

Abstract Submitted
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A revision of college students' concept domain of lunar phases.

REBECCA LINDELL, Southern Illinois University Edwardsville — Previous research (Lindell, 2001) showed that college students' lunar phases concept domain consisted of 8 dimensions: Period of Moon's orbit, Period of Moon Phases, Direction of Moon's orbit around the Earth, Motion of the Moon in the sky, Phase and Sun-Earth-Moon relationship, Phases-Location in the Sky-Time of Observation relationship, Cause of Phases and Effect of Location on Earth on observed phase. Each dimension uncovered has a number of facets, each representing the scientific correct answer, as well as the different alternative models possible. In a follow-up study, interview data was collected from 25 pre-service elementary education majors. This additional study uncovered previously undiscovered difficulties students' had with lunar phases. The discovery of these new difficulties resulted in the need to revise the original concept domain. The new revised concept domain will be presented as well as proposed changes to the successful Lunar Phases Concept Inventory (LPCI) to account for this change.

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