Team-Based Challenges Revisited

Getting from
Problem-Based Learning to
Team-Based Challenge

Agenda

- Minilecture
  - Problem-Based Learning
  - Team-Based Challenge
  - Modifying PBL into TBC
- Working session
- Share out

Problem-Based Learning

What makes a good PBL assignment?

PBL features

- Authentic "real world" problem

- Requires teamwork to solve

- Meets course outcomes

- Builds on prior knowledge

- Open ended with several possible solutions

- Resources available for students to solve the problem

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https://www.pblprojects.org/

PBL Inspiration

Where can you find good problems for PBL?

- Local business/industry partners

- Non-profit organizations

- Your own school

- Newspaper & magazine articles

- Books

- Websites

- PBL databases:

- Problem Library | Institute for Transforming University Education (udel.edu)

- Can use problems that have been solved, but it's not required.

https://www.pblprojects.org/

What are the steps?

- Gather the materials you need – the original source (article, etc.)

- Look for basic information on the company or organization that solved the problem.

- Find some resources to get students started in the right direction.

- Craft your materials/documents for student use

- Group dynamics if group assignment

https://www.pblprojects.org/

Team-Based Challenge

What makes a good Team-Based Challenge?

TBC Features

- Present authentic problems
  - identified from and/or in collaboration with industry partners
  - are regionally relevant
  - result in a real solution that can be applied and implemented in workplace
  - presentation of solution to an authentic audience.
- Students work in collaborative groups
- Students are supported by mentor from industry
- Students to demonstrate one technical & one employability competency

P-20 Network (niu.edu)

TBC Inspiration

Where can you find good problems for TBC?

- Local business/industry partners

- Non-profit organizations

- Your own school

- Newspaper & magazine articles*

- Books*

- Websites*

- *Validate with industry partners

What are the steps in TBC?

- Identify the Technical Competency and Essential Skill Competency

- Identify the industry problem to be solved

- Identify the industry partners to be involved and how they'd like to be involved

- Design the final product/reflection assignment

- Design intermediate tasks/assignments

- Design kick off event

- Identify resources and materials to get students started in the right direction.

- Craft your materials/documents for student use

- Design teams, roles, rules

Industry involvement

- Identify the Technical Competency and Essential Skill Competency

- Identify the industry problem to be solved

- Validate the industry problem to be solved

- Kick off event—presentation, video

- Mentoring along the way—teams or whole class mentoring

- Feedback along the way

- Feedback at the end

- Resources to help students solve the challenge

PBL to TBC

PBL

- Authentic "real world" problem
- Meets course outcomes
- Builds on prior knowledge
- Open ended with several possible solutions
- Resources available for students to solve the problem

TBC (PBL +…)

- Technical Competency
- Essential Skill
- Industry involvement

Walkthrough

From PBL to TBC

Budgeting Bonanza: Navigating Real-World Financial Choices

- Revise it to TBC

- Reframe authentic "real world" problem to the workplace.

- Identify:
  - *1 Technical Competency—and note the place on the PBL that makes you think this works
  - *1 Essential Skill —and note the place on the PBL that makes you think this works

- Name 1 local employer you could connect with for industry involvement

- Describe that industry involvement

*Use the Finance/Business planning document for Skills lists

Industry Involvement

- Which partners?
- Which tasks?
  - Identify the Technical Competency and Essential Skill
  - Identify the industry problem to be solved
  - Validate the industry problem to be solved
  - Kick off event—presentation, video
  - Mentoring along the way—teams or whole class mentoring
  - Feedback along the way
  - Feedback at the end
  - Resources to help students solve the challenge

Small Group Work Session

From PBL to TBC

From PBL to TBC
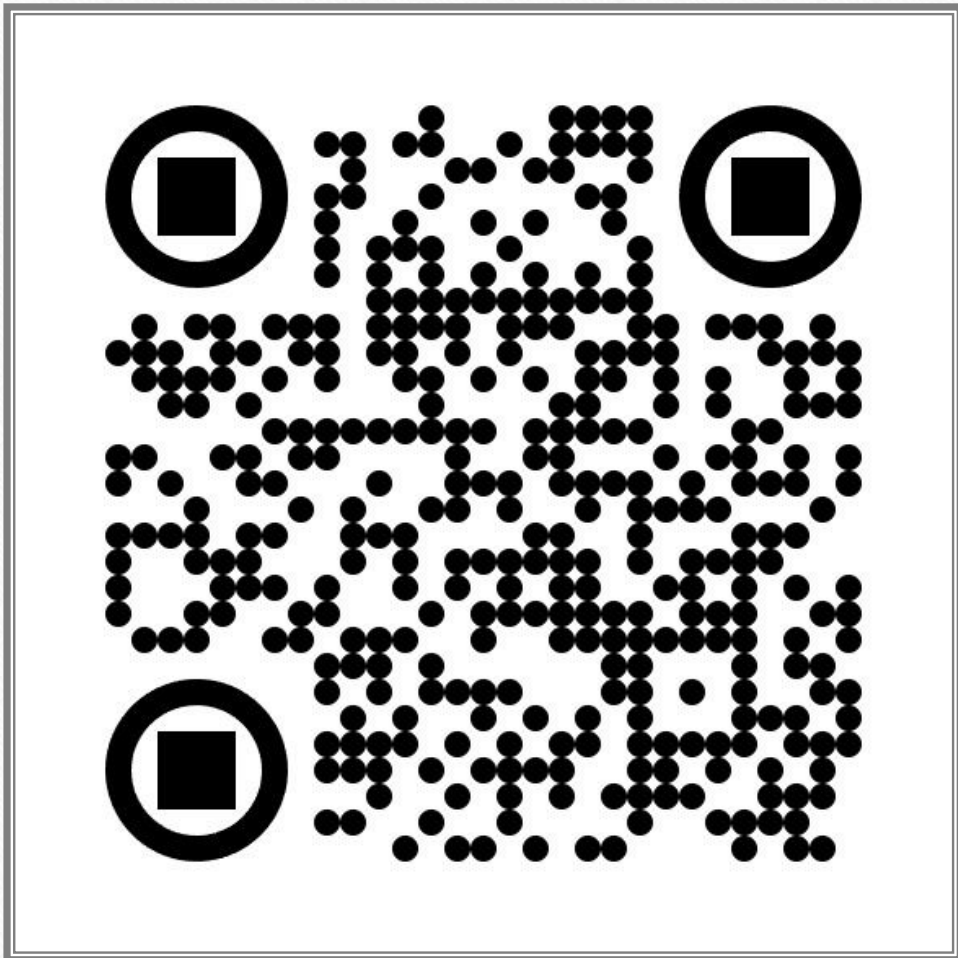
- Find a partner

- Read the PBL assignment

- Revise it to TBC by identifying:

  - 1 Technical Competency—and note the place on the PBL that makes you think this works

  - 1 Essential Skill —and note the place on the PBL that makes you think this works

  - 1 Local Employer you could connect with for industry involvement

Round Two

Using ChatGPT

Chat GPT

- Visit ChatGPT and ask it to design a PBL for your program

- Use this prompt if you need one:

  Design a problem-based learning (PBL) assignment for students in a high school [your program] class

- Then modify that to TBC

Where to find Skills lists

Technical Competencies

Essential Employability Skills

Share out

1. The TBC as modified

2. What role will industry/business have in the challenge?

3. What supports/resources will you need?

Best Practices

- Embed TBC in a pathway course

- Look at existing industry collaborative activities and expand

  - Industry input: design, feedback/evaluation

  - Workplace validated problem to solve collaboratively

- You need two (2) TBC for CCPE approval

What questions do you have for us?

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