

CEP 842 UDL LESSON

1. BACKGROUND INFORMATION:

Your Name: Gillian Kutches

Grade Level: First

Your Lesson Topic: Addition Story Problems

Setting (whole class, small group, individual): Whole Group and small group

2. GOALS:

What are you goals for this lesson? Be as specific as you can.

My goals for the lesson are for every student to grasp the concept being taught. I wanted all the students to be able to understand the different ways of solving a math story problem. My goal was to present the information in a variety of ways, hoping one of the strategies would work with every student.

How will you communicate these goals to your students?

As an introduction to the lesson, I will tell students that all children learn in different ways. Therefore, it is important for us to find different ways of solving the same problem. This way, we will all know a few different strategies to use to get a solution.

How will you determine if the students understand the goals?

After the lesson has been taught, I will review the lesson again the next day, but I will use a different story problem. As an assessment, I will ask students to complete steps 3 and 4 of the lesson. I will also informally observe and converse with students during their work time to ensure they are grasping the information.

3. METHODS:

List the steps you will follow in this lesson to meet the goals you have specified about. List what you will do first, what you will do

next. As you list what you will do, also list what the students will be doing. Be sure you specify how the lesson will begin, what happens in the middle, and how the lesson will end.

You do not need to write a script, but be specific about what you and the students will do in each step of the lesson.

- First, I will explain that we are going to learn how to solve a story problem. I will ask students if they sometimes get confused or overwhelmed about how to solve one. (Students will respond). I will then explain that today we are going to learn several strategies about how to solve an addition story problem. All children learn differently, and it is important for us to know different ways of solving the same problem.
- On the Promethean board, I will present students with the story problem. ("Kisha ate 5 pretzels during lunch. After school, she ate 7 more. How many pretzels did Kisha eat?")
- I will ask students to answer the following questions:
 - What is this story problem about?
 - What happened first?
 - What happened next?
 - What are they asking us to find out?
 - How could we solve this problem?Students will respond to these questions, and I will record the information on the Promethean board.
- After students respond with the ways they might solve the problem, we will make a list of how we could do it. First, I will tell students that one way to solve a story problem is to act it out. I will have students come up act as pretzels (bend their arms and legs to look like pretzels). I will call up 5 students (to be the pretzels Kisha ate at lunch). Then, I will ask students what to do next (add the pretzels Kisha ate after school). I will call 7 more students up to the front to be pretzels. After that, I will ask students, "Are we done?" Students will respond that we have to find the solution. I will have students count the "pretzels" with me, until we get to 12.
- I will then explain that sometimes when we are solving problems, we don't have enough people to act it out. Well what could we use then? (Students will answer). We can solve it using manipulatives. I will give each small group of students some manipulatives (each group will

have different manipulatives). Students will have 5 minutes to work as a group to solve the story problem. I will not prompt students, I will just tell them to solve it. After 5 minutes, each group will present their findings with the class.

- I will explain to students that there is another way to solve a story problem: by drawing a picture. Students will receive a piece of paper and pencil to draw the story problem. Students will have approximately 5-7 minutes to show the story problem on paper. When this time has passed, I will ask several students to share their results with the class. (Students will choose various ways to depict the story problem, some will draw actual pretzels, others will draw different objects to show. Some students wrote the numbers next to their picture, some do not).
- After sharing, I will explain to students what a number sentence is. Students will view a BrainPopJr video (short clip) about number sentences. At the close of the video, I will ask students what they learned and how we can use this information for our problem.
- We will do a few examples on the Promethean Board together. Then I will ask students how to write a number sentence for this story problem. Students will write what they think on their papers (next to their drawings). Students will then share. I will explain that this was the last way to solve a story problem, to write a number sentence. $5 + 7 = 12$
- I will create a page on the Promethean board which states the 4 ways to solve a story problem. Students will state the strategies they learned today.
- Guided math: When I meet with my leveled groups, I will ask them to work on addition story problems based on their level. For instance, with my lower groups, I will use similar story problems to serve as reinforcement. With my higher groups, I will challenge them to use the strategies learned in new ways (such as subtraction story problems or with other math problems).
- The next day, we will review the information and I will show students a different addition story problem ("Yesterday I saw 4 dogs playing ball in the park. Then 7 more dogs joined them in playing ball. How many dogs were playing ball in the park?") I will ask students how we can solve this problem. As an assessment, I will collect their drawings and

number sentences. I will also walk around and talk with students about their work.

4. MATERIALS:

List all the materials you will use for this lesson. Materials might be books, lectures, slides, computer programs, discussion, worksheets...any source from which students obtain information can be considered a material.

- Promethean board
- Paper
- Pencils
- Crayons for drawings
- Manipulatives (cubes, blocks, shapes, etc)
- Discussion (class and small group)

5. ASSESSMENT:

Explain how you will assess what students have learned and whether or not they have met the goals you listed above. Be as specific as you can about what you will assess and how you will assess it.

I will formally and informally assess students. During the lesson, I will walk around and talk with groups about their findings. I will also ask questions regarding the lesson and how to solve addition story problems. The next day, I will collect students' drawings and number sentences to assess if they have grasped those ways of solving a story problem. If students need more experience with it, I will do more examples with them in future lessons (and also during guided math time).

6. REFLECTION:

When you examined your lesson in light of the UDL Curriculum Checker, what did you learn? Write one paragraph for each section of your lesson (that is, Goals, Methods, Materials, and Assessment) that contains your own conclusions about how well that section met the criteria of the UDL Curriculum Checker (about four paragraphs total for this section of the assignment).

Goals:

At the beginning of the lesson, I verbally presented students with the goals of that lesson. What I realize I may need to do is also write the goals down for students to refer to. Then, they may be better able to see if they have personally met the goals of the lesson. At the start of a new unit, I could also list for students what they will be learning in the next few weeks. Before we begin each unit, students are given a pre-test to assess the information I will be teaching. This way, I am able to see who already knows what, and what I should focus on with individual students. However, I need to do a better job of basing my small groups on this information.

Methods:

Students were asked at the beginning of the lesson if they ever ate something at school, and then finished it at home (similar to the child in the story problem). To connect better with prior knowledge, I need to ask students more about real-world connections and how they can use this new information in their lives outside of school. Additionally, I need to do more to extend the skills to new situations. To highlight key features of the problem, we used the highlighter tool on the Promethean board to pick apart the problem and determine what we needed to figure out. We talked about what was important and why. Students were able to learn four ways of solving the same problem. The goal was for them to connect with one strategy, so they could use it in solving future problems. I realize I need to give students more frequent feedback based on their performance in the classroom. I do not give students personal written feedback enough. I should also provide students with rewards when they achieve a goal.

Materials:

Students worked with the Promethean board and also viewed a BrainPopJr video on the topic. I also felt I provided students with multiple ways of looking at the same problem through different materials. Although I have several students who speak English as a second language, I do not have access to translators. Almost every student speaks a different language, therefore there is no continuity with languages. At times, I have asked a student that speaks English very well to translate for a student that speaks very little English. I have found pairing these students together is important, because that student can explain things in a much more meaningful way. Although I often use graphic organizers, none were used in this specific

language. If I were to teach it again, perhaps I would provide students with an organizer that shows the four different strategies learned. This way, they could also keep this organizer in their portfolio for future use and reference. I believe I also need to promote students to do more self-reflecting in the classroom and think more deeply about their own learning.

Assessment:

I provide mini-assessments on a weekly (or sometimes more often) basis. These assessments are short, directly relate to what was taught, and link to the learning goals for that topic. From these assessments, I am able to form my instruction to meet the needs of the students in my class. I can then meet with students in guided math to help their understanding of the topic. If students have grasped the concept, I can move on to use the skills and strategies in different or more challenging ways. One way I can provide students with more feedback is to have them manage their own portfolios. Currently, each student has their own portfolio but they do not have control over what is placed into it. I could have students choose work they are most proud of, and include it in their portfolio. Students also do not choose how they want to be assessed in the classroom. I offer both formative and summative assessments, based on observations, discussion, student work and quizzes. Giving students the opportunity to choose the way in which they want to be assessed could help them to showcase their skills and knowledge more efficiently.

What will you do to make your lesson more of a UDL lesson? Use the resources available on the UDL Curriculum Checker website to help you.

I think there are several ways in which I could make my lesson more of a UDL lesson. Two significant ways in which I may enrich my teaching would be providing more frequent and relevant feedback relating to their classroom work and finding more ways to challenge students who need it.

Firstly, I need to provide students with more consistent feedback about their classroom work. As the UDL Curriculum Self-Check website states students should, "Exhibit self-monitoring skills and take advantage of ongoing, relevant feedback provided to revise their work and discuss it with peers". I

do not think I do enough of this in the classroom. Students often have the opportunity to work in small groups, but they do not often get the chance to discuss their feelings and reflect on their learning with another student. I realize my teacher feedback needs to be directly related to the goals of that lesson or unit, so students can properly achieve their goals and understand what is expected of them. In *Teacher Planning for Accessibility: The Universal Design of Learning Environments*, Jackson and Harper explain that teachers should provide constant feedback, and also let students use self-monitoring checklists to reflect on their learning. I feel this could be a powerful tool for students because they could evaluate their own work. For my addition story problems lesson, I could have students attach their pictures and number sentences to a rubric in which they would give themselves a grade. Then, if they choose to, students could work on their assignment further. This would also be a great way for them to simply check over their work. So often, students think, "I'm done!" and never actually look back at the work they have done.

Another way in which I could make my lesson more UDL friendly would be to ensure that my lesson has challenge opportunities embedded in it. I offer challenge during guided math, but not usually extensions during the actual lesson. I realize some students grasp the skill after only a few experiences with it, and other students need repeated exposure before it "clicks". Offering more challenge opportunities will enrich the learning for those children who are ready to move on. As the UDL Curriculum Self-Check explains, "Students' level of engagement should be high when the level of challenge is optimal for them". Perhaps in my lesson I should have had students sit in homogenous groups, so the higher students could discuss the problem and come up with solutions for more difficult story problems (during this time I could have met with struggling students for remediation). I could have also given them subtraction story problems to see if they could transfer their knowledge. As Lisa Parisi expresses in her classroom blog "Lisa's Lingo", all students have different needs and "your job is to reach EVERY child". Whether they are struggling or need a challenge, my job is to ensure they receive the guidance and instruction to be successful. And that seems to be what UDL is all about.