# Practical Online Strategies for Community-Based Learning

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1

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## Learning Objectives

By the end of this session, learners will be able to :

- Explain the structural barriers that limit engagement in community-based learning environments
- Apply the CARE Loop to design learning that strengthens transfer, reinforcement, efficiency, and persistence
- Develop a scalable engagement strategy that can be piloted within 30 days in their own setting

2

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## Session Road Map

- Why Engagement Breaks Down in Community-Based Learning
- The CARE Loop Framework
- Four Engagement Strategies
  - Scenario-Based Learning
  - Microlearning & Spacing
  - Personalization
  - Gamification
- Scaling for Sustainable Impact

3

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## A Real Moment

- 6:45 pm
- End of a 12-hour shift
- A Family in the hallway
- A patient with changing respirations

- Exposure vs. Reinforcement

4

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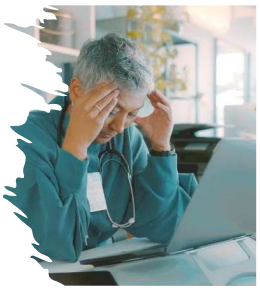
## Community-Based Learning Realities

- Time scarcity and workflow interruptions
- Learner diversity in background and preparation
- Compliance fatigue and mandatory training overload
- Low tolerance for “extra clicks”
- Limited instructional design infrastructure



Chaker et al., 2024; Cook et al., 2013; Sweller, 1988

5

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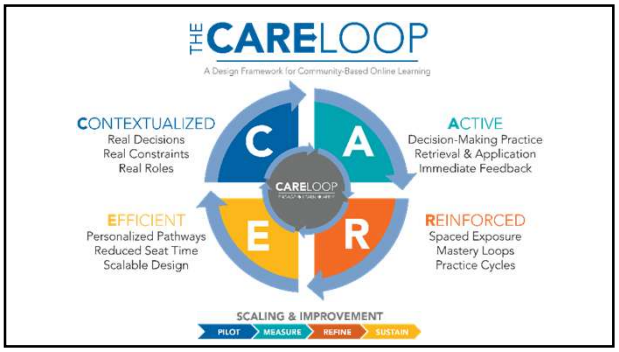
## Pause and Reflect

- What is one engagement strategy in your online environment that would still work even if the technology changed?

6




7

## Engagement as the Engine

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- Reduces unnecessary cognitive load
- Increases real-world relevance
- Creates feedback loops that strengthen transfer
- Supports diverse learners - multiple means of engagement


Means et al., 2010; Meyer et al., 2014; Hew, 2014

8

## Evidence Anchor
## Engagement Drives Impact

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- Online professional education is effective; instructional design quality determines impact (Cook, 2013)
- Interaction elements (decision-making, feedback, application) improve outcomes in online settings (Means, 2010)
- Scenario and simulation-based learning strengthen confidence and decision transfer in healthcare education (Sitzmann, 2011).
- Microlearning improves retention when paired with retrieval and spaced reinforcement (Garcia-Garcia, 2024).
- Adaptive and personalized pathways can increase efficiency when aligned to defined competencies (Van Merrienboer, 2018).

9

## Four Engagement Strategies

| Strategy | Why It Works | Evidence Anchor | Implementation | Measurement |
|---|---|---|---|---|
| **Scenario-Based Learning** | Builds decision-making in realistic context; strengthens transfer to practice | Situated learning; simulation research (Cook et al., 2013) | Convert policy into 3-step branching case with immediate feedback | Scenario accuracy; error patterns; confidence shift |
| **Microlearning + Spacing** | Reduces cognitive overload; improves retention through repeated retrieval | Cognitive Load Theory; Spacing Effect (Roediger & Butler, 2011) | Break 60-min module into 6 short units + 1 follow-up question 48 hrs. later | Completion consistency; repeat participation; knowledge retention over time |
| **Personalization** | Reduces unnecessary seat time; increases relevance and equity | Universal Design for Learning (Meyer et al., 2014) | Add pre-check quiz to allow skip/refresh pathway | Time-to-completion; placement accuracy; learner satisfaction by role |
| **Gamification** | Increases persistence and visible progress; reinforces effort | Motivation & gamification research (Sailer & Hommer, 2017) | Add progress bar + mastery badge tied to performance | Return visits; pathway completion; mastery achievement rates |

CARE Alignment: Scenario-Based + Contextualized + Active | Microlearning + Reinforced | Personalization + Efficient | Gamification + Reinforced + Persistence

10

## S1 Scenario-Based Learning

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- **Decision Making**: Practice choosing the right course of action
- **Confidence**: Build assurance through safe practice
- **Judgement Under Pressure**: Develop critical thinking in time-sensitive situations
- **Communication Skills**: Learn to respond effectively in complex interactions

11

## Why Scenarios Work

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- Instead of “What do you remember?” Ask “What do you do?”
- Anchors learning in authentic context
- Reduces extraneous cognitive load (because it is relevant)
- Requires active retrieval and choice
- Embeds immediate feedback

12

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## Micro-Scenario Model

- **Case**: A person is short of breath. What is your first action?
- **Decision**: (call RN, get oxygen, chart)
- **Outcome**: Provide immediate feedback
- **Explanation**: Explan why the answer is correct/incorrect
- **Next Decision** (progressive difficulty)
- Practice critical thinking without real-world consequences

13

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## Example: From Live Facilitation to Online Scenario


Active learning requires the learner to think, decide, and receive feedback.

14

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## S2 Microlearning

- A 3-7-minute learning segment built around a single objective
- Designed to fit into real workflows and reinforce learning over time
- Working memory is limited, microlearning reduces that load
- A single reminder question 48 hours later significantly strengthens retention
- Microlearning is a delivery format: retrieval + spacing is the mechanism

Moore et al., 2024; Sweller, 1988

15

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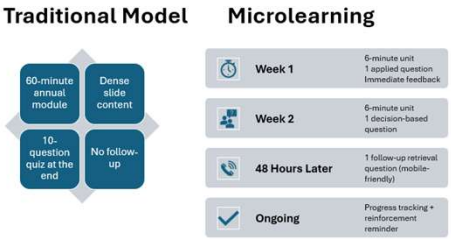


16

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## Microlearning Pitfalls

- **Feedback:** Learners don't know whether they understood the material correctly.
- **Relevance:** Content doesn't connect to real challenges in their workflow.
- **Reinforcement:** There's no spaced repetition to strengthen retention.
- **Application:** Learners aren't given opportunities to practice or apply what they learned.
- Too **short** or **fragmented**

17

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## Microlearning Hospital Partnership

- Identified gap in end-of-life clinical confidence
- Traditional lecture model → low retention
- Designed QR-based just-in-time support
- Linked learning to real bedside decisions
- Observed behavior shifts + strengthened partnership


18

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## S3 Personalization

- Reduces redundancy
- Aligns to role
- Respects the learner's time
- Strengthens the **Efficient** dimension of the CARE Loop.
- Ensures that learning time is proportional to learning need


Fontaine et al., 2019



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## Personalization: Low-Tech to High-Tech

| Low-Tech | Mid-Tech | High-Tech |
|---|---|---|
| • Self-assessment + learner choice of pathway<br>• Optional refreshers / "chose your path" modules<br>• Reflection prompts tied to real practice | • Optional pathways based on role or experience<br>• role-based learning pathways<br>• competency checklists + targeted resources<br>• adaptive release based on quiz performance | • Adaptive platforms with AI support<br>• adaptive learning platforms that target gaps<br>• AI-supported practice questions and feedback loops<br>• mastery-based progression |

**Research takeaway:** Adaptive learning shows strongest results when tied to:
1. clearly defined competencies
2. targeted feedback
3. appropriate difficulty adjustment
4. pacing based on mastery



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## Interdisciplinary Hospice & Palliative Care Review (IHPC)

**Shared Learning - Builds Teams**

- 8-week hybrid model / 10 on-demand modules + 2 live sessions
- Interprofessional cohorts (physicians, nurses, social workers, chaplains, aides, administrators)
- Shared Core Learning - Team-based hospice foundations

**Targeted Pathways - Mastery**

- Role-Based Reflection - Domain-specific prompts applied to each learner's practice / Individual Feedback - Personalized responses + cohort synthesis videos
- Discipline-Specific Pathways - Certification blueprint alignment Gap identification - Targeted study guides & review questions



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## S4 Gamification

- **Competence** "I can master this"
- **Autonomy** "I have meaningful choice"
- **Relatedness** "I belong to a team"
- Progress is visible
- Behavior is strengthened
- Participation is repeated
- Progress is motivated

Deci & Ryan, 2000; Dichev & Dicheva, 2017; Li et al., 2024



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## High Tech to Community Low Tech

**Higher Education**

LMS dashboards
Digital badges
App-based streaks
Analytics-driven progress tracking

**Community Setting**

Physical game formats
Group competition
Visible mastery moments
Immediate facilitator feedback

**Same behavioral principles. ~ Different delivery mechanism**



## Translating Gamification Community Hospice Education

| Format | Educational Function | Why It Works | Behavioral Impact |
|---|---|---|---|
| Dementia Jeopardy | Retrieval practice + knowledge integration | Structured recall improves encoding; social participation reduces anxiety | Reinforces competence; increases engagement and retention |
| Cardiac Escape Room | Applied problem-solving under time pressure | Requires integration of symptom recognition + escalation pathways | Strengthens mastery; increases persistence through challenge |
| Respiratory Improvisation | Experiential rehearsal of equipment + comfort interventions | Humor lowers barriers; improvisation increases cognitive flexibility | Builds autonomy; strengthens team cohesion |

Clear learning objectives I Performance-based feedback I Social reinforcement I Visible mastery moments

## What Persists After the Engagement?

| Layer | Function | Behavioral Outcome |
|---|---|---|
| Engagement Activities | Active retrieval & problem-solving | Activation |
| Practice Sheets | Spaced repetition & fluency | Retention |
| Passport | Visible mastery tracking | Competence |
| Team Progress Bar | Collective accountability | Persistence |

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25

## Scaling Community Education

**Why Engagement Efforts Often Stall**

- Designed as one-time initiatives
- Measured only by completion
- Too complex to maintain
- No feedback loop for improvement

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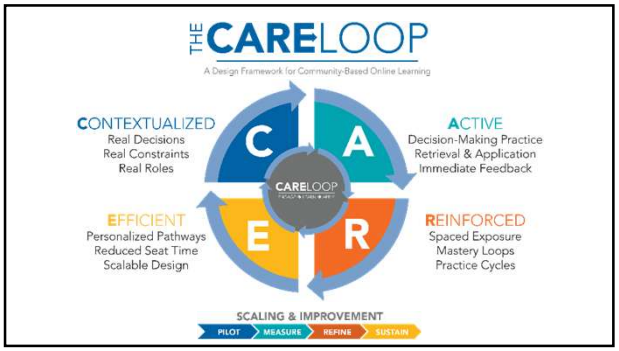
26

## The Scaling Model

| Phase | Key Question | What You Do | What You Learn | Outcome |
|---|---|---|---|---|
| **Pilot** | Does this design activate engagement? | Implement one module, one unit, or one audience with intentional design. | Feasibility, initial learner response, workflow fit. | Proof of concept. |
| **Measure** | Is it influencing learning behavior? | Track meaningful indicators: completion, scenario accuracy, error patterns, learner feedback. | Where comprehension is strong or weak; friction points. | Data-informed insight. |
| **Refine** | How can this improve and adapt? | Adjust content, format, delivery. Translate into additional modalities (game, microlearning, worksheet, article). | Which formats increase retention and persistence. | Improved design + expanded reach. |
| **Sustain** | How does this become infrastructure? | Embed into onboarding, annual competencies, role-based pathways. | Longitudinal engagement trends. | Scalable system integration. |

27




28

## Pause and Reflect

- What is one engagement strategy you will pilot in the next 30 days that is built on principle not just platform?

Thank you!

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29

## References


- Chaker, R., Hajj-Hassan, M., & Ozanne, S. (2024). The effects of online continuing education for healthcare professionals: A systematic scoping review. *Open Education Studies*, *6*(1), 20220226. https://doi.org/10.1515/edu-2022-0226
- Cook, D. A., et al. (2013). Internet-based learning in the health professions: A meta-analysis. *JAMA*, *300*(10), 1181–1196. https://doi.org/10.1001/jama.300.10.1181
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268.
- Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain. *International Journal of Educational Technology in Higher Education*, *14*, 9. https://doi.org/10.1186/s41239-017-0042-5
- Fontaine, G., Cossette, S., Maheu-Cadotte, M.-A., et al. (2019). Efficacy of adaptive e-learning for health professionals and students: A systematic review and meta-analysis. *BMJ Open*, *9*, e025252. https://doi.org/10.1136/bmjopen-2018-025252
- Hew, K. F. (2014). Promoting engagement in online courses: What strategies can we learn from three highly rated MOOCs. *British Journal of Educational Technology, 47*(2), 320–341. https://doi.org/10.1111/bjet.12235
- Li, L., Hew, K. F., & Du, J. (2024). Gamification enhances student intrinsic motivation, perceptions of autonomy and relatedness, but minimal impact on competency: A meta-analysis and systematic review. *Educational Technology Research and Development, 72*, 765–796. https://doi.org/10.1007/s11423-023-10337-7


30

## References


- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. U.S. Department of Education.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice.* CAST Professional Publishing.
- Moore, R. L., Hwang, W., & Moses, J. D. (2024). A systematic review of mobile-based microlearning in adult learner contexts. *Educational Technology & Society, 27*(1), 137–146. https://www.jstor.org/stable/48754847
- Roediger, H. L., & Butler, A. C. (2011). The critical role of retrieval practice in long-term retention. *Trends in Cognitive Sciences, 15*(1), 20–27. https://doi.org/10.1016/j.tics.2010.09.003
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review, 32*, 77–112. https://doi.org/10.1007/s10648-019-09498-w
- Sitzmann, T. (2011). A meta-analytic examination of the instructional effectiveness of computer-based simulation games. *Personnel Psychology, 64*(2), 489–528. https://doi.org/10.1111/j.1744-6570.2011.01190.x
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science, 12*(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4
- Van Merriënboer, J. J. G., & Kirschner, P. A. (2018). *Ten steps to complex learning: A systematic approach to four-component instructional design* (3rd ed.). Routledge.


31


32