Lesson Plan 1: Using R & R to Teach Mathematics--Have, Who Has?

I used suggestions and card ideas from the book [Teaching Mathematics Vocabulary in Context] to develop the math vocabulary game adapted from the classroom game “I Have, Who Has?” (Association of Teachers of Mathematics in Maine Newsletter, Winter 2000).

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Grade Level/Subject: Geometry/7th Grade and older

Topic: I Have/Who Has?

Objectives (P.A.S.S.): Process Standard 2: Communication

1. Use mathematical language to read and write mathematics and to converse with others.
2. Analyze mathematical definitions and discover generalizations through investigations.

Introduction:
The idea for this game came from the book [Teaching Mathematics Vocabulary in Context] by Miki Murray, (Published by Heinemann, ISBN 0-325-00634-2) given to us this summer in the Math-Ese workshop.
The game is an adaptation of the classroom game "I Have, Who Has?" that had been adapted to focus on mathematics vocabulary (Association of Teachers of Mathematics in Maine Newsletter, Winter 2000). The game requires making a set of 3X5 cards. The top of each card contains one mathematics term preceded by the words "I have." The bottom of each card lists a definition--unrelated to the term at the top of the card--in the form of a question, after the words "Who has?" I distributed the cards out randomly, making sure everyone got at least one. I selected one student to begin. She carefully read the "Who has" definition, ignoring the "I have" at the top. Students had to listen carefully to decide whether the definition matched one of their words. The person who had the word being defined called out "I have" followed by the word. That person then read the "Who has" definition on his card. The game continued until all the definitions had been read. The cards were designed so that the student who began the game would have the final word at the top of the beginning card.

Instructional process:
Students must have developed a repertoire of vocabulary terms for the data base from which to choose definitions. Though I just used this exercise at the end of a single class period, it could be extended by allowing students to create their own strands. I plan to have students do that at a later time, when we have covered more words. The book gives excellent tips on how to build the strands.

Closure: This exercise is best used when five or ten minutes is all the time you have.

Assessment: At the time that I used this activity, we did not have time to play again. The assessment is just keeping up with the time it takes to play the game, and checking for improvement.

Modifications/Accommodations: Giving the easiest definitions to the students who are most challenged would provide any modifications needed.

Reflection: The class wanted to improve their time, which was a tremendous improvement in attitude from just writing definitions in their taxonomies.