

Coping up of problems by children with learning disability

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■ **ABSTRACT** : Children with learning disabilities have trouble taking in information through their senses and processing that information accurately to the brain. Usually they will receive scrambling information like a distorted radio signal or fuzzy television picture. Specific learning disability affects 5-15 per cent of school going children (Sunil *et al.*, 2011). Both the individual and their family need to learn methods of coping with the effects of the disorder; they also need to learn how to cope with the disorder emotionally. Stress related to the disorder can accumulate, making the coping process difficult. Stigmas that friends/family/peers have about the learning disorder can also contribute to the stress level the individual feels. Learning disabilities are often present throughout the lifespan, so learning appropriate and effective methods of coping are essential to successful management of the disorder. The study sample were elementary school children selected from Hyderabad, Nellore and Chittoor districts of united state of Andhra Pradesh representing three regions of the state *i.e.* Rayalaseema, Coastal region and Telangana. Total sample were 120 children with LD attending special education (60) and not attending special education (60). In this study found that the prevalence of learning disability was more among boys than girls and among first born children and had average intelligence. The prevalence was more in reading, writing and mathematics among children with learning disability. LD children who were attending special education classes had moderate coping up capacity of problems in different areas like home, school, emotional and social. Early identification of LD problems and early intervention help in bringing out better coping up capacity among children with LD.

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Learning disability, an unexplained difficulty experienced by children of at least average intelligence in acquiring basic academic skills usually identified during elementary school age. People with learning disabilities have trouble taking in information through their senses and processing that information accurately to the brain. Usually they will receive scrambling information like a distorted radio signal or

fuzzy television picture. A learning disability is a neurological disorder that affects the brain's ability to receive, process, store and respond to information. "LD" does not stand for a single disorder. It is a term that refers to a group of disorders.

General learning disability must be differentiated from specific learning difficulty (eg. dyslexia) which means that the person has one difficulty such as in

reading, writing or understanding, but has no problem with learning in other areas. According to the U.S. Center for disease control and prevention (CDC, 2003), 5.3 per cent of boys and 3.8 per cent of girls ages 5 to 17 were identified as having a learning disability (LD).

Learning disabilities can be categorized either by the type of information processing that is affected or by the specific difficulties caused by a processing deficit.

Learning disabilities usually fall under these categories.

Classification of learning disabilities:

Learning disabilities can be classified as follows.

Dyslexia:

It is a condition where child has difficulty in reading, writing, spelling, speaking etc.

Dyscalculia:

The child has problem in doing maths problems, understanding time, using money.

Dysgraphia:

In this dysgraphia child will have problems with handwriting, spelling, organizing ideas etc.

Dyspraxia (Sensory integration disorder):

The child has problem with eye-hand co-ordination, balance, manual dexterity etc.

Dysphasia/Aphasia:

In this condition the child has problem with understanding spoken language, poor reading comprehension.

Auditory processing disorder:

The child has difficulty with hearing differences between sounds and also problem with reading, comprehension, language.

Visual processing disorder:

In this condition the child has difficulty in interpreting visual information, like maps, charts, symbols, pictures.

Coping up of problems:

Learning disabilities may also be mild, moderate, or

severe. Students differ too, in their coping skills. According to Bowe (2005), "some learn to adjust to LD so well that they 'pass' as not having a disability, while others struggle throughout their lives to even do 'simple' things. Despite these differences, LD always begins in childhood and always is a life-long condition".

In India around 13-14 per cent of all school children suffer from learning disorders. Unfortunately most teachers fail to lend a sympathetic ear to the problems of children. As a result these children are branded as failures. Despite the fact that, the learning disabilities which includes a group of disorders like listening, speaking, reading, writing and mathematics etc is a known class room disorders, it has not reached its optimum awareness levels in the schools in our country.

Neuropsychological differences can impact the accurate perception of social cues with peers. A diagnosis of a learning disability can be potentially devastating to an individual and their family. Both the individual and their family need to learn methods of coping with the effects of the disorder; they also need to learn how to cope with the disorder emotionally. Stress related to the disorder can accumulate, making the coping process difficult. Stigmas that friends/family/peers have about the learning disorder can also contribute to the stress level the individual feels. Learning disabilities are often present throughout the lifespan, so learning appropriate and effective methods of coping are essential to successful management of the disorder.

Objectives:

– To identify the sample children with learning disability using identification of learning disability inventory (LDDI) (Hammill and Bryant, 1998).

– To find out the determinants of outcome variables for coping up of problems.

■ RESEARCH METHODS

Sample:

The study sample were elementary school children selected from Hyderabad, Nellore and Chittoor districts of united state of Andhra Pradesh representing three regions of the state *i.e.* Rayalaseema, Costal region and Telangana. Five revenue divisions were selected randomly from each district and total 15 revenue divisions among three districts were selected. Within each revenue

division 4 Government schools were selected randomly. The sample were identified using purposive and stratified random sampling techniques. In the first stage with the help of school teacher students in 3rd, 4th and 5th grades who were backward in academics were administered with LDDI inventory. The sample children's IQ was measured using ravens progressive matrices Test by following the standard procedure for administration of the test, in school premises in a separate room with comfortable seating position for the child to perform the test. Children with learning disabilities were administered with the check list for assessment of coping up of problems of learning disability.

Tools and materials for research:

- Learning disability diagnostic inventory – (Developed by Hammill and Bryant, 1998).
- Standard Raven's progressive matrices (SPM) test (Developed by Raven, 1976).
- General information schedule.
- Check list for assessment of coping up of

problems of learning 'disability.

The tool developed for the present investigation were developed by following standard procedures for development of tools. The reliability and validity were established by testing the tools on a pilot study sample.

■ RESEARCH FINDINGS AND DISCUSSION

The data collected from two groups of sample that is children with LD attending special education and children with LD not attending special education were scored. Coding was given to the data. The data was subjected to vigorous analysis by using relevant statistical techniques. The nature of the analysis was determined from the point of view of the objectives formulated.

The sample for children with learning disability (LD) were selected using learning disability diagnosis inventory (LDDI, Hammill and Bryan, 1998). Thus, 40 children (33.3%) from 3rd grade, 45 children (37.5%) from 4th grade and 35 children (29.2%) from 5th grade, constituted the sample. The sample children were selected from 3rd, 4th and 5th grades because it is most suitable age for

Table 1: Distribution of sample children with LD according to child variables

Sr. No.	Variables	Children with LD		Total
		Attending SE	Not attending SE	
1.	Grade			
	3 rd	19 (31.7)	21 (35.0)	40 (33.3)
	4 th	23 (38.3)	22 (36.7)	45 (37.5)
2.	5 th	18 (30.0)	17 (28.3)	35 (29.2)
	Gender			
	Boys	41 (68.3)	36 (60.0)	77 (64.2)
3.	Girls	19 (31.7)	24 (40.0)	43(35.8)
	Total	60	60	120
	Age			
4.	8 Years	15 (25.0)	20 (33.3)	35 (29.2)
	9 Years	15 (25.0)	20 (33.3)	35 (29.2)
	10 Years	15 (25.0)	13 (21.7)	28 (23.3)
	11 Years	15 (25.0)	7 (11.7)	22 (18.3)
5.	Birth order			
	First	8 (13.3)	43 (71.1)	51 (42.5)
	Second	26 (43.3)	16 (26.7)	42 (35)
6.	Third/Fourth	26 (43.3)	1 (1.7)	27 (22.5)
	IQ			
	Below average	22 (36.6)	6 (10.0)	28 (23.3)
7.	Average	31 (51.6)	43 (71.7)	74 (61.6)
	Above average	7 (11.6)	11 (18.3)	18 (15.0)

early identification and intervention through proper remedial strategy for children with LD. Among the samples who were identified as learning disabled, there were 64.22 per cent of boys and 35.8 per cent of girls. From the data it was evident that comparatively the prevalence of learning disability was more among boys than girls. With regard to sample children with LD majority (42.5%) were first born followed by second (35 %) and later born (27 %). Studies have shown that with increase in number of siblings there is a decrease in number of positive cases of LD.

Children's IQ was measured using Raven's progressive matrices test (Raven, 1976). From the Table 1, It is interesting to note that majority of children with LD (61.6%) had average intelligence and 23.3 per cent had below average intelligence. 15 per cent of children with LD were found to have above average intelligence.

Studies have shown that people with learning disabilities have average to above average intelligence (Gerber, 1998 and Sheema and Anamika, 2012), that may

be the reason usually LD children were identified when they score less academic achievement than their intelligence.

Table 2, shows the type of LD problems according to attending and not attending special education. Majority (94%) of children had reading problems followed by listening (93%), writing (81.7%), speaking (80.8%), mathematics (78.3%) and reasoning (48.3%) problems.

Table 3, shows mean scores of problems related to LD, as per teachers' perception. When the total mean score of children with LD irrespective of attending SE or not attending SE is considered from the table it is evident that teachers perceived reading problems as highest (mean=12.60 ; SD=2.74) among sample children with LD. The mean scores were high for writing problems (mean =11.78; SD = 2.55) followed by problems in mathematics (mean = 11.53; SD = 2.85) and problems in academic achievement (mean = 11.33; SD =2.05). Comparatively the mean score were low in the areas of visual reception and visual and auditory perception

Table 2: Distribution of sample according to type of problem across status of attending SE

Types of problem according to LDDI	Children with learning disability		
	Attending special education (n=60)	Not attending special education (n=60)	Total
Listening	58 (96.7)	54 (90.0)	112 (93.3)
Speaking	57 (95.0)	40 (66.7)	97 (80.8)
Reading	55 (91.7)	58 (96.7)	113 (94.2)
Writing	58 (96.7)	40 (66.7)	98 (81.66)
Mathematics	57 (95.0)	37 (61.7)	94 (78.3)
Reasoning	54 (90.0)	4 (6.7)	58 (48.33)

Table 3: Mean scores of problems related to LD among children (As per Teachers' perception)

Sr. No.	Problems related to LD	Mean scores of problems related to LD				Total	
		Children attending SE (n=60)		Children not attending SE (n=60)		Mean	SD
		Mean	SD	Mean	SD		
1.	Reading problems	10.95	2.819	14.25	1.284	12.60	2.739
2.	Writing problems	11.32	2.759	12.23	2.258	11.78	2.552
3.	Mathematical problems	10.53	2.587	12.52	2.771	11.53	2.849
4.	Syntax and language problems	10.77	2.560	9.02	1.157	9.89	2.165
5.	Visual perceptual problems	9.22	2.909	8.67	0.958	8.94	2.174
6.	Auditory perception problems	8.72	2.394	8.98	1.000	8.85	1.832
7.	Visual reception problems	8.88	2.429	9.00	1.042	8.94	1.862
8.	Auditory reception problems	9.55	2.734	9.15	1.176	9.35	2.105
9.	Directional confusion	9.70	2.438	8.93	1.118	9.32	1.927
10.	Attention problems	10.57	2.375	9.48	1.467	10.03	2.039
11.	Problems in academic achievement	11.35	2.462	11.32	1.557	11.33	2.051
	Total	118.15	17.772	114.57	5.967	116.36	13.323

problems (mean 8.94 and 8.85, respectively).

Generally teachers focus will be more on skills related to academic aspects like reading, writing and mathematics. The visual and auditory perception problems are mostly invisible and can be identified when parent or teacher have special knowledge in identifying the problem and may be the reason for low scores when compared to other problems.

From Table 4, it is evident that on the whole the sample children felt that they have moderate coping up capacity with regard to problems related to LD. The minimum total score as per the check list was 51 and maximum was 153. The mean score of the total sample was found to be 116.83 (SD = 19.18), which shows that the sample had moderate coping up capacity of problems in different areas like home, school, emotional and social.

When coping up of problems between children attending SE and those not attending SE was observed, comparatively children attending SE class have more score in all areas *viz.*, home, emotional, social than those who were not attending SE class which means as per the rationale of the scale children attending SE classes have more coping up capacity.

Madhuri *et al.* (2001) also reported that individualized remedial education plan, helps most children learn to cope up with disability and may get integrated in

a regular stream.

Children who were not attending SE classes must be included in some type of SE to improve their coping up of problems and to make better adjustments.

Contribution of LD variables towards coping up of problems by children:

The LD variables of the study were type of LD (Listening, speaking, reading, writing, mathematics and reasoning problems) and duration of the problems. The dependent variable was total score of coping up of problems given by the children.

– Dependent variable: Coping up of problems score.
– Predictors: (Constant), type of LD problem (listening, speaking, reading, writing, mathematics, reasoning), duration of LD problem.

– Dependent variable: Coping up of problems score
regression analysis was conducted to assess the contribution of LD variables towards coping up of problems of sample children. Table 5 and 6 show the linear regression analysis. The f value was significant ($p < .000$) which indicates the adequacy of model.

Table 7 shows that among the selected variables reading ($t=3.110$, $p < 0.002$) Reasoning ($t=3.44$, $p < .001$) and duration of LD ($t=1.922$, $p < .057$) have shown significant contribution towards children's coping up of

Table 4: Mean scores of coping up of problems related to LD in Different Areas (As given by children)

Sr.No.	Areas of coping	Mean scores of coping up of problem				Total	
		Children attending SE (n=60)		Children not attending SE (n=60)		Mean	SD
		Mean	SD	Mean	SD		
1.	Home	32.62	5.533	26.37	3.464	29.49	5.565
2.	School/Educational	32.37	5.511	26.92	2.824	29.64	5.148
3.	Emotional	30.52	5.385	26.33	3.592	28.43	5.019
4.	Social	32.30	5.366	26.27	3.888	29.28	5.563
	Total	127.80	20.120	105.85	9.613	116.83	19.183

Table 5 : Model

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.585 ^a	.342	.301	16.037

Table 6 : ANOVA

Model	Sum of squares	Df	Mean square	f	Sig.
Regression	14983.662	7	2140.523	8.323	.000
Residual	28805.663	112	257.193		
Total	43789.325	119			

problems.

Contribution of SE variables towards coping up of problems by children:

To predict the impact of SE related variables that determine coping up of problems given by the child, regression analysis was constructed. The SE variables of the study were type of SE, duration of SE and time spent per day in SE.

- Dependent variable: Coping up of problems score
- Predictors: (Constant), type of special education, duration of SE, time spent in SE class per day.
- Dependent variable: Coping up of problems score

Table 8 and 9 show the linear regression model and ANOVA of the regression analysis. The f value was

significant ($p < .001$) which indicates the adequacy of the model.

Table 10 shows that among the selected independent variables duration of SE and time spent per day in SE classes have shown significant contribution towards coping up of problems by children ($t = 1.79, p < 0.079$ and $t = 3.295, p < 0.002$, respectively). Duration of time spent in SE classes also showed contribution ($t = 1.792, p < 0.079$).

When the duration of SE classes is for longer time and if children spend more time per day in SE classes, the children's coping up capacity increased may be because of special and individual care taken by the special educator. This helps to improve coping up capacity for children to deal with problems related to LD. Hence, early identification of LD problems and early intervention

Table 7 : Co-efficients						
Model		Unstandardized co-efficients		Standardized co-efficients	t -value	Sig.
		B	Std. error	Beta		
1	(Constant)	119.303	8.334		14.315	.000
	Listening	-3.156	2.267	-.124	-1.392	.167
	Speaking	1.839	1.507	.114	1.220	.225
	Reading	6.655	2.140	-.245	-3.110	.002
	Writing	2.445	1.613	.149	1.516	.132
	Mathematics	.990	1.472	.064	.673	.502
	Reasoning	3.975	1.154	.312	3.444	.001
	Duration of LD	.427	.222	.157	1.922	.057

Table 8 : Model				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	.547 ^a	.300	.235	17.599

Table 9 : ANOVA						
Model		Sum of squares	Df	Mean square	f	Sig.
1	Regression	7158.769	5	1431.754	4.623	.001
	Residual	16724.831	54	309.719		
	Total	23883.600	59			

Table 10 : Co-efficients						
Model		Unstandardized co-efficients		Standardized co-efficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	101.899	19.584		5.203	.000
	Type of special education	-19.814	7.023	-.496	-2.821	.007
	Duration of special education	7.884	4.400	.229	1.792	.079
	Time spent in special education	12.676	3.846	.608	3.295	.002

help in bringing out better coping up capacity among children with LD.

Conclusion:

– Comparatively the prevalence of learning disability was more among boys than girls and among first born children.

– Majority of children with LD had average intelligence on par with normal achievers.

– Comparatively children attending SE classes have more coping up capacity of problems than those who were not attending SE classes.

– Among the selected LD variables, reading, reasoning and duration of LD have shown significant and positive contribution towards children's coping up of problems.

– Among the selected independent SE variables, duration of SE and time spent per day in SE classes has shown significant contribution towards coping up of problems by children.

– Early identification of LD problems and early intervention help in bringing out better coping up capacity among children with LD.

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■ REFERENCES

Akhil, D. and Tushar, J. (2013). Prevalence and pattern of learning disabilities in school children. *Delhi Psychiatry J.*, **16** (2): 386-390.

Bowe, F. (2005). *Making inclusion work*. Upper Saddle River, NJ.

Brayan, T.H. (1974). Learning disabled children's comprehension of non-verbal communication. *J. Learning Disabilities*, **10**: 501-506.

Centers for disease control and prevention (CDC) (2003). Mental health in the United States: Prevalence of diagnosis and medication treatment for attention-deficit/hyperactivity disorder United States (2003) *Morbidity & Mortality Weekly Report*, **54**(34): 842-847.

Gitanjali, S. (2004). A comparative study of the personality characteristics of primary school students with learning

disabilities and their non-learning disabled peers. *J. Learning Disability*, **27**(3): 127-140.

Green, R.J., Clopton, J.R. and pope, A.W. (1996). Understanding gender differences in referral of children in mental health services. *J. Emotional & Behaviour Disorders*, **4**(3): 182-190.

Hammill, D.D. and Bryant, B.R. (1998). *Learning disabilities diagnostic inventory*. Austin, TX: PRO-ED.

Kavita, K., Sharmila, D. and Darshan, N. (2012) Identifying children with specific learning disabilities. *J. Learning Disabilities*, **2** (8): 249-255.

Madhuri, K., Sarika, K., Shubhangi, U., Sunil, K., and Sanjeev, A. (2001). Approaches to learning disability. *Indian J. Pediatrics*, **68** (6): 539-546.

Miglani, P.P., Sandhu, P.K. and Kalra, D.S. (2011). Intelligence and need for achievement motivation of children with learning disabilities. *Indian J. Psychol. & Mental Health*, **5**(2): 179-181.

Paul, A., Weiseberg, R.P., Gcrare, J. and Nancy, L.L. (1990). A comparison of children with and without learning disabilities on social problems solving skill, school behavior and family backgrounds. *J. Learning Disabilities*, **23**(2): 90-93.

Raven, J. (1976). *Pupil motivation and values*. Dublin: Irish Association for Curriculum Development.

Sabharwal, Sheena and Sharma, Anamika (2012). A study of different aspects of adjustment of learning disabled children in inclusive settings, *E-reflection*, **1** (4): 164-168.

Sheena, S. and Anamika, S. (2012). A study of different aspects of adjustment of learning disabled children in inclusive settings. *An Internat. Multidisciplinary J.*, **1**(4): 164-170.

Sunil, K., Rukshana, S. and Madhuri, K. (2011). Managing specific learning disability in schools in India. *J. Indian Pediatrics*, **48** (17): 515-520.

■ WEBLIOGRAPHY

24th Annual Report to Congress (2002). Retrieved from <https://www2.ed.gov/about/reports/annual/osep/2002/toc-execsум.pdf>.

Gerber, P. (1998). Characteristics of adults with specific learning disabilities. Available online at: www.ldonline.org/ld_indepth/adult/characteristics.html.

International Dyslexia Association (2006). Retrieved from https://en.wikipedia.org/wiki/International_Dyslexia_Association.

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