Title

Exploring Aha! moments during science learning

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Authors

Chesebrough, Christine
Wiley, Jennifer

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Exploring Aha! moments during science learning

Christine Chesebrough
Drexel University, Philadelphia, Pennsylvania, United States

Jennifer Wiley
University of Illinois Chicago, Chicago, Illinois, United States

Abstract

The Aha! experience has mainly been studied in the context of insightful problem solving, but less work has investigated Aha! experiences that can occur during learning. In these studies, participants were asked to self-report Aha! moments when learning about principles in Biology, such as symbiosis or mimicry, from sets of three divergent examples. In the problem-oriented condition, participants saw the examples and were asked to generate their common principle. In the direct instruction condition, participants were told the principle directly. Participants were significantly more likely to report Aha! moments in the problem-oriented condition. Although having an Aha! experience did not always lead to better learning, the likelihood of having an Aha! moment was positively correlated with several student characteristics, particularly in the problem-oriented condition. These studies offer another perspective on the potential benefits of learning from invention activities.