MEASURING ONLINE LEARNING READINESS IN HIGHER EDUCATION
Presenters

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Overview

Part 1  Background on Readiness
Part 2  Methodology
Part 3  Results and Applications
Background

Partnership: BYU Online & OSU Ecampus Research Unit

How we got involved in this project:

Online Learner Readiness

Why measure online learner readiness?

- Self-assessment tool
- Advising/coaching tool
- Faculty and TA tool
- Administrative tool
- Predictive tool

Targeted support for new online learners
Online Learner Readiness

Scan of Existing Measures

Published scales
Open-access scales
Proprietary instruments

Examination of the Published Literature
Key Constructs in the Literature

- Technology use
- Self-directed learning
- Motivation
- Self-efficacy
- Communication with instructor & other students
- Time management skills
- Challenges with time and work

What was missing?

- Challenges and commitments
- Learning environment (proper study location)

What needs updating?

- Technology
Online Learner Readiness

Readiness assessment prior to the study:

BYU
- New program
- Existing scale for student self-assessment

OSU
- No formal assessment
- Online resources
- Ecampus Success Coaches
Discussion Question 1
Methodology

1. Changes to the prior instrument based on literature and the BYU instrument
2. Consultations with OSU Student Success Team and Ecampus Advisors
3. Cognitive testing with OSU students: 1:1 interviews
4. Instrument testing: 41-items that included some explanatory text about what the subscales indicate.
<table>
<thead>
<tr>
<th>Initial Subscales</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>perceived control for education</td>
</tr>
<tr>
<td>Self-regulation Efficacy</td>
<td>regulate their thoughts and behaviors in order to complete their coursework</td>
</tr>
<tr>
<td>Educational Skills Efficacy</td>
<td>perform specific skills that are important to coursework</td>
</tr>
<tr>
<td>Communication Efficacy</td>
<td>communicate with classmates, group members and instructors</td>
</tr>
<tr>
<td>Efficacy Challenges and Commitments*</td>
<td>handling challenge and personal commitments that are outside of coursework</td>
</tr>
<tr>
<td>Locus of Control Technology</td>
<td>how students will approach challenges related to technology</td>
</tr>
<tr>
<td>Efficacy Technology</td>
<td>comfort with common technologies that student may need to be comfortable with in online courses</td>
</tr>
</tbody>
</table>
Questions 1-7 measure perceived control for education. Students who perceive that they are "in control" of their success may have a mind-set that helps them to adjust their behaviors to their situation. Students who perceive that external forces have greater control (e.g. luck, others) may not think about changing their behavior to adjust to the situation, and as a result they may have poorer outcomes.

1. The more effort I put into my classes, the better I do in them.
2. No matter what I do, I can't seem to do well in my classes.
3. I see myself as largely responsible for my performance throughout my college career.
4. How well I do in my classes is often determined by chance.
5. There is little I can do about my performance in college.
6. When I do poorly in a class, it's usually because I haven't given it my best effort.
7. My grades are basically determined by things beyond my control, and there is little I can do to change that.

The next set of questions ask how well you believe you do certain class-related activities. We are not asking how capable you are of doing these activities, but rather how well you actually do them.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Poorly</th>
<th>Adequately</th>
<th>Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. How well do you finish homework assignments by deadlines?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How well do you study when there are other interesting things to do?</td>
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<td></td>
<td></td>
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<tr>
<td>10. How well do you concentrate on coursework?</td>
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<tr>
<td>11. How well do you arrange a place to study without distractions?</td>
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<td></td>
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</tr>
<tr>
<td>12. How well do you motivate yourself to do coursework?</td>
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<td></td>
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</tr>
<tr>
<td>13. How well do you create a plan to complete the given assignments?</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>14. How well do you complete tasks independently?</td>
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<td></td>
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<tr>
<td>15. How well do you keep up with weekly readings and assignments?</td>
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</tbody>
</table>
Recruitment for Instrument testing:

**BYU**
Scale was integrated in courses

Students decided to participate in research project before proceeding with course

**OSU**
Recruited new students entering OSU

Recruited via online orientation and direct email message from Ecampus

Completed instrument before their first term or within the first few weeks
Discussion Question 2
Results

Demographics

**BYU**

N=9,406  
Average Age = 21 (SD=2.9)  
Age Range = 18-62

- Asian: 2.5%  
- Hispanic/Latino: 3.7%  
- Two or more races: 4.9%  
- White: 85.9%

**OSU**

N= 682  
Average Age = 31 (SD = 8.4)  
Age Range = 18-64

- Asian: 5.9%  
- Hispanic/Latino: 8.2%  
- Two or more races: 10.8%  
- White: 72.0%
Results

Reducing the Scale

• Reliability Analysis
• Exploratory Factor Analysis
• Confirmatory Factor Analysis (AMOS)

Reduced Scale

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>5</td>
</tr>
<tr>
<td>Self-regulation Efficacy</td>
<td>7</td>
</tr>
<tr>
<td>Communication Efficacy</td>
<td>8</td>
</tr>
<tr>
<td>Efficacy Technology</td>
<td>5</td>
</tr>
</tbody>
</table>
## Results

### Efficacy Challenges and Commitments Subscale

<table>
<thead>
<tr>
<th>Description</th>
<th>Communication Efficacy</th>
<th>Self Regulation Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>I seek help when there are challenges in my life.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can overcome challenges in my life that interfere with my coursework.</td>
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<td></td>
</tr>
<tr>
<td>I don’t know how I will balance my course work with other commitments in my life such as work and family.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I put my coursework on hold when life becomes challenging.</td>
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</tbody>
</table>
Applications

BYU Implementation

Learner Readiness Survey Flowchart

Student Academic Success Resources

Communication

Efficiency

Self-Regulation

Efficacy Technology

Locus of Control

Student Scores sent to online instructors and TAs

Subject-specific Study Resources

Instructor Training

Student Success: Academic Support in Online Learning

TA Training

Student Success: Academic Support in Online Learning

Academic Peer Coaching

Mass an Appointment

Peer Coach 1

Peer Coach 2

Peer Coach 3
Applications

OSU Implementation

Ecampus Student Success Coaches

Ecampus Advisors

Next Phase of the Research

Analyzing educational data (GPA, DFW) to see if the scale has predictive value
Discussion Question 3
Connect with us!

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@ECResearchUnit
Evaluate Sessions and Win!

- Navigate to specific session to evaluate
- Select “Evaluate Session” on session details screen
  - Complete session evaluation*

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