Modeling

Modeling is a demonstration of desired behavior or skills. The basis of this educational approach is that people imitate the behavior and skills that they observe others doing. People also learn more efficiently when they observe and imitate a model than when they do not. As a teacher, I will model or assign someone to model the behavior and skills that I want my students to learn.

One aspect of math with which many students become easily frustrated involves solving story problems. Students must apply problem-solving skills to solve story problems. This is a great real-world application for math, because students will need problem solving skills in many areas of their lives. Story problems come in many forms, and students can learn how to solve each one by applying general problem-solving skills and techniques specific to each problem. I will model the general problem-solving skills and the specific techniques, so my students can solve similar problems by imitating what I do. I will take my students through the four phases of modeling, which are the attentional, retention, reproduction, and motivational phases.

The attentional phase is where students start to pay attention to what I'm doing and saying. This is an important phase, because students cannot learn unless they are paying attention. For story problems, this may also be the most difficult phase, because many students have had bad experiences with story problems in the past and fear them. To calm their fears, I will assure my students that I will show them techniques for solving each kind of problem. I will also encourage and motivate students by making the problems interesting and applicable to them. I will find out what interests my students and modify problems accordingly. For example, if some of my students enjoy English and reading, I may create a problem around the characters and events in a popular novel. I will also find out what makes my students laugh and modify problems to make them absurd or funny.

The retention phase is where I model what I want my students to learn and give them time to practice problems on their own. I will use inner speech to talk though the process of solving the problem. I will also write down the specific problem-solving steps in a flowchart or other organized way. I will model one problem as an overview, and then I will model several more each time asking students to help me with more of the steps. Finally, I will encourage students to use inner speech and to write down and reference the steps when they solve the problems on their own. I will help them to develop a flowchart that shows where each step falls in the process. It will also show them which steps require decisions and what path they should follow depending on their decision.

The reproduction phase is where I will assess student learning. I will check homework and ask students to solve problems at the board using inner speech and the steps we outlined for solving the

specific problem. I will provide immediate, positive feedback and corrective modeling to resolve their mistakes or to reinforce their steps.

The motivational phase is where students are motivated to imitate my model because of an anticipated reward. Grades on the homework and assessment will act as one motivational element. Another element will be public praise and tangible rewards. I will verbally praise students and award certificates for successfully using the model. I will also award tokens that students can use to purchase privileges and other prizes.