Going Online: Whether You Liked it or Not

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Panelists:

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March 22, 2022

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This material is based upon work supported by the National Science Foundation under Grant # 2037809.

Project Overview

- Understand the learning responses and adaptations to the COVID-19 crisis among AMT programs
- Explore how programs maintained academic continuity and which digital tools were useful
- Analyze data and develop evidence-based guidelines to strengthen the academic continuity
- Propagate findings and best practices in a variety of forums based on research and resources from multiple disciplines

Research team is a federally-funded partnership between 2-year and 4-year colleges. Our team includes Kapil Chalil Madathil, Rebecca Short, Eliza Gallagher, Jonathan Beck, Tim Ransom, and Katie Shakour.

Research Methods

Interdisciplinary Research Team

- IRB-approved research
- Team of 7 researchers and consultants from Engineering, Education, Social Science, and AMT programs

Interviews and surveys

- 43 interviews
- 242 surveys
- Instructors, administrators, and students from Part 147 programs nationwide

Foci include

- Learning resources prior to COVID
- Responses in March 2020
- Adaptations for subsequent semesters
- Approaches to lab classes

Theoretical Approach: Resilience Engineering

- Resilience engineering is about understanding an organization's ability to maintain a stable state despite disruptions (Hollnagel et al., 2006).
- Communities that encounter disruptions will have resilience characteristics if they anticipate, monitor, respond, and learn from disruptions (Hollnagel, 2007; Madni and Jackson, 2009).
- Aviation-related schools could not avoid the disruption, but some mechanisms helped mitigate the impact of the COVID-19 pandemic.

Findings

- *Programs use required hands-on projects to reinforce lectures*
- *Schools underprepared for long-term disruption to learning*
- *Students struggled with lack of kinesthetic learning*
- *Instructors lacked time and resources to create online programs*
- *Administrators and instructors hesitant to incorporate e-learning*
- *Easier transition to remote learning when digital learning tools previously incorporated*

Next steps

- Complete a literature review in education, engineering and other disciplines for comparison
- Develop evidence-based guidelines to strengthen academic continuity
- Propagate our findings in a variety of formats

Panelists

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Q&A

Thank you

- Instructors, students, and administrators who have participated in this study
- National Science Foundation (Grant #2037809)
- Aviation Technician Education Council
- Team members and consultants for this NSF ATE research
- Clemson University College of Engineering, Computing and Applied Sciences
- Clemson University Center for Workforce Development

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