

The Fourteenth International Conference on Mobile, Hybrid, and On-line Learning



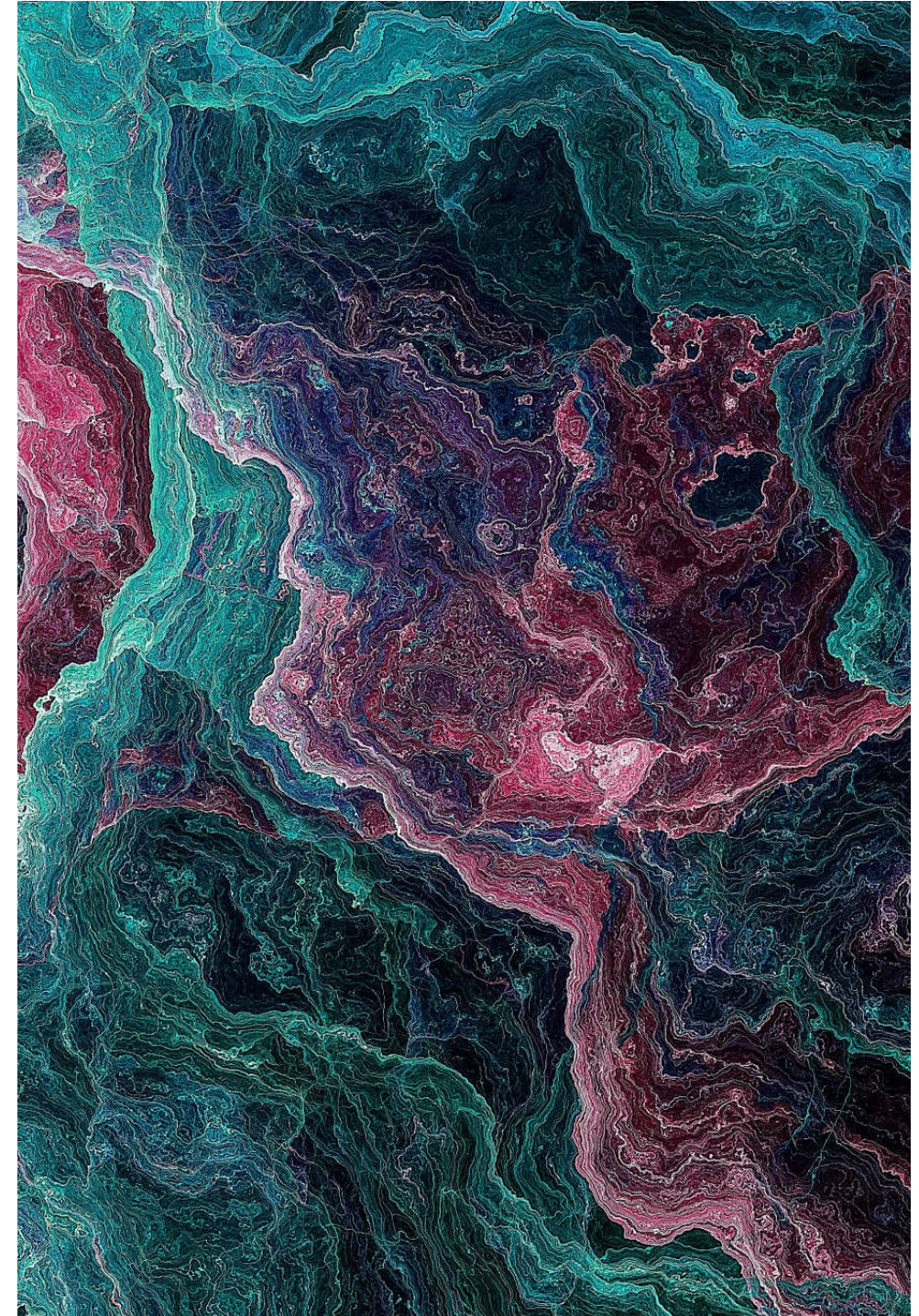
Developing Instructor Training for Diverse & Scaled Contexts: A Learning Engineering Challenge

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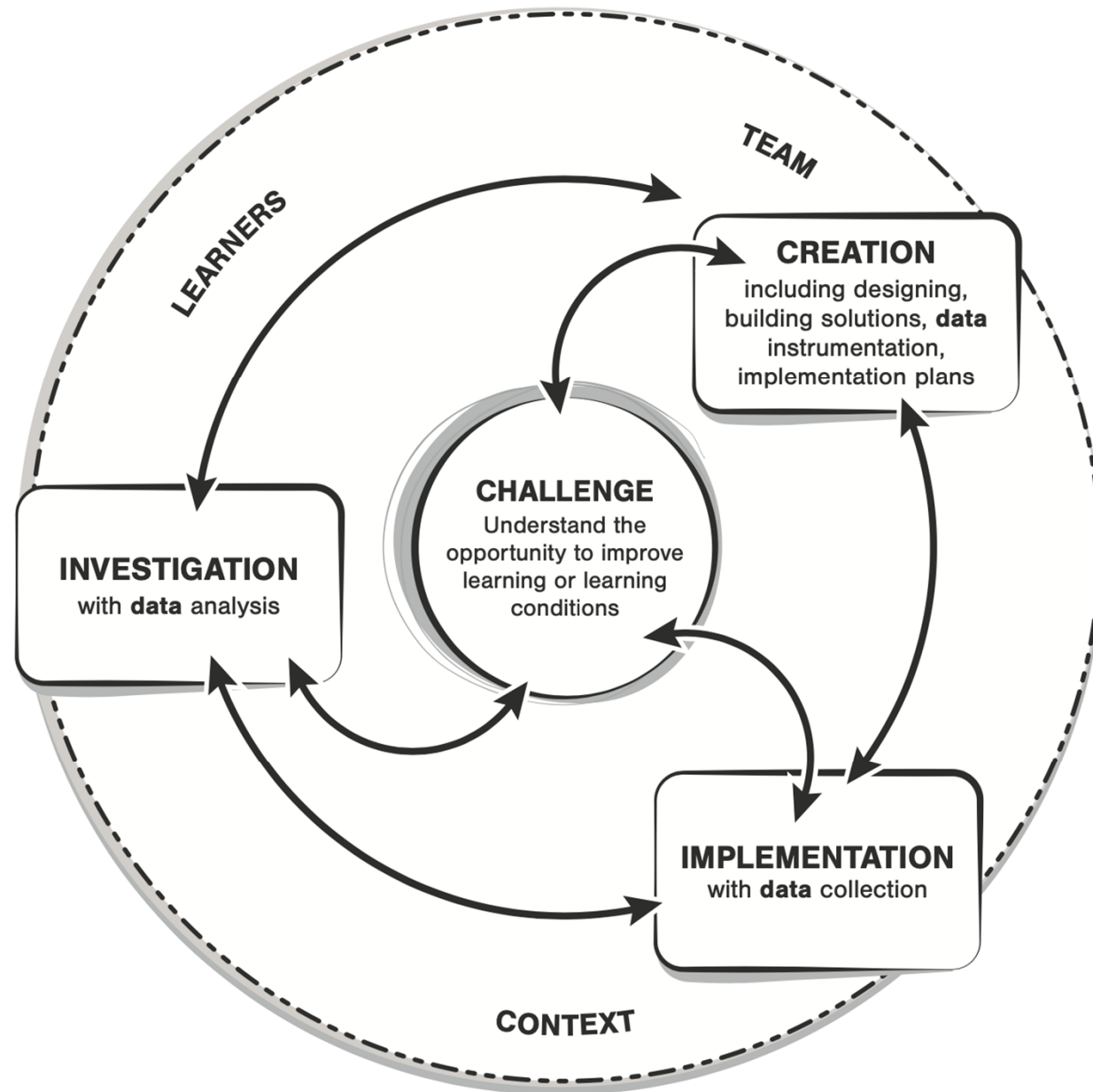
Learning Engineering

“Learning engineering is a process and practice that applies the learning sciences using human-centered engineering design methodologies and data-informed decision making to support learners and their development.”

—IEEE IC Industry Consortium on Learning Engineering

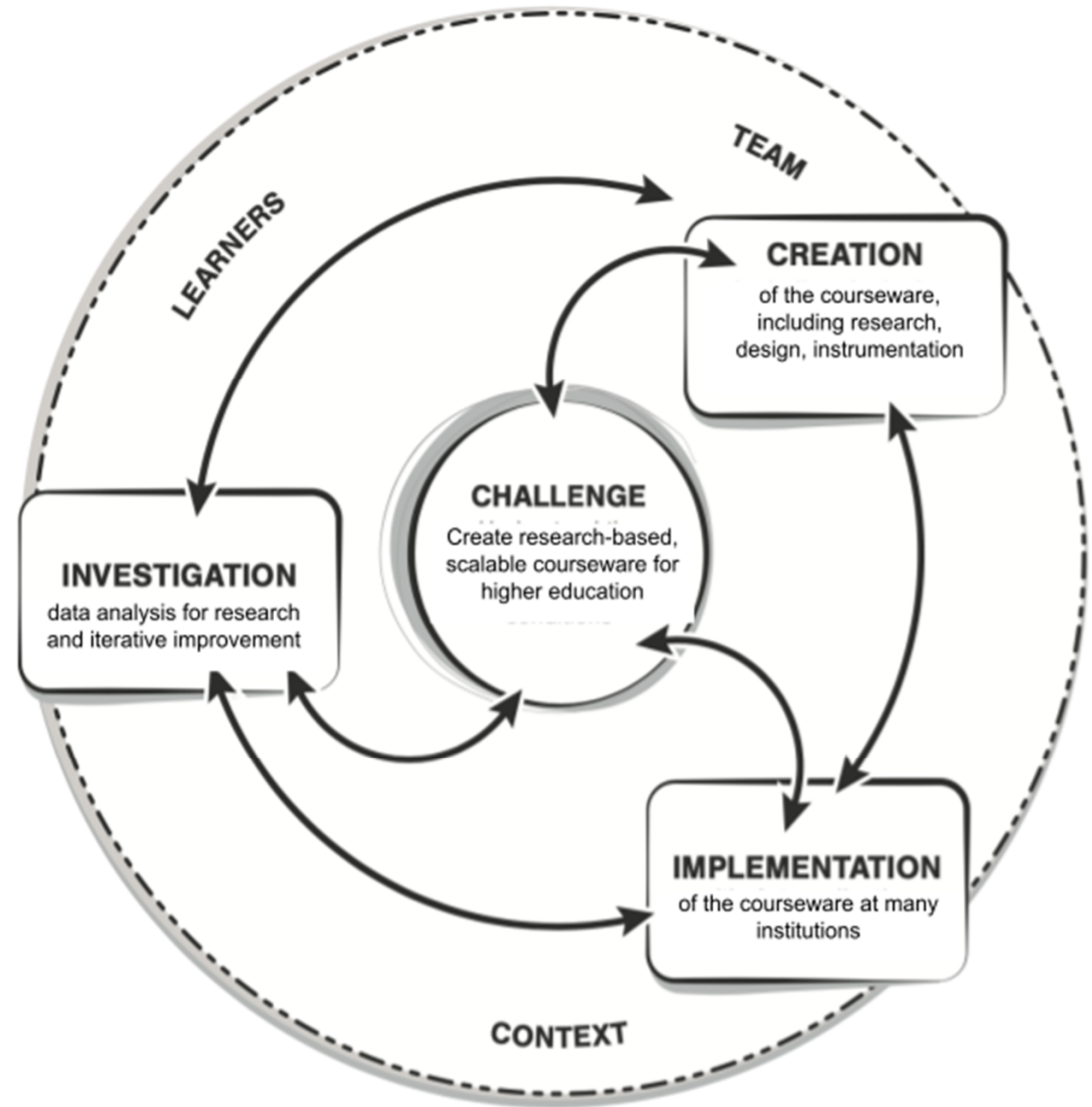
The Learning Engineering Process

The learning engineering process model is cyclical in form to reflect the concurrence of work required and the constant iterations that occur in trying to solve any educational challenge.



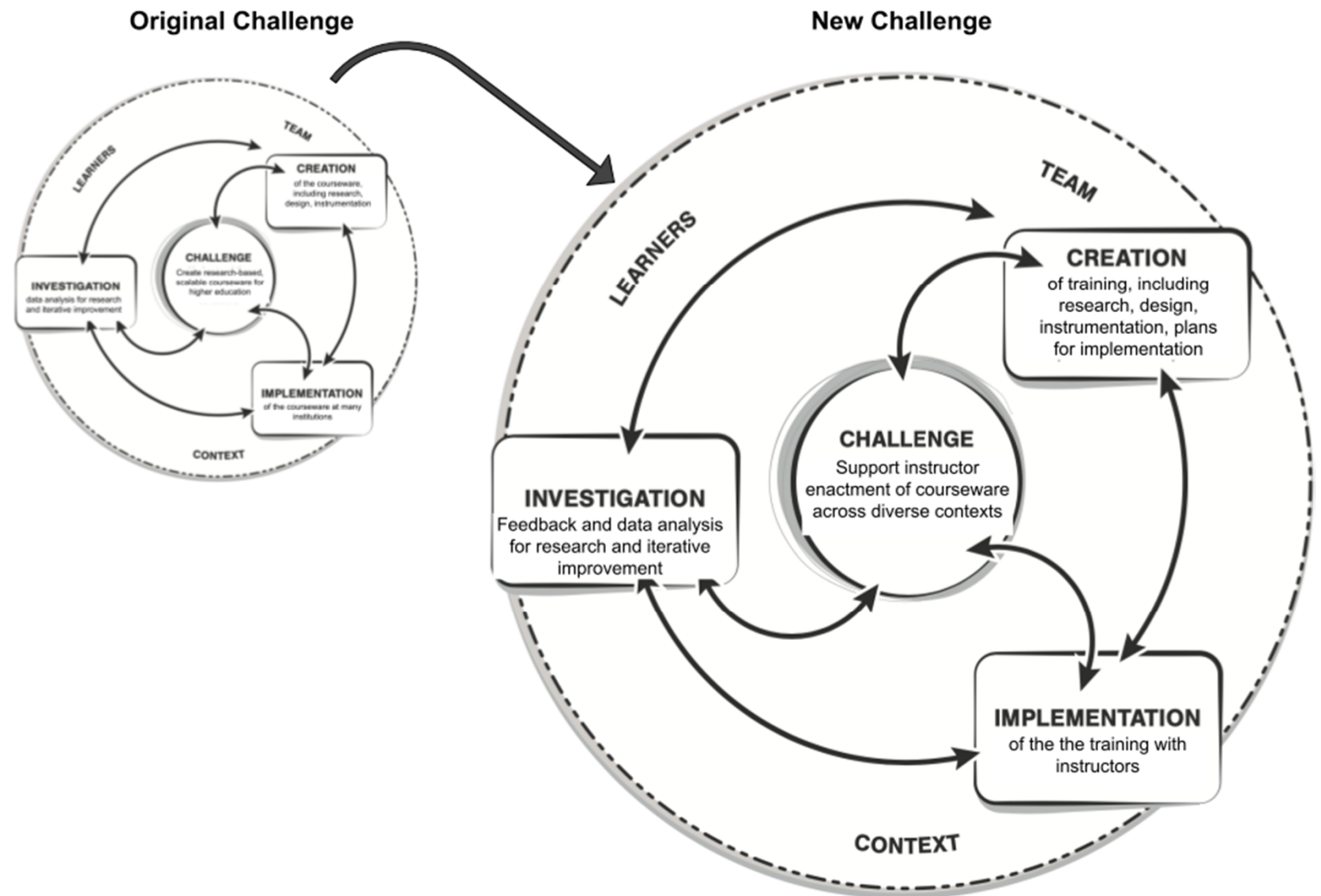
Challenge 1: Creating Courseware

The challenge at the center of the learning engineering process was to create courseware that applied established learning science research to provide an effective digital learning environment for students.

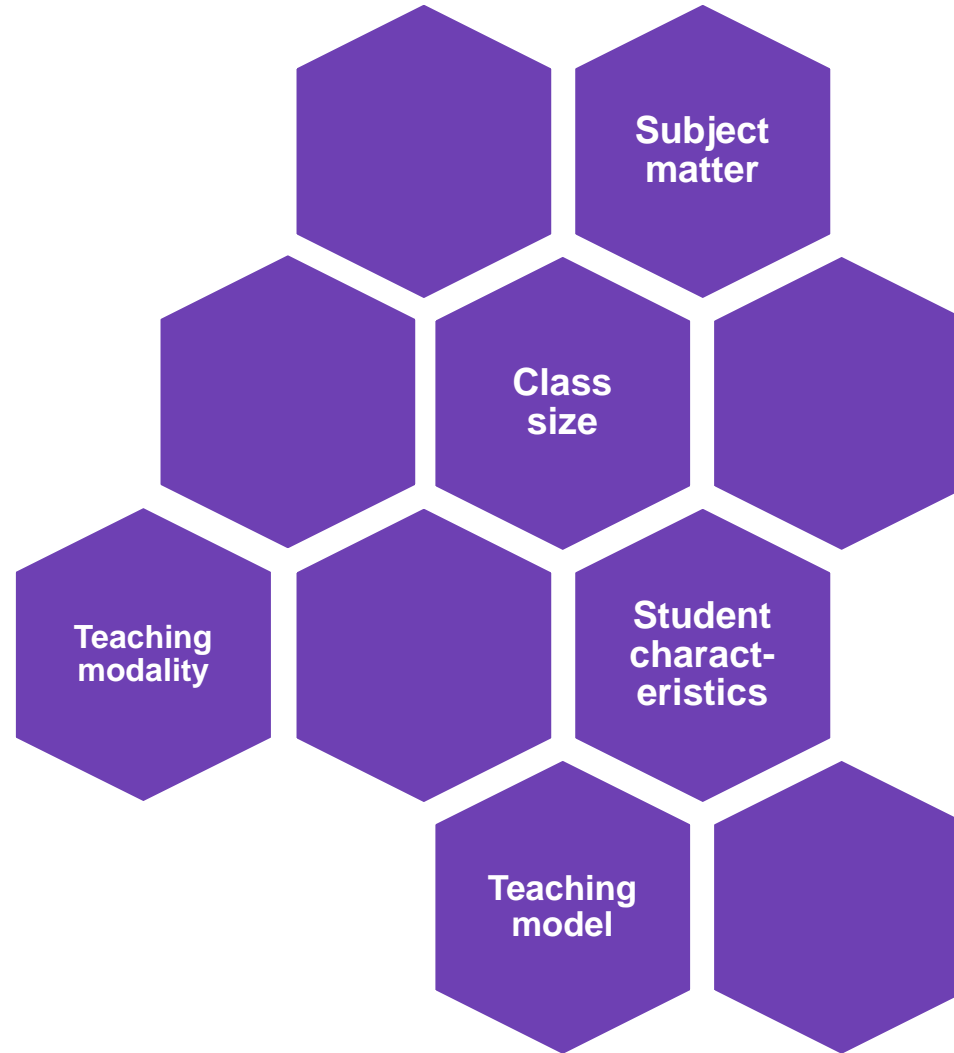


Challenge 2: Instructor Training

Analysis of the first challenge revealed the need for a new learning engineering process where the challenge was no longer developing effective courseware, but rather facilitating the instructor's application of the courseware across a large scale of unique learning contexts



Challenge Context: Variation in Setting



Designing a Training Solution

Design

- Utilize known research on effective instructor policies and practices that increase student engagement with learning technology when designing the training solution.

Instrumentation

- Identify what contextual teaching and learning data needs to be collected and develop appropriate instrumentation. Also gather success criteria for the courseware from each stakeholder and determine what data are required to evaluate it.

Plan for Implementation

- Create a plan for how to train instructors that accounts for variation in context.

Implementation & Investigation

The first implementation of the instructor training solution will provide valuable feedback that can lead to changes and improvements to the solution for future use.

Investigating feedback from instructor training combined with student engagement data from the courseware can shed light on the success of the training.

Conclusion and Application

The learning engineering process provides a guide for teams to create solutions to educational challenges, such as developing a scaled instructor training solution across diverse contexts.

Each teaching and learning situation will have contextual factors that impact how educators might apply learning technology or interventions in their classroom. Training that accounts for these unique circumstances can help instructors optimize learning resources for their situation over time.

Thank You!

For questions or comments, please email rachel.vancampenhout@vitalsource.com