

QUESTIONS AS A DETECTIVE STORY: GOOD CLUES, RED HERRINGS, AND STUDENT REFLECTIONS

Petr Lebedev, Manjula Devi Sharma

Presenting Author: Petr Lebedev – petr.lebedev@student.curtin.edu.au
SUPER – Sydney University Physics Education Research Group, The University of Sydney, NSW 2006, Australia

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Asking questions is a vital part of education. Educators ask questions in class, for assessment, and as part of online learning. But not all questions are created equal.

In this study, we created three short videos that all pose the same question about electricity, in slightly different ways. Version 1 asked the question, Version 2 asked the question and provided extra clues that would lead students to the right answer, and Version 3 asked the question and gave unnecessary clues that were red herrings. The three versions were randomly assigned to first year physics students the University of Sydney, as part of their laboratory pre-work. The students were asked to write down the answer to the question, and their confidence in their answer. Then all students watched the same video with the solution, and were asked to select if they did, or did not change their answers when presented with the correct answer and their reasons for doing so.

The number of correct answers, the ratio of those who did change to those who did not change, and the reasons given vary for all three videos – the results will be presented during this talk.

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