Sean Lucas

Learning Disability Strategy

**Name of the Article:** Model Drawing Strategy for Fraction Word Problem Solving of Fourth-Grade Students with Learning Disabilities.

**Population:** Students with a learning disability.

**Objective:** To utilize a model drawing strategy (MDS) on fraction comparing and ordering word problems to help students with a learning disability.

**Age/Grade Level:** 9-10 years

**Procedure:**

 The procedure for this study was to take a pre test, then take a baseline data on normal school days. The students were allowed to do the work assigned to them in the normal way to allow for the students to grow and learn in a traditional fashion. After a trend of what was going on was determined, the new method was implemented so that the students could begin to use the new MDS package.

 This package was for four training lessons and then to actually introduce MDS after each training session. No additional math instruction beyond regular lessons were included. This allowed for the students to learn from the instruction of MDS. The training sessions were for the use of MDS, so that the students could actually use the package whilst it was helpful. MDS consisted of six steps. 1. Read the problem aloud. 2. Decide who and/or what is important. 3. Draw a rectangular bar to show the whole and partition of the bar. 4. Reread each sentence and note known information on the diagram. 5. Find the answer to the problem. And 6. Answer the question. The teacher and student solved three word problems in each session.

**Possible Adaptations:** I would think that two assisted problems, and then allow for the student to possibly work individually upon a problem would be helpful, for repetition is the primary learning method of mathematical word problems.

**Reflection**: I like this article for its step by step method of working through word problems. Even students without special needs often struggle with word problems for math, thusly working on these kinds of problems in a method where the student could draw out the problem could be helpful to them.

**Research:** The students who participated all had a dramatic improvement of their knowledge of the problems from their pretest to the test provided at the end of the study.

**Reference**

Sharp, E., & Dennis, M. S. (2017). Model drawing strategy for fraction word problem solving of fourth-grade Students with learning disabilities. *Remedial and Special Education,* *38*(3), 181-192. doi:10.1177/0741932516678823

Sean Lucas

Emotional Disability Strategy

**Name of the Article:** **Helping Students** With **Emotional** and **Behavioral Disorders Solve Mathematics Word Problems.**

**Population:** Students with an emotional disability.

**Objective:** The students will improve mathematical word problems learning skills.

**Age/Grade Level: 10-11 years**

**Procedure:**

 In this article two things were done, taking a baseline and then an intervention occurred. The goal was for the students to be able to learn the same amount of information as students that did not have an Emotional Disability. This allowed for students to be able to refocus and work on their work without the distraction of the disability to come into effect. This is helpful to each of the students because it allows upon them all to learn and grow a little more than what they have already learned simply by the intervention.

 The baseline was taken in form of a pretest that each student took, all identical to each other, the students were then taught the material to take a post test afterwards. The students were given an intervention into their behavior symptoms. This allows for students to be able to learn the material and focus better upon the task at hand. This allows for students to be able to react and actually function without the distraction and allow them to go above and beyond the baseline for the study. The students are allowed to learn in an environment free from distractions, even that of their own body once the intervention had been accomplished, allowing for the students to all individually work out the problems at their own pace. Without the distraction, it can be determined that the students could be able to learn the material presented to them in a firmer, factual manner.

**Possible Adaptations:** I would broaden the students subject matter beyond word problems to all mathematical problems, as well as checking if the strategy worked upon other students whomwere struggling with more severe cases of Emotional Disabilities..

**Reflection**: I really like this strategy because I feel like Emotional Disabilities are often overlooked in comparison to other disabilities in the care of the student’s needs.

**Research:** the majority of the students’ ability to answer the problems after the intervention increased from before the intervention.

**Reference**

Alter, P. (2012). Helping students with emotional and behavioral disorders solve mathematics word problems. *Preventing School Failure: Alternative Education for Children and Youth,* *56*(1), 55-64. doi:10.1080/1045988x.2011.565283

Sean Lucas

Intellectual Disability Strategy

**Name of the Article:** A Conceptual Approach to Teaching Mathematics to Students With Intellectual Disability

**Population:** Students with an intellectual disability.

**Objective:** The students will improve mathematical learning skills using conceptional understanding.

**Age/Grade Level:** 7 -18 years

**Procedure:**

 This article was written as a strategy to be used for the benefit of students with Intellectual Disabilities, the students are struggling with mathematics, or having some sort of otherwise mental difficulty with mathematics. This is a description of the procedure used by the researchers. The procedure used was designed to teach each student upon an individual and personal level. This allows for students to individually learn and know the material at their own rate, because they are working with a student at the student’s pace, rather than the teaching standards pace. This results in a slightly slower method of teaching that is far more effective at students learning and retaining the material.

The strategy used for the article was that of communication, relationships, and interaction. The students are taught upon mathematical principles using the three afore mentioned techniques. Mathematics is generally taught as a teacher lectures, then student responds method. These three techniques focus more upon actually working with the student upon an individual and unique method for each student for the students to help them all study in different situations. Communication allows for students who are struggling to seek help upon an individual basis. The students seek the teacher for help, who can teach individually from material that works for the student. Thusly, a cycle is formed for the student where the student can learn.

**Possible Adaptations:** I would adapt this strategy in the matter of adding more teachers to the program, rather than just one. The flaw with this strategy is that it relies on one teacher to teach the entire material to each individual student, rather than multiple teachers spread out over a group of students. This effectively speeds up the learning processes demonstrated by the strategy that the article suggests.

**Reflection**: I like this article because it focuses on each individual student. This allows for the students to interact the most with their teacher. I think that this is a problem even outside of students with special needs that are not addressed near as well as they should be. This means that students can learn at their own pace, their own rate, and in their own way.

**Research:** This strategy apparently works because the student’s individualized plan allows them to learn and retain the material presented to them at a greater rate than without the strategy.

**Reference**

Göransson, K., Hellblom-Thibblin, T., & Axdorph, E. (2015). A conceptual approach to teaching mathematics to students with intellectual disability. *Scandinavian Journal of Educational Research,* *60*(2), 182-200. doi:10.1080/00313831.2015.1017836

Sean Lucas

Social Justice Strategy

**Name of the Article:** Art and social Justice: What is a Portrait?

**Population:** Students taking Art

**Objective:** Students will: 1. Become familiar with the genre of photographic portraiture. 2. Analyze ways that portrait photographers portray others. 3. Consider features that can make a portrait into a statement.

**Age/Grade Level:** 3rd through 5th grade

**Procedure:**

 The teacher will explain the meaning of the word “portrait.” The teacher will then allow students to brainstorm about “What can a portrait show about an individual or a group of people?” The teacher will offer more relevant questions as needed. The teacher will then explain what a stereotype is, and then pose the question how students think portraits can reinforce or fight against racial stereotypes.

 The students will then be broken up into small groups, where they will be given a photographic portrait from the Smithsonian’s 2008 exhibit. “Let Your Motto Be Resistance: African American Portraits.” The students will discuss how the portraits serve to either reinforce or go against stereotypes.

**Possible Adaptations:** I would adapt the strategy of this lesson by providing a much wider group of people than just African Americans, such as including portraits of Latinos and Asian groups.

**Reflection**: I enjoy this article because it allows for the students to take a very real look and see how actual portraits can affect the world around them.

**Research:** This strategy allows for students to learn about how the stereotypes in media affect the world.

**Reference**

<https://www.tolerance.org/classroom-resources/tolerance-lessons/art-and-social-justice-what-is-a-portrait>

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<https://www.tolerance.org/classroom-resources/tolerance-lessons/art-and-social-justice-what-is-a-portrait>