Mathematics

**Area/Strategy:** Reciprocal Peer Tutoring

**Appropriate Grade Level:** K-12

**Procedures/Steps:**

In this cooperative strategy, students alternate between student and teacher roles and follow a structured format to help team members make academic progress. Two or more students work together to prompt, teach, monitor, evaluate, and encourage each other. Individual academic accomplishments are combined and group rewards are administered as a result of group performance.

**Reciprocal Tutoring Example**

The following is an example of using peer tutoring to reinforce a math lesson for third grade regarding understanding fractions as parts of unit wholes.

**Tutor:** The purpose of this lesson is to understand fractions as part of a whole. (Tutor states the learning objective.) You will practice writing a number as a fraction by looking at the parts and the whole in different examples.

**Tutor:** Look at Picture #1. Tell me how many small squares there are in the picture.

**Tutee:** Four small squares

**Tutor:** Good! This is the number of small parts in the whole figure. Write that number in the square at the bottom of the fraction sheet.

**Tutor:** Now, how many of those small squares are shaded?

**Tutee:** One small square.

**Tutor:** Great! This is the number of shaded squares in the whole figure. Write this number on the top in the shaded square of the fraction sheet.

**Tutor:** Now we want to name this fraction by using the number of shaded squares and the number of small squares. What are the numbers?
**Tutee:** 1 and 4

**Tutee:** That is correct! To name the fraction we say 1 out of 4. The bar divides the parts on the top with the whole on the bottom. Another way is to say it is that 1 shaded square out of 4 squares means \(\frac{1}{4}\), or one fourth.

*In this example, you are defining parts of a whole (a fraction) and establishing a definition of division by explaining the symbols and relationship of the numbers. You are moving the child from a concrete to an abstract form of the concept.*

When the Tutee has answered the question the roles change and the Tutee is the Tutor and vice-versa.

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**Comments and/or tips:**

RPT strategy attempts to maximize peer choice and peer management to enhance students' competence motivation and active participation in learning. The RPT methods involve peer-administered, as opposed to teacher-administered, group-reward contingencies. The RPT reward procedure requires peers to select their rewards and performance goals from teacher-prepared choices and requires peers to monitor and evaluate the team's performance. This combination of reciprocal peer teaching and peer management of group-reward contingencies produces greater academic and motivational gains than strategies in isolation.

The Reciprocal Peer Tutoring Strategy used with mathematics has been said to improve the learners' retention of information, increase motivation and active participation in learning and promote teamwork between one another.

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**Sources:**