Swimming Outside the Lane: Teaching Subject Matter Experts about Learning

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Objectives

After this session, you will be able to:

• recognize the type of effective learning strategies subject matter experts are ready for and when to implement them.

• Plan a strategy for working with subject matter experts in transforming and enhancing learning content in the biomedical research domain.
Working Together
My Goal in the Project

Enhance educational offerings to the clinical research community
Course Details: The Case

- Professional development training
- Course offered 2X year
- 6 weeks long
- Enrolls 30 learners each time
- Uses Blackboard Open LMS
- Content in area of Basic Science & Clinical Research Admin
- F2F class with PPT lecture presentations
- 30 instructors teach one of 15 modules (2 instructors per module)
Diverse Non-Faculty Instructors

- Research Grants Admin
- Research Regulatory Managers
- Clinical Research Coordinators
- Clinical Healthcare Billing
- Basic Science Faculty
- Lab Animal Resources
- IRB
Find a Partner!

A. Redesign the LMS so it was more intuitive
B. Align learning outcomes to course activities & assessments
C. Introduce the instructors to active learning & engagement strategies
D. Curriculum mapping to scaffold content and skill development
Where would you start?
Go to: Kahoots.it
Game PIN: 622750
Focus on Instructors

Introduce the instructors to active learning & engagement strategies
Methods

Orientation with demonstrations
Pre-course survey
Follow up emails throughout course with video, readings
Student evaluations asking which engagement strategies were used each module
Post-course survey
Activities to Enhance Learner Engagement

Think, Pair, Share
Small group discussions
Students post ideas on the board to share
Ask open-ended questions
Give learners problems to solve
Polling to gauge learning or for feedback
Connect learning back to their work situation (relevance)
Games or other activities
<table>
<thead>
<tr>
<th>Activity</th>
<th>Pre-course N=18 Confident or Very Confident</th>
<th>Post Course N=15 Confident or Very Confident</th>
<th>PRE Unfamiliar/Not Confident</th>
<th>POST Unfamiliar/Not Confident</th>
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<tbody>
<tr>
<td>Think Pair Share</td>
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<td>100%</td>
<td>2/1</td>
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<tr>
<td>Small Group Discussion</td>
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<td>100%</td>
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<td>Post ideas</td>
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<td>92.8%</td>
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<td>Problem-solving</td>
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<tr>
<td>Connect to Work</td>
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<td>100%</td>
<td>0/1</td>
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<tr>
<td>Polling</td>
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<td>86.5%</td>
<td>0/4</td>
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<td>93.3%</td>
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<tr>
<td>Activity</td>
<td>Incorporated into Course</td>
<td>Did not, but considered doing so</td>
<td>Did not incorporate into Course</td>
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<tr>
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<td>Post ideas to share</td>
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<td>Open-Ended Q?</td>
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<td>Games</td>
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</table>
Overcome Barriers: Top 3

- Observe someone
- Watch videos demonstrating
- Read about
Student Feedback:
Active learning least likely to be incorporated

- Paired discussions
- Games
- Polling
- Break into small groups
Student Feedback
Active learning **Most likely** to be incorporated

- Large class discussions
- Problem solving
- Case-based learning
Learner Feedback

• Instructors were very knowledgeable and you could tell (they) liked their jobs. Had good examples and stories, but maybe next time, do not read every slide as you go along.

• I just feel sorry for everybody having to use UMS... It would take a very talented educator to explain this in a manner that would allow a newbie, such as myself to, immediately use this information and apply it. This will take a lot of figuring out by yourself. Plus learning how to remain calm while the application crashes and the hourglass is taunting you.

• Everyone seems to truly enjoy what they do when they are teaching.
Future Directions

• Continue to Reinforce Active Learning

• Instructor interaction in the LMS
  • Static content

• Authentic assessment
  • Move away from multiple choice quizzes

• Learner Control
Conclusions

• Unless there is commitment for a full course redesign, decisions must be made on incremental improvements

• Non-academic instructors are not familiar with current active teaching strategies
References

• All images by Pixabay