

EFFECT OF PROXEMICS ON ACADEMIC ACHIEVEMENT OF LEARNING DISABLED STUDENTS IN INCLUSIVE CLASSROOM

Anjana Verma¹, Ph. D. & Prof. NPS Chandel²

¹*Assistant Professor, Deptt. of Pedagogical Sciences, Dayalbagh Educational Institute, Agra*

²*Professor, Deptt. of Foundation of Education, Dayalbagh Educational Institute, Agra*

Abstract

The present study is an attempt to explore the effect of Proxemics on learning disabled students in reference to their academic achievement. The sample included 36 learning disabled students. Total students have been divided in to two groups (control and experimental). The physical distance was reduced between teacher and learning disabled students of experimental group. After experiment (classroom teaching with use of proxemics) of 20 days class under selected topics the difference has been measured between both the groups. The post evaluation results show that there has been a remarkable improvement in academic achievement of learning disabled students of experimental group.

Keywords: *Proxemics, Academic Achievement and Inclusive Classroom.*



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Introduction

The aim of education is to provide a well developed and capable citizen to the nation to understand the life and its challenges which they are going to face in their coming years. In order to increase the efficiency of the students, the teacher must perform brilliantly and constructively in the classroom. Inclusion is the most ideal method of placement for students with special needs. Students with disabilities must be educated in regular educational settings to the maximum extent appropriate in light of their needs. The National Policy on Education (1986) has given priority on an equity basis in the field of education and recommends providing equal opportunities to all not only for access but also for success of each student. The inclusive classroom is an idealistic class that always advocates educating all type of students in same class. In inclusive classroom teacher is the main person responsible for the student's effective learning and success. Verma, A. & Rawat, B. (2015), insist on the view that inclusive education is the way of bright educational future of students of our nations so there is an urgent need for consolidated and coordinated efforts for it.

Learning disability is the common problem which a teacher can face in his classroom. It affects the learner's brain ability to absorb, process, analyze or compile this information as quickly as any other one can do. The basic problem of LDs is that, they cannot perform as good in school as they have potential to do because they have difficulty in acquiring basic skills or academic content in the class. Learning disabilities are characterized by intra-individual differences, usually in the form of a discrepancy between a student's ability and his or her achievements in areas such as reading, writing, mathematics, speaking etc. Although they cannot be the primary problems, some students with learning disability also have difficulties with social relations. Successes for LD students require a special focus and attachment on individual achievement, individual progress and individual learning. The academic achievement of learning disabled students may be affected by many variables; from which one most important variable is communication between students and teachers.

Nonverbal communication has been defined as communication without words. It includes apparent behaviors such as facial expressions, eyes, touching and tone of voice as well as less obvious messages such as dress, artifacts, posture and distance between two or more people. In the classroom teacher and students share a hundreds of emotions during classroom teaching which can affect the process of learning. To be successful in communication a teacher should be competent and experienced, not only in verbal communication but also in nonverbal because much of our communication takes place at the nonverbal level. Nonverbal communication is beneficial for students and different kind of communication play a very important and impressive role in the classroom teaching-learning process it has been supported by so many studies i.e. Helmer, S. & Eddy, C. (2003), Chandel & Sharma, (2008), Watson, John, L. (2009), Akinola, O. A. (2014), Anjana, V. & Chandel, N.P.S (2015).

Forms of Nonverbal Communication

NVC is a communication through sending and receiving messages without words. It takes place with the help of eye contact, proxemics, touch, gestures, facial expressions, body language and posture of receiver and sender. The forms of nonverbal communication are Proxemics, Eye contact, Facial expression, Haptics, Kinesics, Paralanguage, General appearance, posture etc.

Proxemics

Proxemics is the study of using physical space around oneself. It is the study of one's apprehension and use of space as a medium of communication. The distance we need and the amount of space we perceive as belonging to us is dominated by many factors i.e. social

norms, cultural norms, situational factors, personality characteristics and level of familiarity. A teacher can help students avoid such misunderstandings by using the different aspects of proxemics. A teacher can increase the comprehension and expression, hold attention and become more successful in the communication process by knowing and using these cues of proxemics. He can create more focus on those students who are learning disabled by reducing the physical space between both of them. This act motivates students to be alert and attentive in the classroom. Moving around the classroom frequently teacher tells students that he owns all the classroom space but it simultaneously aids teacher-student communication by including all students through shifting proxemics. Researchers believe proxemics is a significant tool in nonverbal communication (Anderson, 1999; Defleur, Kearney, & Plax, 1998; Devito, 2009; Leathers & Eaves, 2008; Miller, 1998; Richmond & McCroskey, 2004). Miller (1998) stated that a good teacher should always adopt some flexible changes in the classroom that could be beneficial to student's learning or class interaction. He should keep in mind the point that there are very few chances to be successful learning without using proxemics.

Objective of the Study

The objective of the study was;

- To study the effect of proxemics on academic achievement of learning disabled in inclusive classroom

Hypotheses of the Study

In order to realize the objective of present study null hypothesis has been formulated;

- Ho 1 There will be no significant difference between academic achievement of proxemics experimental and control groups of LD students.

Method of the Study

Quasi-Experimental method of research was used in present study to see the effect of Proxemics on academic achievement of learning disabled students.

Design of the Study

While considering the nature of the problem, Two Group Pre and Post Test Control and Experimental Group design was used in the present study.

Sample of the Study

The sample of present study consist total 36 learning disabled students in two groups. Learning disabled students have been selected by the purposive sampling technique. Both the

groups were selected from an inclusive classroom of a girl's school of Agra city. The sample included 8th class students of age range 11-15.

Tools:

Following tools were used in present study:

1. Self made LD students identification instrument.
2. To control the previous achievement of both the groups "General Classroom Achievement Test" (2012) by A.K Singh and Alpana Sen Gupta was used in present study.
3. Self made Achievement test on selected topics under experiment.

Procedure:

Agra city of Uttar Pradesh state was selected purposively for carrying out the research work. Only girl's school was selected for the study. After selection of learning disabled students pre test of Academic Achievement had been administrated on learning disabled students in both the groups. 20 lessons were taught in a traditional way in control group. In Proxemics experimental group the physical space was reduced between teacher and students. (as shown figure 1.0) they all were seated on front seats in experimental group and randomly in the control group. After the experimental session of 20 days the post tests were conducted on both groups to compare the effect of Proxemics.

Result and Discussion

Comparison of Pre Test Scores

The comparison of pre-test scores on dependent variables was done to equate and match the control and experimental groups.

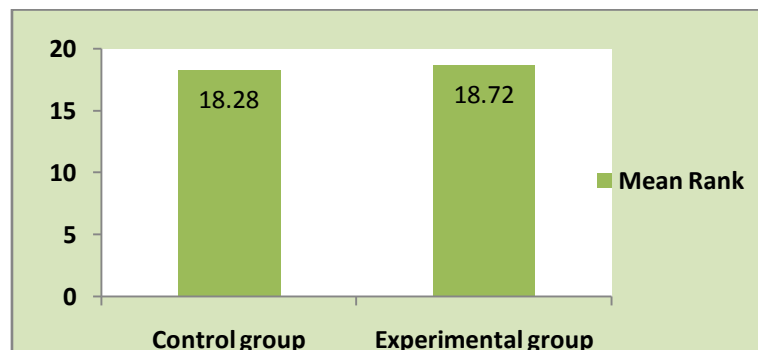
Comparison of Academic Achievement of Learning Disabled Students in Inclusive Classroom.

As the research design of the present experiment demands two groups, it is compulsory to make two equal groups of subjects, which have to be experimented. By using systematic random technique, all the learning disabled students (36) were divided into two groups. 18 LDs for control and another 18 LDs were assigned to the experimental group. To make equal groups of learning disabled students, General Classroom Achievement Test developed by Dr. A.K. Singh and Dr. A. Sen Gupta (2012) was administered on both the groups. Sum of ranks and mean ranks of scores on academic achievement scale obtained by control group and experimental group were computed and compared statistically which is presented in the table 1.0 and by graph 1.0.

Table 1.0: Showing the statistical measures for General Classroom Achievement test of control and experimental groups

Statistical Measures Groups	N	Sum Rank	Mean Rank	U-value	Level of Significance
Control Group	18	329	18.28	158	P>0.05
Experimental Group	18	337	18.72		

The preview of table reveals that the controlled and experimental groups were almost equal before experiment because no significant difference was found between the sum of ranks of two groups. It ensures that both the groups belong to same population. U value was found 158 which was greater than the table value at 0.05 level (99) this reveals no significant difference found in control and experimental group. Therefore, the observation led to us that two groups were equal. This was taken as the base line for further experimentation. The mean ranks of experimental and controlled group have also been represented by the following graph;



Graph: 1.0 Showing the mean ranks of general classroom achievement of control and experimental group

As the results show that there is no significant difference between both groups with reference to their academic achievement. The sampling units of both the groups are learning disabled so it was probable to have the equal results of both the groups. Thus, whole group can be divided in two equal groups. The experimental group was given the treatment. The control group is formed to compare it with experimental group. The control group hence, was given no treatment and also was put under usual conditions.

Classroom Experiment to Study the Effect of Proxemics

In order to study the effect of proxemics on dependent variables 36 LD students were divided into two groups experimental and controlled. In the experimental group the LD students were

seated in the front rows so that the distance between teacher and LD students be reduced or the proximity between teacher and taught be increased. LD students in control group were randomly seated in the class. As this way LD students were taught lessons with increased proximity. After the experimental session of 20 days the post tests were conducted on both groups to compare the effect of Proxemics. Following figure is showing the set up of experimental and controlled classroom:

Classroom set up of Proxemics for control and experimental group

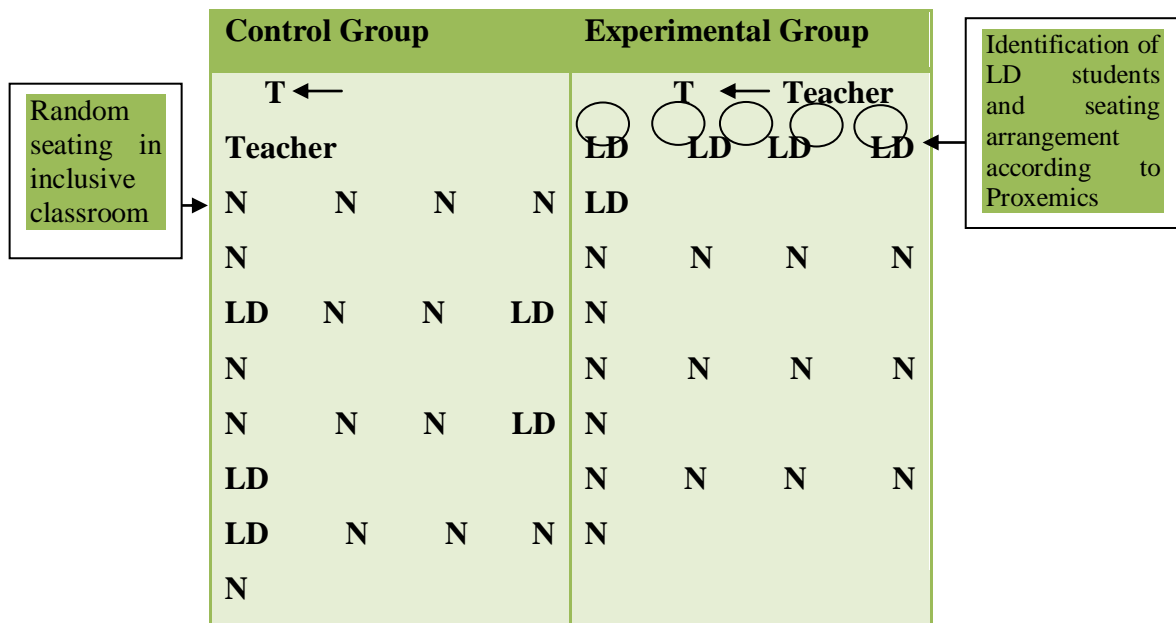


Figure 1.0 is showing the classroom setup for effect of Proxemics

*N= Normal students

*LD= Learning Disabled

Post-Test Analysis

After the experiment session of 20 days post tests were administered on both the groups and further checked by statistical measures and diagrams.

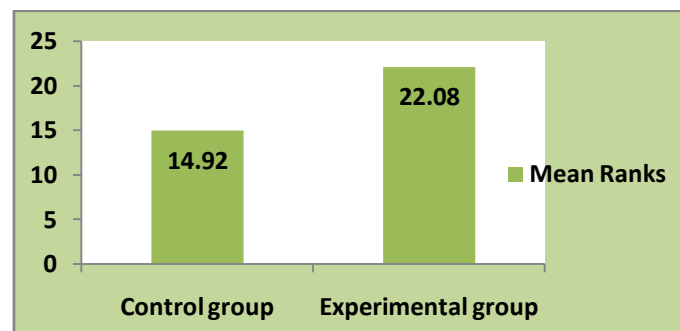
To Study the Effect of Proxemics on Academic Achievement of Learning Disabled in Inclusive Classroom

For analyzing the effect of proxemics on the post test scores of academic achievement the data was collected through a self-constructed achievement test. The test was constructed on the topics taught by the researcher in the experimental session to both the groups. The post test was compared by using mean ranks, sum of ranks and U values.

Table 1.1: Showing the mean ranks, sum of ranks and U- value on the post test scores of academic achievement of control and experimental group

Statistical Measures Groups	N	Sum of Ranks	Mean Ranks	U- value	Level of Significance
Control Group	18	268.50	14.92		P<0.05
Experimental Group	18	397.50	22.08	97.50	

Above table reveals that the mean ranks 22.08 and sum of ranks 397.50 of experimental group is higher than that of control groups. Higher mean rank reveals that members of experimental group secured better ranks in the combined group. Ranks were assigned in ascending order. Their academic achievement has been higher than the control group. The significance of difference between mean ranks was tested by applying Man Whitney U- test. The calculated U value (97.50) is lesser than that of table value (99). It reveals that there is a significant difference between these two groups. Thus, it can be said that academic achievement of experimental group was higher than that of control group. The results show that the proxemic type non verbal communication helps in improving the academic achievement. This may be caused by increased personal attention by the teacher on LD students who are sitting nearby the teacher. The difference found between both groups can be seen in graph 1.1:



Graph: 1.1 showing the mean ranks of post test scores of academic achievement of control and experimental group

The results of the objective are being very well supported by the work done by **Butt, M. N. (2011)**, He found that teachers can make the learning environment active through their non-verbal communication whereby students felt alert in the classrooms and participated in the learning process, which consequently enhanced the level of their retention and understanding. Further it is also supported by **Sikorski (2013)**, He investigated the significance of the physical environment of the classroom proxemics to the learning process, climate and quality

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of communication. He found that the closer the physical distance between the teacher and students, the more conducive to higher academic performance. Lack of adequate physical space creates problems with concentration for students, decreases accuracy in performance of tasks and increases incidence of aggressive behaviour.

Conclusion

After the experiment of 20 days in classrooms of proxemics type of nonverbal communication, students of the experimental group were found to be superior in their academic achievement in comparison to control group. This suggests that proximity with the teacher increases confidence of students of doing right and to reach up to the expectation. So it can be said that teaching with the use of proxemics can increase the academic achievement of learning disabled.

Proxemics is one of the most important type of nonverbal communication. Knowing and using these NVC cues, teachers can increase student's academic cognition and expression in the class, it also holds listener's attention and can make students more successful in their academic process. In many classrooms, the largest amount of space is devoted to the arrangement of individual student desks. It is obvious that the farthest away the teacher is from a student the more likely students are busy in their own world of thought and imagination and are less attentive than those who sit closer and ahead to the teacher. In other words, the main reason for not being attentive or involved in class activity is because of the distance from the teacher to the students. Therefore in the present research students were being sat in the ideal way so that their academics can be enhanced. Findings of the study lead to conclusion that lesser distance between teacher and taught helps in increasing the academic achievement of learning disabled students.

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