

Can comparison facilitate preschoolers' understanding of maps?

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Abstract: We investigated how principles of analogy and comparison can be used to enhance children's understanding of maps. We taught 30 four-year-old children a map of a pretend neighborhood, and then tested their knowledge of both the learned neighborhood and a new one. The children were assigned randomly to either the comparison group, which learned the map through comparison, or to the control group, which learned the map without direct comparison to the neighborhood. We measured participants' understanding of the map using three tasks that measured children's ability to reason about correspondences between spatial relations on the map and in the pretend neighborhood. The same three tasks were also carried out afterward on a different neighborhood in order to test if the ability of understanding maps could be transferred to a new neighborhood. Results indicated strong effects of comparison on learning and modest but significant effects on transfer.