

Child's Play

by Laura Boness

- 1 There is growing evidence that young children learn and think in the same ways as scientists, according to professor Alison Gopnik from the University of California, Berkeley. Preschoolers test hypotheses against data and make causal inferences; they learn from statistics and informal experimentation and from watching and listening to others, she wrote in a report that reviewed previous studies on how children learn.
- 2 She says that people used to think young children were irrational and illogical, but in the 1970s and 80s researchers began to realise that preschoolers had structured thoughts and could make causal inferences about the world around them.
- 3 In an experiment conducted by Gopnik and her colleagues, young children aged 2, 3 and 4 were asked to make a blinket detector either play or stop playing music, which required them to place a particular block on the machine. Block A or Block A and B combined would turn the machine on, while block B would have no effect – and the children were able to figure out the correct patterns to make the machine go or stop.
- 4 Even babies can understand 9 – another study involved a researcher showing babies red and white balls, then placing a random sample in the bin. This should have given a distribution of colours similar to that of the original bin, but if the researcher deliberately switched the samples and gave the kids an unexpected result, they stared at that sample longer.
- 5 Gopnik explained that some of the pressure to make preschools more academic might end up being counter-productive as it may narrow the range of hypotheses that children are willing to consider. 10, they seem to learn best when they explore the world through play. “Look at what your children are interested in. They can learn a lot about the world by putting mixing bowls together, or playing with sand, or through pretend play,” she said.



scienceillustrated.com.au, 2022