IU2: TASK ANALYSIS AND INSTRUCTIONAL OBJECTIVES

INTRODUCTION
After analyzing the learners, their environment, and instructional goal during instructional unit 1, it is now time to perform the task analysis of the goal. Performing the task analysis consists of breaking down the main instructional goal into 3-6 main steps. Once there are 3-6 main steps identified they are referred to as the First Level Task Analysis. After completion of the First Level Task Analysis 3-6 main steps, the In Depth Analysis can then be created. The In Depth Task Analysis is where the meat and cheese come so to speak. It begins to look very complicated and hard to follow considering it is presented in a flow chart with boxes, diamonds, arrows, and numbers all over. Once you actually take a look at it beginning at the bottom and following the steps, it is very self-explanatory and easy to follow. The goal of the flow chart was to document each task in the correct order to accomplish the goal at the end most effectively and efficiently.

ORGANIZATIONAL GOAL
7th grade students will master the objectives and skills on the TAKS test

INSTRUCTIONAL GOAL
After completing an interactive unit on fractions, decimals, and percents, 7th grade students in Miss Knisely’s math class will demonstrate their mathematical understanding of the relationship between parts and wholes.

FIRST LEVEL TASK ANALYSIS
Coming up with the First Level Task Analysis was fairly difficult as I started out with 6 main steps initially. After much review and asking a co-worker the steps they use to create a math problem, they told me UPS. I have taught my kids this before as well, but for some reason was making this too complicated initially on myself. UPS is a problem solving strategy that has been passed around by many teachers and stands for Understand, Plan, and Solve. After review of this strategy it was much easier for me to put the steps together and document the paths of the flow chart into a much more user friendly manner than prior.

The following are the basic 4 steps to solving a mathematics story problem.

1. Read the problem to understand the question
2. Develop a plan with the given information and your previous knowledge
3. Solve the problem using your plan
4. Check your work and answer for validity

IN DEPTH TASK ANALYSIS
The following in depth task analysis, found at the end of the document, was designed by taking each of the 4 steps from the first level task analysis and breaking it down into a flow chart showing the sub steps and any necessary decisions needing made in order to see how the instructional unit will flow as a whole from beginning to end. The path of the flow chart begins at the bottom and works its way up in a hierarchical format. The bottom, prior to beginning the flow chart steps, documents the entry level skills required to complete the instructional unit. Each step is a rectangle and has an arrow directing you to the next step. Any decisions needing to be made along the way will be marked as a diamond. If you get to the end of a main step and there is not an arrow directing you, you may then proceed to the next main step.
**Domain of Learning Goal**

The four domains of learning goals are classified as either intellectual, psychomotor, verbal, or attitude. The learning goal domain presented with this instructional design is classified as an intellectual rather domain. The other domains presented would not fit this unit because the unit does not have a goal of or require attitudes in the way of life, verbal responses, or physical activity to complete. Due to the fact that it is an intellectual goal, the flow chart was arranged in a hierarchical format from bottom to top.

The processes involved as presented in the flow chart from step to step, involve recall and decision making as well as knowledge to learn. Throughout the entire process, participants will need to be actively making decisions or using reasoning that they have developed over years of mathematical instruction to perform basic operations of addition, subtraction, multiplication, and division. The intellectual skill of being able to read, write and comprehend is also an entry level skill since each main step as well as sub step build upon those basic intellectual foundations.

**Summary of Peer Review**

After obtaining helpful and great feedback from a co-worker of mine prior to the start of the flow chart I re-arranged my first level task analysis steps as mentioned earlier. After preparing the flow chart with the new 4 steps rather than 6 steps, it is much easier to follow than the rough draft that had been sketched up previously. After re-arranging the steps, everything seemed to fit so well and work the way it should in a smooth seamless way.

After a second review by my co-worker, they as well were very impressed by the overall product and professionalism it has. They think that this will be very helpful for students trying to solve the problems this is designed for. They even are asking for a copy of it and if I can create another or together possibly we can develop flow charts for the students who need the extra push when we are not able to during practice and study time. It looks to prove to be a very valuable asset that we can add to our resources.

**Summary**

Now that the instructional objective has been broken down into the smallest of smallest parts and input into an easy to follow flow chart, the next instructional unit will be developing the performance objectives and assessment of the overall instructional unit. This will consist of creating 3 components- a condition, an action, and a criterion, in order to measure mastery of each performance objective. Each of these 3 components will be developed into an objective. Each task on the in depth task analysis will have to have a performance objective.
Instructional Goal: After completing an interactive unit on fractions, decimals, and percents, 7th grade students in Miss Knisely’s math class will demonstrate their mathematical understanding of the relationship between parts and wholes.

Entry Skills Below:

A. Add, Subtract, Multiply, & Divide
B. Read, Write, & Comprehend English
C. Distinguish Fraction, Decimal, Percent