

ADULTS' BELIEFS REGARDING ADULT INTERVENTION IN DEVELOPING YOUNG CHILDREN'S GEOMETRICAL THINKING

¹Esther S. Levenson, ^{1,2}Ruthi Barkai, ¹Pessia Tsamir, ¹Dina Tirosh
¹Tel Aviv University, ²Kibbutzim College of Education

The importance of engaging young children with geometry and spatial activities has been acknowledged by several preschool curricula. However, for children to take advantage of the academic opportunities provided at preschool, some level of support from the home environment is necessary (Anders et al., 2012). Beliefs can impact on actions (Maas, 2011). Thus, if we wish to increase children's opportunities to engage with geometric activities at home, a first step is to investigate adults' beliefs. In this presentation we focus specifically on adults' beliefs regarding their intervention in children's learning geometrical concepts. (1) Do adults believe that adult involvement is important to children's geometrical concept development? (2) Do adults believe that they need guidance to help foster this development?

Participants were 42 adults, none of whom were preschool teachers. They answered two open questions: (1) In your opinion, is it important for an adult to be involved in developing preschool (ages 3-6) children's geometric reasoning? Explain. (2) In your opinion, is it important for an adult to receive guidance so that he/she can help foster geometric reasoning among young children (ages 3-6)? Explain. A first step in data analysis was to assess the frequency of positive and negative responses to the two questions. Content analysis was conducted to analyse reasons participants offered for their responses.

Thirty-seven adults (88%) believed that adult intervention is important. Phrases taken from participants' reasons were categorized according to adults' actions (e.g., raising awareness, naming), geometrical concepts/activities mentioned (e.g., triangles, shape composition), importance for the child (e.g., it will raise the child's interest about geometry). Among the five who indicated that intervention was not important some reasoned that children will come across geometric concepts in preschool. Of those who claimed adult intervention is important, 78% stated that guidance for adults is also important, noting both cognitive reasons and affective reasons. For example, one adult stated that guidance was important "for acquiring tools with which to promote this knowledge in a positive manner." Four adults stated that it is not important for adults to receive guidance and four stated that it depends on the type of guidance offered. For example, one adult stated, "Even without guidance, adults expose children to shapes."

In general, for various reasons, adults believe they can play an important part in children's early geometry development. Understanding why some adults are or are not interested in guidance, and why, might help educators attract more adults to participate in workshops to help them interact playfully with children and geometry.

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References

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