

## **EDT 512 Instructional Design (ID) Plan**

### **The Problem.**

The problem is that my kindergarten students have an incredibly hard time making, counting and using groups of 10. This year we were given a new math curriculum and groups of ten is one of the new items that we are expected to teach; however, no matter which way we were presenting it, there were still many students struggling with the concept. Every time they were asked how many groups they had made, they would answer, "10," because they counted to 10 in the group. No matter how many times we would explain that they had made one group of 10, they still did not understand that 10 was 1 group but counted as 10 again when counting. When they were given homework, many students just counted the total number of objects rather than writing the number of possible groups. After assessing them, only 59% of my students were able to achieve mastery of this concept, whereas, approximately 88% are usually able to.

### **The Need.**

We need an interactive and demonstrative way of presenting this concept. A program that is engaging, yet simplifies the components so that students are able to comprehend and apply this concept independently. We need something that explains groups of ten in simple language that kindergartners will understand and then show them how to use it.

### **The Audience.**

The audience this project will be designed for is five to six year old students in a middle/upper-middle class school. The majority of students (approximately 88%) are above average in math; however, "groups of 10" is one of the areas where achievement dropped immensely. About 41% of students had difficulty attaining mastery of this concept with alternative teaching methods. This program will be designed to be used with a group of students or one-on-one for extra reinforcement of this concept.

### **Objectives.**

The students will learn how to find, count and use groups of 10. After using the program, students will be able to use groups of 10 to assist in counting larger sets of objects, and writing numbers larger than 10. This program aims to achieve these objectives because kindergarten students in our district are responsible for being able to create a group of ten, identify how many groups they've made and use them to help when counting sets larger than ten. They are also expected to begin to understand place value and using digits in the correct place.

### **Content.**

The content of this program will include: what a group of 10 is; how to make a group of 10; how groups of 10 can help when counting larger sets; and how groups of 10 can help when remembering how to write a number. This program also supports some of the number and operations standards for grades pre-k through 2. State standards expect these students to be able to, "count with understanding and recognize "how many" in sets of objects; use multiple models to develop initial understandings of place value and the base-ten number system."

**Instructional Strategies.**

This program will begin with a character – Rico – explaining the program and what the user will learn. He will define the objectives and give an example of using groups of 10 to count a larger set. Rico will continue with 2 non-examples to show students how important it is to always go back and check your work. Once the procedure has been modeled, students will continue to a game where they will be able to independently practice what they have learned. They will be asked a series of several different questions and provided feedback based on their responses. Once they have completed the program, they will then be given an independent practice sheet to complete independently to measure their understanding.

**Additional Materials.**

In addition to this program, students will also be provided with several other chances to practice, using manipulatives and examples on the board. To follow up the program, students will be given a worksheet to complete independently to measure their understanding and see how well they can apply this concept.

**Program Use.**

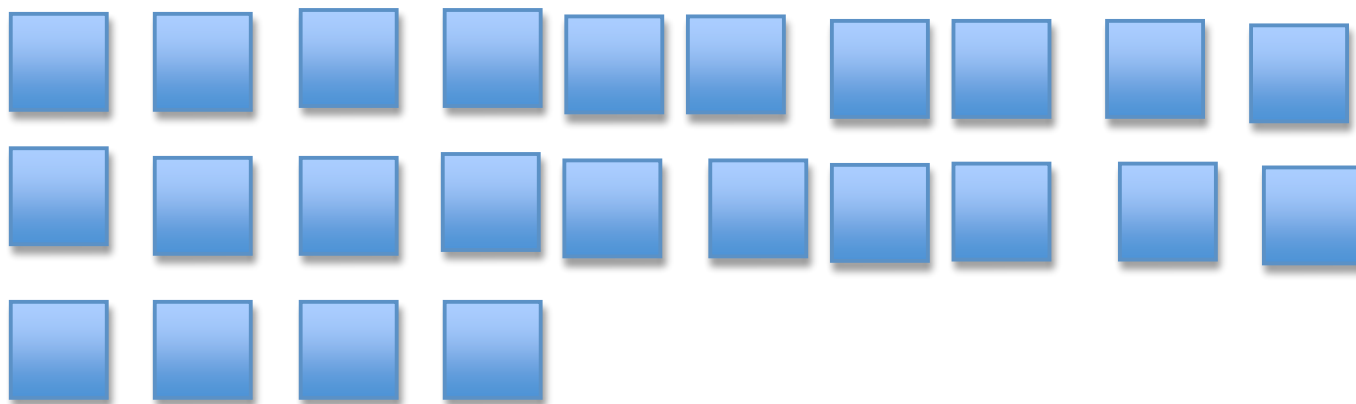
This program will be used to introduce students to the concept of using groups of 10, as well as an additional reinforcement throughout the duration of the unit. The opportunity for immediate feedback will decrease the chance of forming incorrect habits while learning this skill.

**Evaluation.**

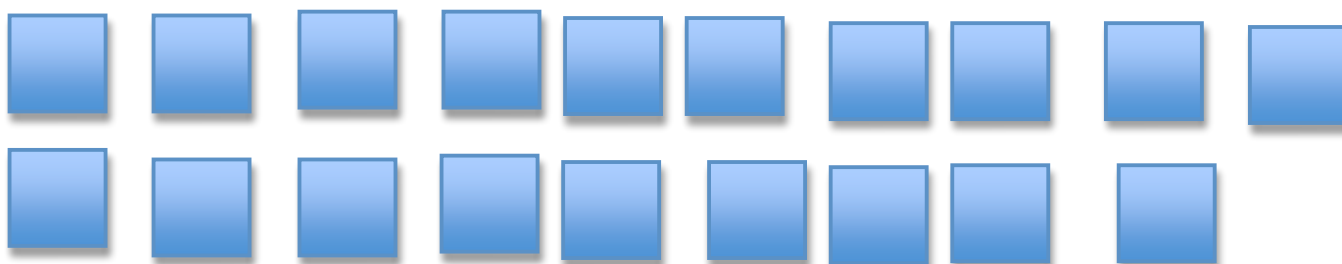
Students will be evaluated by the success of this program using our district assessment of this concept. Success will have been met if the percentage of students mastering this skill increases from 59% (the current mastery level).

10. **Appendix-** See attached.

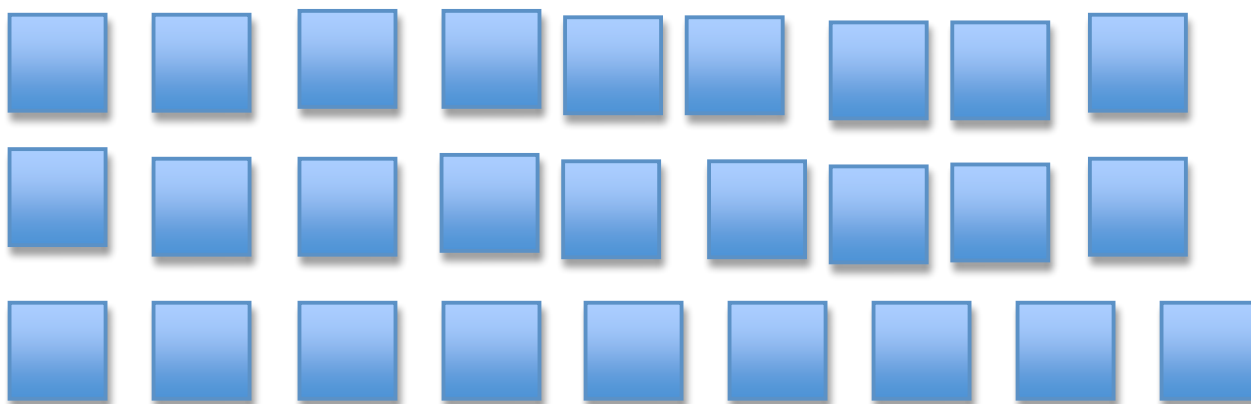
Name: \_\_\_\_\_



How many groups of 10? \_\_\_\_\_ How many total? \_\_\_\_\_



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