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ASSEMBLING SKILL AMONG VISUALLY IMPAIRED STUDENTS

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Introduction

Spatial ability is a collection of cognitive skills which are responsible for the performance of the individual in different walks of life. In spatial ability, assembling skill is important for the Visually Impaired Persons. Assembling means putting together of the parts to make a completed product. It is the act of constructing something. Assembly skills are probed using interlocking block constructions. The act of connecting together the parts of something, the act of assembling something.

Need and Importance of Spatial Ability for the Visually Impaired Students

The spatial thinking is exhibited as essential element of playing, educational, labour activity of the child that is in activities, where it is necessary to use skills to be oriented in space. Therefore the spatial thinking development has very important correctional value for visually impaired school children: having seized receptions both modes of creation and operation by spatial images, the children gains skills permitting to them to perfect practice Orientation & Mobility in space, to improve the quality studies of school subjects firstly Mathematics, Arts, Geography, Drawing etc. All this will promote the many-sided development of the school children and their successful social adaptation.

Spatial abilities are pivotal constructs of all models of human abilities, for example, Guliford (1967) devoted one slice of his structure of the Intellect model to them. According Shepard (1978) high levels of spatial ability have frequently been linked to creativity, not only in the Arts, but in Science and Mathematics as well.

Smith (1964) and Ghiselli (1973) summarized studies in which spatial tests have been used to predict job performances. Spatial tests add little to the prediction of success in traditional school subjects; even Geometry after the general ability has been entered into the regression.

There are several possible reasons for the gulf between the theoretical importance of spatial abilities and their practical utility in predictive studies. First it may be that, beyond some minimum level of competence, spatial abilities are simply not that important for success in school or work. Second, the strength of spatial ability relative to other abilities, particularly verbal and phonemic fluency abilities, may be more important for predicting how problems are represented and solved rather than whether they can be solved. Third, the criterion measures used in most studies may be biased in favour of other abilities, such as verbal or reasoning skills. Fourth, existing tests may not be very good measures of spatial abilities.

The main objective of the study was to find out the impact of intervention on developing Assembling skill among visually impaired students.

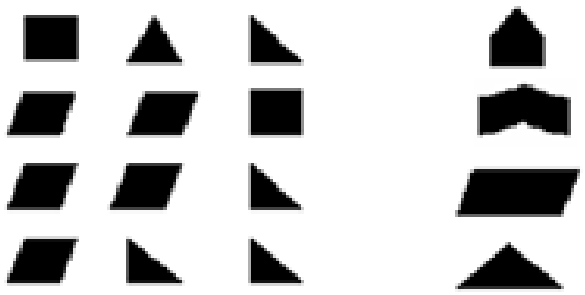
Sample

The sample selected for the study consisted of 30 students, 15 visually impaired and 15 blindfolded sighted students. The visually impaired students were in the Experimental group and the blindfolded sighted in Control group.

Assessment of Assembling Skill

The investigator developed the test based on the test items given by Klatzky et al. (1995). This was to identify the Assembling ability of the samples. The stimuli were Triangular, Diamond Shaped and Square Tiles of 5cm on the shortest side. On each trial the student was given three tiles to inspect as long as he or she desired and then was given a completed shape that could be constructed from two of them.

The task was to build the completed shape using only two of the tile. The four shapes and corresponding tiles are shown in Fig. Timing for the trial started when the subject was handed the tiles and stopped either when the subject indicated completion or at the end of 2 minutes. The time taken by the student for each trial for completing the shape was noted with help of a stop watch.



Intervention Strategies

1. Developed to train assembling skills to visually impaired students
2. Exposure to different types of shapes
3. Activities to arrange blocks
4. Activities to assemble pen
5. Activities to fit lid to different boxes as per shapes
6. Forming shapes with the help of ice stick and straw (e.g.) square, circle, and rectangle.
7. Puzzle activities (e.g.) birds and animals
8. Arranging shapes with the help of paper outers

Result 1
Assembling of Experimental Group

Group	Test	Mean	S.D	't'-value
Experimental	Pre	1.3	1.6	11.1**
	Post	6.0	0	

Significant at 0.01 level

It is evident from the above table, that the t value for the Experimental Group for Assembling is 11.1 which is significant at 0.01 level. It indicates that there is a difference between pre and post scores. Hence it is concluded that the intervention was found to be effective for developing Assembling skill of visually impaired students.

Result 2
Assembling of Experimental and Control Group

Test	Mean		S.D		't'-value
	Group		Group		
	Experimental	Control	Experimental	Control	
Pre	1.3	4.5	1.6	1.13	7.29**
Post	1.3	6.0	1.63	0	11.1**

**Significant at 0.01 level

It is evident that the t value for the pre score of Experimental and Control Group pre score for Assembly is 7.29 which is significant at 0.01 level. It indicates that the Control Group (Blindfolded Sighted) secured higher score (M=4.5) than the Experimental Group (Visually Impaired) (M=1.3). Hence it is concluded that the Control group was found to be acquired Assembly skill higher than Experimental group in pretest.

While considering the post score of the Control and Experimental group, the Experimental Group secured higher score with the t value 11.1 which is significant at 0.01 level. It indicates that the Experimental Group secured score (M=1.3) than the Control Group (M=6.0). Hence it is concluded that the intervention was found to be effective developing Assembly skill of visually impaired students.

Thus the intervention adopted in the study was found to be effective to the most important spatial skill i.e. assembling skill which is paramount for the visually impaired persons for developing orientation in the environment and for their safe and independent mobility. It helps their learning subjects particularly mathematics and science.

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