Maria Valdez: Five out of Four People Have Trouble with Fractions

Abstract
The purpose of this study was to determine if the use of manipulatives would enhance student participation and understanding of fractions. Students created several sets of manipulatives: fraction bars, fractions circles, and pattern bars to use throughout this study. Along with these manipulatives, visual models were also used, including area models. Students used these manipulative to enhance their learning and understanding of: equivalent fraction, adding and subtracting fractions, multiplying fractions and dividing fraction. The process of allowing students to get comfortable with manipulatives as a learning tool is vital in their acquisition of knowledge. The study group consisted of twenty-seven students in my eighth grade mathematics class, over a period of eleven weeks beginning in September 2010. Data was collected to determine the level of understanding acquired during this study. Data used consisted of class participation, homework, quizzes, pre and post tests, and surveys.