



SYMPOSIUM BREAKOUT SESSION
TUESDAY, OCTOBER 26, 2021 | 2:30-2:40 PM ET

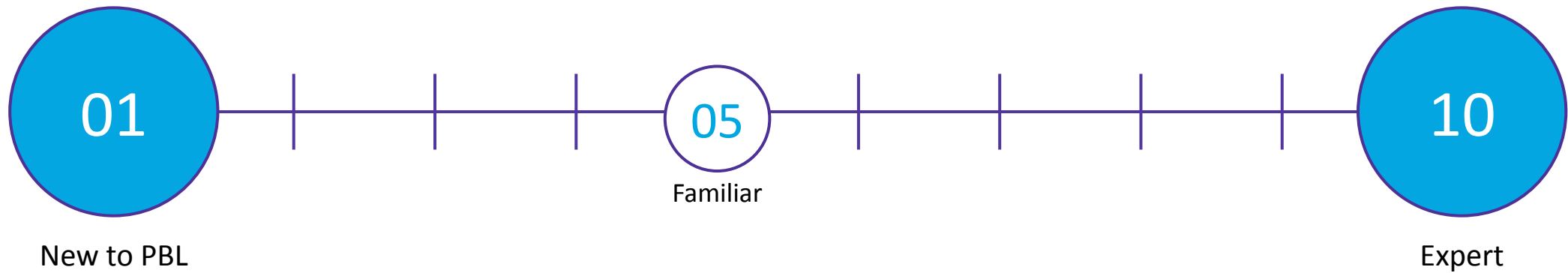
Key Principles for Project-Based Learning

PRESENTERS:

- Carlo Juntilla, Da Zhi School (Fulbright Taiwan)
- Sheree Santos, Lucas Education Research



On a scale from 1-10, how familiar are you with the key design principles of project-based learning?



Learning Goals

01

Describing PBL

We will define and explain essential elements to high-quality and rigorous Project-Based Learning

02

Identify Essential Design Elements

We will establish a common understanding of Project-Based Learning

Introducing Ourselves!



Carlo Juntilla (he/him/his)  **FULBRIGHT**

- High School Social Studies teacher in Richmond, CA
- Knowledge in Action Fellow at Lucas Education Research
- Currently a Fulbright Fellow in Taiwan



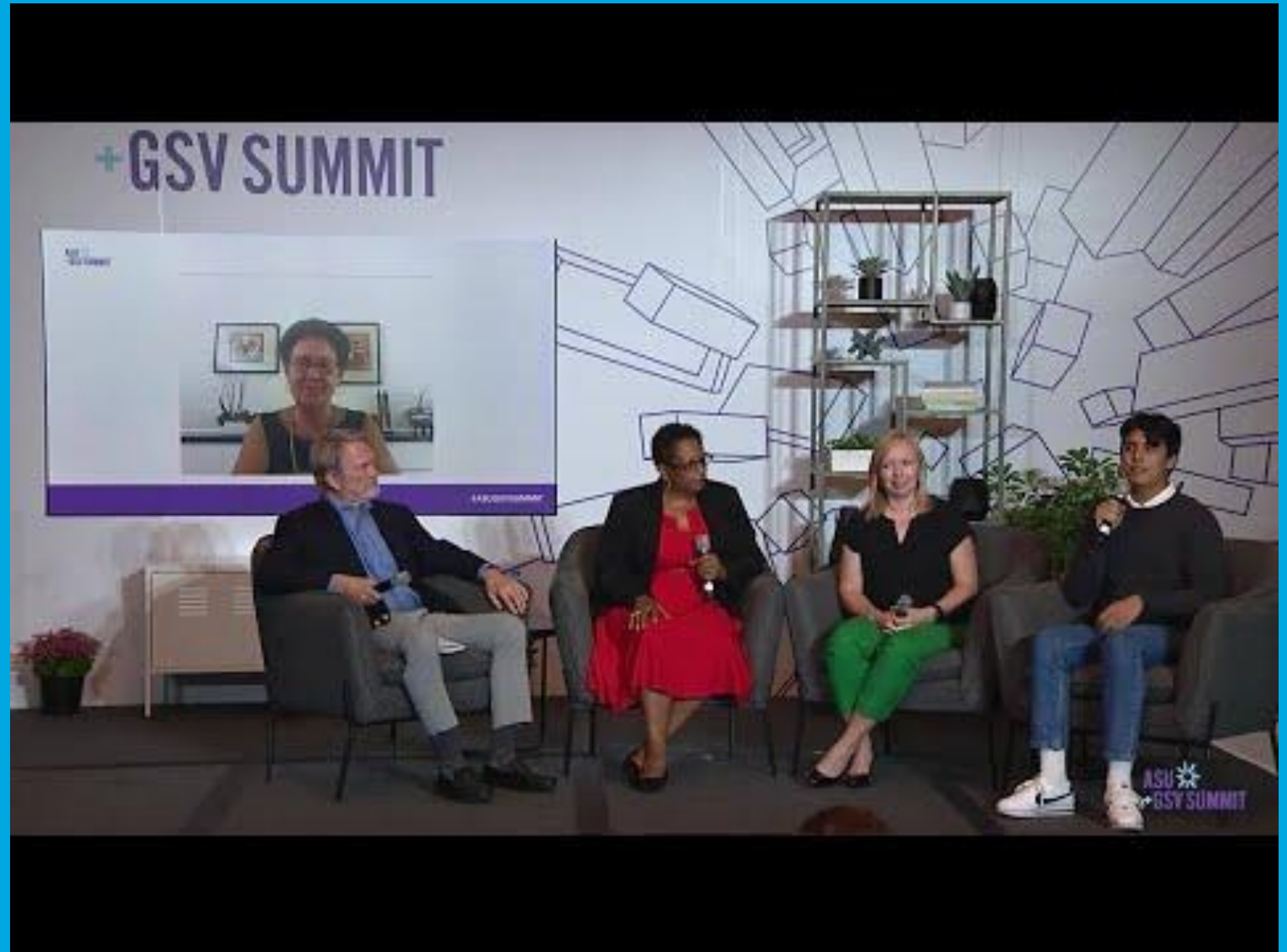
Sheree Santos (she/her/hers)



- Director of Curriculum and Technology Development
- Lucas Education Research

Think:

Given what we know about how we learn, what makes project-based learning work?



[ASU+GSV. How Project-Based Learning Wakes up the Brain and Boosts Student Achievement | ASU+GSV 2021. YouTube, YouTube, 18 Aug. 2021](#)

PBL Explained

Project-based learning is a form of inquiry-based learning in which the primary objectives are for students to develop an intrinsic motivation to learn, to hone their problem-solving and metacognitive skills, to practice teamwork, and to transfer knowledge to other contexts.

- Lucas Education Research

Key Principles for Project Based Learning

KEY DESIGN PRINCIPLES

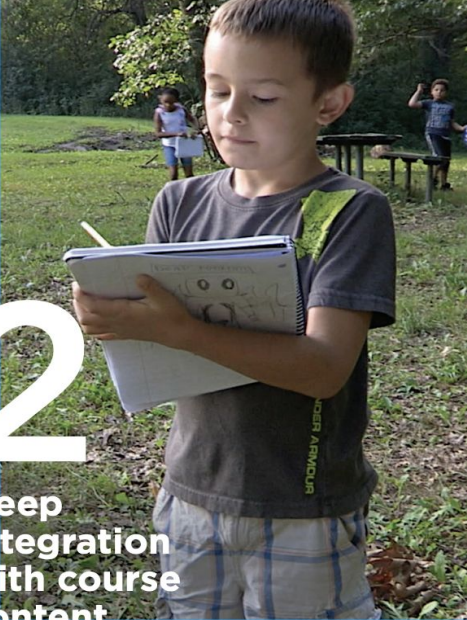


1

Purposeful and authentic experiences

The image shows two students on a balcony. One student is holding a small, white, spherical object with a string attached, while the other student looks on. They appear to be engaged in a hands-on project.

KEY DESIGN PRINCIPLES

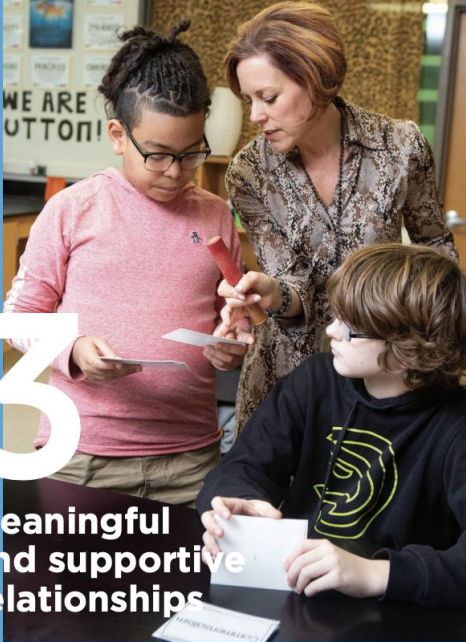


2

Deep integration with course content

The image shows a young boy standing outdoors in a grassy area. He is holding a notebook and looking at it intently. In the background, other students and a bench are visible.

KEY DESIGN PRINCIPLES

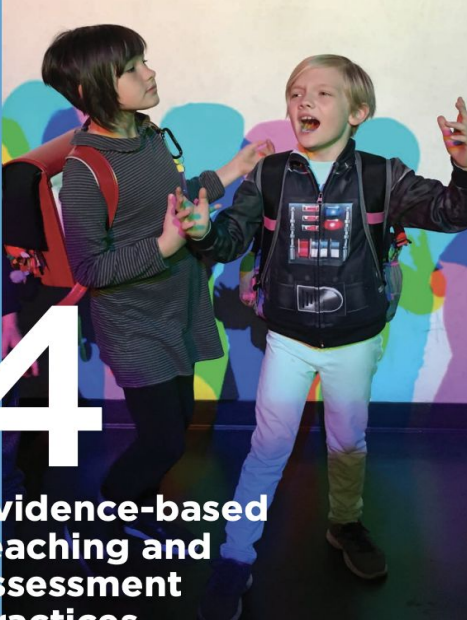


3

Meaningful and supportive relationships

The image shows a teacher and two students gathered around a table. The teacher is pointing at a piece of paper, and the students are looking at it with interest. One student is holding a red object.

KEY DESIGN PRINCIPLES



4

Evidence-based teaching and assessment practices

The image shows two students in costumes performing on a stage. One student is wearing a black jacket with a red backpack, and the other is wearing a grey dress. They are both looking towards the camera.

Photo: Brightworks

Baines, A.M., DeBarger, A., De Vivo, K., Warner, N., Santos, S., Brinkman, J., Udall, D., Zuckerbrod, N., Felsen, K., & Urban, R. (2021). *Key Principles for Project-Based Learning*. Lucas Education Research.

1 Purposeful & Authentic Experiences

Effective PBL requires purposeful and authentic experiences generated by students engaging in relevant questions. **A main question should drive a unit of study,** and that question should be feasible to consider, worthwhile, contextualized, meaningful, and ethical.

Baines, A.M., DeBarger, A., De Vivo, K., Warner, N., Santos, S., Brinkman, J., Udall, D., Zuckerbrod, N., Felsen, K., & Urban, R. (2021). Key Principles for Project-Based Learning. Lucas Education Research.

What do purposeful & authentic experiences look like?

- In a science classroom, students engage in a community ecology project that is driven by a **challenging real-world question** which involves real-world context, tasks and tools, quality standards.
- Students can see how this project addresses **authentic** personal concerns, interests, and issues in the students' lives and their communities
 - AP Environmental Science Ecological Footprint- “How can my family reduce our ecological footprint?”

2 Deep Integration with Course Content

Projects should feature deep integration with course content and **be rooted in core subject areas, helping to deepen and build student knowledge of important topics**. The multidimensional nature of PBL makes it a strong approach for interdisciplinary learning, so projects can simultaneously build student understanding of math concepts, scientific phenomenon, and improve literacy skills, etc.

Baines, A.M., DeBarger, A., De Vivo, K., Warner, N., Santos, S., Brinkman, J., Udall, D., Zuckerbrod, N., Felsen, K., & Urban, R. (2021). Key Principles for Project-Based Learning. Lucas Education Research.

What does deep integration with course content look like?

- In a social science class, students engage with the question “How have indigenous peoples been impacted by changes in the world?” when covering indigenous history
- Driving questions for PBL units should be purposeful and allow students to learn content through dynamic experiences.

3 Meaningful & Supportive Relationships

Meaningful and supportive relationships are important in education overall but especially so with Project-Based Learning. Schools with a strong culture of collaboration which reward risk taking, view mistakes as learning opportunities, and emphasize students' social and emotional learning skills foster rich PBL environments. Quality PBL benefits from collaborative peer-to-peer interactions and trusting student-teacher relationships.

Baines, A.M., DeBarger, A., De Vivo, K., Warner, N., Santos, S., Brinkman, J., Udall, D., Zuckerbrod, N., Felsen, K., & Urban, R. (2021). Key Principles for Project-Based Learning. Lucas Education Research.

What do meaningful & supportive relationships look like?

- Collaboration
- Student Voice & Choice
- Equity Centered Classroom
- Sage on Stage vs Guide on the Side

4

Evidence Based Assessment & Teaching Practices

When educators are supported in using researched-based approaches, such as providing feedback to students in a strategic and timely manner, creating opportunities for reflection, and empowering students to share their learning with others, they can feel confident in their ability to bring rigorous PBL to their classrooms.

Baines, A.M., DeBarger, A., De Vivo, K., Warner, N., Santos, S., Brinkman, J., Udall, D., Zuckerbrod, N., Felsen, K., & Urban, R. (2021). Key Principles for Project-Based Learning. Lucas Education Research.

What do evidence based assessment & teaching practices look like?

- In a science classroom, students are provided with a rubric that has clear expectations that aligned to the Next Generation Science Standards (NGSS).
- Assessments and teaching practices should be aligned to standards.

Thank you!

To Learn More:

- Visit our PBL digital toolkit to access :

<https://www.lucasedresearch.org/docs/pbltoolkit>



The logo for the Aurora Institute Symposium 2019. It features a stylized white graphic of a rising sun or star above the word "AURORA" in a serif font. The letter "O" is replaced by a compass rose. Below "AURORA" is the word "INSTITUTE" in a sans-serif font, and below that is the word "Symposium" in a script font. The entire logo is set against a blue background with a collage of images from the symposium.

AURORA INSTITUTE *Symposium*

OCTOBER 25-27, 2021 | VIRTUAL

“Leading Competency-Based Education Redesign”

Thank you for joining us!

Share Your Thoughts.

Participate in our one-minute poll (link in chat box).