

EC17 9:30 a.m. Developing a Concept Inventory to Assess Student Models of Lunar Phases

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After interviewing introductory astronomy students to assess their initial models of lunar phases, we uncovered the different areas of student difficulty with phases of the moon. The purpose of this inventory was to probe students' models of lunar phases in an efficient manner. Based on this data analysis, a 22-item multiple-choice concept inventory was developed. Multiple items were designed to address the individual areas of difficulty, so that model analysis techniques could be used to evaluate the students' models effectively. This concept inventory was administered at multiple institutions during the fall semester of 2000. Development and validation of this instrument will be discussed.

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