| | | |
|---|---|---|
| The Study Number in The List | : | The First |
| The Study Title | : | The Effectiveness of a Suggested Enrichment Program Based on TRIZ Theory in The Development of Primary Stage Pupils' Generative Thinking Skills and Their Attitude Towards Mathematics |
| Publisher | : | Journal of Mathematics Education , Egyptian Society for Mathematics Education |
| Vol. , No. | : | Vol.(15) , Part (1) |
| Publishing Date | : | October 2012 |
| Single or Shared | : | Single |


## Abstract:

**The current study aimed at exploring the effectiveness of a suggested enrichment program based on TRIZ theory in the development of primary stage pupils' generative thinking skills and their attitude towards mathematics . The researcher prepared the enrichment program based on TRIZ theory. It includes a group of enrichment activities that are : games , puzzles , untraditional mathematical problems that are suitable for third grade primary students . These activities are presented through some of TRIZ creative principles that are : segmentation, universality, preliminary action, inversion, continuity of useful action and intermediary principle . The researcher also prepared the generative thinking test of mathematics and the questionnaire of attitude towards mathematics. The study sample includes 79 primary pupils , third year , from fayoum governorate schools . It consists of 2 classes , the first class includes 38 pupils represents the experimental group , the other includes 41 pupils represents the**

**control group . The researcher administered the tools to gain pre-data , then taught the suggested program for the experimental group while teaching the control group according to traditional methods . Finally , the researcher administered the tools to gain post data .**

**The study results revealed that the experimental group performed better than the control one in the post generative thinking test of mathematics in all generative thinking skills (hypothesizing, predicting, fluency, flexibility, & originality) and in the test as a whole. In addition, the experimental group was higher than the control one in attitude towards mathematics questionnaire as a whole , and in every factor (attitude towards nature of mathematics, value, leaning, and enjoying mathematics) . The study also revealed that there is a positive correlation, significant at 0.01 , between the experimental group scores in the post administration of both generative thinking test and attitude towards mathematics questionnaire. The study recommended applying some of TRIZ theory principles in teaching mathematics for its effective role in modeling pupils' thinking and helping them to practice thinking skills clearly which lead to form positive attitude towards mathematics .**

**Key Words : Enrichment, TRIZ Theory, Generative Thinking, Attitude Towards Mathematics.**