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Developing Interactive Curricular Elements with Teams of Faculty, Staff and Students

Betsy J. Becker
University of Nebraska Medical Center, betsyj.becker@unmc.edu

Sara Bills
University of Nebraska Medical Center

Robert H. Fuchs
University of Nebraska Medical Center, rfuchs@unmc.edu

Kellie Gossman
University of Nebraska Medical Center, kellie.gossman@unmc.edu

Tessa Wells
University of Nebraska Medical Center

See next page for additional authors
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objectives
1. Describe the resultant network structure and composition of faculty, students and staff involved.
2. Identify a step-by-step timeline of how the e-Learning modules went from a sketch and brainstormed idea to a tangible and useful product and the important role of instructional designers and an interprofessional peer faculty team.
3. Demonstrate exemplars.

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What was the resultant network of faculty, students and staff who participated?

Network of developers
325 faculty/staff + students/residents
2013 - present

Network of developers
PT = 31
(8 faculty, 23 students)
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How did the e-Learning modules go from a sketch to a module? What are the roles of instructional designers?

Paradigm for Change

Enable Mastery Learning via:
- Flipped classrooms
- Creation of just-in-time interactive e-learning modules available to all students
- Classrooms more for small group interactive sessions

Outmoded Education System

1940 vs. Today

Paradigm for Change

What is an E-module?
- A 10- to 15-minute interactive online multimedia module targeting one or two major learning objectives
- Multimedia components include:
  - Video
  - Audio
  - Gamification
  - Some PowerPoint
  - Learner engagement
  - Quizzes with instant assessment

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Paradigm for Change

- Strong focus on student engagement and inclusion
- Strong institutional support – use of small funded RFAs of cohorts to incentivize participation
- Public showcase and recognition ceremonies
- Educational Research and Scholarship

E-Learning: Making a Difference

E-Gallery

unmc.edu/egallery

- Access e-modules anytime, anywhere
- Available to all UNMC faculty, staff, and students

Students as Curriculum Developers

E-Learning Studio

- Instructional design and technology support
- E-Learning authoring tools
- Scorecard and checklist

Students as Curriculum Developers

- Six month timeline
- Milestone meetings
- Peer review and testing
- Showcase and recognition

Demonstration of exemplars
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Joint Exam
Cardio-pulm
Survey-patient room in acute care
Review an EMR
ICF: Case based

Why?
Challenging Content

Use in Course
- "Required" Pre-Class Activity
- Case Study application in class
- Study Resource

Outcomes
- to explore changes in students' perceived value of fremitus and percussion as part of a cardiopulmonary physical therapy examination and confidence in the interpretation of these tests as a result of using an eLearning module.

https://hml.unmc.edu/Play/11555
Becker BJ, Bills S, Fuchs RH, Gossman K, Moore P, Wells T

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Why?

Planned Use in Course
- "Required" Pre-Class Activity
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- Study Resource

Clinical Reasoning Activity Using the Classification of Functioning (ICF)
Purposes of e-Learning module
- To introduce students to the concepts and terminology of the ICF
- To provide examples of how the ICF can be used to make clinical decisions
- To provide opportunities to practice making some low complexity clinical decisions
- To prepare first-year PT students for a group discussion clinical reasoning case

Planned Use in DPT Curriculum
- E-Learning Module
- Group Discussion Case
- Outcomes Assessment

Joint Exam
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Review an EMR
ICF: Case based

http://som.unmc.edu/Play/11560
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Outcomes Assessment

- E-Learning module quiz questions
- Group discussion case metrics
  - Individual vs. group success in prioritizing and categorizing case decisions
  - In comparison with those of an expert panel
- Pre- and post-discussion quiz question success
- Post-discussion survey of effectiveness of entire process

References