Innovation Toolkit:

Piecing Together Novel CE Planning Approaches

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Educational planners that develop quality accredited continuing education (CE) have numerous opportunities to design creative and effective learning activities. This Innovation Toolkit encourages CE planners to draw on established methodologies from *design thinking and user experience (UX)* research to evolve—and even creatively disrupt—the ways in which educational planning creates novel and effective learning activities for the healthcare workforce.

Supporting Your Accredited CE Program

Innovation is for everyone! We have tried to illustrate how these innovation methods can bring value to your work—and help you meet accreditation expectations (and even Accreditation with Commendation!). You choose the methods you want to try and 'right size' your approaches based on your capacity or resources.

The process of innovation is an iterative and conditional one. Where you start, what tools you use, and when you use them will depend greatly on the context of the problem space, who is on your project team, and your access to users and stakeholders.

— Penn Medicine Center for Health Care Transformation and Innovation

Innovation Toolkit: Piecing Together Novel CE Planning Approaches

This resource was created by the Sparking Innovation Through Continuing Education Working Group convened during the ACCME 2023 Learn to Thrive Meeting.

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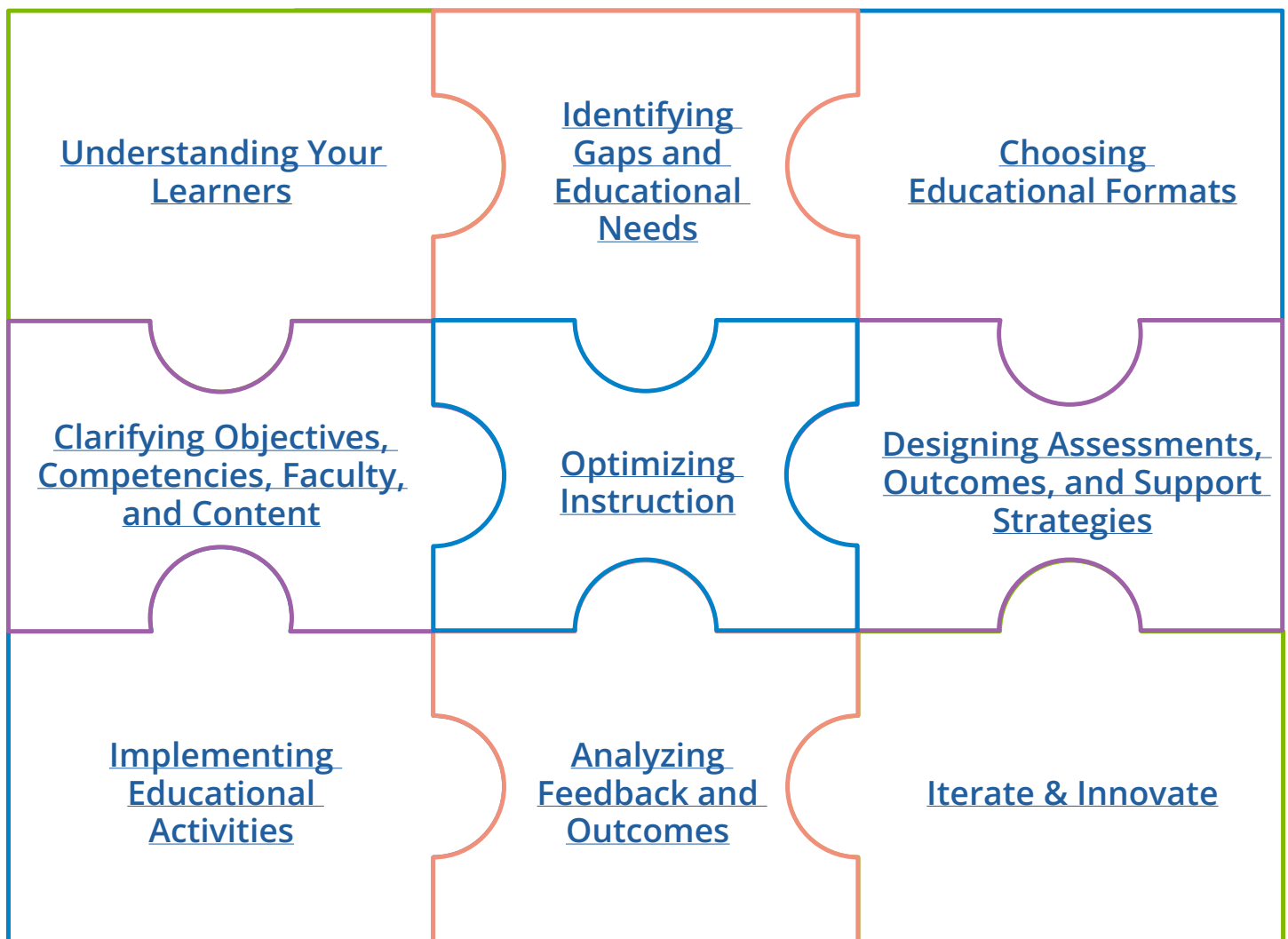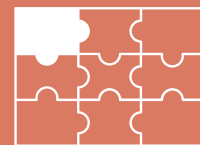Ruth Adewuya

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Using This Toolkit

Innovation practices can contribute to the CE planning process—and the learning experience—at each step. This toolkit draws from established methodologies and offers links to articles, videos, and web resources. It matches these tools with examples of how you might use them.

Select planning steps from the puzzle below, explore the related innovation resources and corresponding exemplars on the pages that follow, then encourage collaboration, embrace iteration, and facilitate change.

Understanding Your Learners	Identifying Gaps and Educational Needs	Choosing Educational Formats
Clarifying Objectives, Competencies, Faculty, and Content	Optimizing Instruction	Designing Assessments, Outcomes, and Support Strategies
Implementing Educational Activities	Analyzing Feedback and Outcomes	Iterate & Innovate

How can education best serve your learners?

"Guidance: Contextual Inquiry"
Office of Health Improvement
Gov.UK

"Contextual Inquiry: Inspire Design by Observing and Interviewing Users in Their Context"
Kim Salazar, Nielsen Norman Group

> A user's description of how they complete a task often does not reveal enough detail for us to identify bottlenecks or gaps in a process, or to recognize ways to reconfigure the entire process to improve quality and efficiency. **Contextual inquiry**—and especially close observation—can reveal unexpected gaps to address through novel CME activities.

"Know Your Customers' 'Jobs to Be Done': Is innovation inherently a hit-or-miss endeavor?"
Clayton M. Christensen, Taddy Hall, Karen Dillon, and David S. Duncan in the Harvard Business Review

> Our organization is a medical society comprised of numerous affiliated 'sub' societies and professional groups. We collect data annually to identify gaps in our CME offerings. Two ways we do this are **quantitative surveys** and **focus group interviews**. Analyzing the resulting data leads to identifying group-specific needs and trends/overlaps among our affiliated groups." — Focus group questions could include **Jobs to Be Done**; comparing the answers across groups may identify common needs that various learner populations share.

Focus Group Script Sample

> Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Identifying Gaps and Educational Needs
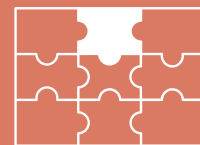
How can we best uncover professional practice gaps of our learners and their underlying educational needs?

[**"Guidance: Contextual Inquiry"**](#)

[**"Contextual Inquiry: Inspire Design by Observing and Interviewing Users in Their Context"**](#)

> **Contextual inquiry** can help us get a sense of what clinicians don't know and what they feel they need to know. It doesn't give us a fully representative sample, but it gives us enough data to find directions that are promising. This can be paired with **Problem definition**—preferably in collaboration with potential participants—to help us reveal the specifics of that need. It may not be what we think.

[**"The Why Behind Deep Customer Empathy"**](#)
Intuit

[**"Job Aid: 5 Whys and Fishbone Diagrams"**](#)
Agency for Healthcare Research and Quality

> Quality metrics or surveys of current practice that are reviewed by experts are opportunities to identify educational needs. Follow up by listening and observing your learners at work (**deep customer empathy, contextual inquiry**), apply the **5 whys**, or sketch a **fishbone diagram** to determine why there is a professional practice gap. Then ask, "So what? What would be good about solving the problem?" The answer may lead to another way to meet the need.

[**"Searching for Signals: Tips & Tricks from IFTF Staff"**](#)
Institute for the Future (IFTF)

> External data, news, medical literature, and reports from federal agencies may be good ways to recognize gaps and educational needs. But, the future-thinking practice of **searching for signals** can help anticipate needs.
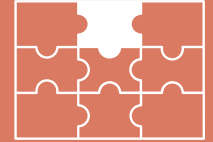
Educational simulation yields incidental findings by faculty and may reveal additional educational needs. Pair simulation with **contextual inquiry** or **deep customer empathy** to further explore the scenario.

When responses, learner surveys, or focus groups seem cursory or superficial, use **5 whys** to drill down on the needs assessment process to get richer insights.
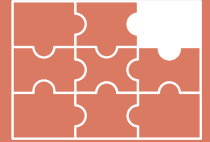
"Know Your Customers' 'Jobs to Be Done': Is innovation inherently a hit-or-miss endeavor?"

Try using the **Jobs to Be Done** tool with a focus group to explore community needs and discover what experience people expect—and the deeper reasons their expectations.
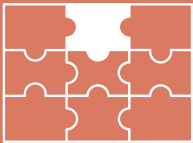
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Choosing Educational Formats

Which educational methods and approaches can best advance learning and improvement?

"Know Your Customers' 'Jobs to Be Done': Is innovation inherently a hit-or-miss endeavor?"

> Determine the audience, where they are, and the objectives, to influence the instructional delivery method. "For instance, a quick micro-learning activity doesn't fit all outcomes. If we want to work on a specific clinical skill, we may need a workshop or 'hands-on' or a simulation." – *Jobs to Be Done* could help inform this step.

"Innovation Techniques: How Might We?"
Sarah Rottenberg, MA
ImprovingHealthcare.Net

> *How might we* demonstrate multiple ways of delivering a single piece of educational content to allow faculty to consider different delivery methods as they plan an activity? One potential idea might be to create a mini showcase solution where a single piece of content is displayed through several delivery methods.
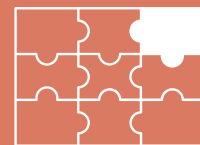
Choosing Educational Formats

"Generating Ideas: A Process for Breakthrough Innovation"
Ethan Mollick, PhD MBA
Knowledge at Wharton

Liberating Structures
Including and Unleashing Everyone

Pretotyping
Pretotyping.org

Journey Mapping
Human-Centered Design QualityNet
CMS.gov

By ***generating ideas*** and trying them out on a small scale (***pretotyping***)—or even in a setting like a focus group—we can home in on which parts of each option satisfyingly meets the need. Do learners want a book chapter? Recorded lectures? An app? An excuse for a weekend at a resort? And how can we take the best of those options to improve both the learning and the experience of learning? Planners can use ***journey mapping*** to sketch the faculty and learners' paths through these various experiences, to compare for hurdles and advantages.

Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Clarifying Objectives, Competencies, Faculty, and Content
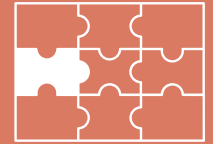
How can our approaches to content planning support educational impact?

"Job Aid: 5 Whys and Fishbone Diagrams"

Use **5 whys** to help the planning committee clarify the purpose of the activity.

"Innovation Techniques: How Might We?"

Use **How Might We** to address health disparities (patients impacted by training).

"Stakeholder Engagement"
Penn Master of Health Care Innovation

Adapt **stakeholder engagement** techniques to identify internal and external speakers from diverse backgrounds. Ask for recommendations of subject matter experts.

How to Process Map: Clinical Program Design and Implementation
NSW Agency for Clinical Innovation

Develop the content of an activity using a case-based approach. — Faculty could use a **process map** to identify the steps in a treatment plan.

"**How might we** best incorporate competencies into our educational activities."

Hypothesis Generation
Center for Healthcare Transformation and Innovation
Penn Medicine

The template for writing a **hypothesis statement** can be applied to writing learning objectives and connecting identified gaps to learning outcomes.
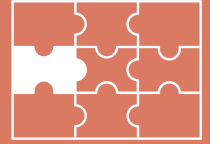
"Learn How to Use the Analogies Method"
Rikke Friis Dam and Teo Yu Siang
Interaction Design Foundation

Search external sources, such as articles or videos, and invite experts quoted or interviewed in them to be a speaker. – Looking at adjacent spaces for ideas, solutions, and experts is the **analogy** approach.
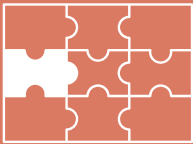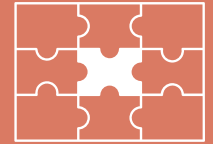
"Participatory Design"
Penn Master of Health Care Innovation

> Through **participatory design**, involve patients and caregivers in the planning process for your activities.

Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Optimizing Instruction

## *What are the most effective teaching methods for us to employ?*

"Innovation Techniques: How Might We?"

How might we demonstrate multiple ways of delivering a single piece of educational content to allow faculty to consider different delivery methods as they plan an activity?" One idea might be to create a mini showcase solution where a single piece of content is displayed through several delivery methods.

### "Framework for Innovation—the Double Diamond"
Design Council

At this stage, consider shifting from the left to the right side of the **Double Diamond**. Once you have the problem / objectives identified (the left side), try rapid, small-scale testing of several activities to figure out which works best. If individual elements work best, combine them for a second round of testing.
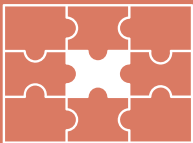
Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Designing Assessments, Outcomes, and Support Strategies
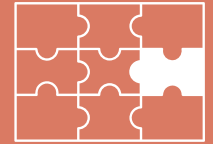
How do you measure the effectiveness of the learning you create?

"Writing SMART Objectives"
Centers for Disease Control and Prevention

> Defining success involves designing an activity to change learner competence, performance, or patient outcomes (building on identified needs). Using **SMART objectives** helps focus your efforts and share measurable outcomes.

"Discovery & Action Dialogue (DAD)"
Liberating Structures

"Generating Ideas: A Process for Breakthrough Innovation"

> Use Discovery & Action Dialogue (DAD) from **Liberating Structures** to engage learners in a problem-identifying discussion about the topic leading to solutions or applications to practice.

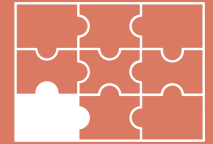### "How do you pretotype a pretotyping course?"
Exponentially

Pretotyping

> In general, rapid iteration can be helpful at this stage, so you can test, evaluate, adapt, and repeat to continue to refine the learning and improve the results. For example, consider using the façade technique from **pretotyping** to rapidly validate your hypothesis about the preferred type of support strategy for an activity. This method tests the interest level during the design process and would involve showing potential learners samples of different support strategies for the activity. Options may include different types of reminders to apply change to practice, pocket cards with tips from a simulation, or other methods to help the learner integrate knowledge into practice.
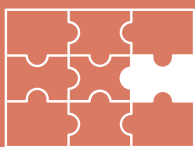
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Implementing Educational Activities

Implement the planned instructional design and hand off support strategies to reinforce learning objectives.

### Pretotyping

"How do you pretotype a pretotyping course?"

I would like to be able to test some delivery assumptions to find the best delivery method – Try **pretotyping** for rapid, low-cost testing.

"Learn How to Use the Analogies Method"

Looking more at groups in education rather than CME-specific; especially with LMSs – things going on in regular learning that are not yet being applied to CME – This is an example of **analogy**.

We designed one activity—synchronous and online—then two or three accompanying asynchronous sessions. We set up for small groups of 15 at a time and created a community with a facilitator; after the synchronous activity, they had a space to share comments and ask questions. They also had supporting resources available, with breakout room available throughout. This method "predisposes" the content knowledge so time with faculty is maximized. It maintains a longitudinal approach for delivery and evaluation as well. Example discussed: Ultrasound class, with course material available ahead of multiple subsequent sessions to continue the learning through ILPs (delivery through learning-subscribed platform). —**Pretotyping** would be a way to try adapting this idea to different audiences and topics.

Implementing Educational Activities
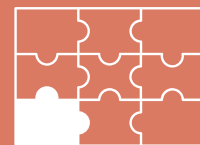
"Mini-pilot"
Penn Medicine Center for Healthcare Transformation and Innovation

> I would like to be able to **pilot** a case-based learning activity with a small group of learners — This helps test ideas and iterate before scaling. Establish clear criteria for success, so you will know when you to more fully deploy the activity and scale the offering. It won't need to be perfect if you have a mindset of ongoing iteration and the agility to keep improving.
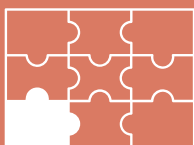
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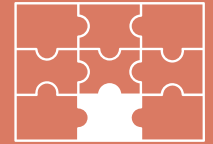
What changed as a result of the education? What do we do next?

"Much Anew About Nudging"
Roberta Fusaro and Julia Sperling-Mangro
McKinsey & Company

> **Nudge strategies** could encourage learners to participate in the evaluation process. Create and test a basic design for texting a survey link, or for using nudges and social norming, with positive messaging about the practice or impact of providing feedback.

"Not another survey! Using questionnaires effectively in needs assessment"
Karen V. Mann PhD
Journal of Continuing Education in the Health Professions

> I use quantitative analysis when **conducting reviews of existing learning activities**. I complete item analyses as one of the steps in reviewing assessments and the aligned content for accuracy, clarity, effectiveness in promoting learner change and use these data in making revision and new offering decisions.

"Appreciative Interviews (AI)"
Liberating Structures

"1-2-4-All"
Liberating Structures

> Reimagine the traditional post-activity survey using idea generation. Try the **Appreciative Interviews (AI) from Liberating Structures** to identify root causes of success, then adapt them to the survey. Or try **1-2-4-All from Liberating Structures** to address the challenge with a group of learners and planners while building buy-in.

> Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Iterate & Innovate
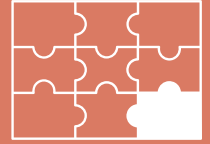
What changed as a result of the education? What do we do next?

"Improving Instructional Design: Feedback and Iterative Refinement"
eLearning Industry

> I would like to test the utility of longitudinal feedback and the need for supplemental tools and resources to supplement the learning activity. —***Iteration*** can help you test a hypothesis and refine it, in order to scale it effectively.

> Our team which treats every learning experience as a trial run for the next iteration. ***Iteration*** can mean getting analytics from a CME activity, making it easy for learners to give feedback, and taking that feedback seriously—then updating the material not once a year when the activity is ready to expire, but as soon as meaningful feedback comes in—again and again until the well of actionable and generalizable critique starts to dry up.
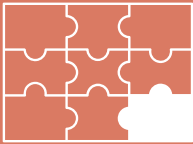
Return to the puzzle to explore how other innovation tools might enhance your activity planning.

Additional Resources

[Design Thinking Toolkit](#)
Penn Medicine Center for Health Care Transformation and Innovation
Brief descriptions of tools for identifying challenges, imagining solutions, and testing them, following the Double Diamond framework; also includes templates.

[Designing for Delight](#)
Intuit
Learning and teaching resources, including step-by-step instructions and worksheets for teaching activities about designing for delight.

[Double Diamond](#)
Design Council, UK
An innovation framework that uses an iterative and agile approach, including quick, low-cost experiments.

IDEO U
An overview of design thinking, activities to practice design thinking and innovation skills, articles on each phase, case studies, and more.
[*Design Thinking Overview and Resources*](#)
[*Innovation Resources*](#)

LinkedIn Learning (Subscription Required)
Course offerings that support innovative design.
[*Design Thinking: Understanding the Process*](#)
Chris Nodder
[*Design Thinking, Social Innovation, and Complex Systems*](#)
Scott Boylston

Design thinking brings together what is desirable from a human point of view (what makes sense to and for people) with what is technologically feasible (what is technically possible within the foreseeable future) and economically viable (what is likely to become part of a sustainable business model).

— Adapted from definitions by IdeoU