
Barriers in the Curriculum: Teachers as Designers

Webinar

November 26th 2018



Introducing the Presenters



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Options for Today



Options for Perception:

Large Projection

Website

<http://bit.ly/UDLBarriers>



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?



Universal Design for Learning
(UDL)

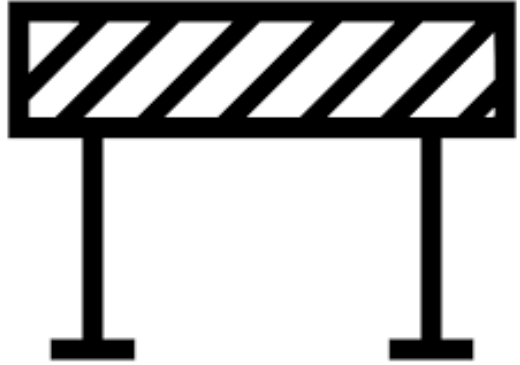
Universally
Designed Tier
Three
Interventions

Universally Designed Tier Two Interventions

Universally Designed Tier One Instruction

How do we make
curriculum and all
Tiered Interventions
accessible to **all**
learners?

Review The UDL Core Concepts



Architecture

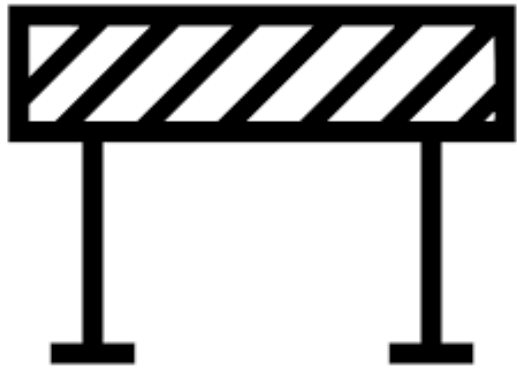


Neuroscience



Guidelines

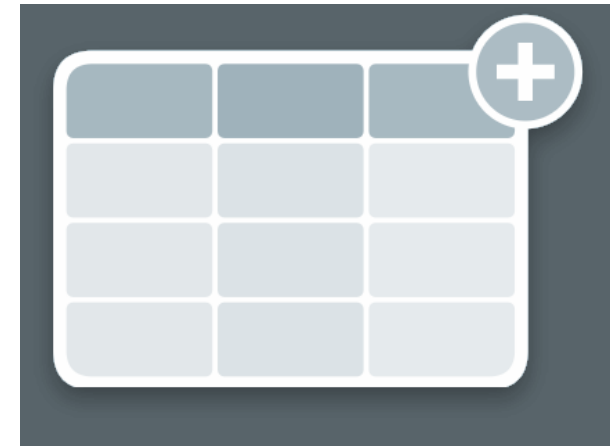
Review: The UDL Core Concepts



The Barrier is in
the Environment

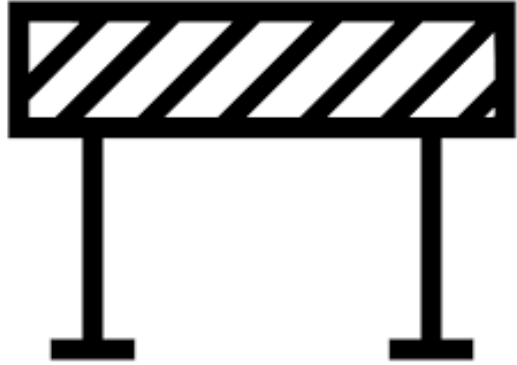


Neuroscience



Guidelines

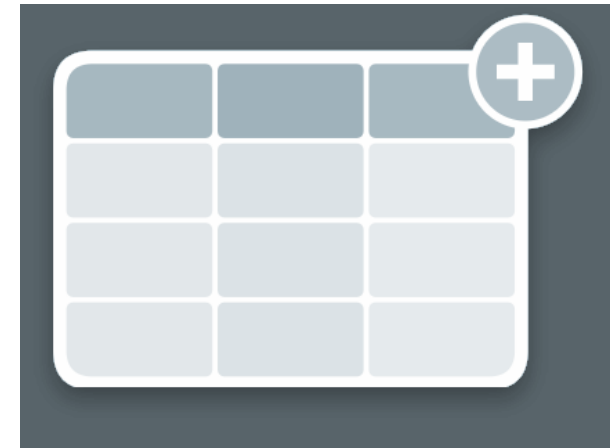
The UDL Core Concepts



The Barrier is in
the Environment

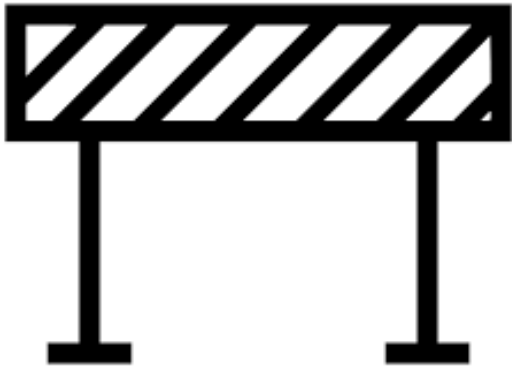


Variability is the
Norm



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

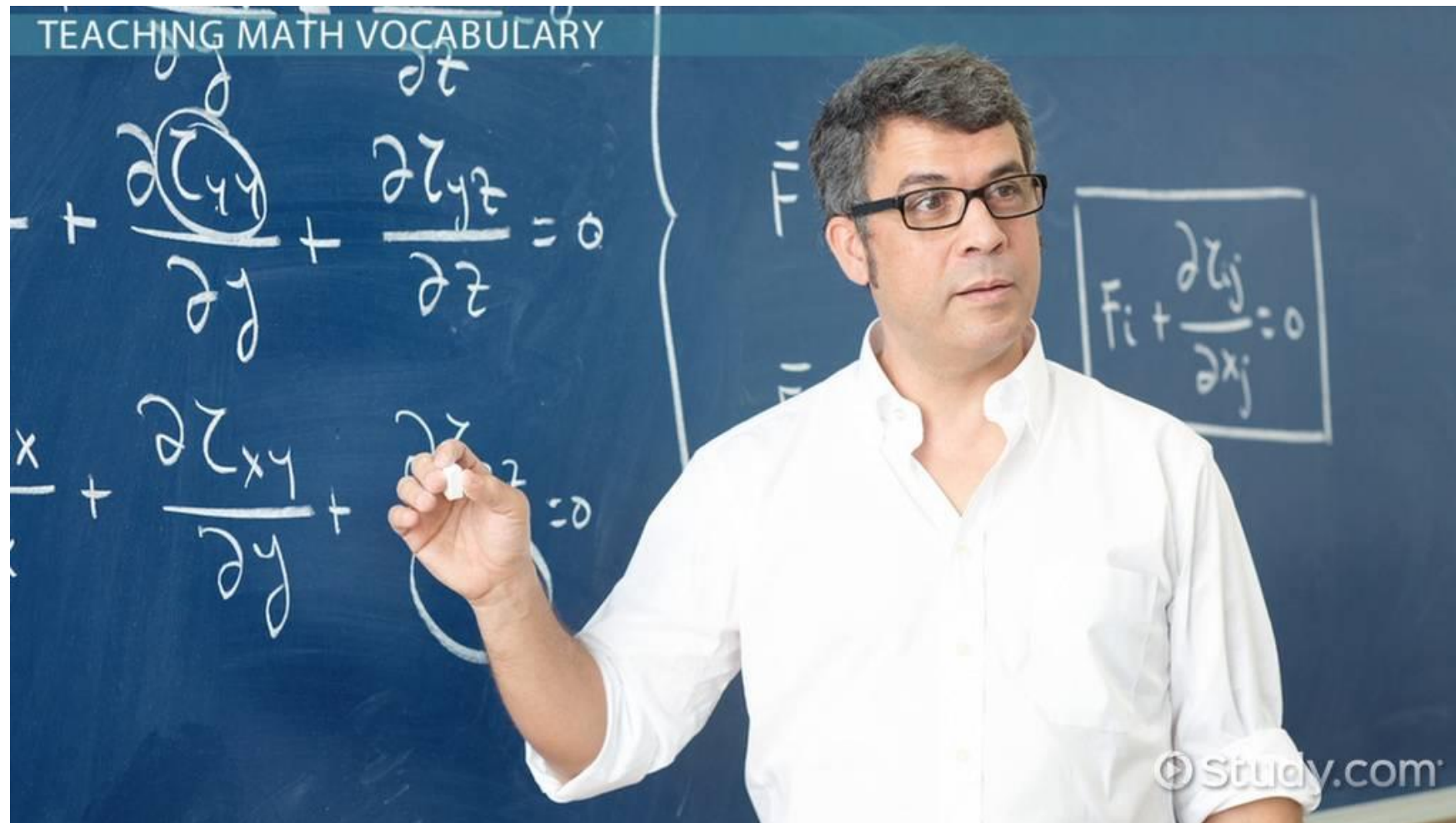
<http://bit.ly/IDEODesignThinking>

“[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

<http://bit.ly/DesignThinkingforEd>

Teacher as Designer is...

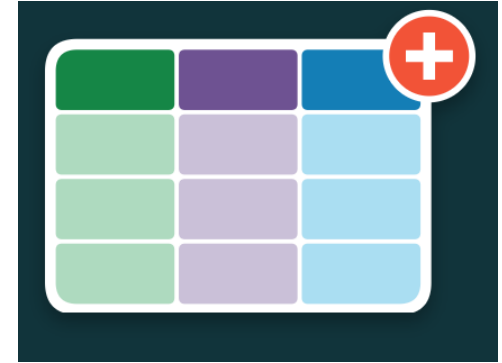
- Goal directed
- Intentional



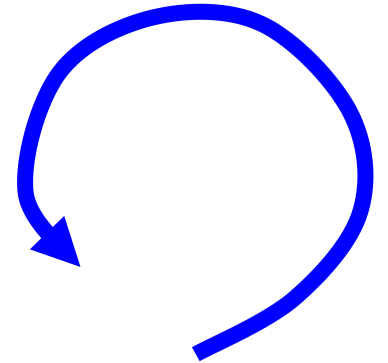
- Proactive
- Flexible
- Learner centered
- Guided by empathy and understanding of learner experience



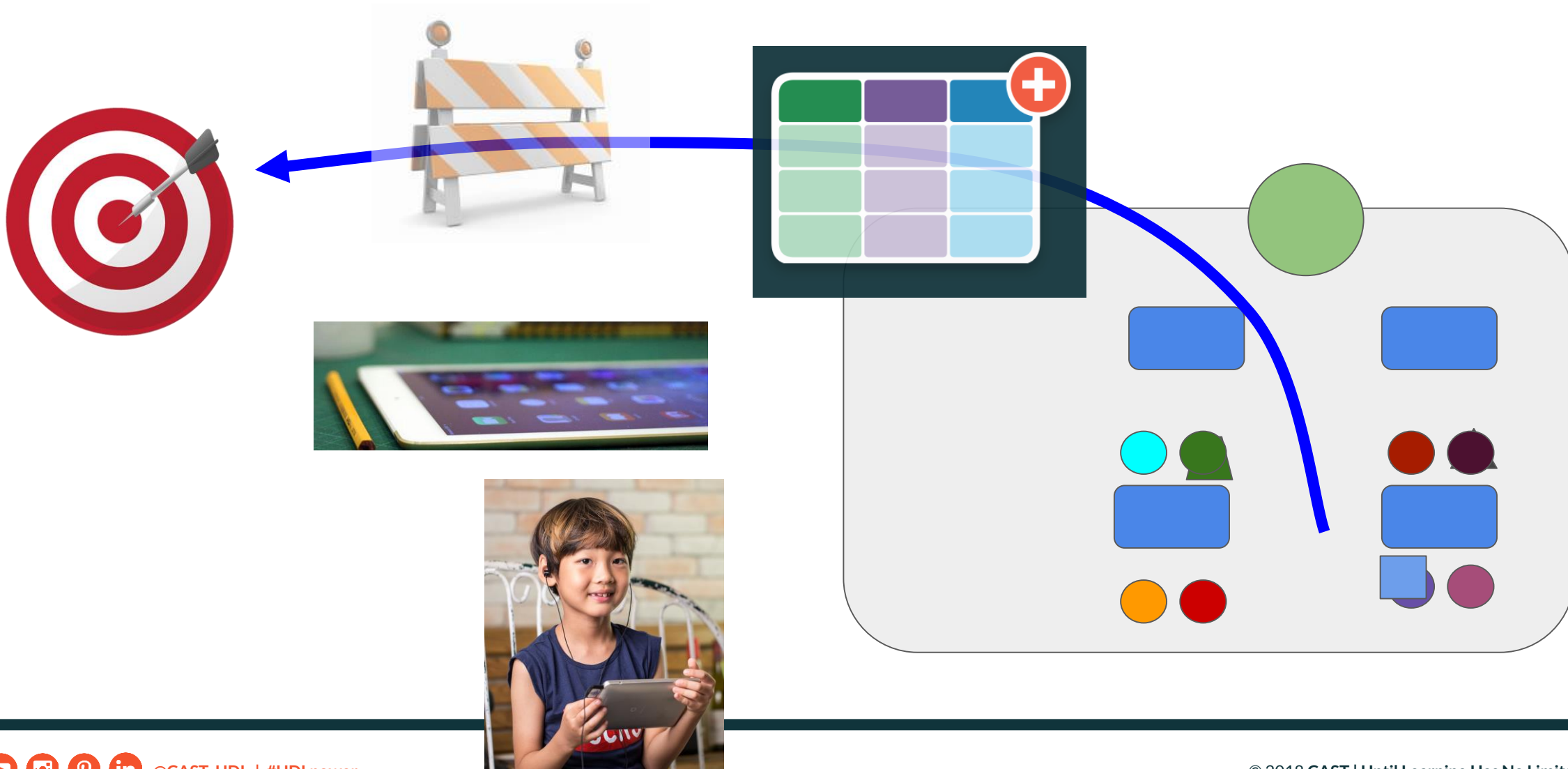
- Guided by principles and research
- Always brainstorming new ideas



- 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



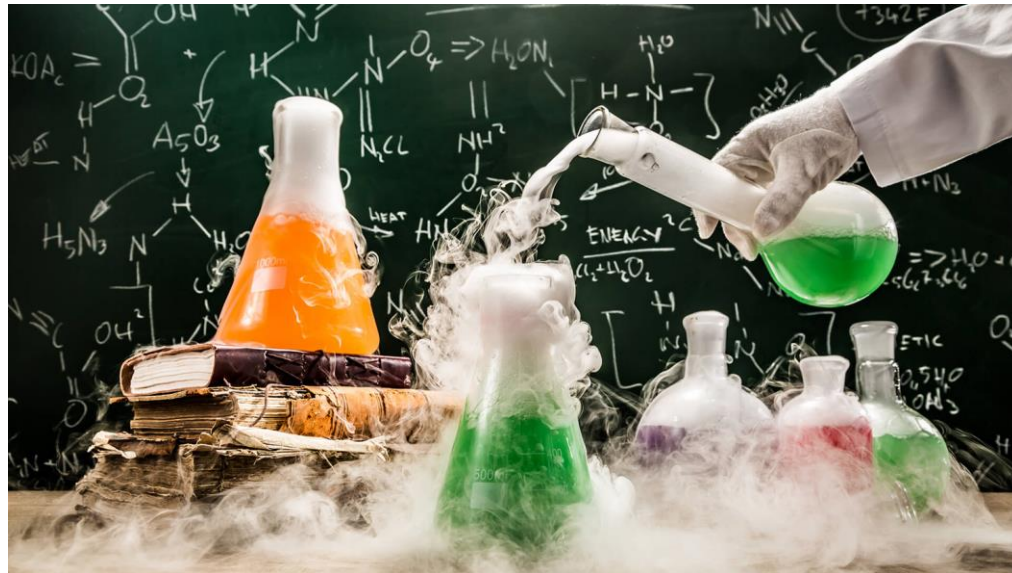
Set Clear Goal



Anticipate Barriers



Try it out!



Design Options



Reflect and redesign



@CAST_UDL | #UDLpower

© 2018 CAST | Until Learning Has No Limits

Designing classrooms and cars

Car Design

Car
Driver
Driving experience
Car designer
Destination
Route
Deer in the road
Driver's Ed Classroom Instructor
Driver's Ed Car Instructor

Curriculum Design

Curriculum / Learning environment
Learner
Learning experience
Teacher as designer
Learning goal
Means / instructional method / options
Unpredictable learning environment
Teacher as instructor
Teacher as coach

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

<http://bit.ly/JourneyMappingUDL>

Journey Mapping Template

<http://bit.ly/JourneyMapTemplate>



Three Phases of UDL

Setting Clear,
Rigorous Goals



Anticipating
Barriers



Designing to
Minimize Barriers

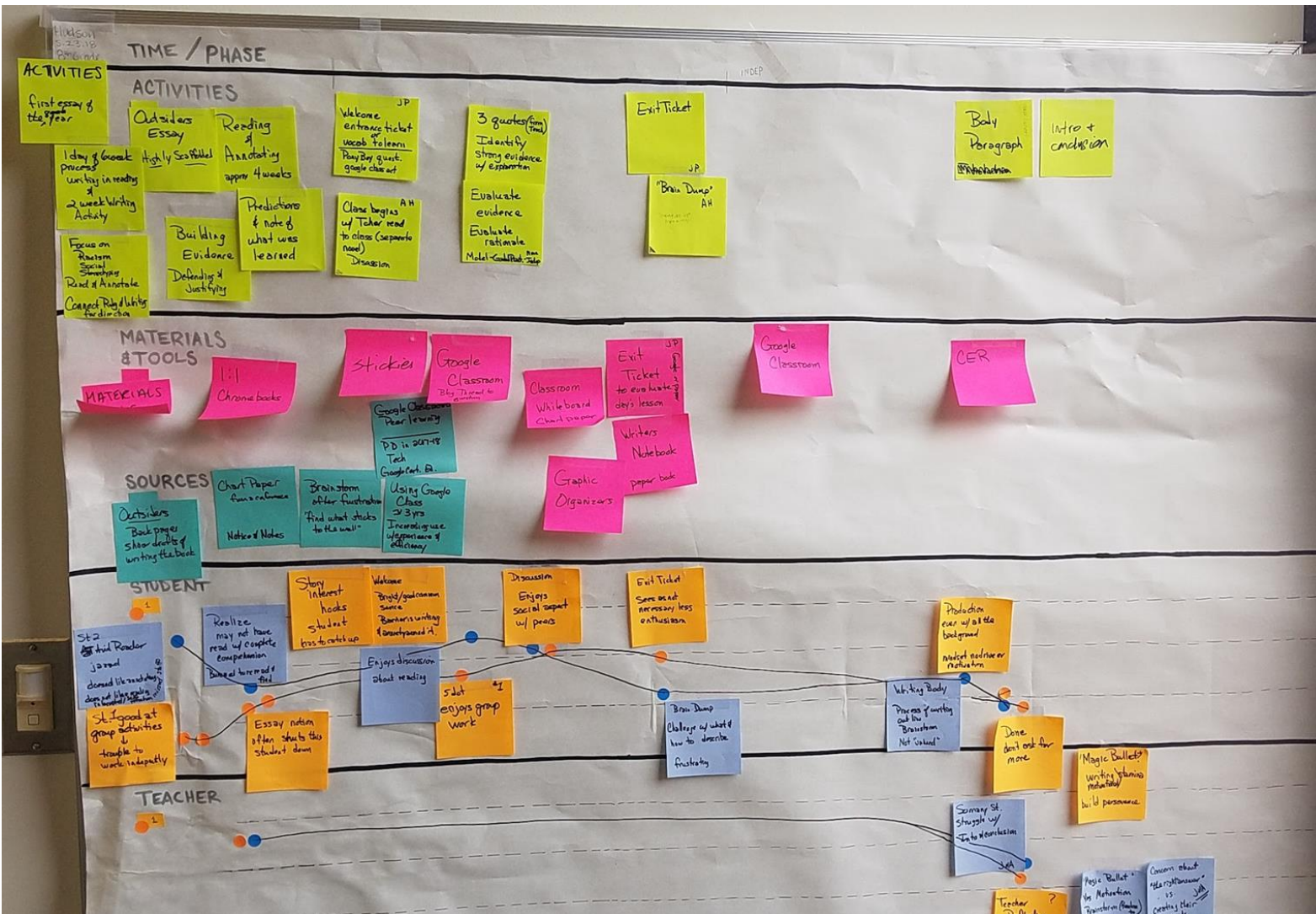


Journey Mapping - What is it?

Visual experience map

2 Ways to Use It

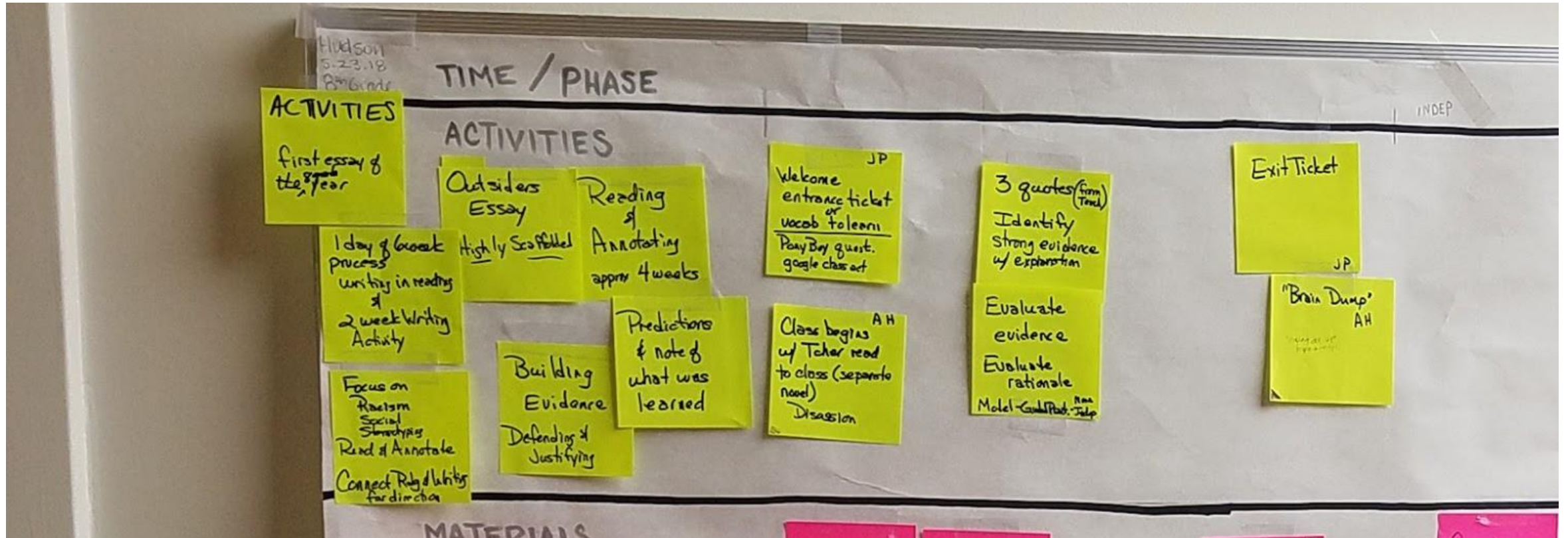
- Proactively
- Retrospectively



Journey Mapping - What is it?

- Create a detailed map **activities**

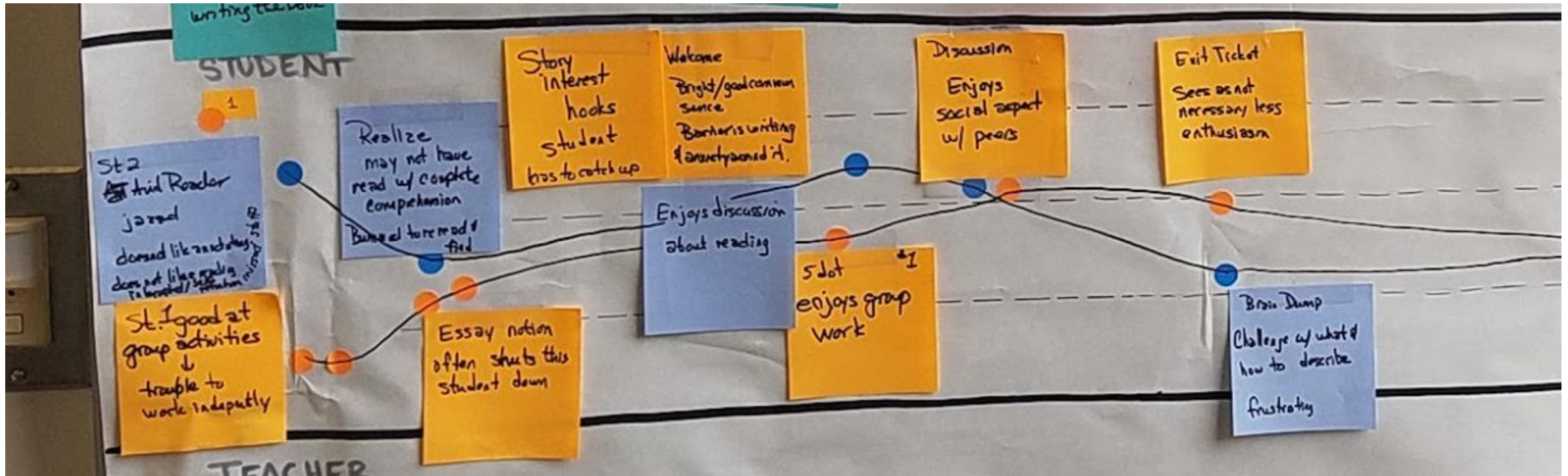
Activities - What's happening



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

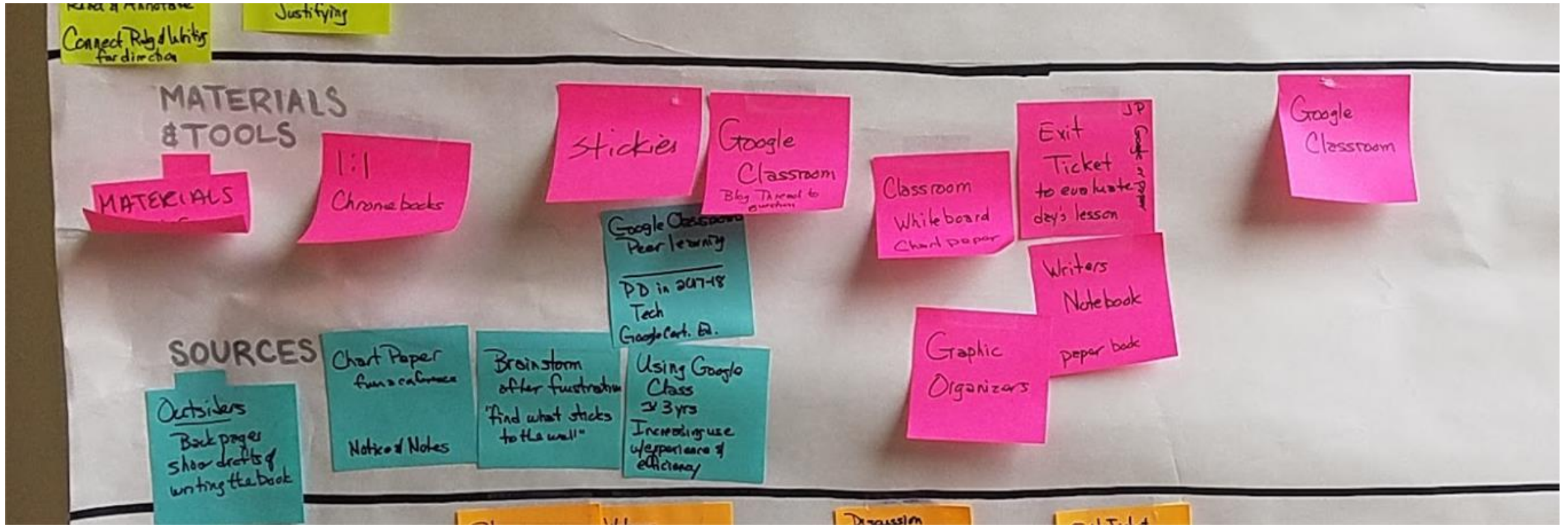
Emotion map



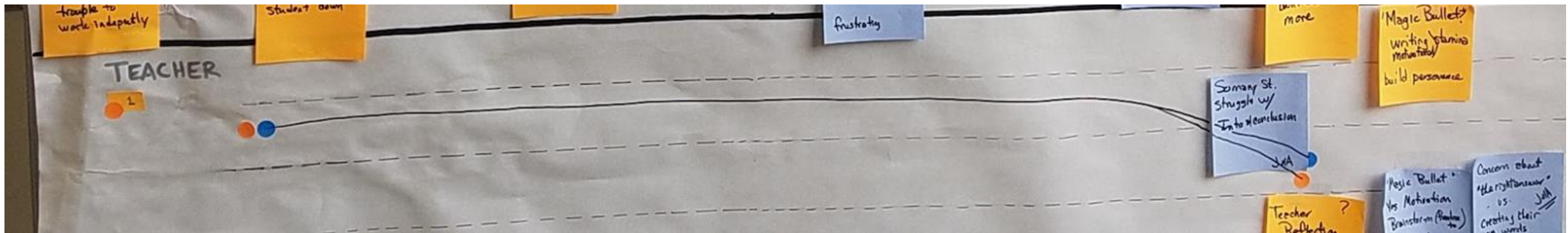
Journey Mapping Purpose

- 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?

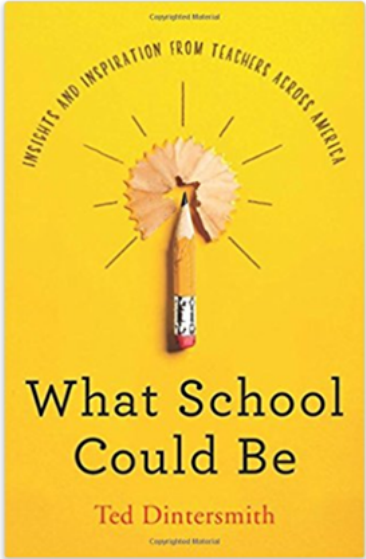
- Design world - software design to the design of packaging
- The Designer's Goals
 - Everything is intentional
 - Centered around the user experience
- A few examples of the results

Amazon

Browser tabs: N | W | Id | di | N | U | U | IN | N | D | Jo | St | D | C | PDF | nt | N | M | FV | a x | hp | H | hp | H | G | Sc | + | - | X

Address bar: <https://www.amazon.com/gp/product/069118061X?selectObb=new>

Navigation: Apps | Dashboard - Confluence | Moodle | concept map



Look inside

What School Could Be

Ted Dintersmith

Listen

See this image

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

by [Ted Dintersmith](#) (Author)

★★★★★ 45 customer reviews

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

What School Could Be offers an inspiring vision of what our teachers and students can accomplish if trusted with the challenge of developing the skills and ways of thinking needed to thrive in a world of dizzying technological change
[Read more](#)

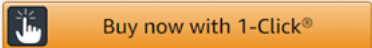
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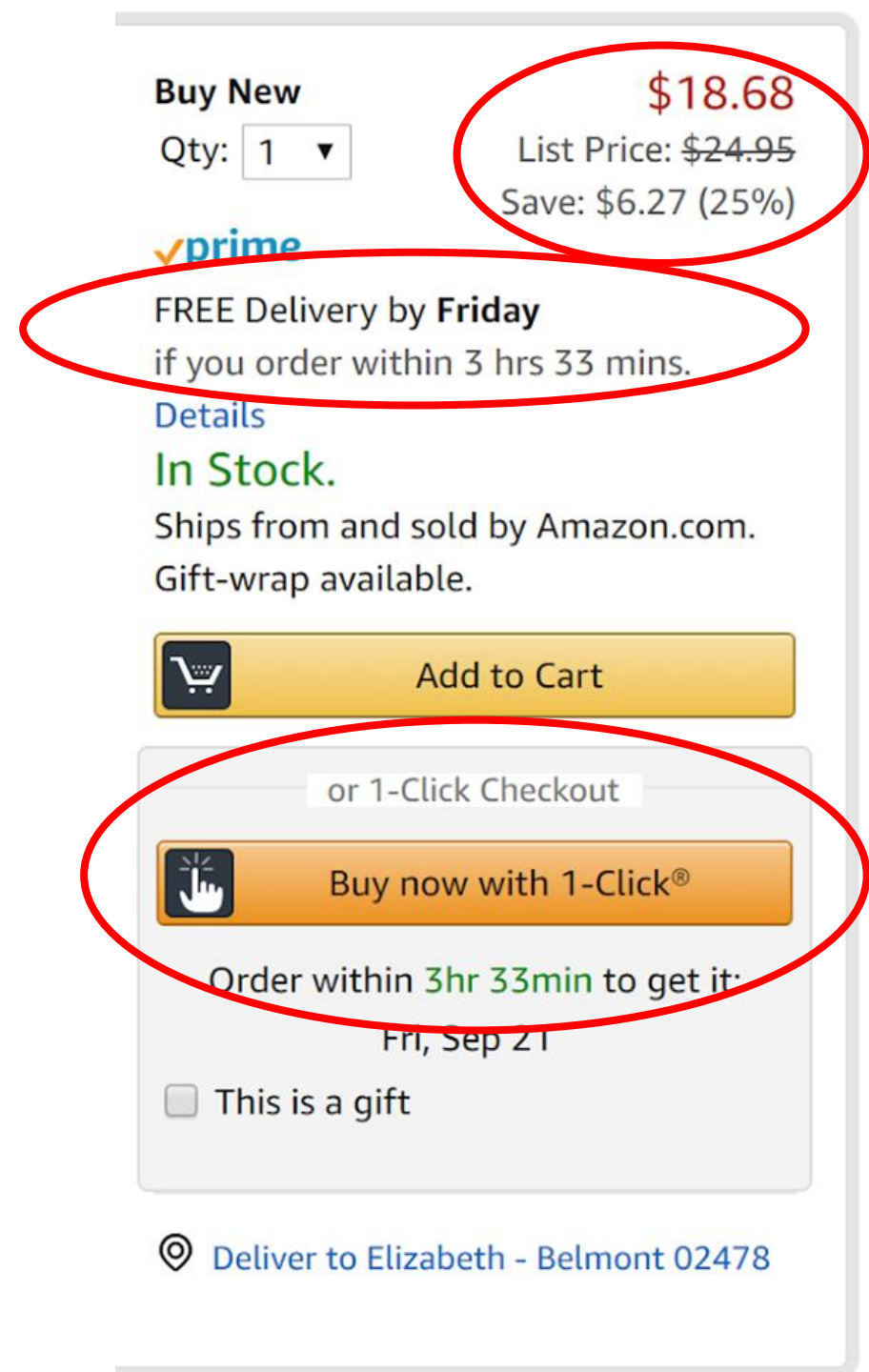
nh-brochure-2018....pdf ^ nh-brochure-2018....pdf ^ student working h....jpg ^ rocket-blueprint-c....jpg ^ shoe testing mach....png ^ Show all X

Type here to search

8:26 PM 9/19/2018

User Experience

- FREE Delivery
- Prices looks like a bargain
- Buy now with 1-Click



Pizza Anticipation - Domino's

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/#!/section/Food/category/AllEntrees/>


Apps Dashboard - Confluence Moodle concept map

DOMINO'S PIZZA BUILDER

SIZE & CRUST

CHEESE & SAUCE

TOPPINGS



MY PIZZA
Large (14") Hand Tossed Pizza
Cheese
Quantity: 1
ADD TO ORDER

CHEESE & SAUCE

CHOOSE YOUR SIZE
☒ 10" Small

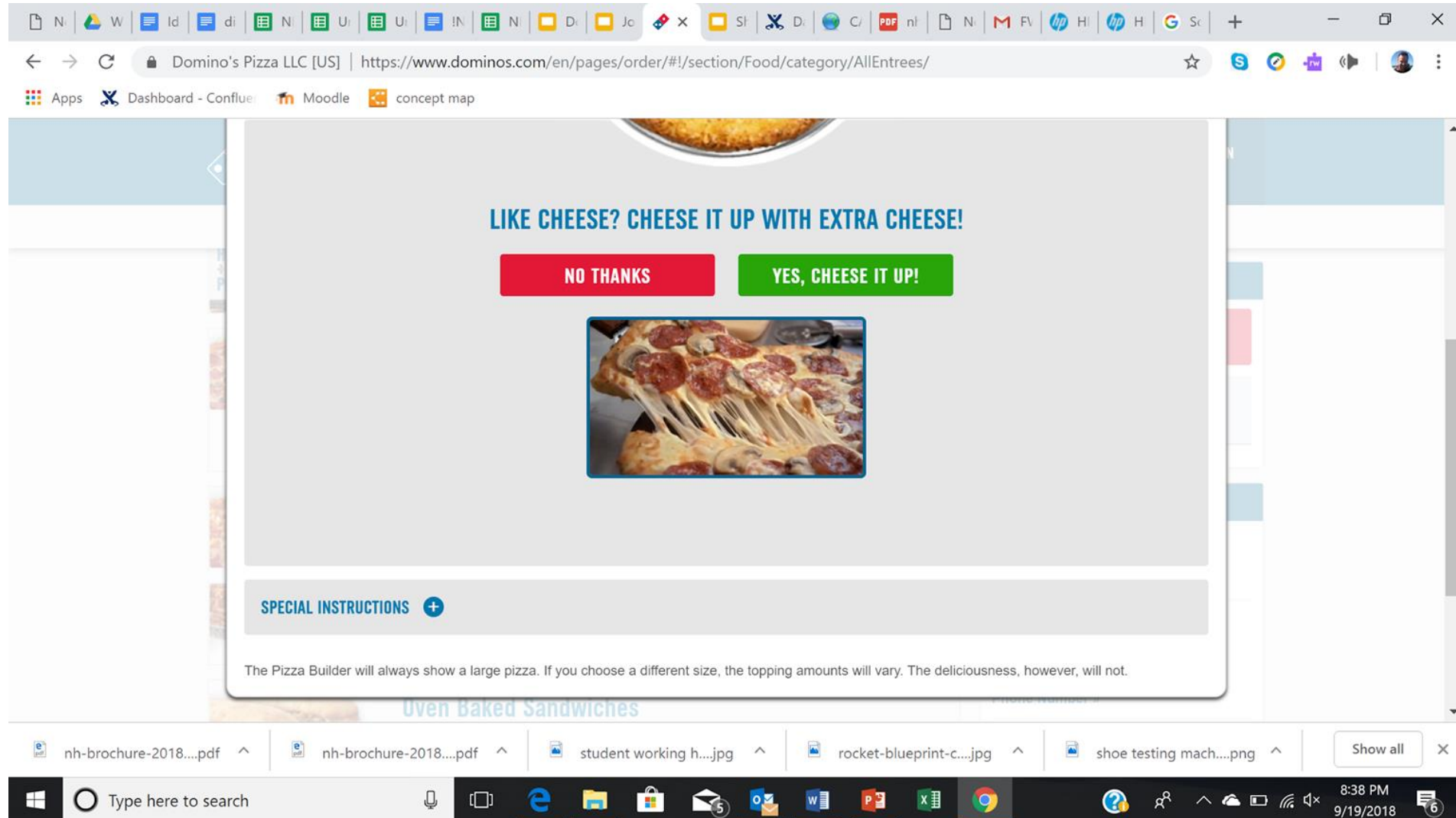
CHOOSE YOUR CRUST
☐ **BROOKLYN STYLE**
Hand stretched to be big, thin and perfectly foldable

nh-brochure-2018....pdf nh-brochure-2018....pdf student working h...jpg rocket-blueprint-c...jpg shoe testing mach....png Show all

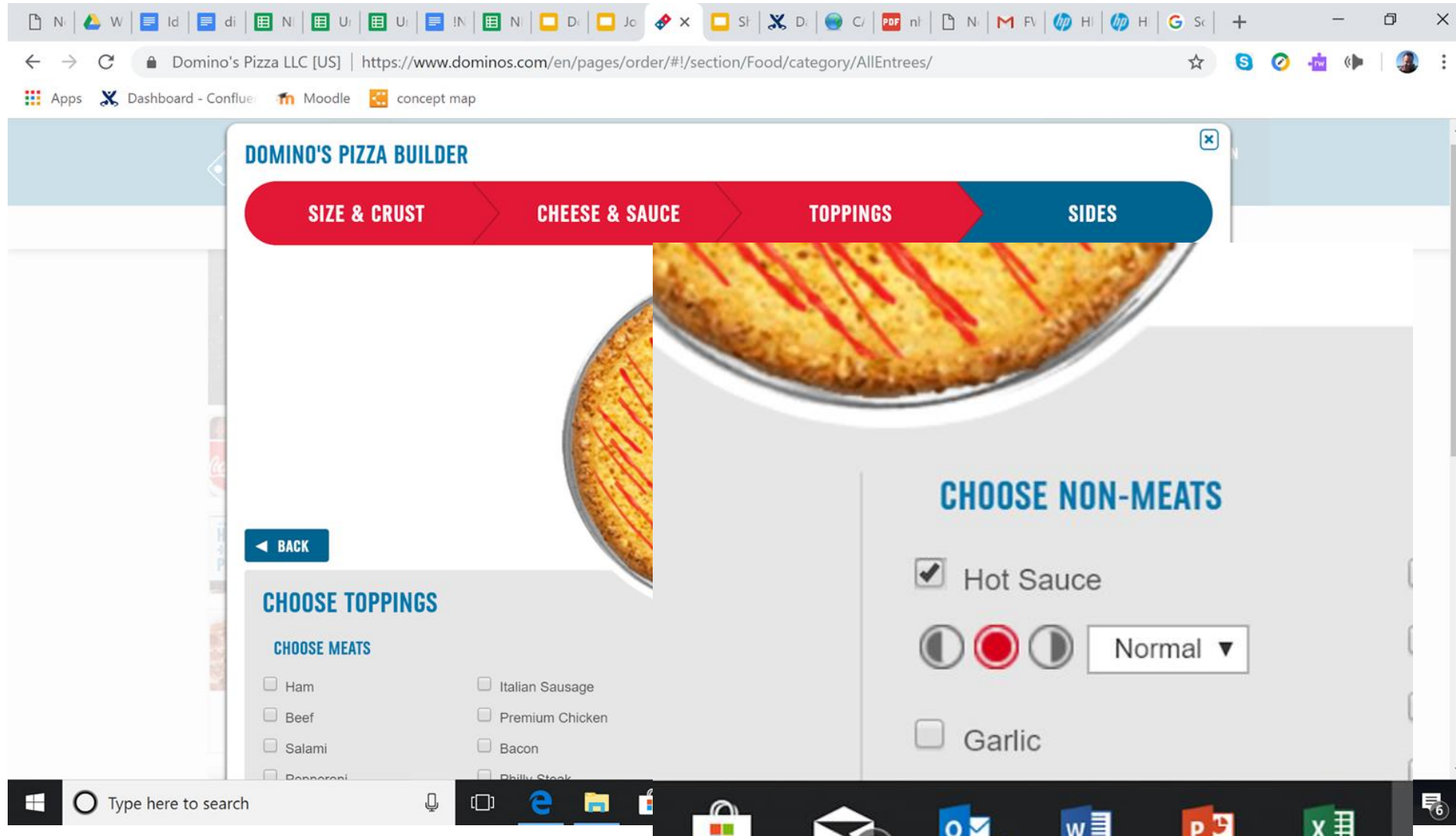
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Pizza Anticipation - Domino's



Pizza Anticipation - Domino's




Pizza Anticipation - Domino's

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/#!/section/Food/category/AllEntrees/>

Apps Dashboard - Confluence Moodle concept map

DOMINO'S PIZZA BUILDER

SIZE & CRUST CHEESE & SAUCE TOPPINGS SIDES



MY PIZZA
Large (14") Hand Tossed Pizza
Left: Hot Sauce
Whole: Cheese
Quantity: 1 ▼
ADD TO ORDER

CHOOSE TOPPINGS

CHOOSE MEATS

- ☐ Ham
- ☐ Beef
- ☐ Salami
- ☐ Italian Sausage
- ☐ Premium Chicken
- ☐ Bacon

CHOOSE NON-MEATS

- ☒ Hot Sauce
- ☐ Pineapple
- ☐ Shredded Provolone Cheese
- ☐ Cheddar Cheese

Normal ▼

BACK SIDES

Type here to search

8:52 PM 9/19/2018

Pizza Anticipation - Domino's

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/#!/section/Food/category/AllEntrees/>

DOMINO'S PIZZA BUILDER

SIZE & CRUST | CHEESE & SAUCE | TOPPINGS | SIDES

MY PIZZA

Large (14") Hand Tossed Pizza
Left: Hot Sauce
Right: Ham
Whole: Cheese

Quantity: 1

ADD TO ORDER

CHOOSE TOPPINGS

CHOOSE MEATS

☒ Ham
☐ Italian Sausage
☐ Premium Chicken
☐ Bacon

CHOOSE NON-MEATS

☒ Hot Sauce
☐ Pineapple
☐ Shredded Provolone Cheese
☐ Cheddar Cheese

8:53 PM 9/19/2018

Pizza Anticipation - Domino's

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/#!/section/Food/category/AllEntrees/>

Apps Dashboard - Confluence Moodle concept map

SIZE & CRUST CHEESE & SAUCE TOPPINGS SIDES

MY PIZZA

Large (14") Hand Tossed Pizza

Left: Hot Sauce
Right: Ham
Whole: Cheese, Bacon

Quantity: 1

ADD TO ORDER

CHOOSE TOPPINGS

CHOOSE MEATS

☒ Ham ☐ Italian Sausage ☐ Premium Chicken ☒ Bacon ☐ Beef ☐ Salami

Normal

CHOOSE NON-MEATS

☒ Hot Sauce ☐ Pineapple ☐ Shredded Provolone Cheese ☐ Cheddar Cheese ☐ Green Peppers ☐ Spinach

Normal

BACK SIDES

Type here to search

8:54 PM 9/19/2018

Pizza Anticipation - Domino's

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/#!/section/Food/category/AllEntrees/>

Apps Dashboard - Confluent Moodle concept map

HOME MENU COUPONS GROUP ORDERING TRACKER PIZZA PROFILE SIGN IN & EARN REWARDS

VIEW ALL PIZZA CHICKEN SANDWICHES PASTA BREADS & SIDES DESSERTS DRINKS EXTRAS

CARRYOUT SPECIAL DEAL

LARGE

2-TOPPING PIZZAS

9/17-9/23

ORDER ONLINE, PICK IT UP AT THE STORE

*You must \$1k for this limited time offer. Prices, participation and charges may vary.

\$5.99 each

ORDER NOW

Popular Items

No time to waste? Choose a meal and head straight for checkout.

Coupons

Find the perfect hot online deal.

MY ORDER

CHECKOUT

Large (14") Hand Tossed Pizza

1 REMOVE

Large (14") Hand Tossed Pizza

Left: Black Olives

Right: Spinach

Whole: Hearty Marinara Sauce, Bacon, No Robust Inspired Tomato Sauce

1 REMOVE

ORDER SETTINGS

My Location [CHANGE](#)

22 ALMA AVE

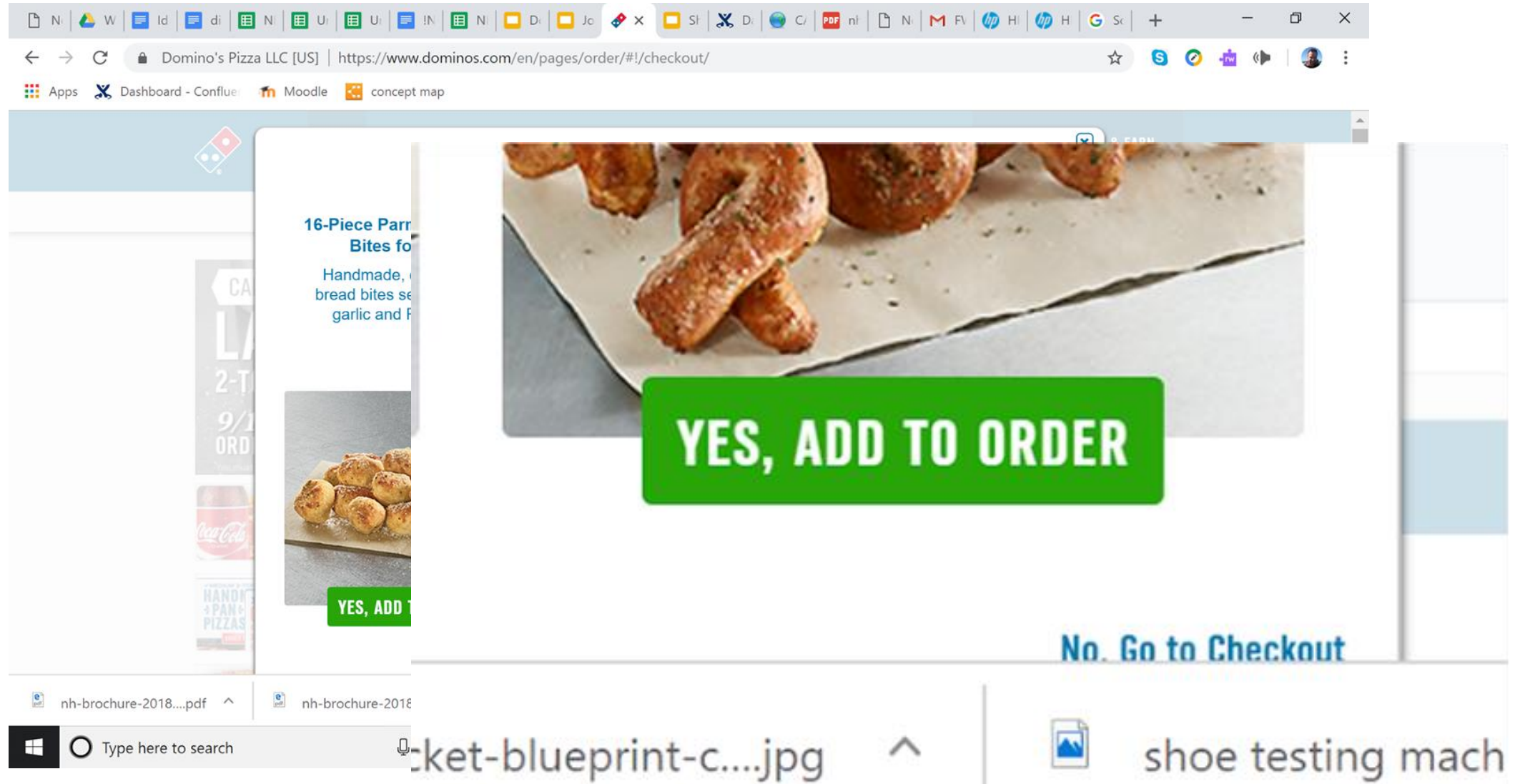
<https://www.dominos.com/en/pages/order/#!/order/coupons/new?code=9159&qty=1>

nh-brochure-2018....pdf nh-brochure-2018....pdf student working h....jpg rocket-blueprint-c....jpg shoe testing mach....png Show all

Type here to search

8:43 PM 9/19/2018

Pizza Anticipation - Domino's



Pizza Anticipation - Domino's

The screenshot displays the Domino's Pizza website's order confirmation and tracking page. The browser's address bar shows the URL <https://www.dominos.com/en/pages/order/confirmation.jsp>. The website's navigation bar includes links for HOME, MENU, COUPONS, GROUP ORDERING, TRACKER, and PIZZA PROFILE. The main content area features a 'THANK YOU FOR YOUR ORDER' message with the text 'ORDER #211822 WAS SUCCESSFULLY PLACED' and a flag icon. A 'PIECE OF THE PIE REWARDS' section offers points toward a free pizza. A central pop-up asks for a phone number to receive real-time text message updates. Below this, the 'DOMINO'S TRACKER' section shows a progress bar with five stages: ORDER PLACED (1), PREP (2), BAKE (3), QUALITY CHECK (4), and OUT FOR DELIVERY (5). The first stage is highlighted in red, and the text 'YOUR ORDER IS IN - Our expert customer representative received your order.' is displayed. A 'PICK YOUR THEME' button is also visible. The Windows taskbar at the bottom shows the time as 7:18 PM on 9/27/2018.

Order Confirmation - Checkout

Domino's Pizza LLC [US] | <https://www.dominos.com/en/pages/order/confirmation.jsp>

Apps Dashboard - Confluence Moodle concept map

HOME MENU COUPONS GROUP ORDERING TRACKER PIZZA PROFILE

THANK YOU FOR YOUR ORDER

ORDER #211822 WAS SUCCESSFULLY PLACED

You should receive a confirmation order number and the status below.

PIECE OF THE PIE REWARDS

Earn points toward FREE Pizza on your next order

Want real-time text message updates to track this order? Enter your info below.

DOMINO'S TRACKER

It leaves our store for delivery or is ready to be picked up.

PICK YOUR THEME

ORDER PLACED PREP BAKE QUALITY CHECK OUT FOR DELIVERY

1 2 3 4 5

YOUR ORDER IS IN - Our expert customer representative received your order.

PATENT PENDING

Type here to search

7:18 PM 9/27/2018

Pizza Anticipation - Domino's

DOMINO'S TRACKER[®]

Know the status of your order, from the moment it's placed to the second it leaves our store for delivery or is ready to be picked up.

PICK YOUR THEME

ORDER PLACED

PREP

BAKE

QUALITY CHECK

OUT FOR DELIVERY

1

2

3

4

5

WE'RE FIRING IT UP - Luciano began custom-making your order at 7:17 PM.

PATENT PENDING

Pizza Anticipation - Domino's

DOMINO'S TRACKER[®]

Know the status of your order, from the moment it's placed to the second it leaves our store for delivery or is ready to be picked up.

PICK YOUR THEME

ORDER PLACED

PREP

BAKE

QUALITY CHECK

OUT FOR DELIVERY

1

2

3

4

5

YOUR ORDER IS IN THE OVEN - Luciano put your order in the oven at 7:18 PM.

PATENT PENDING

Pizza Anticipation - Domino's

DOMINO'S TRACKER[®]

Know the status of your order, from the moment it's placed to the second it leaves our store for delivery or is ready to be picked up.

PICK YOUR THEME

ORDER PLACED

PREP

BAKE

QUALITY CHECK

OUT FOR DELIVERY

1

2

3

4

5

WE'RE ON THE WAY - Eddie left the store with your order at 7:30 PM.

PATENT PENDING

Pizza Anticipation - Domino's



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



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

$$x - y = -2$$

$$\begin{array}{r} +y \quad +y \\ \hline \end{array}$$

$$x = y - 2$$

Experience Life as an Algebra Student

$$x = y - 2$$

$$3x + 5y = 26$$

$$3(y-2) + 5y = 26$$

$$3y - 6 + 5y = 26$$

$$\begin{array}{rcl} & +6 & +6 \\ \hline & 8y & = 32 \\ & 8 & \\ & y & = 4 \end{array}$$

Experience Life as an Algebra Student

Systems of equations - Substitution Method

$$y = 4$$

$$x - y = -2$$

$$x - 4 = -2$$

$$\begin{array}{r} +4 \quad +4 \\ \hline \end{array}$$

$$x = 2$$

$$x = 2$$

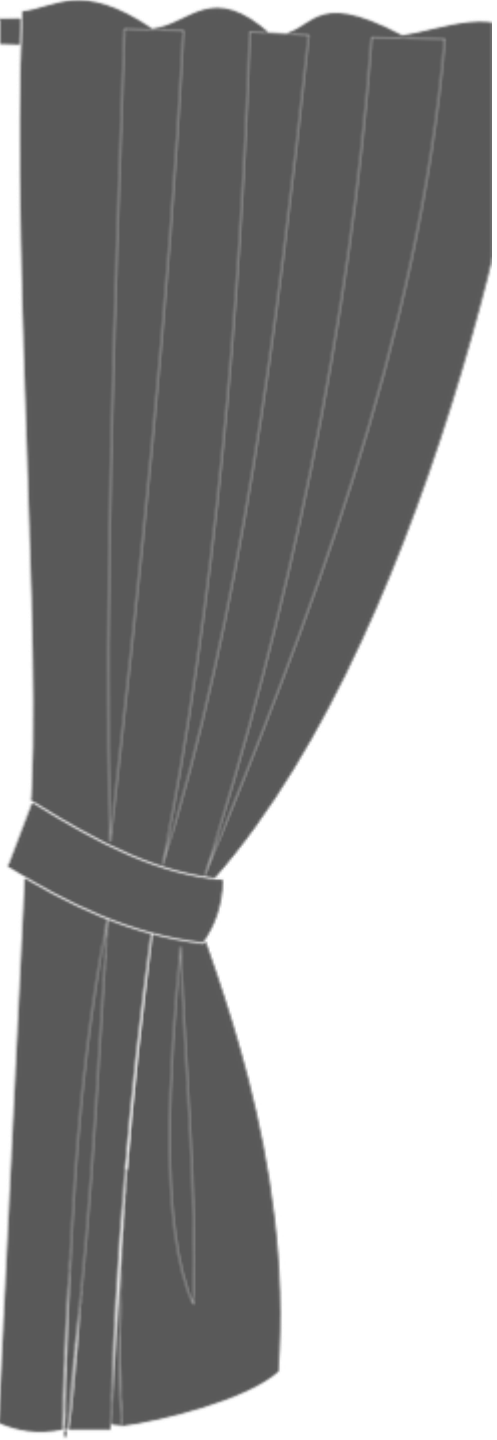
$$y = 4$$

Do a problem on your own

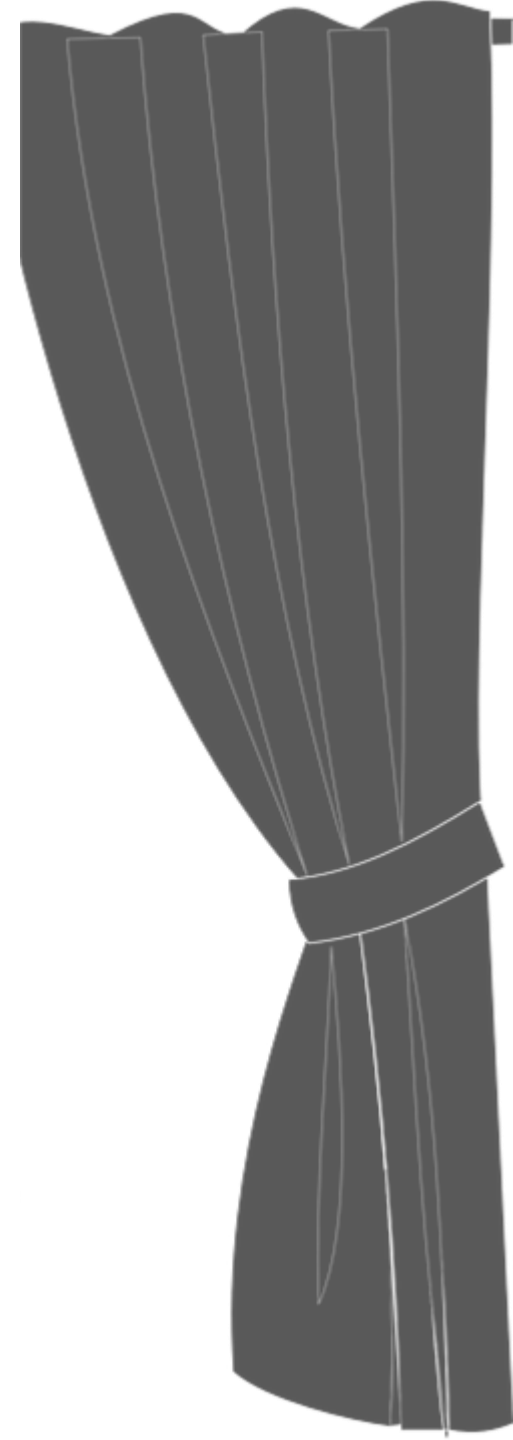
$$4x + 6y = 40$$

$$x + y = 5$$

Find the value of x and y using the substitution method



End Scene



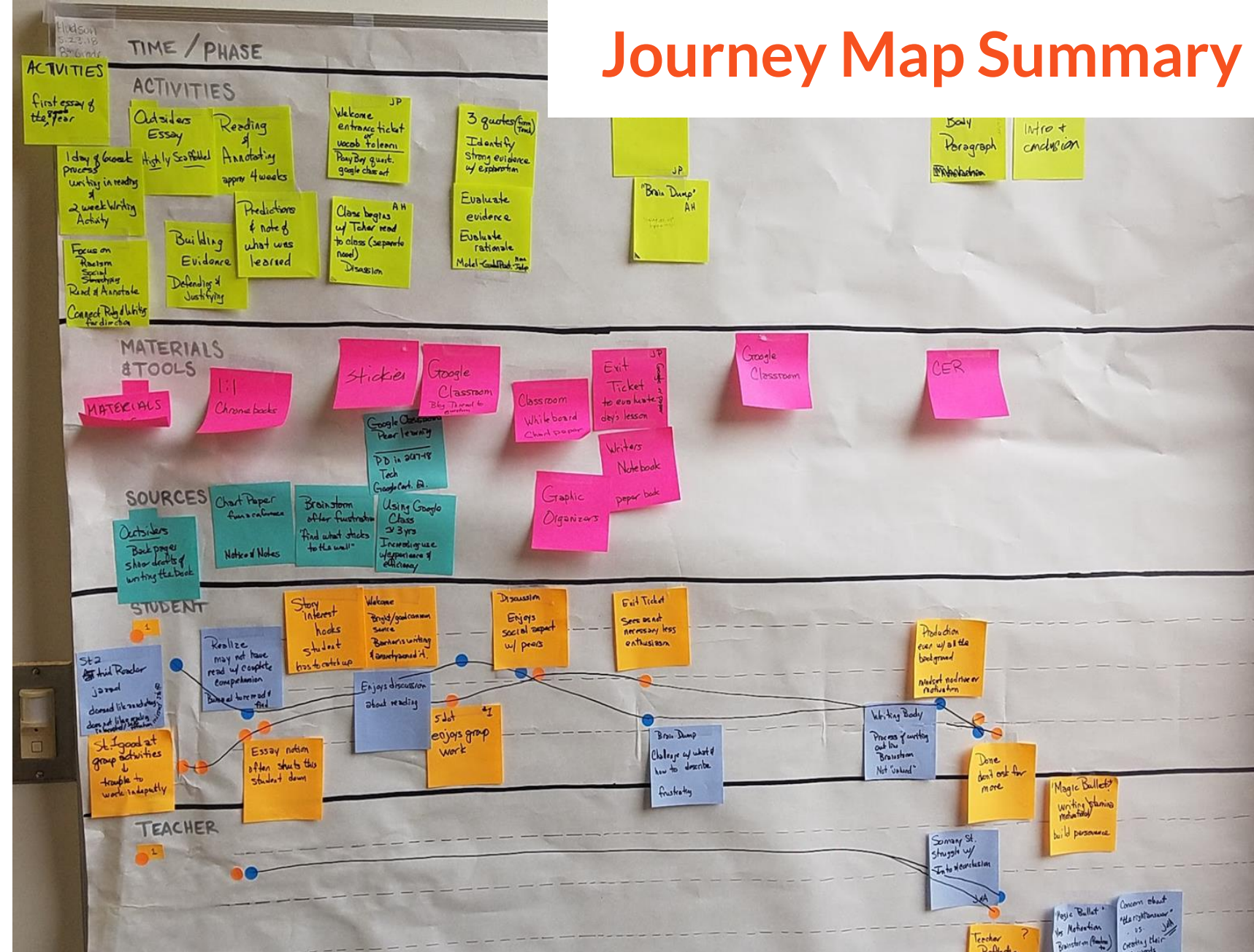
Let's Map

Activities: Describe in detail what happened. What did the teacher do what did the students do?

Then:

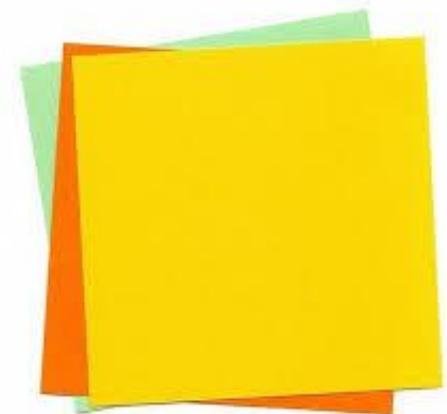
Emotion map: Identify high and low points as you anticipate or witnessed them. Interview students to get their perspective.

Other lanes: Additional lanes that illuminate answers to other questions.



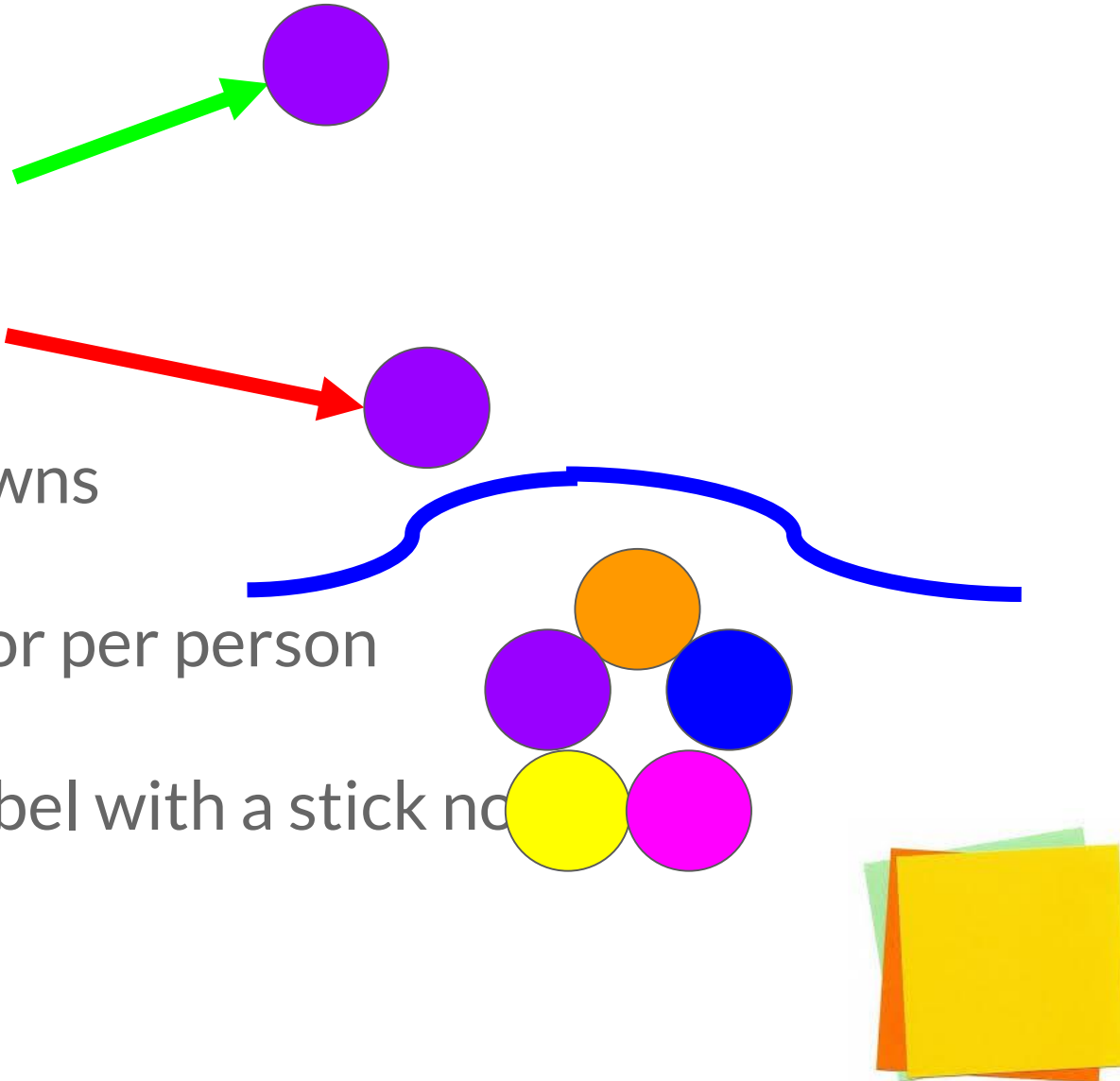
Journey Mapping - Roles

- 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 no



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

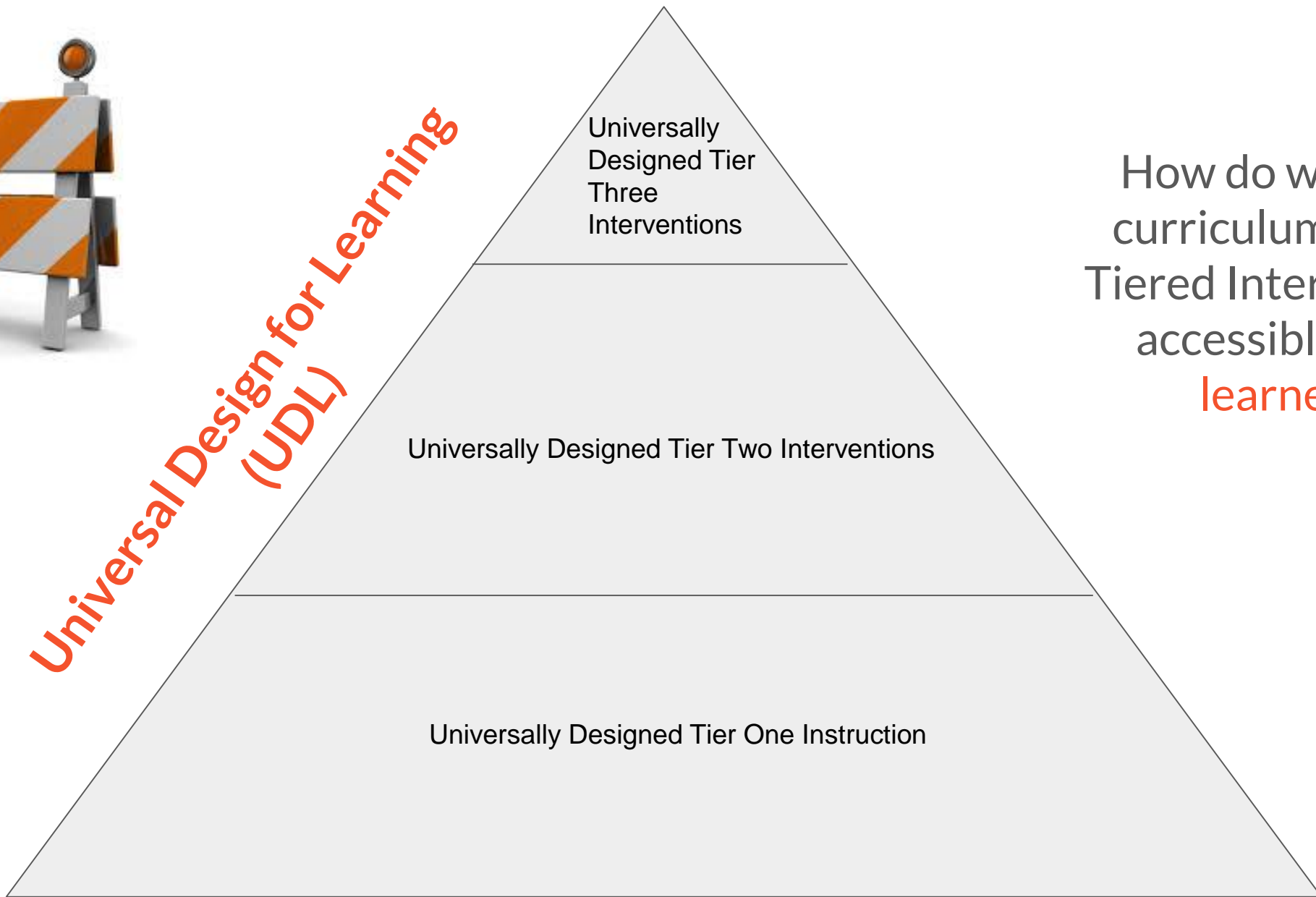
Provide multiple means of
Action & Expression



Strategic Networks
The “HOW” of Learning



Universal Design for Learning
(UDL)



How do we make
curriculum and all
Tiered Interventions
accessible to **all**
learners?

UDL: The Process

Set Clear, Rigorous,
Relevant Goals



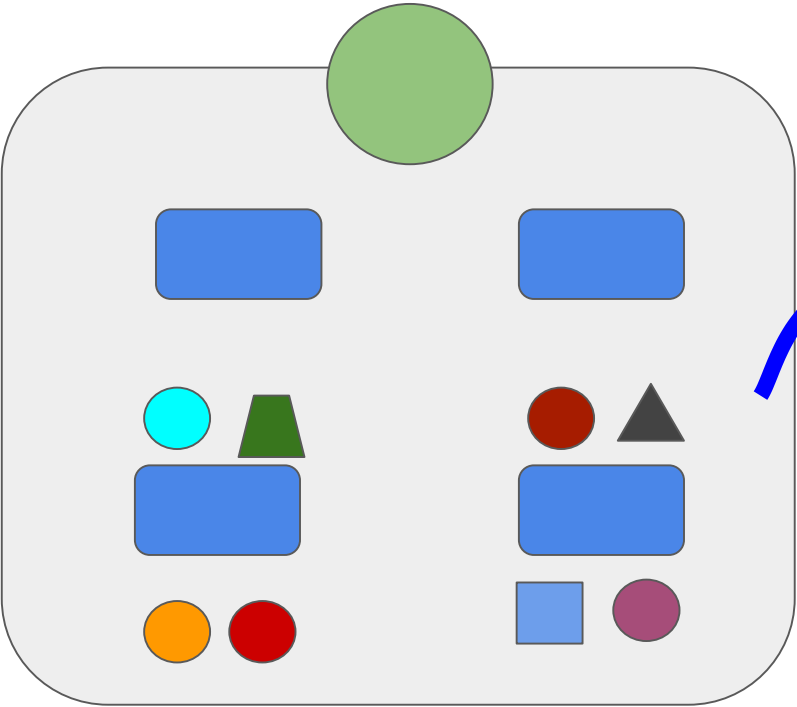
Anticipate Barriers
(Think about Learner
Variability)



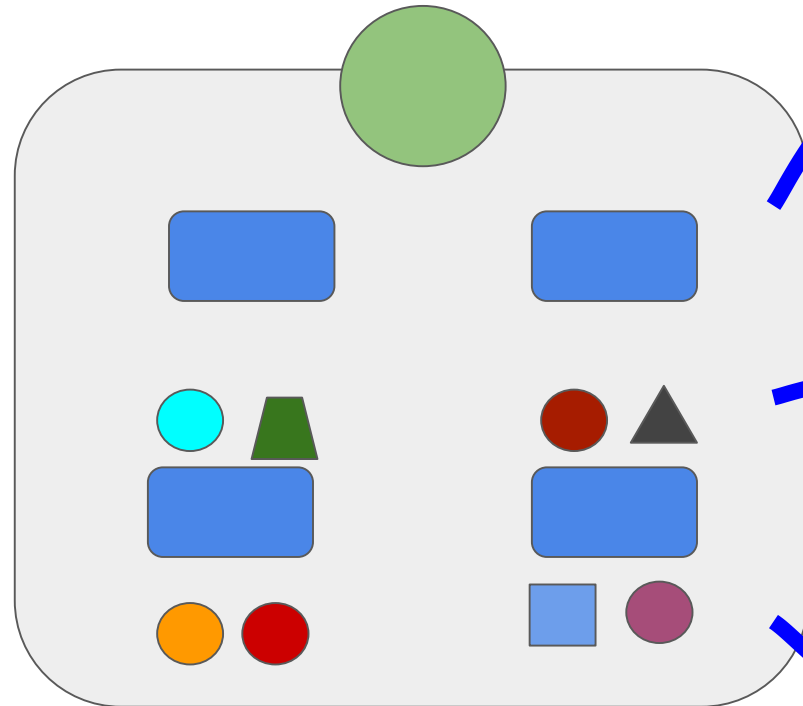
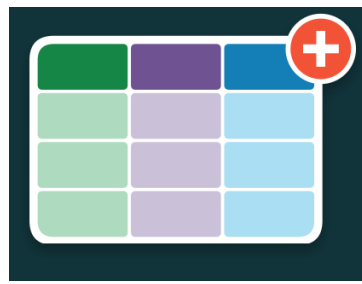
Design Options to
Reduce Barriers for All



UDL Process



UDL Process



Thank you!