Innovation-Driven Approaches to Teaching Effectiveness

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Session Format

*Introductory remarks followed by three 20-minute quick hit discussions.*

**WGU:** Teaching effectiveness within a CBE context

**CMU:** Overcoming barriers to adoption of technology-enhanced learning

**ACUE:** Evidence-based teaching practices to improve instruction
Instructional Quality: A lever to improve institutional efficiency

- Effective teaching → better student outcomes → cut costs, increase revenue
- Instruction can have the greatest impact on students
- More on ACE’s efforts at www.acenet.edu/EffectiveTeaching
A DATA-DRIVEN MODEL FOR FACULTY DEVELOPMENT

MARNI BAKER STEIN, PROVOST

WGU
WGU BACKGROUND

• Est. 1997 by a bi-partisan group of governors
• 94,000+ students
• 102,000 graduates in 50 states
• Four colleges in high-demand fields
  – Business
  – K-12 teacher education
  – Information technology
  – Health, including nursing
• Online and competency-based
WGU’S STUDENT-CENTRIC MODEL

• Focus on programs; not individual courses
  - Personalized assessment traverse
  - Validated competencies align to workforce needs
  - Long-term view of the learner lifecycle

• Track ongoing student progress, performance and engagement
  - Granular, real-time data drives interventions
  - Insight-driven continuous improvement
  - of all faculty and support roles across the WGU community of care
THE “DISAGGREGATED” WGU FACULTY MODEL

Program Faculty
• One-to-one support for students across their program journey

Course Faculty
• Personalized instructional interventions
• Lead discussions and study groups; explore big ideas and critical concepts

Evaluation Faculty
• Evaluate and validate student competency; individualized feedback

Curriculum and Assessment Faculty
• Curate/develop instructional materials
• Design and continuously improve assessments
### New Faculty Training & Development

- Prepare Instructors, Mentors, and Faculty Managers
- Effective student and peer engagement techniques
- Four weeks of rigorous training
- Synchronous and asynchronous learning

### Structure

- **One week intensive, on-site in Salt Lake City**
- **Three weeks of virtual training**
  - 2 hours/day synchronous training sessions
  - 2 hours/day interactions with a faculty mentor (team member) and manager
- **6-8 additional hours of structured practice**
  - Targeted Learning Management System and associated resources

### Training Category Sample Training Topics

<table>
<thead>
<tr>
<th>Training Category</th>
<th>Sample Training Topics</th>
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<tbody>
<tr>
<td><strong>Methodology of Mentoring</strong></td>
<td>Characteristics of a Mentor; Emotional Intelligence; Decisive Mentoring; Academic Coaching; Active Listening; Goal Setting; Proactive Interventions; Managing Time; Difficult Conversations; Strengths Mindset; WGU Leadership Principles</td>
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<tr>
<td><strong>Mentoring Essentials</strong></td>
<td>Student Journey (Enrollment, Admissions, Orientation, Student Services, Well Connect, Career Services); Academic Services</td>
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<tr>
<td><strong>Technology</strong></td>
<td>Hardware (Computers, phones, equipment, setting up home office); Software (WGU systems and portals, Outlook, ININ, Skype/Teams, MentorForce, Student Handbook, IT Service Desk, Taskstream, Concur, ADP, TimeTrade, Panopto, etc.)</td>
</tr>
<tr>
<td><strong>WGU Policy</strong></td>
<td>Assessments, Student Communication Protocols, FERPA, ADA, Student Notes, Accreditation</td>
</tr>
<tr>
<td><strong>Product Knowledge</strong></td>
<td>Course resources, Course of Study, Degree Plans, introduction to the mentor's specific program and/or course</td>
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CONTINUOUS LEARNING – A REGULAR CYCLE OF REVIEW TO BUILD PRACTICE
CONTINUOUS LEARNING – ACTIVATING CROSS FUNCTIONAL SOLVER TEAMS

Problem: Improve Course Completion Rates

- Faculty Leaders
- Program Experience Leaders
- Learning Experience Leaders
- Curriculum, Design & Development Leaders
- Evaluation Leaders
- Ed Tech-Product Management Leaders
CONTINUOUS LEARNING – DEFINING LOW-LEVEL PERFORMANCE METRICS

- **Accurate.** Results reflect performance
- **Fair.** Consistent evaluation/validation against valid, criterion referenced standards
- **Helpful.** Feedback propels students through personalization, motivation and anticipation of future challenge and strength
- **Quick.** With due consideration to other tenets, rapid and transparent communications and results to support learner pacing and completion goals.
FREE THE DATA

• Increase access to the data-scientist in all of us
• Empower the frontline
• Guide the development and continual improvement of performance standards and metrics laser focused on student success.

• Tools that enable faculty and staff to:
  – more nimbly respond to environmental demands
  – make decisions guided by real-time data
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

Course Health Dashboard

Course Completion

- Registered: 100%
- Did not start: 24%
- Did not attempt assessment: 0%
- Did not pass assessment: 6%
- Completed courses: 70%
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

Course Health Dashboard

Faculty Utilization

- Contextualized course instruction
- Average call duration
- Cohort sign-up
- Cohort attendance

Data range:
- January 2018 to January 2018

Course:
- MATH - Foundations of College Mathematics

WGU
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

Course Health Dashboard

Risk Level

Completion rate

Risk Category
- Low
- Med
- High
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

Course Health Dashboard

Student Engagement

Logging:
- Passed course
- Failed course

# of logins

Duration:
- Passed course
- Failed course

Engagement duration:
- 20 days
- 40 days
- 60 days
- 80 days
- 100 days

Pre-assessment:
- Did not take
- Did not pass
- Passed

Intensity:
- Passed course
- Failed course

Intensity (logins per day):
- 0.0
- 0.5
- 1.0
- 1.5
- 2.0
- 2.5
- 3.0

Passed course
Failed course
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

Course Health Dashboard
FREE THE DATA – DRIVING ACTION, INSIGHT, STRATEGY

LEARNER CARE DASHBOARD
QUESTIONS?

THANK YOU!
A Commitment to Teaching Effectiveness in a Technology-Enabled Environment

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The research question:

To identify the actual barriers and facilitators to implementing educational technologies and best practices in teaching.
"When asked about obstacles to successful innovation in American Higher Ed, respondents most frequently cited barriers grounded in institutional culture and structures”

Mixed-methods anthropological approach

- Meetings and classes as ethnographic encounters
- Survey
- Documents, presentations, whiteboards, and other artifacts
- Interviews with faculty, students, and administrators
Formative learning experiences shape teaching practice

“I remember very distinctly I had a professor when I was an undergrad who – a math professor. I was a math undergrad. And I really enjoyed his lecturing style, and I really paid very close attention. And then I thought to myself at the time, ‘If I ever become to the point where I have to teach, this is how I want to teach. This is what really works.’ And I saw other lecturing styles, but just thought, ‘Nope. This is not really working for me.’ Or, ‘I'm not learning very well from this material.’ Or, ‘If I taught, I wouldn't want to teach this way.’ So it goes way back to whenever, in 1975 or something like that.”
Skepticism (of alternatives)

“You could generate a version of a 45-minute lecture that I would give that would embed the clips, which would basically be me giving the lecture, and then you click here to see the different examples, which could even be footnoted, and you could link it to other sources, and you could – it's not that that might not be useful. But I don't think it's a substitute for the actual face-to-face classroom experience. I don't.”
Skepticism (of the research)

“There are journals dedicated to it. There's communities out there. There's a lot of stuff on the Web. There are a number of people who have written books. Yeah, just resources everywhere of people who tried different things. Many of them actually try to do this in a rigorous sort of scientific way where they'll teach two sections using different techniques and measure the results. I'm always a little skeptical of the data there.”
Skepticism (of applicability)

“I just don’t think that’s how it’s done in my discipline. I never saw anyone teach like that.”

“I have a doctorate in curriculum and instruction. Don’t you think that means that I know more about those things than you do?”
When Expectations Compete

“We are going to ask them to use the same syllabus. We know it works, and they all agreed on it.”

“If you don’t tinker with the class, it gets really boring. You’ve got to switch things up.”

“If forced to adopt an online interactive textbook, I can ignore it at will – my own teaching style is a little like the Socratic method; I ask questions and we have conversations. They are not wedded to a textbook.”
Competing Metrics of Success

“How can you know if you’re achieving your learning goals without good assessments?”

“You know when you’re doing it right because you can see it on their faces.”
Faculty Identity and Institutional Goals

• Teaching is central to faculty identity
• Practice is developed through lived experiences, often by trial and error
• Personal relationships and personal models play a big role
• Administrators, technologists, and accreditors are motivated to generalize; faculty to specialize
An implementation strategy

• Develop an early stage in implementation planning to have conversations about “the elements of quality instruction” that will reveal the type(s) of instructional sentiments of all individuals involved.

• Use these results to inform decisions about
  – Whether the chosen innovation is viable given the participants' mental models of "quality instruction"
  – Strategies which resonate with the instructional values at play
Institutional policy

- Three different (and often competing) definitions of quality instruction and its importance
  - Individual faculty’s view
  - Institutional mission or strategic statement
  - Quality instruction as assessed by the institution
- Policy should be to create an alignment among these three
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Carnegie Mellon University
American Council on Education

And **YOU** for being here!

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Excellence in Every Class

March 11, 2018
A question of scale and preparation

Today

1969

1,439,000 faculty

Tenure-Track Positions: 371,000 faculty (78.3%)
Non-Tenure Track: 103,000 faculty (21.7%)

Tenure-Track Positions: 957,000 faculty (66.5%)
Non-Tenure Track: 482,000 faculty (33.5%)

Today

1969
Core principles

- Comprehensive
- Research-based
- Show and Tell
- “Peer-to-peer”
- Collaborative
- Facilitated
- Implementation required
- Reflection required
- Scalable
Core teaching competencies

1. Designing an Effective Course and Class
   - Establishing Powerful Learning Outcomes
   - Aligning Assessments With Course Outcomes
   - Aligning Activities and Assignments With Course Outcomes
   - Preparing an Effective Syllabus
   - Planning an Effective Class Session

2. Establishing a Productive Learning Environment
   - Leading the First Day of Class
   - Promoting a Civil Learning Environment
   - Connecting With Your Students
   - Motivating Your Students
   - Engaging Underprepared Students
   - Helping Students Persist in Their Studies
   - Embracing Diversity in Your Classroom

3. Using Active Learning Techniques
   - Using Active Learning Techniques in Small Groups
   - Using Active Learning Techniques in Large Classes
   - Delivering an Effective Lecture
   - Planning Effective Class Discussions
   - Facilitating Engaging Class Discussions
   - Integrating Civic Learning Into Your Course

4. Promoting Higher Order Thinking
   - Providing Clear Directions and Explanations
   - Using Concept Maps and Other Visualization Tools
   - Teaching Powerful Note-Taking Skills
   - Using Advanced Questioning Techniques
   - Developing Self-Directed Learners

5. Assessing to Inform Instruction and Promote Learning
   - Developing Fair, Consistent, and Transparent Grading Practices
   - Developing and Using Rubrics and Checklists
   - Providing Useful Feedback
   - Checking for Student Understanding
   - Using Student Achievement and Feedback to Improve Your Teaching

ACUE
All students deserve an extraordinary education and faculty play a critical role in their success.

We credential educators in the use of evidence-based teaching practices that drive student engagement, retention, and learning.

- Courses in effective teaching practices
- Certificates in effective college instruction
- Community of professional practice

Endorsed by the American Council on Education
What are we finding?
Faculty are enthusiastic:

96% find recommended practices relevant

57 Avg. # of approaches learned for first time

75 Avg. # of approaches learned more about

N= 4,738 responses
Confidence matters:

Those with “a strong sense of efficacy deploy their attention and effort to the demands of the situation and are spurred by obstacles to greater effort.”

—Albert Bandura
Improved self-efficacy

- Designing an effective course and class
- Establishing a productive learning environment
- Using active learning techniques
- Promoting higher order thinking
- Assessing to inform instruction and promote learning

% of participants reporting confidence before and after taking the course.
Strengthened teaching:

25 Avg. # of evidence-based practices implemented by ACUE credentialed faculty

50 Avg. # of practices ACUE credentialed faculty plan to use to refine teaching
Logic model:

Changes in faculty behaviors precede changes in student outcomes.
Engagement matters:

“The early HIPs literature and more recent findings confirm what educators have long believed about learning—that engagement matters— for learning, persistence, and equity.”

—George Kuh, 2018
Miami Dade College/Johns Hopkins Study:

- Longitudinal study of 50+ faculty; 6,000+ student course evals
- Replicated over 2 cohorts
- Key findings:
  - Students noted stronger teaching on 14 out of 15 metrics
  - Course evaluations improved 0.20 points
  - Higher than college averages; statistically sig.
  - 94% of faculty reported improved knowledge and skill
  - 97% of faculty would recommend course to peers
  - Requirement to implement and reflect noted as “best part” of experience
“Great teaching—a long-sought priority of higher education—is within our grasp.”

—Eduardo Padron
President Miami Dade College and ACUE Advisor
Questions

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