

# AN EXPLORATORY ANALYSIS ASSESSING THE EFFICACY OF READING INTERVENTION AND THEIR CORRELATION WITH THE SELF-ESTEEM LEVELS AMONG CHILDREN WITH SPECIFIC LEARNING DISABILITIES (SLD)

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## Abstract

**Objective:** This study intends to evaluate the success rates of reading intervention and the effects found on the children with specific learning disabilities (SLD) regarding their self-esteem. **Methods:** The study involved 200 children (IIIrdStd to VIIIthStd) diagnosed with SLD. At first, we used a pretest to gauge the children's self-esteem, including the control group. The ROSENBERG Self-Esteem Scale is a standardized tool was used to assess self-esteem. We implemented all suggested reading strategies to increase reading fluency for the first three months. Subsequently we reevaluated their reading habits. Children began to read with greater proficiency, apparent in how they speak their tone and confront radiance. The sixth and ninth months were devoted to continuing the intervention and performing the post-test. The reading intervention and the multisensory approach have also boosted their reading fluency and mannerisms. **Results:** The experimental group had an upsurge in self-esteem following the application of multiple reading techniques. This group also showed improved body posture, boldness in reading, and satisfaction in their studies. They also demonstrated improved self-esteem, as seen by their straight posture, neat physical appearance, and consistent attendance at school. **Discussion:** According to the results, teaching children with SLD numerous reading strategies and emphasizing each one independently could assist them in feeling more confident and having fewer behavioral issues. Further research is required, to explore the specific impact of reading interventions on self-perception, in the context of improvement in the children having Specific Learning Disabilities (SLD).

**Keywords:** Specific learning disabilities, Reading Technique, Self-Esteem, Children.

## INTRODUCTION

Learning disorders specific to individuals can pose challenges in language comprehension, speaking, reading, writing, spelling, and math [1,2]. The Diagnostic and Statistical Manual of Mental Disorders (APAV) acknowledges that these disorders significantly affect reading, writing, and mathematics comprehension. Individuals with learning disabilities experience disruptions in information processing and linking abilities due to brain dysfunctions, hindering essential learning skills [3]. Statistics suggest that approximately half of the school-age population grapples with learning disabilities, impacting their mastery of fundamental skills [4-9].

Learning disabilities are not isolated from self-regulatory behavior or social interaction issues. They may coexist with other conditions and be influenced by various factors, including cultural differences and inadequate instruction [10]. Emotional challenges stemming from learning difficulties can contribute to behavioral problems, with children facing higher risks of depression, anxiety, loneliness, and low self-esteem.

Lack of confidence and success can shape a self-perception of deficiency, distinctiveness, hopelessness, and failure, underscoring the need for targeted interventions [11]. Psychologists have extensively explored self-esteem in the social and behavioral sciences. Positive self-image, irrespective of external validation, is hallmark of healthy self-esteem.

An individual's sense of self-worth is closely tied to their inclusion or exclusion from society, especially within close connections or identified groups, considering extrinsic and intrinsic factors. Studies have shown that self-esteem is intricately linked to social anxiety, jealousy, loneliness, and depression [12].

In the context of learning disabilities, a study emphasizes that consistently accepting oneself leads to higher self-esteem, while self-rejection results in lower self-esteem. Sibling studies imply that those with learning difficulties may attribute low self-esteem to feeling lacking in positive qualities and perceiving themselves as failures.

This study aims to explore the potential correlation between self-esteem and learning disabilities, with a focus on the psychological aspects of children [13,14]. It specifically investigates the impact of intervention on the self-esteem of children with learning disabilities, acknowledging the potential for significant changes in self-esteem following targeted interventions.

## METHODOLOGY

**Study Objective:** The principal aim of this study is to evaluate the efficacy of reading interventions and their correlation with self-esteem levels among children exhibiting specific learning disabilities (SLD).

**Sampling technique:** As part of this study, the experimental and control groups were selected using a simple random sampling technique for screening specific learning disabilities and a purposive sampling technique for experimental and control groups.

### Selection criteria

#### Inclusion criteria

- Children from III to VIII standard
- Children of parents giving consent
- SLD categories of - Dyslexia, Dysgraphia, and Dyscalculia.
- A child's informed consent is provided by their parent(s) or guardian(s)

#### Exclusion criteria

- SLD with the other co-morbidities and physically challenged children.
- Intellectually challenged, ADHD, Autism.
- Children of parents who are not giving consent.

### Study Sample

The study included 200 participants, evenly divided into two groups, with each group comprising 100 participants. The Experimental group comprised 100 participants, while the control group included 100. This equal distribution ensured a fair evaluation of the intervention's effectiveness.

## Site of the Study

The study involved ten schools, systematically divided into two groups: a control group comprising five schools and an experimental group comprising the remaining five schools. The selection of schools was conducted precisely to guarantee a varied and representative sample for the research.

## Tool Description

ROSENBERGSELF-ESTEEM SCALE measured self-esteem, a standardized tool by Rosenberg, M. (1965). Self-esteem has become a household word. Teachers, parents, therapists, and others have focused on boosting self-esteem, assuming that high self-esteem will cause many positive outcomes and benefits. A 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self.

The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale ranging from strongly agrees to strongly disagree. Scores are calculated for items 1,2,4,6 and 7: Strongly agree = 3, Agree = 2, Disagree = 1 and Strongly Disagree=0. For items 3,5,8,9, and10 (which are reversed in valence) strongly agree= 0 Agree = 1 Disagree = 2 and Strongly disagree = 3. The scale ranges from 0-30. A score between 15 and 25 is within the normal range; scores below15 suggest low self-esteem and scores 25-30 indicate high self-esteem.

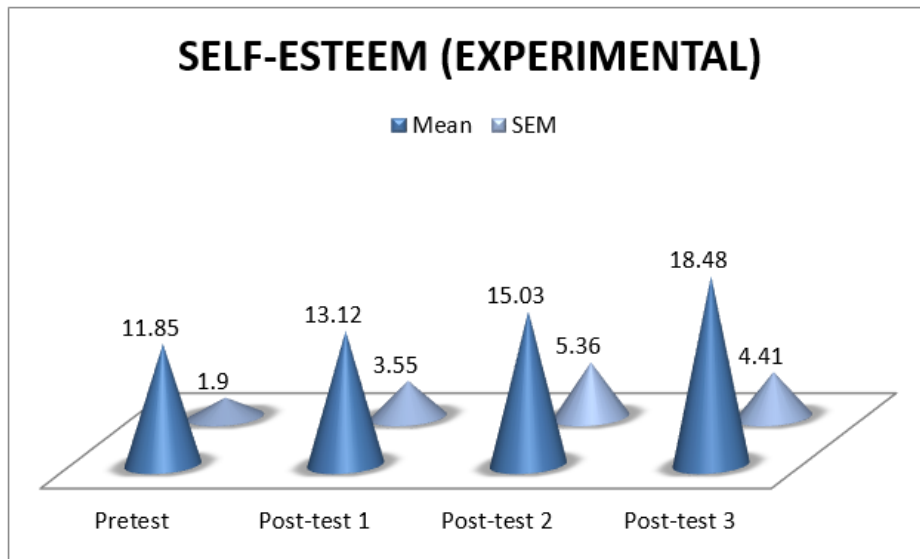
## Early Intervention Techniques

In this study, to enable the reading challenges of children with SLD the school teachers were given training with three days workshop, and then the teachers focused on the children individually 45 minutes for 5 days a week after their regular classes. We used Phonetics-Letter Sound Association, Orton-Gillingham-Multi Sensory Techniques, Flash Card Drill, Repeated Oral Reading (ROR) technique, Paired Reading, Syllable Division, and Chunking Text. Post test was conducted once in every 3 three months to evaluate their stages of improvements.

## RESULTS

**Table 1: Assessment of Self-esteem among children with specific learning disabilities on Experimental group**

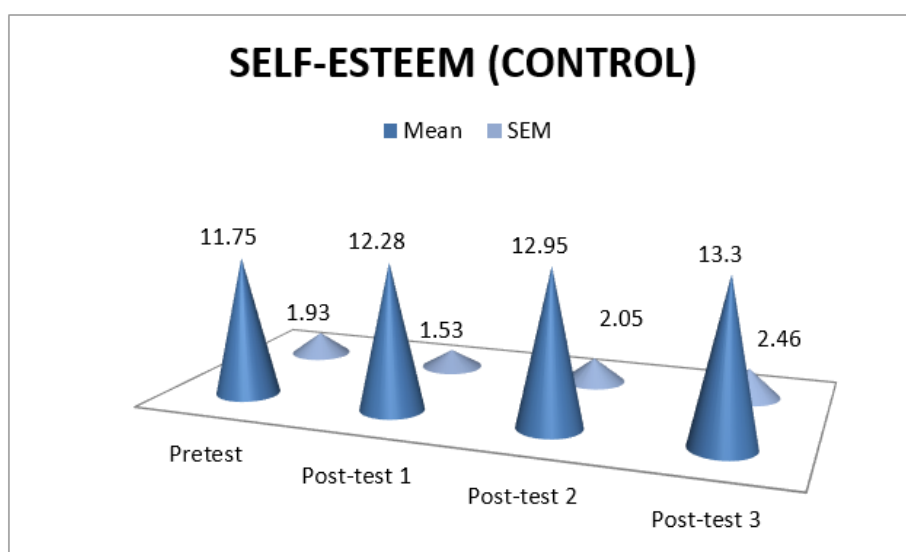
Experimental GROUP Self -esteem	PRETEST		POST TEST						X <sup>2</sup> and df	P value
			Post-test 1 (3 <sup>rd</sup> month)		Post-test 2 (6 <sup>th</sup> month)		Post-test 3 (9 <sup>th</sup> month)			
	N	%	N	%	N	%	N	%		
Low	100	100	74	74	61	61	12	12	177, 6	<0.0001 ***
Normal	0	0	26	26	32	32	74	74		
High Self esteem	0	0	0	0	7	7	14	14		
<b>Total</b>	<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>			
<b>Mean± Standard deviation</b>	<b>11.85±1.90</b>		<b>13.12±3.55</b>		<b>15.03±5.36</b>		<b>18.48±4.41</b>			
<b>P value</b>			<b>0.0753</b>		<b>&lt;0.0001</b>		<b>&lt;0.0001</b>			



**Figure 1: Self-esteem among children with specific learning disabilities on Experimental**

**Table 2: Assessment of self-esteem among children with specific learning disabilities on the Control group**

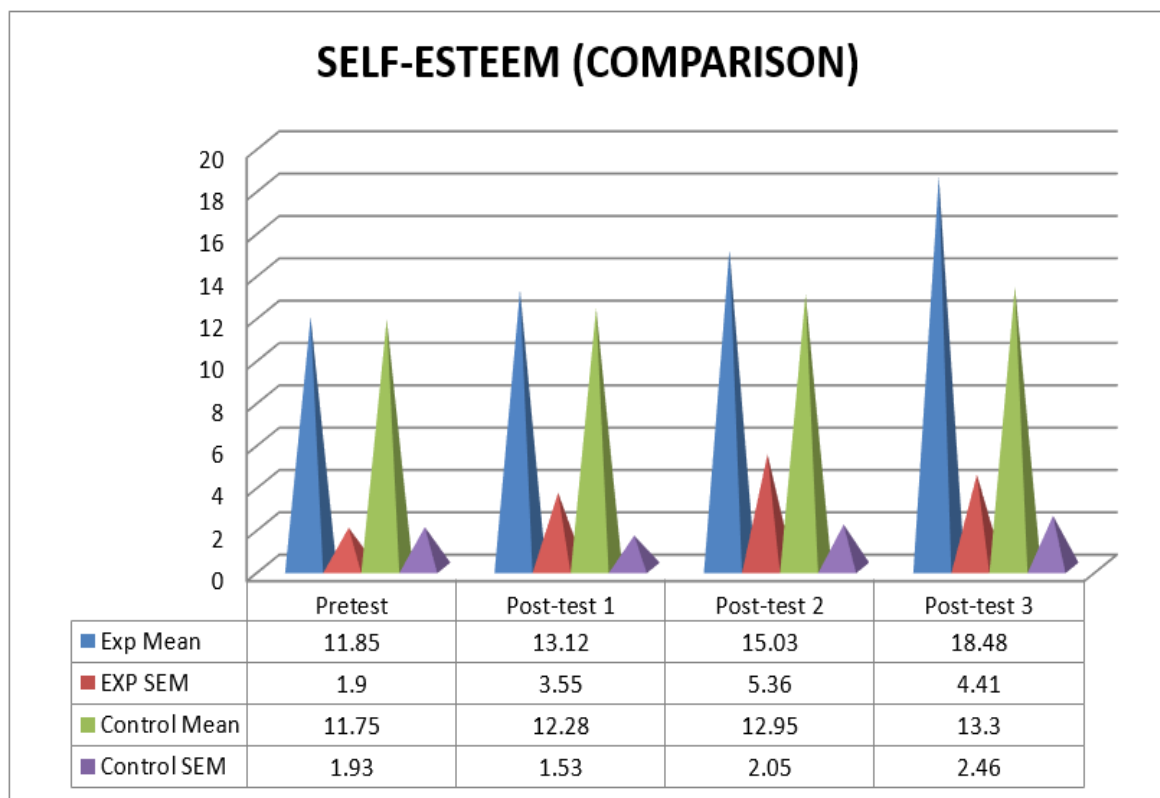
CONTROL GROUP Self -esteem	PRETEST		POST TEST						χ <sup>2</sup> and df	P value
			Post-test 1 (3 <sup>rd</sup> month)		Post-test 2 (6 <sup>th</sup> month)		Post-test 3 (9 <sup>th</sup> month)			
	N	%	N	%	N	%	N	%		
Low	100	100	97	97	95	95	91	91	13.4, 8	0.0991
Normal	0	0	3	3	5	5	8	8		
High Self Esteem	0	0	0	0	0	0	1	1		
<b>Total</b>	<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>			
<b>Mean± Standard Deviation</b>	<b>11.75±1.93</b>		<b>12.28±1.53</b>		<b>12.95±2.05</b>		<b>13.3±2.46</b>			
<b>P value</b>			<b>0.1807</b>		<b>&lt;0.0001</b>		<b>&lt;0.0001</b>			



**Figure 2: Self-esteem among children with specific learning disabilities on Control**

**Table 3: Comparison between the experimental and control group childrens with SLD showing self-esteem level**

Parameter	Test	Group	Mean	Standard deviation	Mean difference	t-value	Df	pValue
Self-esteem	Pretest	Experimental group	11.85	1.90	0.1000	0.2226	792	0.9990
		Control group	11.75	1.93				
	Post-test-1 (3 <sup>rd</sup> month)	Experimental group	13.12	3.55	0.8400	1.870	792	0.2254
		Control group	12.28	1.53				
	Post-test-2 (6 <sup>th</sup> month)	Experimental group	15.03	5.36	2.080	4.631	792	<0.0001
		Control group	12.95	2.05				
	Post-test-3 (9 <sup>th</sup> month)	Experimental group	18.48	4.41	5.180	11.53	792	<0.0001
		Control group	13.3	2.46				



**Figure 3: Relationship between the Self-esteem level among experimental and control**

## DISCUSSION

As part of this study, which includes a comparison of experimental and control groups; it was observed that children with Specific Learning Disabilities (SLD) had higher self-esteem as a result of effective reading intervention.

## Self-esteem determination

In the initial assessment (pre-test), children with specific learning disabilities (SLD) in both the experimental and control groups exhibited comparable self-esteem levels, as indicated by meanscores of  $11.85 \pm 1.90$  and  $11.75 \pm 1.93$ , respectively. No statistically significant differences were observed between the groups, establishing a baseline equivalence in self-esteem. However, following the implementation of the intervention, the experimental group demonstrated substantial improvements in self-esteem, evidenced by post-test mean scores of  $13.12 \pm 3.55$ ,  $15.03 \pm 5.36$ , and  $18.48 \pm 2.46$ . The independent 't' test conducted on the post-test data revealed statistically significant differences in self-esteem between the two groups after the intervention. According to these results, children with SLD in the experimental group benefited significantly from early intervention regarding self-esteem. It highlights the potential efficacy of targeted interventions in enhancing self-esteem among these individuals.

## CONCLUSION

Children with reading difficulties tend to have low self-esteem. They feel less confident and try to avoid any kind of reading activity. Several researches have been done on this matter. It is generally observed that reading helps children feel better about their own selves. When their decoding abilities move forward, they begin to feel more confident in themselves. Despite the shorter research duration, the experimental group demonstrated positive improvement. If students receive remedial help on a regular basis to improve their reading skills, their self-esteem will grow higher. To ascertain its influence, it is also advised that further research may be done on this over an extended period of time. This part of boosting their self-esteem is frequently neglected as more attention is directed toward strengthening the fundamental academic skills.

## References

- 1) Silver CH, Ruff RM, Iverson GL, et al. Learning disabilities: The need for neuropsychological evaluation. NAN Policy and Planning Committee. Arch Clin Neuropsychol 2007; 23: 217-219.
- 2) American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Arlington, VA: American Psychiatric Association, 2013.
- 3) Pennington BF, Olson RK. Genetics of dyslexia. MJ Snowling, C Hulme (Eds.), The Science of Reading: A Handbook. Blackwell Publishing, 2005, p.453-472.
- 4) Silver LB. Learning disabilities. The primary care role in multidisciplinary management. Postgrad Med Jun 1986; 79:285-296.
- 5) Korkmazlar U. Özel Öğrenme Bozukluğu (6-11 yaş ilkökul çocuklarında özel öğrenme bozukluğu ve tanı yöntemleri). İstanbul: Tac Ofset, 1993.
- 6) Gresham FM, MacMillan DL. Social competence and affective characteristics of students with mild disabilities. Rev Educ Res 1997; 67:377-415.
- 7) Bear GG, Minke KM. Positive bias in the maintenance of self-worth among children with LD. Learn Disabil Q 1996; 19:23-3211.
- 8) Meltzer L, Roditi B, Houser RF Jr, Pearlman M. Perceptions of academic strategies and competence in students with learning disabilities. J Learn Disabil 1998; 31:437-451.
- 9) Boetsch EA, Green PA, Pennington BF. Psycho social correlates of dyslexia across life span. Dev Psychopathol 1996; 8:539-562
- 10) Harter S, Whitesell NR, Junkin LJ. Similarities and differences in domain-specific and global self-evaluations of learning-disabled, behaviorally disordered and normally achieving adolescents. Am Educ Res J 1998; 35:653-680.

- 11) Snow CE, Burns S, Griffin P. Preventing reading difficulties in young children. Washington DC: National Academy Press, 1998.
- 12) National Institute of Child Health and Human Development. Report of the National Reading Panel. Teaching children to read: An evidence based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. Washington DC: US Government Printing Office, 2000.
- 13) Torgesen JK. Individual differences in response to early interventions in reading: the lingering problem of treatment resisters. *Learn Disabil Res Pract* 2000; 14:55-64.
- 14) Vellutino FR, Scanlan DM, Small S, Fanuele DP. Response to intervention as a vehicle for distinguishing between children with and without reading disabilities: evidence for the role of kindergarten and first-grade interventions. *J Learn Disabil* 2006; 39:157-169.