

# UDL in 3D!

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## Abstract

*When asked to define UDL, many stakeholders split between focusing on the design process or focusing on the guidelines. Or, on focusing on teacher behavior or student decision making as the independent variable. I propose that the attempt to focus on UDL as a univariate construct, resulting in "two-dimensional" views of UDL has been useful, but limited. In this talk, I presented my idea for moving UDL into a 3D perspective, and the implications this has for research, measurement, and practice.*

## INTRODUCTION

At the 2017 Summit, I delivered a UDL Talk focused on "Operationalizing UDL Meaningfully" (see it at: <http://bit.ly/Summit17-Moore>). In this narrative, I follow up on the core thread of the conversations that have occurred since my 2017 talk. Namely: anything we can do to give shape to UDL as a means of guiding conceptualization and practice has great value.

Over the past year, I have been watching for ways that others and myself in the field have been defining and shaping UDL. Wonderful work is being done by our colleagues in developing ways to assess the presence of UDL, shape the design of UDL lessons and curriculum, and measure the outcomes of UDL in practice. The multiplicity of ways that we are voicing and shaping UDL is – to me – a strength, inasmuch as we can maintain some degree of agreement that we're looking at different aspects of the same thing. And I think this is the key.

John Godfrey Saxe, a 19<sup>th</sup> century poet wrote a poem that has withstood the test of time called "The Blind Men and the Elephant" (Appendix A). In the poem, he describes six blind men who approach an elephant for the first time and experiencing different parts of the elephant's body (e.g., ears, tusk, trunk, etc.). They come to very different conclusions as to how to best describe the elephant (A fan! A spear! A snake!). Saxe concludes, "...each was partly in the right, / And all were in the wrong!"



**Figure 1. Saxe's "The Blind Men and the Elephant."**

Is UDL like an elephant? The field of UDL is still young. We're all experiencing different parts of UDL in our work as teachers, professors, researchers, parents, students, administrators and policy makers. At times, the multiplicity of our ways of defining our experiences of UDL seems to be problematic. We – like Saxe's proverbial men – can't seem to agree about *which* is the real UDL.

In my experience, one of the most important and striking difference in approaching UDL, is whether we define and promote UDL in terms of a design process (e.g., Basham, Smith & Satter, 2016; Rao, in press) or with an emphasis on the UDL guidelines (see: [udlguidelines.cast.org](http://udlguidelines.cast.org)). For those just learning about UDL, this presentation of thinking about UDL in one way, then thinking in other way, can be confusing. Which shape better describes what UDL *really* is?

## UDL in 3D!

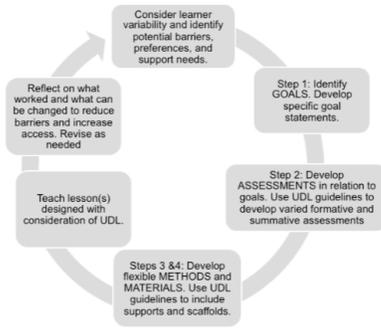
One way to frame this discussion is to move into concrete representation. Those who focus on UDL as a design frame apply different forms of linear approaches to UDL intervention.

For example, this one (see Figure 2):



**Figure 2. UDL Design Process, adapted from Basham, Smith and Satter (2016).**

Or this one, though circular, is linear before the repeat (see Figure 3):



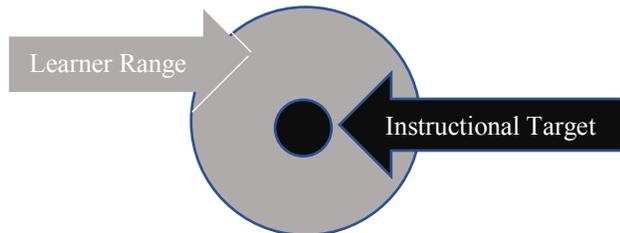
**Figure 3. UDL Design Process, adapted from Rao (in press).**

On the other hand, UDL is often presented as being fundamentally about the application of the UDL guidelines (see Figure 4).

|             | Provide multiple means of Engagement   | Provide multiple means of Representation  | Provide multiple means of Action & Expression  |
|-------------|--|---|--|
|             | Affective Networks<br>The "WHY" of learning  | Recognition Networks<br>The "WHAT" of learning  | Strategic Networks<br>The "HOW" of learning  |
| Access      | <b>Provide options for Recruiting Interest (1)</b> <ul style="list-style-type: none"> <li>Optimize individual choice and autonomy (1.1)</li> <li>Optimize relevance, value, and authenticity (1.2)</li> <li>Minimize threats and distractions (1.3)</li> </ul>   | <b>Provide options for Perception (2)</b> <ul style="list-style-type: none"> <li>Offer ways of customizing the display of information (2.1)</li> <li>Offer alternatives for auditory information (2.2)</li> <li>Offer alternatives for visual information (2.3)</li> </ul>  | <b>Provide options for Physical Action (4)</b> <ul style="list-style-type: none"> <li>Vary the methods for response and navigation (4.1)</li> <li>Optimize access to tools and assistive technologies (4.2)</li> </ul>   |
| Build       | <b>Provide options for Sustaining Effort &amp; Persistence (8)</b> <ul style="list-style-type: none"> <li>Heighten salience of goals and objectives (8.1)</li> <li>Vary demands and resources to optimize challenge (8.2)</li> <li>Foster collaboration and community (8.3)</li> <li>Increase mastery-oriented feedback (8.4)</li> </ul> | <b>Provide options for Language &amp; Symbols (12)</b> <ul style="list-style-type: none"> <li>Clarify vocabulary and symbols (12.1)</li> <li>Clarify syntax and structure (12.2)</li> <li>Support decoding of text, mathematical notation, and symbols (12.3)</li> <li>Promote understanding across languages (12.4)</li> <li>Illustrate through multiple media (12.5)</li> </ul> | <b>Provide options for Expression &amp; Communication (15)</b> <ul style="list-style-type: none"> <li>Use multiple media for communication (15.1)</li> <li>Use multiple tools for construction and composition (15.2)</li> <li>Build fluencies with graduated levels of support for practice and performance (15.3)</li> </ul> |
| Internalize | <b>Provide options for Self Regulation (9)</b> <ul style="list-style-type: none"> <li>Promote expectations and beliefs that optimize motivation (9.1)</li> <li>Facilitate personal coping skills and strategies (9.2)</li> <li>Develop self-assessment and reflection (9.3)</li> </ul>   | <b>Provide options for Comprehension (3)</b> <ul style="list-style-type: none"> <li>Activate or supply background knowledge (3.1)</li> <li>Highlight patterns, critical features, big ideas, and relationships (3.2)</li> <li>Guide information processing and visualization (3.3)</li> <li>Maximize transfer and generalization (3.4)</li> </ul>                                 | <b>Provide options for Executive Functions (6)</b> <ul style="list-style-type: none"> <li>Guide appropriate goal-setting (6.1)</li> <li>Support planning and strategy development (6.2)</li> <li>Facilitate managing information and resources (6.3)</li> <li>Enhance capacity for monitoring progress (6.4)</li> </ul>        |
| Goal        | Expert Learners who are...   |   |  |
|             | Purposeful & Motivated   | Resourceful & Knowledgeable   | Strategic & Goal-Directed  |

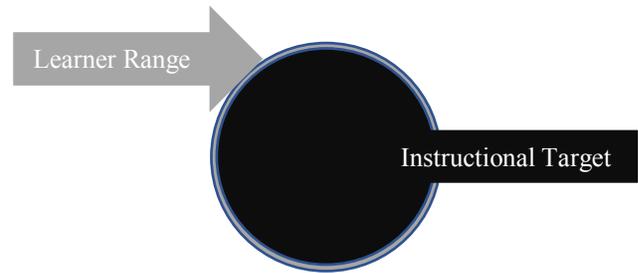
**Figure 4. UDL Guidelines v. 2.2 (udlguidelines.cast.org).**

I like to think of the guidelines as being radial. That is, in traditional instruction, we tend to aim for a very narrow target range of student strengths, and thus limit who is included in our learning environments (implicitly, at least).



**Figure 5. Traditional Instruction.**

The guidelines give us concrete, research-based ways to expand our the how we teach to proactively include- and optimize instruction for- a much wider range of students.



**Figure 6. UDL Instruction**

The implications of these two very different views of UDL are hard to overstate. For example, if one wishes to determine if a given teacher is applying UDL in their classroom, someone who views UDL as a design process would be most interested in the design process that occurs well in advance of instruction as well as *after* instruction. Such a person would say that one cannot simply walk into a classroom and “see” a teacher practicing UDL; after all, the guidelines are a collection of best practices, and as Dave Edyburn has argued, “UDL is not just good teaching” (Edyburn, 2010, p. 38).

Conversely, a person who views UDL *as* the guidelines or *centrally* about the guidelines, may argue the opposite. That UDL can be observed just by walking into a classroom in which a practitioner is effectively practicing the provision of multiple options for engagement, representation, action and expression. Indeed, staff from CAST have often advocated classroom observation as a tool to develop recognition of UDL in practice (see, for example, their collection of observation rubrics designed for Duval County Public Schools: <https://dcps.duvalschools.org/Page/9779>).

These different approaches to understanding and *giving shape* to UDL can and have influenced divergent policy, practice, training and research. While they are both useful, it seems difficult to argue that UDL can be both of these very different concepts (UDL as instructional design vs. UDL as methodological approaches). One thing cannot be both a line and a circle at the same time. Right?

It depends.

As a framework, UDL is – honestly – quite complicated. In my experience, giving a good overview of UDL takes a substantial amount of time and energy and effort. There’s so much to cover! Expert learners, expert teachers, expert systems! Predictable variability! Brain networks! Three principles, nine guidelines, and 31 Checkpoints! Design thinking! Scaling and iteration! Moving from access to internalization! Attempting to explore all of this territory may invite a sense of overload or cause us to feel that research is simply not possible with all of the moving parts. In our attempt to clarify UDL and make it manageable, we flatten it.

Into lines.

Into circles.

Into steps and checklists and rubrics.

This is good work, and necessary. Each of these aspects and approaches is fruitful in bringing us and those with whom we are sharing UDL closer to meaningful practice and cultural change. But these two-dimensional aspects and approaches to UDL are always simplifications and should not be confused with UDL in all of its complex, messy glory.

Just as there are times to parse and simplify and flatten, there must also be times when we are ready to see how the pieces come together and how we shift to higher dimensions of practice.

Can something be a line and a circle at the same time? Sure! Like the pen with which I am drafting this proceeding. Looked at from the side, it's a line. But from the end, it's radial. Is UDL a design process or centrally about the guidelines? Both, depending on how you're looking at it. I would argue that the guidelines by themselves are simply a collection of excellent educational practices framed in a very convenient fashion. But none of them are new. UDL cannot claim any of the 31 Checkpoints as practices that are the brainchild of UDL researchers and practitioners. The UDL design process that is advocated by those like Basham, Smith and Satter (2016) and Rao (in press) bear striking resemblance to different forms of backwards design, which is nothing new or original to UDL. We rightly refer to UDL as a framework, and as a framework, it gains its strength, meaning, and value in assembly. When we overlay the instructional design process with UDL concepts and use the guidelines to proactively promote variability and mitigate barriers, then UDL begins to gain definition.

Can I observe UDL in a classroom? Sort of. But my understanding of the decisions a UDL teacher made will be dramatically enhanced if I am able to see their decision process that brought them to the methods and materials they use.

Can I observe UDL based only on written lesson plans and reflections? Sort of. But only inasmuch as these approaches are carried out in real learning experiences.

We can and should be able to break UDL down into its components and aspects. We can and should do what we can to give it meaning and shape to fill whatever opportunities we have to share about it in professional development, lunches, or elevators. There are important, practical reasons to flatten UDL in many situations. But as we do so, it's important to remember that in so doing, we should not lose sight of the beautiful complexity of UDL for which we strive. If and when we confuse the aspects of UDL (A design process! Checkpoints! Policy!). We'll find, as stated in Saxe's poem, "...each was partly in the right, / And all were in the wrong!"

## REFERENCES

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## APPENDIX A

“The Blind Men and the Elephant”  
By John Godfrey Saxe

It was six men of Indostan,  
To learning much inclined,  
Who went to see the Elephant  
(Though all of them were blind),  
That each by observation  
Might satisfy his mind.

The *First* approach'd the Elephant,  
And happening to fall  
Against his broad and sturdy side,  
At once began to bawl:  
"God bless me! but the Elephant  
Is very like a wall!"

The *Second*, feeling of the tusk,  
Cried, -"Ho! what have we here  
So very round and smooth and sharp?  
To me 'tis mighty clear,  
This wonder of an Elephant  
Is very like a spear!"

The *Third* approach'd the animal,  
And happening to take  
The squirming trunk within his hands,

Thus boldly up and spake:  
"I see," -quoth he- "the Elephant  
Is very like a snake!"

The *Fourth* reached out an eager hand,  
And felt about the knee:  
"What most this wondrous beast is like  
Is mighty plain," -quoth he,-  
"'Tis clear enough the Elephant  
Is very like a tree!"

The *Fifth*, who chanced to touch the ear,  
Said- "E'en the blindest man  
Can tell what this resembles most;  
Deny the fact who can,  
This marvel of an Elephant  
Is very like a fan!"

The *Sixth* no sooner had begun  
About the beast to grope,  
Then, seizing on the swinging tail  
That fell within his scope,  
"I see," -quoth he,- "the Elephant  
Is very like a rope!"  
And so these men of Indostan  
Disputed loud and long,  
Each in his own opinion  
Exceeding stiff and strong,  
Though each was partly in the right,  
And all were in the wrong!