Building a Strong Foundation: Scaffolding Instructional Design for Non-Teachers

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Disclosures

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Introductions

- Dina Kurzweil, Director, Education & Technology Innovation Support Office (ETI), Assistant Professor, School of Medicine (SOM), USU
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Agenda

- Background
- What We Did
- Lesson Assessment Results
- Tips
- Discussion
- Questions

Background

Learners: Uniformed Services University of the Health Sciences (USU) School of Medicine Second Year Medical Students

Lesson: “The Military Physician as an Educator”

Instructional Goal:

- The students will become more confident in their:
  - Ability to teach.
  - Role as a physician-educator.
  - Role as a military medical leader.
- Allow for independent work of students if technology fails or faculty are not available.

Background

"Military Physician as Educator" Learning Objectives

By the end of the session, students will be able to:

- Use a systematic design of instruction to develop a complete plan for education and/or training to solve a curricular problem.
- Present an instructional strategy that includes the five learning components and meets the scenario lesson instructional goal.
- Assess their role as a physician-educator by completing a brief self-reflection at the conclusion of the lesson.

What we did.

In-Person / Virtual Comparison		
VARIABLE	IN PERSON (Original Plan)	VIRTUAL (Modified Plan)
Class Size	~166	Two groups of ~83 (Total ~166)
Teaching Time & Student Contact Hours	1 group - Total 4 teaching hours 4 contact hours (fewer readings)	2.5 hours per group (Total 5 teaching hours) 3 contact hours (including readings)
Learning Environment	Sakai LMS Lecture (Large Group) In Person Panel Small Group Classroom Activity	Sakai LMS Pre-Readings Video Interview Small Group Google Meet
Faculty	8	8 per group (Total of 16)
Readings	Articles - supplemental	Articles - pre-readings replace some lectures
Materials	Poster	Reference handouts, online worksheet/forms

Lesson Assessment Results

- Student Evaluation (166 responses)
  - 86% found the sequence of instruction from pre-lesson activities to the end of the lesson connected.
  - 62% found the information or skill easy to learn.
  - 78% were satisfied with what they learned.
  - 98% assessed they had enough time to complete the activity.
  - 65% found the activity easy to participate virtually with an additional 22% being neutral.

Military Medical Leader - Reflection

How do you view your role as military physician-educator?

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Tips

- Develop a faculty guide.
- Provide faculty supplemental technology training and rehearsal.
- Consider best virtual collaboration tools (Google, Microsoft, Zoom, Adobe, etc.)
- Take advantage of opportunities to model/provide examples of the skills they are learning (e.g., evaluation).
- Emphasize communication and collaboration.
    - Pre-assign the students to virtual collaboration areas.
    - Pre-assign a student “virtual help site”.
    - Establish a virtual area for faculty to use for collaboration during the activity.

Tips

- Limit resource repositories.
- If there are limits to the number of faculty, think of creative ways to provide feedback during the activity to keep students on track.
- Create time hacks for the learning activity to keep learners and faculty on track.
- Identify possible points of failure (e.g., technology, faculty availability) and plan for ways the activity can continue in spite of them.

Discussion

- What are some other techniques that can support teaching complex content to novices?
- What are some benefits and drawbacks you have found with different tools you have used to transition classroom content to the virtual environment?
- How do you create faculty presence in a virtual environment?

Questions