EFFECT OF USE OF ASSISTIVE DEVICES AND METACOGNITIVE STRATEGIES ON MATHEMATICAL SKILLS OF FOURTH GRADERS WITH DYSCALCULIA

SUMMARY

In the present research the researcher attempted to improve the mathematical skills of dyscalculic students with the use of metacognitive strategies and assistive devices. The present study was experimental in nature. The study utilized experimental method with pre-test post-test and control group design. The sample of 42 subjects with dyscalculia was divided into three groups: two experimental and one control group. Two experimental groups comprised 13 and 14 subjects respectively and control group also comprised 15 subjects. Pre test and Post test scores on adaptive reasoning, procedural fluency and connections of mathematics with other subjects were compared to determine the effectiveness of the treatments.

The effect of interventions was analyzed by parametric statistics. Descriptive statistics like mean, standard deviation, skewness and kurtosis were calculated to describe all the variables. F- Ratios were calculated, t-test for independent means and for correlated means for comparison of groups was used. Graphical representation of the data was done by bar and line diagrams. Findings revealed that the subjects in assistive devices group showed significant improvement from pre test scores to post test scores in all the three dependent variables. Metacognition strategy is also useful for dyscalculic children as the subjects in this experimental group gained score significantly from pre test to post test. There was significant difference between effect of assistive devices and metacognitive strategies on mathematical skills of procedural fluency, in favor of metacognition strategies, while in other dependent variables, the two intervention techniques didn’t yield different outcome.

Deepika Gupta

RESEARCH SCHOLAR

DEPARTMENT OF EDUCATION

PANJAB UNIVERSITY

CHANDIGARH