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Avijit Kar*, avijitkar@gmail.com, Atlanta, GA 30324. *College Algebra Students' Understanding of Rational Functions Using Computer-Aided-Instruction (CAI)*.

Postsecondary institutions continue to search for effective instructional methods to meet the needs of and retain college students who require mathematics remediation. Using MyMathLab learning aids, the study describes college students' understanding of the rational function, changes in their understanding, and ways of knowing they use to investigate problems. Four categories of evidence (conception, representation, connection, and application) were used to make conjectures about the students' understanding over three instructional phases. Case studies were developed based on evidence gathered from background interviews, clinical interviews, and participant task observations. The students' understanding contained a central theme: the rational function as a collection of problems to do. Three categories of beliefs are described in the report based on the study. (Received August 30, 2019)