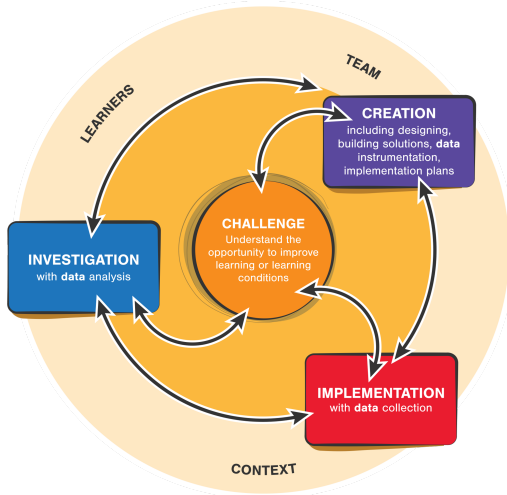# Creating a Learning Engineering
Action Plan

1. What is the **challenge or the problem** you're trying to solve?

2. Describe the **learning environment.** (Who are your learners? What are the unique characteristics of their learning environment?)

3. Which **human-centered design strategies** will you employ to solve this problem?

4. Select two **learning science concepts** from the graphic below to use in your design. Where will they appear in your design?

Learning Sciences in Action

Welcoming experience
- Mindset & Motivation
- Social & Collaborative Learning
- Emotions & Learning

Learning behavior
- Metacognition & Learning to Learn
- Decision Making & Educative Nudges
- Habits & Making It Stick

Minds in mind
- Attention & Cognitive Load
- Developing Understanding
- Active Learning, Memory & Practice
- Desirable Difficulty & Scaffolding
- Feedback for Learning

Learn Anywhere
- Digital Instruction Principles
- → Digital & Virtual Learning
- Discipline-Specific Guidance
- → English Performance Standards
- Insights by Learner Segment

Purposeful design
- Objective Design
- Assessment & Evidence-Centered Design
- Personalized Learning & Adaptive Systems
- Authentic Learning

https://www.pearson.com/en-us/efficacy/learning-evidence.html#oldp

5. Instrumentation: What **data** is needed to demonstrate how the challenge is improving/progressing/succeeding? Determine where the **data** will come from to answer the question. What data collection instruments will you need to build as part of the design process?

6. Which items will you consider in your **implementation plan**? (Check all that apply)

- ☐ Policies /Strategy
- ☐ Budget
- ☐ Material Resources
- ☐ Leadership and Organizational Capacity
- ☐ Team
- ☐ Technology
- ☐ Operationalization
- ☐ Instrumentation
- ☐ Investigation During Implementation
- ☐ Ethics
- ☐ Scale-up & Sustainability

Notes on implementation:

7. Who will be on your **team**? (Check all that apply)
- ☐ SME
- ☐ instructional designer
- ☐ data analyst (IR person)
- ☐ user experience designer
- ☐ graphic designer
- ☐ learning scientist
- ☐ learning assessment specialist
- ☐ software engineer/coders
- ☐ webmaster
- ☐ education/training specialists (could include Center for Teaching and Learning or education faculty)