Barriers in the Curriculum: Teachers as Designers

Webinar
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Introducing the Presenters

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Options for Today

Options for Perception:

Large Projection
Website

Options for Action and Expression:

Raise a hand, write in the chat, tweet #CASTPL or #udlchat
Stand, Sit, Walk, Stretch

Tools Needed for Expert Learning:

Fidgets, Post-its, note taking device.
Goals:

**Strengthen** the concept that the barrier is in the curriculum or environment.

**Practice Journey Mapping** as a tool for identifying barriers.

**Distinguish** different roles of the teacher.
Your Own Context

What is most exciting in your classroom right now?

What are you most concerned about in your classroom?
Your Goal

What’s your goal for your classroom today?
How do we make curriculum and all Tiered Interventions accessible to all learners?
Review The UDL Core Concepts

Architecture  Neuroscience  Guidelines
Review: The UDL Core Concepts

The Barrier is in the Environment

Neuroscience

Guidelines
The UDL Core Concepts

- The Barrier is in the Environment
- Variability is the Norm
- Guidelines
The UDL Core Concepts

The Barrier is in the Environment

Variability is the Norm

The Goal is Expert Learning
Design thinking

**Design Thinking Video**


“[Design is about] creating better versions of the future”
Images of teachers
Images of teachers
Images of teachers
Images of teachers
Images of teachers
Teachers around the world
Teachers around the world
Images of teachers
The Myth
Images of teachers - Planning
Images of teachers - Collaborating
Images of teachers - Grading
Three roles of the teacher

- Instructor
- Coach
- Designer
Teacher as Instructor

- Give Information
- Give directions
- Provide context
- Manage classroom
Teacher as Coach

- Inspire
- Motivate
- Monitor
- Give feedback
- Redirect
Teachers on design thinking...

Design Thinking For Educators

Teacher as Designer is...

- Goal directed
- Intentional
- Proactive
- Flexible
- Learner centered
- Guided by empathy and understanding of learner experience

Guided by principles and research
- Always brainstorming new ideas
- Iterative
- Reflective
- Always seeking feedback
- Engaged in an ongoing improvement
Teacher as Designer thinking...
UDL: The Process

Set Clear, Rigorous, Relevant Goals

Anticipate Barriers (Think about Learner Variability)

Design Options to Reduce Barriers for All
Set Clear Goal

Anticipate Barriers

Reflect and redesign

Try it out!

Design Options
Designing classrooms and cars

<table>
<thead>
<tr>
<th>Car Design</th>
<th>Curriculum Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>Curriculum / Learning environment</td>
</tr>
<tr>
<td>Driver</td>
<td>Learner</td>
</tr>
<tr>
<td>Driving experience</td>
<td>Learning experience</td>
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<td>Car designer</td>
<td>Teacher as designer</td>
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<tr>
<td>Destination</td>
<td>Learning goal</td>
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<td>Route</td>
<td>Means / instructional method / options</td>
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<td>Deer in the road</td>
<td>Unpredictable learning environment</td>
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<tr>
<td>Driver’s Ed Classroom Instructor</td>
<td>Teacher as instructor</td>
</tr>
<tr>
<td>Driver’s Ed Car Instructor</td>
<td>Teacher as coach</td>
</tr>
</tbody>
</table>
Designing classrooms and cars
Designing classrooms and cars
Designing classrooms and cars
Designing classrooms and cars
Where do we focus our attention?
Designing a lesson about butterfly metamorphosis
Designing a lesson about butterfly metamorphosis
Journey Mapping

Journey Mapping Instructions

Journey Mapping Template
Three Phases of UDL

Setting Clear, Rigorous Goals

Anticipating Barriers

Designing to Minimize Barriers
Journey Mapping - What is it?

Visual experience map

2 Ways to Use It
- Proactively
- Retrospectively
Journey Mapping - What is it?

- Create a detailed map of activities
Activities - What’s happening
Journey Mapping - What is it?

- Create a map of activities
- Put yourself in the user’s shoes
- Anticipate or record the emotional experience of users
Emotion map
Journey Mapping Purpose

- Put yourself in the user’s shoes
- Create a map of a user’s experience
- Anticipate or record the emotional experience of users
- Anticipate barriers
- Add layers as needed
Materials - what does one need
Teacher emotion map
Journey Mapping - where did this come from?

- Design world - software design to the design of packaging
- The Designer’s Goals
  - Everything is intentional
  - Centered around the user experience
- A few examples of the results
Amazon

**What School Could Be: Insights and Inspiration from Teachers across America** Hardcover – April 10, 2018

by Ted Dintersmith  • (Author)

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An inspiring account of teachers in ordinary circumstances doing extraordinary things, showing us how to transform education.

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The experience of your new iPhone!
Teachers as Designers

- **The Designer’s Goals**
  - Everything is intentional
  - Centered around the user experience

- **Map an experience**
- **Anticipate barriers**

- **The Teacher’s Goals**
  - Everything is intentional
  - Centered around the learner

- **Map a learning experience**
- **Anticipate barriers**
All learning is the interaction between the learner and the environment.

- David Rose
When would I use journey mapping?

- Testing out a new learning design idea
- Reflecting on a learning design
- Figuring out what might be difficult for a particular student or class
Sample Lesson to Journey Map

Learning Goal
Experience Life as an Algebra Student

Systems of equations - Substitution Method

\[ 3x + 5y = 26 \]
\[ x - y = -2 \]

Find the value of x and y
Experience Life as an Algebra Student

Systems of equations - Substitution Method

\[ 3x + 5y = 26 \]
\[ x - y = -2 \]
Find the value of \( x \) and \( y \)

\[ x - y = -2 \]
\[ +y \quad +y \]
\[ x = y - 2 \]
Experience Life as an Algebra Student

\[ x = y - 2 \]

\[ 3x + 5y = 26 \]
\[ 3(y-2) + 5y = 26 \]
\[ 3y - 6 + 5y = 26 \]
\[ +6 +6 \]
\[ 8y = 32 \]
\[ \frac{32}{8} = 8 \]
\[ y = 4 \]
Experience Life as an Algebra Student

Systems of equations - Substitution Method

\[ y = 4 \]
\[ x - y = -2 \]
\[ x - 4 = -2 \]
\[
\begin{array}{c}
+4 \\
+4
\end{array}
\]
\[ x = 2 \]
\[ y = 4 \]
Do a problem on your own

\[ \begin{align*}
4x + 6y &= 40 \\
x + y &= 5
\end{align*} \]

Find the value of \( x \) and \( y \) using the substitution method
End Scene
Let’s Map
Activities: Describe in detail what happened. What did the teacher do, what did the students do?

Materials: What materials were needed to accomplish above.

Then:

Emotion map: Identify high and low points as you anticipate or witnessed them. Interview students to get their perspective.

Other lanes: Additional lanes that illuminate answers to other questions.
Journey Mapping - Roles

- Facilitator - Guide the instructor to describe the learning design in detail
- Instructor - Describe the learning design thinking of all of the details
- Sticky-note writer - Concisely record what the instructor reports. One sticky note per idea. One color per lane.
Emotion Mapping - What was your experience?

- High Point
- Low Point
- Ups and Downs
- One dot color per person
- Ask why - label with a stick note
How would you use journey mapping?

- Testing out a new learning design idea
- Reflecting on a learning design
- Coaching
- Coordinating co-teaching
- Identifying barriers for a particular student or class
- Integrating two curriculum ideas - UDL and X
- Gathering feedback from students
- Making sure you have all the right materials
- Other ideas
Journey Map Reflection

- How might this help the instructor see their lesson differently?
- How could s/he use this to identify barriers?
- How does this help the instructor think about their learning goal?
Universal Design for Learning Guidelines

Provide multiple means of Engagement
Affective Networks
The “WHY” of Learning

Provide multiple means of Representation
Recognition Networks
The “WHAT” of Learning

Provide multiple means of Action & Expression
Strategic Networks
The “HOW” of Learning
How do we make curriculum and all Tiered Interventions accessible to all learners?

**Universal Design for Learning (UDL)**

- Universally Designed Tier One Instruction
- Universally Designed Tier Two Interventions
- Universally Designed Tier Three Interventions
UDL: The Process

Set Clear, Rigorous, Relevant Goals

Anticipate Barriers (Think about Learner Variability)

Design Options to Reduce Barriers for All
UDL Process
Thank you!