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Effect of Cognitive Strategy Intervention on Scholastic Learning of students with Learning Difficulties.

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Abstract:

Learning Difficulties refers to elements that may influence a child's capacity to learn and understand at similar rate as their peers. Due to lack of early intervention, these adolescents are usually considered as slow and incapable. The present research aimed to determine the effect of cognitive strategy intervention on scholastic learning of participants with learning difficulties. The sample comprised 400 participants from private schools of Patiala district within the age range of 10-15 years. The sampling technique in the research used purposive sampling. The instrument for data collection were Colorado Learning Difficulties Questionnaire (CLDQ) and Academic Performance Rating Scale (APRS). There were three phases: in the first phase, all the measures were administered and pre-test scores were taken. In the second phase, equal number of participants were divided to make one experimental group and other control group. Cognitive strategy intervention was provided to the participants of learning difficulties who meet the criteria of having low scholastic learning. The findings of the study revealed a significant negative association of Learning difficulties with Scholastic Learning. The results showed that there were differences in the results of experimental group's scholastic learning before and after the treatment was given. Thus, the effect of cognitive strategy intervention on scholastic learning of participants with learning difficulties was significant. Further, the implications for the future research were discussed.

Keywords: Cognitive Strategy Intervention, Learning Difficulties, Scholastic Learning

INTRODUCTION

Childhood and Adolescence is the most fast transitional phase of human development between youth and adulthood. Adolescence is usually connected with the high school years, yet its physical, mental or social articulations may start prior and end later. In this time one creates knowledge and skills, figure out how to oversee feelings and connections, and obtain traits & capacities that will be critical for getting a charge out of the juvenile years and accepting grown-up parts. The regular issues confronted are conduct issues, social issues, eating issues and learning difficulties (problems in reading, writing and mathematical calculations).

Learning difficulties is an umbrella term for scholastic issues of diverse origin. It includes general learning deficiencies and low scholastic performance, e.g. with regards to incapacities just as specific structures like reading, spelling and mathematics problems. As a result, various significations exist that attempt to separate among general and explicit structures or point out the stability of the learning issue. The term learning difficulties refers to components outside of learning contrasts or disabilities that may influence a child's capacity to accomplish or achieve at similar rate as their fellowmates (Nationally Consistent Collection of Data on school students with Disability [NCCD], 2019). An individual with a learning difficulty might be portrayed as having specific issues with handling certain types of data. Learning difficulties are analyzed as receptive to intensive educational intervention. Effective educational intervention will improve basic academic skills such as reading and writing, and will result in an improvement in the individual's academic achievement levels. Learning difficulties cannot be

cured fully, their effects may impact an individual's performance throughout life academically, in the workplace and in relationships and daily life. Intervention and support supplemented by counselling or other mental health care services, can help an individual with a learning difficulty to achieve success.

Scholastic accomplishment is the degree to which the student, instructor or establishment has accomplished their short or long term instructive objectives. Scholastic learning or Educational accomplishment has turned into an index of adolescent's future in this exceptionally competitive world. Academic accomplishment has been one of the main objectives of the scholastic process. It is additionally a significant target, which each individual is relied upon to act in all societies. Henceforth, academic accomplishment involves a vital part in education as well as in the learning system.

Most normal issues experienced by youths are intense psychological wellness matters, and behavioral issues, social issues, sexual issues, problems in school and face many learning difficulties. Till date review of literature provides ample of evidence regarding the negative effects of learning difficulties on well-being of adolescents. Thus, the need of hour is to create awareness among people and control the problem of learning difficulties so that it can be detected at very early stage in children and adolescents in order to deal with the co-existing problems such as poorscholastic achievement and provide cognitive restructuring intervention to reduce irrational thoughts, enhance academic performance and eliminate academic anxiety.

OBJECTIVES:-

1. To study the relationship of scholastic learning (academic achievement) with learning difficulties
2. To determine the effect of cognitive strategy intervention on scholastic learning of participants with learning difficulties.

HYPOTHESES:-

1. Scholastic learning would be negatively correlated with learning difficulties. .
2. Participants of experimental group being provided with cognitive strategy intervention would show improvement in scholastic learning in post-intervention than the participants of control group who receive no such training.

RESEARCH METHODOLOGY

SAMPLE :- The sample of present study comprised 400 children & adolescents (200 boys & 200 girls) within the age range of 10-15 years, selected from private schools of Patiala district with due consent from principals & participants. First of all, measures of scholastic learning (academic achievement) and learning difficulties variables were given and scores were taken from children and adolescents. Cognitive strategy intervention was administered to 50 participants (25 boys & 25 girls) with total of 12 sessions for each participant. The intervention focussed on scholastic learning or improving academic achievement through the use of cognitive reframing/rational restructuring technique, art therapy and progressive muscle relaxation collaborated with mental imagery. There were three phases in the research. In the first phase all the measures were given to all the participants and Pre-Test scores were taken. In the second phase equal number of participants were divided to make one experimental group and other control group. Cognitive strategy Intervention was given to the participants of learning difficulties who meet the criteria of having low scholastic learning. Cognitive strategy intervention was given after randomly assigning the selected group of participants to treatment condition. In the third phase the above mentioned questionnaires were re-administered and Post-Test score were procured.

MEASURES: The following questionnaires were administered.

1) COLORADO LEARNING DIFFICULTIES QUESTIONNAIRE (CLDQ) (Willcutt, et al., 2011)
2) ACADEMIC PERFORMANCE RATING SCALE (APRS) (DuPauI, G. J., Rapport, M. D.,&Perello, L. M., 1991)

RESULTS

TABLE NO. 1: CORRELATION COEFFICIENT OF COLORADO LEARNINGDIFFICULTIES QUESTIONNAIRE (CLDQ) WITH SCHOLASTIC LEARNING.

VARIABLES	READING	S.COGNIT	S.ANXIETY	SPATIAL	MATH	CLDQ
SCHOLASTIC LEARNING	-.595**	-.782**	-.781**	-.778**	-.775**	-.809**

**p < .01

The Correlation coefficient was computed to study the relationship between Learning difficulties and Scholastic Learning. The results of the present research(table no 1) revealed that scholastic learning (academic achievement) was found to have a significant and negative relationship with learning difficulties total score ($r = -.809^{**}$, $p < 0.01$). These findings get support from the previous researchesviz; the individual affected with learning difficulties fails to accomplish scholastic performance that would be expected by his cognitive abilities called underachievement phenomenon (Capano, Minden, Chen, Schachar and Ickowicz, 2008; Preckel, Holling and Vock, 2006). The findings lend support to the hypothesis that scholastic learning would be negatively correlated with learning difficulties proved to be true. Further, the present study intends to assess the efficacy of cognitive strategy intervention on scholastic learning. The scores on scholastic learning have been statistically analysed as shown from tables 2.1 to 2.3.

Table 2.1: Comparison of Means, SDs and F-ratios of Control-Experimental Groups and Pre-Post intervention scores of scholastic learning

		Mean	Std. Deviation	F Ratio
Group	Experimental	43.5100	14.14106	175.901**
	Control	28.8800	7.21009	
Score	Pre-Score	30.4800	7.60048	107.367**
	Post Score	41.9100	15.37221	

**p< .01

Table 2.2 ANOVA Summary for Scholastic learning scores.

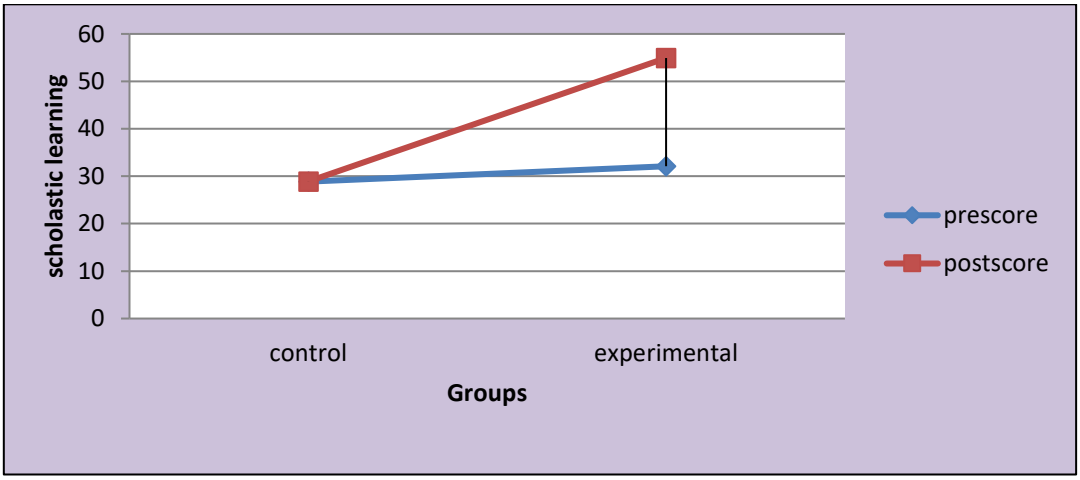
Source of Variance	Sum of Squares	df	Mean Square	F	p value
Group (A)	10701.845	1	10701.845	175.901**	.000
Score (B)	6532.245	1	6532.245	107.367**	.000
A * B	6486.605	1	6486.605	106.617**	.000
Error	11924.700	196	60.840		
Total	35645.395	199			

**p< .01

Table 2.3: Means of Scholastic learning scores showing interaction of control-experimental groups and Pre-Post intervention scores.

Comparison groups		Groups	
		Experimental Group	Control Group
Score	Pre-Score	32.100	28.860
	Post Score	54.920	28.900

Figure 1.0: Graphical representation of means of scholastic learning scores showing interaction of control-experimental groups and pre-post intervention scores.



Perusal of table 2.1 revealed the comparison of the means and standard deviations of Control-Experimental groups and Pre-Post Intervention scores of scholastic learning. It can be observed that the mean scores of Experimental Group (M=43.51; SD=14.14) were higher as compared to control group (M=28.88;SD=7.21) and the difference between the two groups was statistically significant (F=175.901**, p<.01). Similar is the case with pre-intervention scores (M=30.480; SD=7.60) which were lower than the post-intervention scores (M=41.91;SD=15.37) and the difference is statistically significant (F=107.367**, p<.01). It refers to the finding that experimental group got benefited so far as cognitive strategy intervention is concerned.

Table 2.2 represents ANOVA Summary for scholastic learning scores. It is evident that the main effect of groups (Control-Experimental) (F=175.901**, p<.01) and test scores (Pre-Post) (F=107.367**,p<.01) as well as interaction between the two (F=106.617**,p<.01) came out to be significant. Table 2.3 shows the interaction table of the means of control-Experimental groups and pre-post intervention scores.Figure 1.0the graphical representation clearly revealed that the scores of participants for scholastic learning were higher in experimental group as compared to control group.

It was conjectured that participants of experimental group being provided with cognitive strategy instruction showed improvement in scholastic learning in post-intervention than the participants of control group who receive no such training. The hypothesis proved to be true. Support to the findings can be derived from recent research byArsenault (2018) lend support to the hypothesis by demonstrating that cognitive restructuring proved to be boosting technique for children and adolescents with learning difficulties. Findings revealed that students with learning difficulties show anxiety, depressive symptoms associated with scholastic achievement and maladaptive metacognition interpretation. Moreover, with few weeks of cognitive restructuring training, these children and adolescents start experiencing enhanced academic, emotional and resiliency skills. Similar study by Mikaeili, N. et al., (2010) investigated the efficacy of cognitive restructuring strategy on attributional style and academic performance of students. The researchers have demonstrated that false attributions and absence of academic counseling assistance are the main elements influencing adolescents scholastic achievement. Also, showed that eight sessions of cognitive reconstructive counseling and training to experimental group increased internal and general attributions for positive occasions and reducing for negative events. Additionally, mental reconstructive effect led to escalation of scholastic performance of students.

In brief, Individuals who have a learning difficulty might find certain aspects of learning, such as the development of basic skills, to be challenging. While a number of learning difficulties are mild, others may have a severe impact on an individual's scholastic

performance and due to repeated school failures. However, behavioral teachings tailored specifically to the type of difficulty can help an individual develop strategies to address and work with a particular challenge, and intervention can be of significant benefit.Based on findings of the present research, it was concluded that cognitive strategy intervention was effective in enhancing the scholastic learning scores or academic achievement of participants. Considering the findings, the researcher suggests Counselors and Mental Health practitioners to adopt cognitive strategy intervention in assisting students with low scholastic learning.

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