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Virtual Event | October 16-19

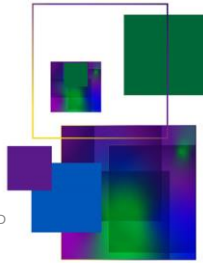
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AN EDUCATORS TOOLKIT: DEVELOPING HIGH- QUALITY AND COMPETENCY-BASED ONLINE NUTRITION EDUCATION

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Disclosures

Kristen Hicks-Roof PhD, RDN,
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- Chair, Nutrition Educators of
Health Professions

Patricia Davidson DCN, RDN,
CDCES, LDN, FAND, CHSE

- No disclosures to report.

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LEARNING OUTCOMES

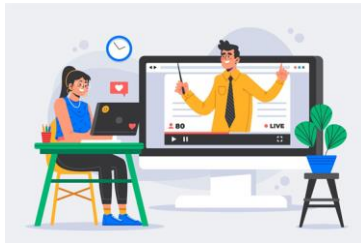
- Upon completion, participants will be able to explain the value and effectiveness of high-quality online nutrition education content on student learning outcomes.
- Upon completion, participants will be able to compose high-quality and accessible online nutrition education content (e.g. webinars, handouts, presentations, courses)
- Upon completion, participants will be able to articulate strategies to create competency-based instructional materials and modalities.

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Overview

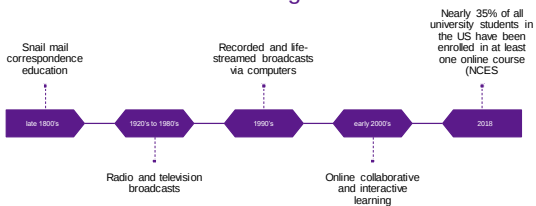
- Purpose
- Theoretical Constructs
- Elements of Design
- Instructional Modalities
- Summary



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Evolution of Online Learning



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How Higher Education Has Changed...

Traditional Higher Education Model

- Linear Learning
- Learning Hierarchy
- Learning as a Product
- Value of Knowledge
- Competition
- Traditional Foundation
- Faculty Centric

Emerging Higher Education Model

- Connectivist Learning
- Learning Equality
- Learning as a Process
- Value of Experience
- Collaboration
- Innovation Foundation
- Student Centric

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Benefits of High-Quality Course Design



Easy course navigation (Rios et al., 2018)

Greater student-faculty and student-student interactions (Zhang et al., 2020; Roddy et al., 2017)

Increased quality and consistency of course development and delivery (Budden et al., 2013)

Better course evaluations in areas across the board (FIU, 2021)

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“
INTELLIGENCE IS THE
ABILITY TO ADAPT TO
CHANGE

— Stephen Hawking

”

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Theoretical Underpinning to Online Education

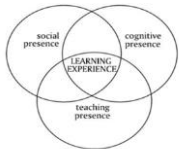


Figure 1
Community of Inquiry Model (Garrison, Anderson, & Archer, 2000)

Community of Inquiry Framework

- **Teaching:** instructional design, facilitation, feedback
- **Social:** teaching persona, announcements, collaborations
- **Cognitive:** divergent thinking, multiple evaluative measures, interactive activities

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Blending with Purpose: The Multimodal Model



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Connecting Education to Behavior Change

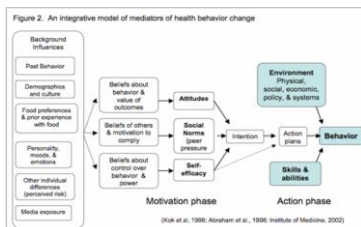
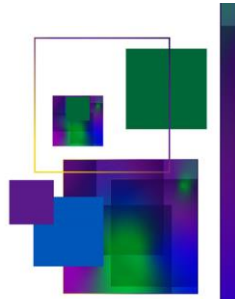


Figure 2. An integrative model of mediators of health behavior change
(Kirk et al., 1990; Abraham et al., 1990; Institute of Medicine, 2002)

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ELEMENTS OF DESIGN



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Can online instruction be more effective than traditional?

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Important Elements of Online Course Design



Involve the Learner



Involved Instructor



Consider Collaboration



Develop a clear and consistent structure



Alignment



Choosing the best tools



Pedagogy vs Technology promotes the content development



Reflect and Revise

Dixon MD. Scholarship of Teaching and Learning. 2010.

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Course Design, Planning, and Alignment

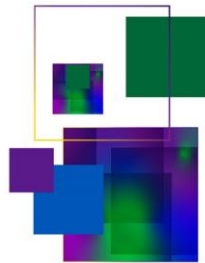
- Initial planning phase
- Alignment
 - Discipline or department learning outcomes
 - ACEND (CRDNs, KRDNs)
 - Student learning outcomes
 - Activities
 - Assessments
- Timeline and course launch
- Check-list for course launch

Key: Course elements are interdependent. Lack of alignment can affect a student's ability to be successful in the module and ultimately, the course.

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How would you create a sense of community?

<https://padlet.com/rdmentorshipprogram/nmlb4j3lrkwkpfvx>



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Factors Affecting Course Quality



Theodosiou NA and Corbin JD. 2020. DOI: 10.1002/teac.3.6844
McMullen A, Bursuc VA, Doval C et al. Business Education Innovation Journal. 2020. 12(2):40-48.

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Learning Objectives

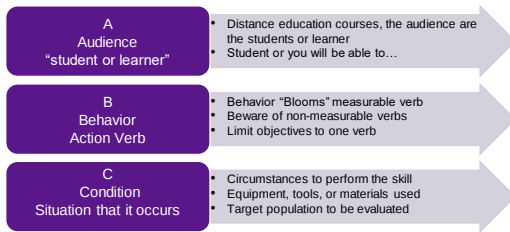
- Levels of learning
- Levels of the learner
- Learning Styles and Outcomes
 - Adult learning
 - Kolb's experiential learning theory
 - Clinical competence
 - Kirkpatrick Educational model
- Learning domains



Harris HS and Greer M. Communication Design Quarterly, 2016, 44.
 Juan S. Nurse Education Today, 2021.
 Kurt, S. Educational Technology, November 11, 2020.

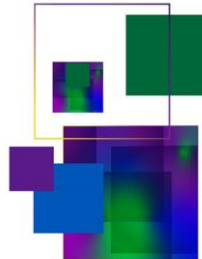
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ABC Model



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How do you create student engagement and interaction?



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Course Delivery: Community Building

- Discussion Boards/forums
- Group vs team-work
- Facilitating vs Dominating
- Inquiry dialogue
- Questioning with a purpose

Ask from the student's perspective:
What's it worth to me? Or What is the Purpose?

Advancing F. Educ. Inf. Technol. 2019, 24, 3609–3698.

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Setting Your Students Up For Success: Assessment and Feedback



Type of assessment

Formative- on-going, student development
Summative – limited



Alignment

Most important step
Lack of alignment can decrease student motivation and success



Feedback

Specific
Constructive/purposeful/balanced
Frequency, timeframe
Visual vs verbal
Selecting the correct tools: voice thread, Kaltura, flipgrid

Harris HS, Green M. Communication Design Quarterly. 2016; 4 (4):46-54.
Yu X, Wang CX, Spector JM. Education Tech Research Dev. 2020;68:3077–3095

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Accessible Instructional Materials



Heading structure



List, fonts, abbreviations, jargon



Consider students that use screen reader



Descriptive Links

Baldwin SJ, Ching Y-H. 2021.
Budden et al., 2013

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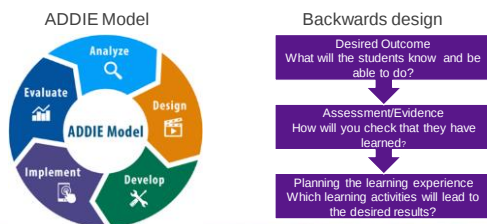
Creating a Logical Sequence

- Align and consider the sequence
- Sequential activities allow your students to **engage** in higher-level thinking as the module progresses.
- Module on peer review process scaffolding learning activities:
 - Read a peer review guide which includes suggestions and tips
 - Complete a mock peer review manuscript and complete worksheet with guiding questions
 - Peer review a classmate's thesis paper

McMillen A, Bursuc VA, Dostal C et al. Education Innovation Journal. 2020;13(2):40-48

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Instructional Design Models



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Blueprint: Course Map

Considerations:

- Simplicity
- Consistency
- Clear and Intuitive
- Accessibility
- Course Mapping

Course Learning Objectives

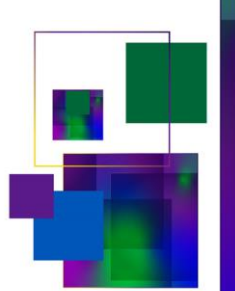
- 1.
- 2.
- 3.

Module	Module Objectives (CLO alignment)	Learning Materials	Activities	KRDN CRDN

Lieberman L. The Need for Universal Design for Learning. Journal of Physical Education, Recreation & Dance. 2017; 88(3), 5-7. doi:10.1080/07309084.2016.1271257

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USE OF TECHNOLOGY IN TEACHING



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Use of Technology in Online Education

- COVID-19 Pandemic caused widespread disruption to traditional teaching methods and professional training (Ahmed et al., 2020; Murphy, 2020)
- Emergent technology can help achieve competency-based education and adaptive learning for all

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Animation

- Popular strategy to teach complex concepts
- Many are readily available (YouTube, TedEd)
- Create your own!


<https://edpuzzle.com/>

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Live Quizzing

- Active engagement in synchronous sessions
- Quizlet, StudyBlue, Anki, Brainscape, Kahoot, Gimkit



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Padlet or Flipgrid



Brainstorming
and active
participation

Live question
bank

Mind-
mapping

Open-ended
discussions

Testing
Knowledge

Current
events

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eLearning Additions



- Social media integration
- VR/AR immersive learning
 - Google cardboard
- Gamification
 - Action → Feedback → Motivation → Goal → Repeat



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Use of Technology in Online Education

- Virtual Simulation



Platform	Scope/Focus	Licensing
Virtual Healthcare Experience	Nursing	Free
OpenLabyrinth	Multiple Professions	Open Source
Stillwell Canada	Interprofessional	Academic
Breakaway Games	Multiple Professions	Commercial
Practical Clinical Skills	Multiple Professions	Free
USC Standard Patient	Multiple Professions	Free
SimulationIQ	Interprofessional	Commercial

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Best Practices for Developing Online Education



Work with an instructional designer (if possible)



Design, accessibility and navigation are key to success



Create a supportive online course community



Use a variety of summative and formative assessment tools



Be mindful and use technology wisely—less is more



Be present and interactive



Try new things and collect informal feedback

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