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Comarison of Four Methods for Teaching Phases of the Moon¹ BRIANNA UPTON, XIMENA CID, RAMON LOPEZ, UT Arlington — Previous studies have shown that many students have misconceptions about basic concepts in astronomy. As a consequence, various interactive engagement methods have been developed for introductory astronomy. We will present the results of a study that compares four different teaching methods for the subject of the phases of the Moon, which is well known to produce student difficulties. We compare a fairly traditional didactic approach, the use of manipulatives (moonballs) in lecture, the University of Arizona Lecture Tutorials, and an interactive computer program used in a didactic fashion. We use pre- and post-testing with the Lunar Phase Concept Inventory to determine the relative effectiveness of these methods.

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