Concept mapping – a technique for improving Cognitive skills

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Abstract

The study described in this paper has examined whether concept-mapping technique be used to help students to improve their cognitive skill and interest’s. The participants were 60 students from two classes enrolled in experimental data revealed important results. Experimental group adopting a concept mapping strategy can significantly improve students cognitive skill in skill achievement test compared to control group. They indicated that concept mapping can help them to integrated and to cognate knowledge on one page. It is summary of whole lesson.

KEYWORDS: Concept mapping, cognitive knowledge, skill.

Introduction:-

Constructivist learning theory says that all knowledge is constructing from a base of prior knowledge. Children are not a blank slate and knowledge cannot be imparted without the child making sense of it according to his or her current conceptions. Therefore children learning theory of constructivism incorporates a learning process where in the student gains their own conclusions through the creative aid. One of the creative learning aid is concept mapping. Techniques of concept mapping are graphical diagram that can be used to organize knowledge in meaningful ways. Which helps the child to represents knowledge in systematic manner. As well as it reduces anxiety and enhances achievements especially in science subject. It is a met cognitive strategy.

Objectives:-

➢ Plain a training program of concept mapping.
➢ To compare the relation of training program on experimental group and control group.

Hypothesis:-

Concept mapping helps the students for creative thinking.

Research design:-

The focus of this research study was to determine the effect of concept mapping training program for student’s achievement of class 9th only post test equivalent group design was used. There were two groups’ experimental group and control group.
Sample:-

Samples of 60 students were selected. These 60 students were then divided into two groups of 30 each and named Gr-A and Gr-B. Gr-A were considered as experimental group and Gr-B were considered as control group. Experimental group treated with the help of concept mapping training.

Tools:-

Skill test was used for present study as well as observations done by researcher during experiment.

Finding:-

Objective-1:-

During planning a training program for concept mapping following steps involved.
**Objective-2:-**
Statistical data for the post skills test score.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Control group</th>
<th>Experimental group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Mean</td>
<td>3.70</td>
<td>7.90</td>
</tr>
<tr>
<td>SD</td>
<td>1.50</td>
<td>1.71</td>
</tr>
<tr>
<td>Df</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>6D</td>
<td>0.288</td>
<td></td>
</tr>
<tr>
<td>t-Test value</td>
<td>3.34</td>
<td></td>
</tr>
</tbody>
</table>

It has been observed that the experimental group has improved their skill of cognition of concept well t-ratio is higher than the table value at significant level 0.05.

It is clearly evident that the calculated t-value is higher than the table value. So acceptance of research hypothesis and rejection of null hypothesis.

**Conclusion:-**

There is no significant difference among the experimental group and control group at 0.05 significance level. The mean of experimental group was 7.9 and the mean of control group was 3.7. Calculated t-value is more than table t-value.

Concept mapping motivates learning process of student. As well as it helps student for memorizing concept create relation among concept and improve their map-making skills.

**Reference:-**

3) NCERT (2005), *National Curriculum Framework.*
4) Novak, J.D. (1990 concept mapping: useful tool for science education, journal of research in science teaching 1990 )