Difference	8.70	2.16

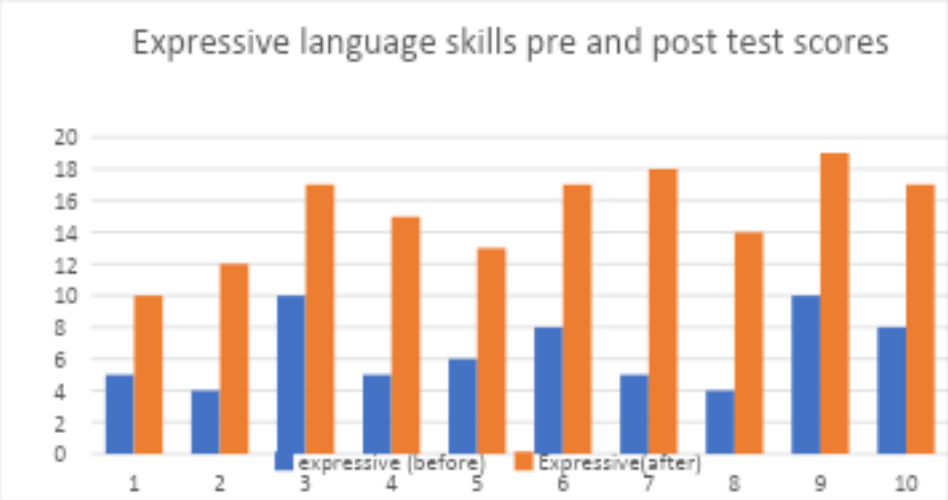

Figure 2: Shows the Pre and Post Scores of Expressive Languge Skills

Table 3 presents the mean and standard deviation of expressive language scores before and after the intervention for children with intellectual disabilities (CwID). The results demonstrate a noticeable improvement in expressive language abilities following the intervention. The mean expressive language score increased from 6.50 (SD = 2.32) in the pre-test to 15.20 (SD = 2.90) in the post-test. The mean difference of 8.70 (SD = 2.16) indicates a substantial gain in expressive language performance after the intervention.

Figure 2 illustrates the comparison between pre- and post-test expressive language scores, clearly highlighting the improvement observed after the intervention. The variation in post-test scores suggests positive progress in expressive language development among the children. Overall, these findings confirm that the intervention was effective in enhancing expressive language skills in children with intellectual and developmental disabilities.

4.2.2 Analysis based on age wise of children with intellectual disabilities

To find out the effectiveness of sight word learning approach across age wise to enhance the receptive and expressive language skills of CwID after intervention.

Table 4: Effectiveness of sight word approach with respect to age

Age	Metric	Pre Scores	Post Scores
6-8yrs	Mean	5	17.33
	S.D	1.00	1.53
	Metric	Pre Scores	Post Scores
9-11yrs	Mean	7.67	19
	S.D.	1.73	2.52

Children aged 6–8 years improved from a mean pre-test score of 5 to 17.33, showing strong progress. Their standard deviation increased slightly, indicating a small rise in score variation after the intervention. Children aged 9–11 years also showed notable improvement, with mean scores rising from 7.67 to 19. The larger increase in standard deviation suggests a wider difference in how individual children responded. Overall, both age groups benefited from the intervention, with the older group showing slightly higher starting and ending scores. The rise in standard deviation across groups indicates that the level of improvement varied among children.

4.2.3 Analysis based on severity level of children with intellectual disabilities

To find out the effectiveness of sight word learning across mild and moderate category of CwID

Table 5: Effectiveness of sight word approach across category wise

Category	Metric	Pre Scores	Post Scores
Mild IQ	Mean	9.00	18.25
	S.D	1.52	2.42
	Metric	Pre Scores	Post Scores
Moderate IQ	Mean	8.67	16.52
	S.D.	1.04	1.84

The findings of this study indicate that the language intervention program had a highly positive and statistically significant impact on both receptive and expressive language abilities among children with mild and moderate intellectual disabilities. Both groups exhibited substantial gains from pre-test to post-test, with extremely large effect sizes, demonstrating the strong effectiveness of the instructional approach.

The Mild IQ group showed notable improvement, yet the Moderate IQ group displayed an even stronger effect size. This suggests that children with greater learning needs may respond exceptionally well to structured, multisensory, repetitive, and visually supported instructional strategies possibly because such methods reduce cognitive load and offer more accessible pathways to language comprehension and expression. This revealed that both the categories of children with intellectual disabilities improved in their receptive and expressive language skills, children with mild IQ performed better compared to children with moderate IQ.

4.2.4 After intervention the language age of children with intellectual disabilities is tested using standardized scale REELS

Table 6: After intervention the receptive and expressive language age of CwID

Child	Gender	Age	IQ	Receptive language (RLA)	Expressive language (ELA)
Child 1	Male	6yrs	Mild	3.5yrs	3yrs
Child 2	Male	7yrs	Mild	4yrs	3.5yrs
Child 3	Male	9 yrs	Mild	5.4yrs	4.3yrs
Child 4	Male	10yrs	Moderate	4yrs	3.5 yrs
Child 5	Male	11yrs	Moderate	4.3yrs	3.6yrs
Child 6	Female	7yrs	Mild	4yrs	4 yrs
Child 7	Female	8yrs	Mild	5.5yrs	3.8yrs
Child 8	Female	10yrs	Moderate	5.5yrs	4yrs
Child 9	Female	10yrs	Moderate	4.8 yrs	4.2yrs
Child10	Female	11yrs	Moderate	5.5yrs	4yrs

The above table indicates that after the intervention using the sight word approach, the children showed a notable improvement in their receptive and expressive language skills in relation to their chronological age.

V. Conclusion

The findings of this study support the effectiveness of the sight word learning approach combined with multisensory and low-tech strategies in enhancing speech and language skills among CwID.(Luckner & Cooke, 2010; Paul & Wang, 2012), the approach leveraged visual strengths and reduced dependence on auditory processing, facilitating better word recognition and usage. Improvements in receptive and expressive

language highlight the critical role of sight word instruction in building foundational vocabulary and supporting sentence construction. This is particularly relevant for children with ID, who often experience delays in phonological processing and delay speech and language issues. (Marschark & Spencer, 2010).

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