Design and Deliver

Planning and Teaching Using Universal Design for Learning

by

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ABOUT THE AUTHOR

Loui Lord Nelson, Ph.D., is a consultant specializing in universal design for learning (UDL). She recently completed a 1-year postdoctoral fellowship through Boston College and CAST. She has focused on K–12 professional development and systems change design and is conducting research in both areas. Prior to this experience, she was the Coordinator of UDL in Bartholomew Consolidated School Corporation in Columbus, Indiana, for four years. Loui began her career as an eighth-grade collaborative teacher in Indiana and then expanded her work to focus on the needs of individuals with intellectual and developmental disabilities in the postsecondary setting and the families of those individuals. Her work is constantly informed by the lifespan experiences of these individuals.

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THE GOAL AND THE LESSON

> If you have a clear sense of what you're going to do each day and for each lesson, you can get a better hold on what universal design for learning (UDL) is because you know what you want to teach. Now, you're figuring out how to teach it.
>
> —Matt Roberts, seventh-grade math teacher

I talked about the lesson goal in Chapter 6 by saying, "The goal is the heart of any lesson. All activities, resources used, and products produced should be grounded in that goal."

By defining what you want to teach, as Matt states, you are set free to use the UDL framework and decide how you're going to construct that lesson. Moreover, if you've worked on the design of your learning environment, you can meet your goal more efficiently.

THE LESSON GOAL

"This book, like any good lesson, has a goal. That goal is to provide the reader with a solid thorough understanding of UDL so that person can develop effective lessons" (Preface, p. xiii), Notice that the goal of this book doesn't say how the reader will come to that understanding. That is because goals most effectively used in conjunction with the UDL framework are written with the outcome in mind but do not specify how that outcome will be reached. In other words, the target or purpose (the *what*) of the lesson is stated, but the methods used to reach this (the *how*) are not included (Coyne et al., 2009). By including a defined method, the teacher is limited to that specific strategy or tool, thus ignoring the multitude of resources available, the spontaneous scaffolding that can occur, and the potential for additional enrichment.

What if you are required to include the *how* in your goal? Some school districts, principals, or others require teachers to place the *how* into their goals. By using broad descriptors such as *demonstrate, compose,* or *figure,* teachers leave the door open for the necessary flexibility and choice in a UDL lesson. Table 2.1 in Chapter 2 shows suggested descriptors. Another list is located later in this chapter under the section "Choosing the Right Words."

To more thoroughly discuss goals, the first section of this chapter describes the role of goals, how to design goals using the Common Core State Standards (CCSS) as an example, and closes with a discussion of how goals promote student ownership of learning. First, we begin with a fairy tale.

The King's Path Makers

Once, there was a king who wanted a new path to the river. He called together his kingdom's best path makers and said, "Go out and create the best path possible to the river."

The path makers went back to their workshops, gathered their path-making tools, and began their work. In a month's time they completed their task. One path maker was driven by precision. He used a compass and created the most direct route. Another was driven by beauty. She knew of meadows with blooming flowers along the way and created a meandering, flower-filled path. The third was driven by physical challenge. She knew of steep inclines and deep descents and created a path worthy of mountaineers.

At the end of the month the king called them all together. While waiting for their majesty, a conversation occurred:

"I am sure my path will be preferred by the king because it is the fastest path," said the first path maker.

"Oh, I am sure you are incorrect," said the second. "The king enjoys beautiful things, and he will like nothing better than to see the natural beauty present within his kingdom as he takes his daily walks to the river."

The third disagreed, saying, "You are both wrong. The king is a powerful man who enjoys challenge and strenuous activity. He will choose mine as the best path."

When the king arrived, the matter was settled. "I took time this morning to explore each of your paths, and I thank you for your thoughtfulness, engineering, creativity, and persistence. I am delighted to have three ways to get to and from the river. On days when I am pressed for time and need to return for meetings with my council, I can take the direct path. On days when I am contemplative and want beauty at my side, I can take the winding path. On days when I am agitated or I want to revel in my physical strength, I can take the challenging path.

"But sire, which of us won? Which of us created the best path?" asked the path makers.

"Ah! You see, I asked you to create the best path possible, which each of you did. Using your tools, gifts, and vision you created three very different paths that all take me to the same place. For this I am grateful, as you should be; for now you have discovered that in your differences is a strong similarity. You all achieved the same goal in your own way."

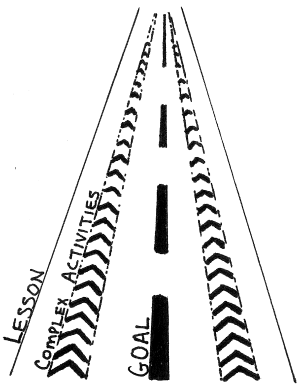
The Role of Goals

The king told his path makers to create the best path possible. In this tale the king created an environment that allowed the path makers to use their individual skills to give him their best work. That's what UDL guides us to do in the classroom.

The primary role of the lesson goal is to offer direction to both the teacher and the students, related to the lesson. Additionally, a well-written goal allows the teacher to analyze the lesson (Hattie, 2009; Jansen et al., 2009). The goal is both

the gateway to the lesson and the path to determining the lesson's effectiveness. If you write a well-defined learning goal you can examine the alignment between your instruction and the goal, your students' achievement of the goal, and make the necessary revisions for later use of the lesson (Hattie, 2009; Morris, Hiebert, & Spitzer, 2009). These three pieces are discussed in the next sections.

Alignment



When a car is aligned, it drives along the road smoothly. The wheels are set at the correct angle so the tires wear evenly. It can drive a straight line and not pull in one direction or another, and the tire tread can effectively grip the road. When the lesson is in alignment with the goal, it stays on your defined path. The goal becomes the center line on the road of your lesson.

If your activities or assessments pull too far to one side or another, the lesson will not be as effective because it won't be on point. By defining the specific point of the lesson, you can structure in complex activities, push students toward higher order thinking, and know that you are not pulling them away from the ultimate goal. You are guiding your students' learning as you all go down the road together. Stiggens (2008) suggested framing the goal as an "I can …" statement. This helps the teacher focus on the desired student outcomes and can also support the students in determining their own level of mastery. Through the use of guiding supports and structures, students will have the guidance needed to seek support when they find themselves off target of the specified goal (Jones, Jones, & Vermette, 2011).

Regardless of the strategy you use to tighten your goal, the main point is to guide the instruction you are offering, the work students will do, and the evidence they will provide of their understanding. To offer some examples, Table 7.1 lists goals that identify specific and nonspecific points. Each of the goals are related to a CCSS.

Table 7.1. Developing specific goals

Specific point: Students will choose from a variety of measuring devices to measure the length of different items.
Nonspecific point: Students will learn about measurement.
Common Core State Standard referenced: CCSS.Math.Content.2.MD.A.1
Specific point: Students will recognize pairs of words that rhyme.
Nonspecific point: Students will practice with rhyming words.
Common Core State Standard referenced: CCSS.ELA-Literacy.RF.K.2a
Specific point: Students will combine information gathered from a variety of sources and share that information comprehensively using collaboratively designed options.
Nonspecific point: Students will read from a variety of resources and combine their ideas.
Common Core State Standard referenced: CCSS.ELA-Literacy.SL.6.2

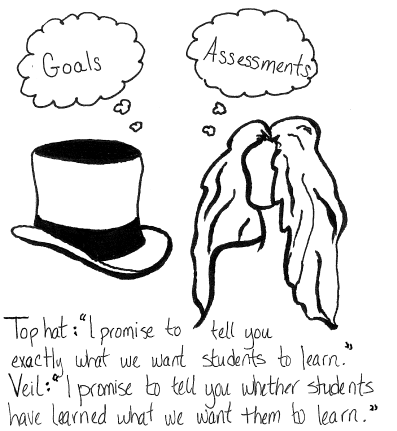
Examining Achievement

When we think of examining student achievement, we tend to think of assessments. Addressed more in Chapter 5, under the principle of Action and Expression, considering any kind of information from students as a way to examine their growth will help you examine your goals. Comparing informal, lesson-related feedback from your students to the goal of the lesson helps you determine the effect you had through your lesson.

- Goal: "Students will calculate the molarity of selected solutions." A quick walk-through of the room shows you that some students are struggling at the same point within the process of calculating the molarity of different solutions. You provide a miniseminar at the side of the room using other approaches and examples for any students who wish to come.
- Goal: "Students will begin their investigation of how diet affects mood." You call out "Pop idea!" which makes the students pull out a piece of paper write down what pops into their head when they think about their mood and food. After scanning the ideas, you see that students are able to use words or figures to articulate how their diet affects their mood.
- Goal: "Student groups will demonstrate the effect of the Peloponnesian War on the political structure of Athens." A miniconference with each workgroup allows you to see where they are within their project, who is completing what task, and who might need further support. A few groups are not demonstrating a depth in their knowledge. You prompt them with additional questions and suggestions to consider during their next work time.

Each of these examples demonstrates the continuous types of informal assessment we conduct. However, the information collected during these informal assessments is only valuable when considered through the lens of your goal. Think of your goal and designed assessments as destined to be married.

If you begin the construction of your lesson by knowing the point of your goal, then your assessments, both formal and informal, will be easier to construct and will provide you with better information (see Table 7.2).



Additional questions you can ask yourself during the design of your lesson include the following:

- When designing the lesson, ask, "How will I know that my students are meeting the goal?"
- During the lesson, ask, "Are my students demonstrating movement toward the goal?"
- After the lesson, ask, "Did my students meet the goal I determined for this class?"

Table 7.2. The vows

The goal: I promise to teach the students a new topic, skill, or concept.
The assessment: I promise to assess their acquisition of that topic, skill, or concept.
The goal: I promise to expand my students' knowledge about a topic, skill, or concept.
The assessment: I promise to assess their expanded knowledge of that topic, skill, or concept.
The goal: I promise to guide them to use knowledge they have.
The assessment: I promise to assess their ability to transfer and apply that knowledge.
The goal: I promise to shift their position on a topic.
The assessment: I promise to assess the positions they held at the beginning and hold at the end.

In all three phases, and the times in between, attention to the UDL framework can help you create assessments, whether they are informal or formal, formative or summative. For example, things shift during the teaching day. Maybe you don't include a resource you planned on using, the students are particularly distracted today, or you forget to provide them the structured reminders you planned to use to keep them on task. Regardless, you notice that your students are not demonstrating their absorption of the information.

A quick scan of the room tells you that the majority of the students are off task. They were attentive at the beginning of the lesson, but once they began work on their projects, you noticed more off-task behavior. The goal for this unit is, "Students will assemble evidence demonstrating the guilt or innocence of their bacteria in relation to the described infection." For today, you have written, "Students will gather information about their bacteria connected to their guilt or innocence." They have a rubric that further clarifies the unit and today's goal, and you feel really good about the instructions you gave; after all, you used the framework to help you design the rubric and your instructions. You focused on using straightforward language, you used visuals, and you answered questions. You could say, "If I don't see more people working on their projects, you're going to lose your project time." That might curb their behavior temporarily, but if they don't understand the assignment, topic, or goal, they aren't going to connect to the project. So now what? A quick scan under the principle of Representation brings you to the guideline "provide options for comprehension" and the checkpoint "Highlight patterns, critical features, big ideas, and relationships." You then ask volunteers to talk about the goal and requirements of the assignment without looking at the instructions you printed out for them. This is to put the goal and requirements into student-friendly language. This also agrees with the principle of Action and Expression, which reminds you of executive functions. You have clarified what they need to complete that day through the voice of their peers. You list those steps on the board and make sure those steps directly connect to their achievement of the goal.

The framework can help you consider on-the-spot ways to address these types of typical issues. You can also use the framework to seek additional options to add to future lessons. If you do add additional supports, make sure those supports are based on your desired outcomes.

A popular informal strategy used throughout the K–12 grades is exit tickets (Owen & Sarles, 2012). This method is used to check students' understanding and can serve as a scaffold toward developing their own achievement monitoring (Fisher & Frey, 2007). Typically distributed during the last few minutes of class, exit tickets provide an informal structure to create a consistent, feedback-rich environment. Used properly, exit tickets become a time for students to reflect on what they know and to return to a larger project or lesson unit and revise their thinking. Jones and Dotson (2010) believed these types of environments are "essential to reflection."

Tamara uses exit tickets daily at the end of her middle school health class. While they always link to the lesson goal, sometimes they are open-ended questions and other times they are in multiple-choice or true–false format. Her goal today was, "Students will explore the concept of self-esteem." During the lesson, the students were introduced to the definition of self-esteem, did a self-assessment of their strengths and needs in relation to school, other activities, relationships with others, and what they do during their free time using a self-interview guide. They considered what they learned about themselves and created a visual representation of themselves using that information. As a part of her exit ticket, Tamara asked them to choose one of the three definitions of self-esteem posted on the board. They also needed to write down something they learned about their own self-esteem. Students are always permitted to draw pictures versus writing. If she can't figure out what they drew, she interviews them during the next class period. For students who struggle with their handwriting but who like to write, she always has half sheets of paper with lines on them.

Exit tickets can give us the evidence we need to make the necessary improvements to our lessons (Leahy, Lyon, Thompson, & Wiliam, 2005). As one teacher from Colorado commented,

> I ask students to share something they figured out from the day's lesson or reading and something they wondered or were confused about. I don't grade this. I simply look for patterns in thinking. While I read, I reflect on how I might tweak my minilesson for the next class. (Tovani, 2012, p. 51)

As long as you structure your exit-ticket questions to reflect the presented goal, you will have information to help you answer whether or not the students truly connected with and learned from the lesson.

Revision

The practice of reflection, addressed in Chapter 3, is important when revising a lesson. This is a time when you examine how well your lesson went. Outside of returning

to and reviewing your entire lesson plan, there are some overarching pieces you can consider, including student participation and interaction, the introduction to the lesson, activities, assessments, and scaffolding. Finally, you'll want to investigate whether your goal directed the design and implementation of the pieces mentioned.

The lesson-reflection time brings to life interesting intrapersonal considerations. When we look at our lesson outcomes, it is easy to see the student behavior as the driver—but what if we alter that perspective and see how our lessons are an equal driver in creating learning outcomes? For example, beginning a lesson by clearly identifying and building on our students' background knowledge ensures they are prepared to learn and they are connected to the topic. Because you know the goal of the lesson, you can truly construct this piece to meet the variable needs of your students. You use this same information to design your activities and assessments.

Looking back at the scaffolding you provided will often offer you some rich information. When students lose interest it can be because they don't understand some component of the lesson. Teasing this out is crucial, and your students are your best resource.

Rhonda Laswell, a former seventh-grade science teacher and current UDL coordinator, agrees, saying, "Our students give us our best information. If we just listen to them, we find out what they need." All of this information goes into the revision of the lesson. The act of revision is practiced by master teachers and is known to be a significant component to creating an effective learning environment (Hiebert, Morris, Berk, & Jansen, 2007).

Returning to the lamp and light bulb analogy in Chapter 6, if you choose the right lamp based on your space and needs and you choose the light bulb based on the role it will play (e.g., the level of light), you will be successful in meeting your lighting needs. How you design your learning environment and the accompanying goal determines how well your students can work within that learning environment. Specifying the goal clarifies the purpose of the lesson, providing you and your students with a starting point from which to work. While the goal tells them what they will be learning, their ability to access that learning experience depends heavily on the environment. It's about providing opportunities to learn; those opportunities are provided via the design.

Designing Goals

To accomplish the previously mentioned practices, you must determine a focus for your lesson. You need to identify the outcomes you want the students to achieve.

CHOOSING THE GOAL: MATT ROBERTS AND THE STUDENT PATH Matt Roberts believes that the goal directs not only the lesson's path but also the work that his middle school students do. To introduce the lesson each day he writes the lesson goal on the board, but sometimes there is information within the math text that provides additional introductory information. In both cases, he points out the goal to the students at the beginning of each lesson. The goal, as he sees it, gets the students thinking about what situations or problems they're going to be addressing that day. To him, the goal designates the path on which they are going to walk.