Project Based Learning

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Welcome!

CTE Has a Long History of Expertise in PBL

▸ CTE has led the way in project-based learning for more than 100 years.

▸ Now, we have the chance to lead others.

▸ The research is clear.

▸ PBL includes…

Objectives

By the end of the sessions, you will be able to:

1. Differentiate between project-based learning and problem-based learning
2. Unpack best practices for facilitating professional development
3. Embody strategies for assuming the role of "teacher leader" within a school or school district
4. Outline supporting research for project-based learning
5. Create possible solutions to barriers related to project-based learning

Session Essential Questions:

Session 1:

What is the difference between project-based learning and problem-based learning?

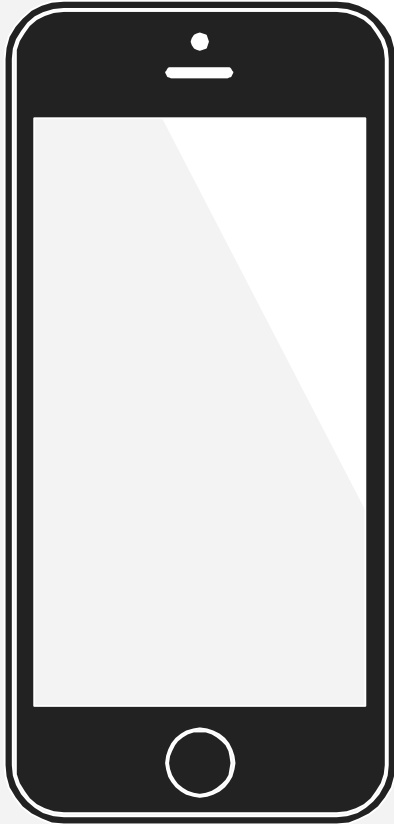**What are best practices for facilitating professional development?**

Session 2:

What does research say about project-based learning?

What are possible solutions to barriers related to project-based learning?

Session 3:

What are possible solutions to barriers related to project-based learning (continued)?

What resources are available for teacher leaders?

Poll Everywhere

What do you KNOW about project based learning?

What do you WANT to know about project based learning?

K-W-L

K-W-L

K—What do you KNOW about Project Based Learning?	W—What do you WANT TO KNOW about Project Based Learning?	L—What have you LEARNED about Project Based Learning?

Objective #1:

**Differentiate between project-based learning and problem-based learning**

What is the difference between project and problem based learning?

Universities were founded in Western Europe in 1050 and the lecture method has been the predominant information delivery system since!

We've Learned a Great Deal

- However, being largely an elective subject forced CTE to be innovative & to adapt to a changing climate

- The knowledge needed by practitioners and intellectuals is not mutually exclusive

- We learned that teaching is a science and learning is personal
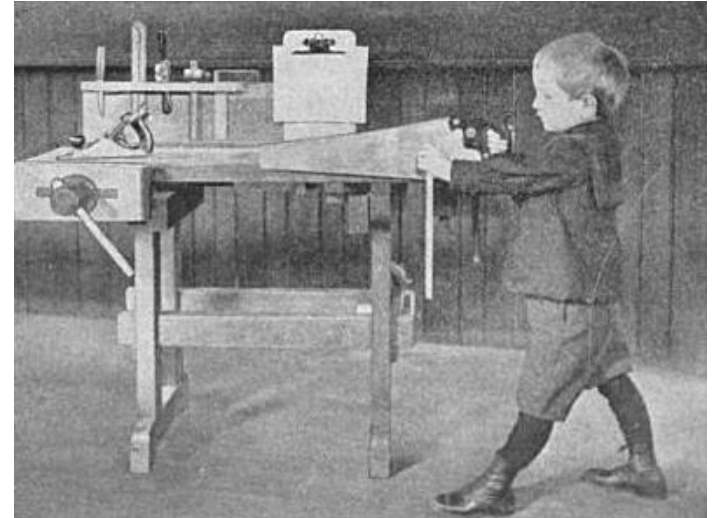
Sloyd System with roots in Sweden and Finland

We've Learned that...

- Hands-on learning leads to knowledge acquisition with staying power
- Schools should emulate how people work
- Students engage more deeply when the content is applied
- Teacher-centered classrooms are not as effective as problem-centered classrooms

Elektro: The Moto-man

We've Learned that...

- ▸ Laboratories can be used to teach, but the larger world is the better laboratory

- ▸ Problem solving teaches the student to have grit

- ▸ Watching a student perform is the best way to determine whether learning has occurred

- ▸ The teachers job is to help the student build a mental warehouse of proven solutions to common problems

John Dewey: An early advocate of PBL

Project Based Learning vs. Problem Based Learning

Similarities

Both PBLs:
- Focus on an open-ended question or task
- Provide authentic applications of content and skills
- Build 21st century success skills
- Emphasize student independence and inquiry
- Are longer and more multifaceted than traditional lessons or assignments

Differences

Project Based Learning	Problem Based Learning
Often multi-subject	More often single-subject, but can be multi-subject
May be lengthy (weeks or months)	Tend to be shorter, but can be lengthy
Follows general, variously-named steps	Classically follows specific, traditionally prescribed steps
Includes the creation of a product or performance	The "product" may be tangible OR a proposed solution, expressed in writing or in a presentation
May use scenarios but often involves real-world, fully authentic tasks and settings	Often uses case studies or fictitious scenarios as "ill-structured problems"

IS IT A PROJECT OR IS IT PROJECT-BASED LEARNING?

PROJECTS	PROJECT-BASED LEARNING
Can be done alone	Requires collaboration and teacher guidance
About the product	About the process
Teacher-directed	Student-directed

| PROJECTS	PROJECT-BASED LEARNING
All projects have the same goal	Students make choices that determine the outcome
Products are submitted to the teacher	Products are presented to an authentic audience
Lack real-world relevance	Based in real-world experiences or problems
Occur after the "real" learning	Real learning occurs through the project

educationcloset

Objective #2:

Exhibit best practices for facilitating professional development

Poll Everywhere
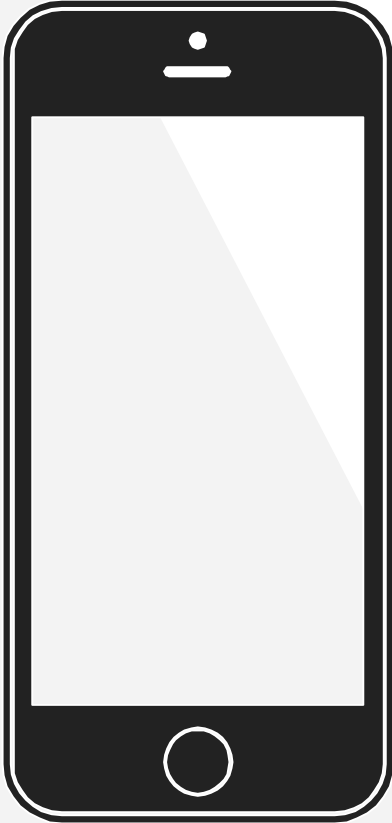
What are the WORST practices for teacher leaders when interacting with adults?

What are the BEST practices for teacher leaders when interacting with adults?

What does research show are best practices when teaching adults?

Differences Between Children and Adults as Learners:

CHILDREN	ADULTS
Rely on others to decide what is important to be learned.	Decide for themselves what is important to be learned.
Accept the information being presented at face value.	Need to validate the information based on their beliefs and experience.
Expect what they are learning to be useful in their long-term future.	Expect what they are learning to be immediately useful.
Have little or no experience upon which to draw – are relatively "clean slates."	Have much experience upon which to draw – may have fixed viewpoints.
Little ability to serve as a knowledgeable resource to teacher or fellow classmates.	Significant ability to serve as a knowledgeable resource to trainer and fellow learners.

What makes training for adults work?

Questions on many adult's minds:

- What's in this for me?

- How is this going to help me achieve my goals?

- How does this relate to me?

- When can I try this out/use this?

- When's the next bathroom break?

Tips for Teaching Adults:

- Create a comfortable learning environment
- Emphasize the trainings applicability to their needs
- Keep them actively involved
- Encourage them to share ideas and information

Tips for Teaching Adults:

- Get feedback, reinforcing the positive and redirecting the negative

- Provide opportunities to practice what is learned

- Use a variety of training methods

Knowles' Research States Adults:

- Need to know why they are learning something
- Learn through doing
- Are problem solvers
- Learn best when the subject is of immediate use
- Prefer social interaction
- Want to use their life experiences in the classroom
- Want to integrate new ideas with existing knowledge

Gutterball:

Summing it All Up:

WHY?

Why did we do this activity?

WHAT?

What skills were necessary to complete this challenge?

HOW?

How can you utilize this activity in your classrooms or presentations?

SUM IT UP:

SUM IT UP

Before you leave tonight's session, please answer the following prompts.

Name *

Short answer text

Email

Short answer text

SUM IT UP IN $2.00 or LESS

https://goo.gl/forms/u2QdkCdzt75Hm8vh2

THANK YOU!