‘When Am I Going To Use This?’
Helping Students Find Purpose To Build Motivation
Evie Blad
Staff Writer, *Education Week*

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‘When Am I Going to Use This?’
Helping Students Find Purpose to Build Motivation

Expert Presenters:

Hilary Harrison
Teacher
Harrisonburg, Va., public schools

Chris Hulleman
Director, Motivate Lab
University of Virginia
An on-demand archive of this webinar will be available at www.edweek.org/go/webinar in less than 24 hrs.
Motivate Lab

Build Connections: Fostering Students’ Value for School

Chris Hulleman
Director and Associate Professor
An Alarming Picture
(Lepper, Henderlong, & Iyengar, 2005)

An Alarming Picture
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An Alarming Picture
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An Alarming Picture
(Lepper, Henderlong, & Iyengar, 2005)
“Definitely take this class. I never went to class or bought the book, and I got a B.”

“The easiest teacher! Always lets class out early and cancels class on Fridays a lot. TAKE HIM!”

“Hey Prof, i didnt come 2 class last week. did i miss anything imp? any of it gonna b on the test? also, is lab runnin the whole time 2day, or we gettin out early?”
How do we motivate them to learn?
Motivation

Noun, from *moevere* (Latin): to move

But more broadly entails how behavior is: Energized, Directed, Sustained, and Stopped

Quantity vs. Quality

Behavior = \( f(P \times S) \)

Person (No Control)  
Situation (Some Control)
A hopeful motivational planning story
(Hulleman, Godes, Hendricks, & Harackiewicz, 2010)
A hopeful motivational planning story
(Hulleman, Godes, Hendricks, & Harackiewicz, 2010)

Behavior = f(P x S)
But who (or what) needs to be involved in motivation planning?

- How does this workshop have value for you?
- What can you do differently in your work with students?
- Who needs to help you?
Students can value school for different reasons

**Utility:**
This is useful and relevant for my:
- Daily life
- Future education
- Career
- Interests and hobbies

**Personal:**
This will help me get the job I want in the future.

**Identity:**
This is who I am. It’s important to me to be good at this.

**Prosocial:**
This allows me to do something that makes a difference in the world.

**Interest:**
This is fun! I just like doing this.

Eccles et al. (1983); Hulleman et al. (2016)
How to promote value?

• **Sources of value**
  – Rationale (e.g., “We’re studying this because…”)
  – Personal meaning (e.g., “This is important to you because….”)

• **Important aspects of creating value**
  – Choice
  – Personalization
  – Specificity
Utility Value Interventions

<table>
<thead>
<tr>
<th>Subject/Domain</th>
<th>Studies</th>
<th># of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school science</td>
<td>Hulleman &amp; Harackiewicz, 20009</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td>Hulleman &amp; Dicke, 2015</td>
<td></td>
</tr>
<tr>
<td>9th-grade math</td>
<td>Gaspard et al., 2015</td>
<td>1,900</td>
</tr>
<tr>
<td>College psychology and statistics</td>
<td>Hulleman et al., 2007, 2010, 2016</td>
<td>1,000</td>
</tr>
<tr>
<td>Community college remedial math</td>
<td>Kosovich et al., 2017</td>
<td>500</td>
</tr>
<tr>
<td>College biology and chemistry</td>
<td>Beardsley et al., 2016</td>
<td>6,000</td>
</tr>
<tr>
<td></td>
<td>Harackiewicz et al., 2015</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>10,400</strong></td>
</tr>
</tbody>
</table>

Boost pass rates, achievement, and interest particularly for students at-risk for under-performance.
High School Science

• **Part A:** Pick one of the topics or concepts that we have covered in this unit and briefly summarize the main parts.

• **Part B:** Apply this topic/concept to your life, or to the life of someone you know. How might the information be useful to you, or a friend/relative, in daily life? How does learning about this topic apply to your future plans?
High School Science
(N = 262)

Note: Error bars represent +/- 2 SEM.

\[ \beta = -0.18, \ p = 0.03 \]
Strong effects, but….

• Only 15% of students made a specific, personal connection
• In fact, many students struggled to write any example at all
• So, we needed to provide more scaffolding and support for students
Build Connections
Design Process

Version 1.0
Jenn Charlot & Kristi Vilberg
• 1 teacher + lots of training/support
• Full-color
• 30+ pages

Version 2.0
Chad Spurgeon & Kate Clayton
• Teachers in PA, DE, VA
• No training/support
• Black-and-white
• 1-page
<table>
<thead>
<tr>
<th></th>
<th>What are your interests, hobbies, and personal goals?</th>
<th>What topics have you learned about in class recently?</th>
<th>Brainstorm connections. Draw lines between any interests in column 1 and topics in column 2 that you think are connected.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>4 Develop a connection by filling in this sentence:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>interest from 1 and topic from 2 are connected because</td>
</tr>
<tr>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Think more about your connection by filling in this sentence:</td>
<td></td>
<td>5 Think more about your connection by filling in this sentence:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>topic from 2 could be important to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>my life because</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
## BUILD CONNECTIONS

Connect school topics to personal interests in your daily life.

### 1. What are your interests, hobbies, and personal goals?

- Basketball
- Video Games
- Texting
- Hang out with team
- Dogs
- Sneakers
- Basketball Scholarship
- Design my own shoes
- Be in a video game

### 2. What topics have you learned about in class recently?

- Functions describe relationships between quantities
- Inverse - one decreases as other increases
- Example: Higher altitude -> lower temperature
- Linear - both variables increase at constant rate

### 3. Brainstorm connections. Draw lines between any interests in column 1 and topics in column 2 that you think are connected.

#### Video games and linear functions

- are connected because I can use a function to decide
- if I should rent a video game (linear function) or
- buy it (fixed cost) based on how much I will use it.

### 4. Develop a connection by filling in this sentence:

**Linear functions** could be important to my life because I can use them to compare different options in the future, like buying or paying a monthly fee for my phone.

### 5. Think more about your connection by filling in this sentence:

**Linear functions** and linear functions are connected because I can use a function to decide if I should rent a video game (linear function) or buy it (fixed cost) based on how much I will use it.
Build Connections – The Basics

• Initial introduction by teacher (3-5 min)
• One-page, 3-step activity
• Flexible timing and implementation
  – From 30 to up to 60 minute activity
  – Implement early, middle, or at the end of a unit
  – Students reflect individually, in partners, or with the entire class
  – Can be done one-time or multiple times in a semester/year
Teacher Reflections

The Set-Up
- Why were you interested in doing BC in your classroom?
- Before doing BC, did you think students would be able to make connections pretty easily?

Your Experience Doing BC
- How did you implement it? How did it go?
- How did it go at first?
- What (if anything) did you do to change it for the next time?
- What did your students think about it?

Moving Forward
- Will you do it next year? If so, how do you plan to do it?
- What advice would you give to other teachers who are thinking about doing BC?
- What was most unexpected about doing BC?
## Build Connections

<table>
<thead>
<tr>
<th>STRIVE FOR:</th>
<th>TRY TO AVOID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-generated connections</td>
<td>Making connections for students</td>
</tr>
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</table>

“Can you describe a situation where you might use your knowledge of photosynthesis?”

“You need to learn about photosynthesis because it prepares you for your high school science courses.”
## Build Connections

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<th>TRY TO AVOID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples to kick start brainstorming.</td>
<td>Overgeneralizing</td>
</tr>
<tr>
<td>&quot;Learning how to multiply fractions helps me when I need to double my lasagna recipe for company.&quot;</td>
<td>&quot;If you are going to cook, you have to be good at multiplying fractions.&quot;</td>
</tr>
</tbody>
</table>
## Build Connections

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<tr>
<th>STRIVE FOR:</th>
<th>TRY TO AVOID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage students to share connections.</td>
<td>Lecturing</td>
</tr>
<tr>
<td>&quot;Who would like to share an example of how mental math could be useful in their life?&quot;</td>
<td>&quot;You will never get a good job, if you can’t do mental math.&quot;</td>
</tr>
</tbody>
</table>
**Build Connections**

<table>
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<tr>
<th>STRIVE FOR:</th>
<th>TRY TO AVOID:</th>
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<tbody>
<tr>
<td>Specific connections</td>
<td>Vague Connections</td>
</tr>
<tr>
<td>“Learning chemistry will allow me to help people in poor countries get clean drinking water. I can use my knowledge of chemicals to determine how to kill bacteria and viruses in water and still be safe for human consumption.”</td>
<td>“Learning math will help you in the future.”</td>
</tr>
</tbody>
</table>
## Build Connections

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<th>STRIVE FOR:</th>
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<tbody>
<tr>
<td>Provide example connections</td>
<td>Assume your example will be helpful to all.</td>
</tr>
</tbody>
</table>

“Learning parts of speech helped me when I was trying to learn to speak Spanish. I had to know what a verb, noun, and pronoun were to figure out what order to say them in.”

“You need to know parts of speech so when you take your required Spanish class you know how to structure your sentences.”
## Build Connections

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<tbody>
<tr>
<td>Be aware of student differences.</td>
<td>Make stereotypical connections (e.g., boys like sports, girls like shopping).</td>
</tr>
<tr>
<td>&quot;Kathryn plays tennis, so learning about rotation and velocity can help her determine where the ball needs to hit on her racquet to produce topspin or backspin.&quot;</td>
<td>&quot;Learning about rotation and velocity can help the boys when they play baseball. If they can get the ball to hit different parts of their bat they can force the ball to different parts of the field.&quot;</td>
</tr>
</tbody>
</table>
Build Connections

<table>
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<th>STRIVE FOR:</th>
<th>TRY TO AVOID:</th>
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</thead>
<tbody>
<tr>
<td>Seeing value in many aspects of student’s lives</td>
<td>Focus exclusively on one aspect of their life</td>
</tr>
<tr>
<td>“Does this connect to your daily life, your family, your friends, or anything you hope to accomplish in life?”</td>
<td>“You’ll need this to get into college.”</td>
</tr>
</tbody>
</table>
Thanks to our collaborators.....

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‘When Am I Going to Use This?’
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Suggested Reading from *Education Week*:

**Spotlight on Student Motivation**
FREE! In this Spotlight, discover the links between work students find meaningful and their levels of motivation in the classroom, see what teachers can learn from disengagement on tests, and explore how educators are building student-centered school cultures.

“*Students Thrive When They See Purpose in Their Learning*”
Educators and researchers see strong links between classroom work that students find meaningful and their levels of engagement and motivation.

“*‘When Are We Going to Use This?’ Strategies to Help Students Find Relevance in School Work*”
A researcher who studies student motivation has developed strategies for helping students find personal relevance of classroom work. That’s key to helping them stay engaged, he says.