Professional Education in an Online Environment: Opportunities, Pitfalls, and Assessment

Who we are

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- Served 5 years as Chairman of the Commission for Accreditation in Physical Therapy Education
- CAPTE site visitor and team leader
- Sacred Heart University:
  - Department Chair
  - Associate Dean of the College
  - Founding DPT program director of the physical therapy program

- Director of Business Development for Rehab Essentials

Timothy Miller, PT, DPT, EdD, GCS

- DPT (Elon University)

- EdD in Educational Technology (University of Florida)

- Nova Southeastern University
  - Over 7 years blended learning experience as faculty

- Director of Education and Faculty Development for Rehab Essentials

Outline of Session

1. Navigating the Paradigm Shift

2. Pitfalls to avoid & solutions

3. Opportunities of online education

4. Assessment

5. Teaching, Learning, and Assessing Psychomotor Skills

6. Lessons Learned

Navigating the Paradigm Shift to Online

Students and content didn't disappear

Comfortable knowing the students are still going to learn

Learning was already done outside of the classroom

Focus on how to transition the face-to-face classroom time to engaged learning (synchronous & asynchronous)

Elements of Successful Distance Education

Learner-centered

Students are active participants

Instructor as facilitator – "Guide on the Side"

Instructor stays present online

Collaborative learning rather than working independently online

Organization of content into logical units around a central topic

- Chunking of material
- Digest the chunks providing opportunity for recall or application

Teaching Presence

Considered paramount to successful distance education experiences

Maintains learners' interest, motivation, and engagement

Contributes to self-efficacy and learning

Very influential on the success of the class

Examples include:

- Response time to student questions
- Discussion post interaction
- Assignment feedback
- Accessibility to instructor

Pitfalls

Pitfalls

Lack of Teaching Presence

Consider:

- Response time to student questions
- Discussion post interaction
- Assignment feedback
- Accessibility to the Instructor
- Virtual office hours

Pitfalls

Don't build everything at once

Attempting to exactly replicate face-to-face class

Lecturing for hours

1 class session = 1 video

Too much independent work

The pregnant classroom

Pitfalls

Unclear or muddy instructions

Consider Multiple forms of communication

- ○ Video-based and text-based announcements (MMM)
- ○ Written instructions for assignments
- ○ Screen capture videos of "how-to"

Pitfalls

1-way instructor to student communications - being the eye of the needle

Consider:

- Engaging students with each other
- Use group communications such as discussion boards and chats
- Offer student office hours (require questions be submitted beforehand)

Opportunities

Opportunities

Collaborative learning opportunities for students

- Discussion boards
- Small group chats, case studies, application activities

Focus on the learning, not the medium

Flexible study times for students

Slower pace

Opportunities for redundancy/review

Opportunities

Emergence of new student leaders

Different participation rates and greater inclusion

Quiet students emerge

Enhanced student interaction/engagement

- Opportunities for instructor observation of student learning & engagement

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Opportunities

More feedback

Greater learning activity documentation

Student grading facilitated

Promotes curriculum review and assessment

Provides evidence for accreditation requirements

Assessment

Assessing Learning Online

Assessment as a learning activity, not just evaluation

- Differentiate cognitive, affective and psychomotor learning assessment

No-Stakes/Low-Stakes/High-Stakes opportunities

Optimize self and peer assessment activities

Consider pass/fail approach to assessment

Rubrics are essential

Assessing Learning Online

Clarity of instructions for assessment is key

- ○ Time limits
- ○ Resource use
- ○ Student collaboration
- ○ Academic integrity policies

The 'What' of Online Assessment

Think of assessment as continuous and ongoing, just different assessment activities at different times in the learning process

Link to learning objectives, learning activities and expected outcomes

Tools and activities can be developed to assess:

- Cognitive - knowledge and application
- Affective - values and attitudes
- Psychomotor learning - skills acquisition

The 'What' of Online Assessment

Assessment In General:

Assessment events create a cadence for students as learning occurs asynchronously

Establish this cadence with common due dates

Consider
- Consistent due dates (i.e. 11:59pm Sunday of each week)

The 'Why' of Online Assessment

No-Stakes Assessment:

- Valuable as a learning tool
- Assessment to reinforce learning
- Identify 'muddy' points and misconceptions
- Allows instructor to monitor student progress

Examples:

- Student polling systems
- Online gaming
- Student group competitions
- 'Open book' activities

The 'Why' of Online Assessment

Low-Stakes Assessment:

- Frequent feedback to student and instructor
- Builds confidence in the online environment

Examples:

- Self-assessment
- Peer assessment
- Weekly quizzes
- Participation events

The 'Why' of Online Assessment

High-Stakes Assessment:

Consider

- LMS resources
- Exam security measures
- Academic integrity policies
- Exam software systems

Examples:

- Online midterm
- Online Final Examinations
- Application Projects
- Written Assignments

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The 'How' of Online Assessment

"No Stakes" & "Low Stakes"

Example technologies
- Kahoot (synchronous)

- Quizlett (asynchronous)
  - Post links in class-wide discussion board

The 'How' of Online Assessment

"No Stakes" & "Low Stakes"

Canvas Examples

- ○ Quizzing function as study guide
  - ■ Beyond just Multiple choice
  - ■ consider allowing multiple attempts

- ○ Discussion boards
  - ■ Video & text

- ○ Peer review of assignments

The 'How' of Online Assessment

"No Stakes" & "Low Stakes"

Canvas Examples

- Individual or Group Assignments
  - Mind-maps
  - Decision trees
  - Flow charts
  - Voice threads
  - Reflections

- Faculty feedback
  - Typed
  - Voicethread
  - Post answer key
  - Summative class announcement
    - Video
    - Voice
    - Text

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Psychomotor Skills: Facilitate Learning & Practice

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Video example

Encourage practice both cognitively and hands-on

Cognitively:

- Making study guides breaking down the skills step-by-step
- Visualize the skills
- Verbalize the skills (and the steps of the skills)
- Catch me if you can videos

Hands-on:

- With others if possible
- Stuffed animals
- Imaginary Friend

Psychomotor Skills: Facilitate Learning & Practice

Collaborative check-ins:

Self-created video of performing the skill, or teaching others the skill

Small group discussion board

Teaching others the skill - verbalize all steps

Instructor feedback

Peer feedback using a rubric

Reflection on own video, and what was learned from watching peer videos

Psychomotor Assessment

Make asynchronous discussion board low-stakes graded activity

- Participation of video & substantive feedback
- Written self reflection

Catch me if you can Assignment

- Error
- Correction
  - Participation - post answer key for self-assessment

Psychomotor Assessment

Higher-stakes = Skills checks

- Simplified rubrics (yes/no)
- Detailed instructions on logistics
- Security (scan the room)
- Immediate feedback
- Delayed self reflection

Lessons Learned

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Very clear instructions & expectations

Reassurance from faculty that students can safely, adequately learn the skills when not always supervised

It's no different than practicing outside of lab

Lessons Learned

Students will have opportunity for feedback and to correct errors

Relay that feedback is increased but not always instantaneous

Preparation before synchronous group time is very important

Lessons Learned

Online environment lends itself to:

- Increased repetition & practice (both cognitive and psychomotor)
- More opportunities for peer-teaching/collaboration
- More opportunities for feedback overall

Thank you!

Open forum for Questions and Answers

Contact us

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