# Better together: Exploration prior to instruction facilitates rule-learning and modifies attention to demonstration

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**Abstract**

Debates assessing the merits of independent exploration and pedagogical instruction have been extensive. We compare each of these learning environments against exploration followed by instruction to assess benefits to procedural learning and abstract rule-learning. Ninety-nine six-year-olds learned about novel locks and keys by either independently exploring prior to receiving instruction, proceeding to instruction without exploration, or acting without instruction. Children who received instruction did not differ in procedural knowledge. However, children who explored prior to instruction were significantly more likely to learn the rules than children who did not explore or did not receive instruction. Childrens visual attention during instruction indicated that those who explored looked proportionally more to the stimuli as the experimenter demonstrated. This suggests that the value of exploration is perhaps in preparing the learner for later information. Therefore, these results suggest that there is particular value for conceptual learning in the combination of exploration with instruction.