

Promoting Engagement in Remote Learning Environments

Strategies & Examples
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Overview

- Instructional Practices and Student Engagement
- Graduate Experience During COVID-19 Survey
- Active Learning/Interactivity
 - Examples of Active Learning
 - Examples of Interactivity
 - Strategies for Instructors
- Assessment Types
 - Three assessment types comparison
 - Formative assessments and remote learning environments

Instructional Practices and Student Engagement

- Previous research has found that two of the strongest factor correlations between instructional practices and student engagement are:
 - Interactivity with Peers
 - Assessment Type

Graduate Experience During COVID-19 Survey

- Top 3 Issues of Concern for students in remote environment
 - #1: “learning effectively in the remote instruction environment” (47% very concerned, 26% concerned)
 - #2: “ability to conduct research” (43%/21%)
 - #3: “doing well on tests and assignments” (36%/26%)
- Learning effectively and performing well on assessments are key indicators of student engagement
 - Important for both faculty and students

Graduate Experience During COVID-19 Survey

- Access to learning resources is of lower concern overall
- Not getting a job after graduation is a prominent concern
 - Important for faculty to emphasize practical applications of course material

Interactivity and Active Learning

- Active learning: strategies where students are actively or experientially involved in their own learning
 - Crowdsourcing course material
 - Case Studies
 - Polling Students
 - Role Play
 - Debates
 - Experiments in the Field

Interactivity and Active Learning

- Interactivity: type and frequency of student interactions with a course - 3 types
 - Student to Faculty
 - Student-sourcing course materials
 - Zoom Q&A sessions with submitted questions
 - Polling
 - Student to Student
 - Role play, teams, project groups
 - Discussion boards
 - Collaborative annotation, document creation
 - Student to TA
 - Synchronous online section meetings
 - Whiteboard brainstorming
 - Responding to feedback in discussion boards

Interactivity and Active Learning

- Strategies for instructors to encourage interaction
 - Give ownership
 - Use targeted questions
 - Assign roles
- Designing for Effective Group Work
 - Peer to Peer Assessment - students get opportunities to provide formal and informal feedback to classmates
 - Discussion/Lab Sections

Interactivity and Active Learning

- Using Polling Technology to Foster Effective Group Work
 - Find out what students learned from assigned reading
 - Measure what students know before and after teaching
 - Measure attitudes and opinions honestly if the topic is personal or embarrassing
 - Get students to confront common misconceptions
 - Facilitate discussion and peer instruction (having peers learn from one another)
 - Increase student retention through engagement and peer instruction
 - Involve all students in prediction and reasoning

Assessments

- Three types
 - Assessment **for** learning (formative, low stakes)
 - Feedback only, no grades
 - Assessments **of** learning (summative, high stakes)
 - Not an effective measure of ability to communicate and manipulate prescribed learning outcomes
 - Assessment **as** learning
 - Not graded externally
 - Teacher guides opportunities
 - Encouraging self assessment and metacognition
 - Self-given feedback/performance comparison

Formative Assessments (low-stakes)

- Useful for remote learning environments
 - Low stakes assessments are good for engagement because they are given frequently, individually have low impact on final grade, and allow students to self-assess before midterms or finals
 - High stakes assessments are not focused enough on student goals

Formative Assessments (low-stakes)

- Benefits for students
 - actively involved in the learning process
 - more accurately aware of their performance at many points in the semester
 - given opportunities for improvement and reflection
 - more likely to attend class and be actively engaged
 - able to seek specific resources for additional support
 - more inclined to ask for help
 - more prepared for exams or high-stakes assessments

Formative Assessments (low-stakes)

- Benefits for teachers of frequent formative assessments
 - analyze data to guide exam creation and course revisions
 - use data to prepare class lessons
 - develop effective groups
 - address gaps in student learning
 - create supplemental activities

Main Takeaways

- Practical studies of remote engagement have identified the instructional practices of active learning/interactivity and assessment type as two main factors that influence student engagement
- Instructors can facilitate interactive learning through various strategies including case studies, polling, discussion/lab sections, peer to peer assessment, and other strategies where students are actively or experientially involved in their own learning
- The three forms of assessments all have their pros and cons, but formative assessments are uniquely suited to remote learning environments

Formative Assessments (low-stakes)

- Concerns
 - Teachers don't really change planning based on results
 - Results are surface level and not very rich (similar to those from high stakes formative assessments **of** learning)
- In sum, it is important for instructors to provide “alternative modalities for expression” for students in remote learning environments

References

Barlow, Allyson, and Shane Brown. "Correlations between modes of student cognitive engagement and instructional practices in undergraduate STEM courses." *International Journal of STEM Education* 7 (2020): 1-15.

Miller, Michelle D. "5 Takeaways From My Covid-19 Remote Teaching". *The Chronicle of Higher Education*. 6 May 2020.

Nikiforos, Anastasis. "Distance Learning and Interactivity." In *Advanced Technologies and Standards for Interactive Educational Television: Emerging Research and Opportunities*, pp. 1-12. IGI Global, 2020.