

The Study Number in The List	:	The Forth
The Study Title	:	A Suggested Program Based on Origami and Kirigami Art for Gifted Pupils with Learning Disabilities and Its Effect on Developing their Geometric Thinking and Epistemological Beliefs
Publisher	:	Journal of Mathematics Education , Egyptian Society for Mathematics Education
Vol. , No.	:	Vol.(17) , No. (6)
Publishing Date	:	Jan 2014
Single or Shared	:	Single

Abstract:

The current study aimed at exploring the effectiveness of a suggested program based on Origami and Kirigami art on developing geometric thinking and epistemological beliefs of gifted pupils with learning disabilities at preparatory stage . The researcher prepared a suggested program based on Origami and Kirigami art , geometric thinking test and epistemological beliefs questionnaire . The study sample consisted of (33) gifted pupils with learning disabilities . The study tools were administered to gain Pre-data , then the experimental group was trained on Origami and Kirigami art in teaching fourfold shapes and kinds of triangle , finally the researcher administered the tools to gain post data .

The study results revealed the effectiveness of Origami and Kirigami program on developing geometric thinking and its subskills of gifted pupils with learning disabilities . This was because that Origami and Kirigami art helped pupils to

deduce the characteristics of geometric shapes included in the program and it was suitable and convenient for their needs and abilities .The results also revealed that there is a statistically significant effect of the program on developing the epistemological beliefs of the gifted pupils with learning disabilities , but with no effectiveness as measured by Blacke equation . This result was because that modifying wrong epistemological beliefs about learning and cognition demanded a lot of time that wasn't available enough in this study . In addition , there is no significant positive relation between the post scores of geometric thinking and epistemological beliefs because they are independent variables and doesn't affect each other .

The study recommended the necessity of holding training sessions for mathematics teachers about Origami and Kirigami art in teaching mathematics and training gifted pupils with learning disabilities on other activities to improve their performance and take advantage of their abilities . Moreover , mathematics curricula should include activities based on this art for its role in activating geometric thinking skills and epistemological beliefs .

Key Words: Origami , Kirigami , Geometric Thinking, Epistemological Beliefs, Gifted Pupils with Learning Disabilities .