Pre-read for Discussion on Online Teaching and Learning Surveys

Background Survey Information
- Purpose: To gather data to inform instructors' future online teaching and course design.
- Surveys were administered to all CMU instructors and students in mid/late April, 2020
  - Student Survey: 4,602 students (35% response rate)
  - Instructor Survey: 928 instructors (62% response rate)

Tips for Engaging with Survey Results
- These results reflect instructors' and students' experiences after CMU courses were quickly translated to remote learning halfway into the semester. This particular context may be different from future encounters with (more deliberately designed) online instruction.
- Various results describe respondents' perceptions of what worked well for student learning. Although we recognize that such perceptions are not the same as direct measures of effectiveness, we believe that students' and instructors' perceptions and experiences are factors to consider in course design, especially when they align with what learning science research shows is truly effective.
- Some results may or may not resonate with your personal experience. During our meeting, we can discuss how individual experiences may not match broader trends.
- For many of the survey questions, instructors and students were encouraged to think about one specific course, to produce more interpretable results.

We acknowledge that responding to these results and implementing some of the recommendations into your course may be time-consuming. The Eberly Center is available all summer to assist you in making adjustments to your course! We offer a variety of services including individual consultations and group programs! Please contact the Eberly Center at eberly-assist@andrew.cmu.edu.

Please note that this document presents a subset of the results from these surveys. If you would like to know more or have additional questions, please contact the Eberly Center.
Take Away #1: Instructors and students recommend frequent low stakes assignments/assessments (e.g., in place of 1 or 2 high-stakes assessments, not in addition to), which is also backed by learning science.

- When students were asked to select instructional strategies that were helpful for their learning, low-stakes assignments were consistently among the top three. This was true across all course format types (e.g. lecture, discussion courses, labs, etc.).

- Students reported that **lower stakes assignments were more helpful** than higher stakes assignments (see graph below).

<table>
<thead>
<tr>
<th>Helpfulness Ratings of Low and High-Stakes Assignments</th>
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<td><img src="image" alt="Graph showing helpfulness ratings of low and high-stakes assignments" /></td>
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- Top 3 student rationales for why low-stakes assignments were most helpful:
  1. **Reduce stress** - ...for a variety of reasons, including reduced workload and reduced weight of each assignment.
  2. **Application of concepts** - Students appreciate the opportunity to practice concepts and to receive feedback.
  3. **Highlight important concepts** - Students are able to identify what concepts are important and discern what they should study or reexamine if they are confused.

- Over 50% of instructor respondents indicated that **conducting assessments of student learning online** was either “very” or “somewhat” challenging in the online format.

**Reflection Questions:**
- How might you adjust your assessments to incorporate frequent, low-stakes assignments without adding to students' workload?
- How can this advice be translated to a course without traditional exams, but with a final, integrative deliverable (paper or project)?
Take Away #2: Both student and instructor data suggest it was challenging to feel a sense of community and connection in their classes. Learning science demonstrates that students’ sense of belonging is associated with positive learning outcomes.

- Feelings of support and belonging vary greatly among students, with approximately 50% showing little or no sense of belonging (see graph below).

![Student Perceptions of Support](image)

- Approximately 75% of instructor respondents indicated that **feeling connected to students** was either “very” or “somewhat” challenging in the online format.

- Both students and instructors found the following strategies to be successful for fostering community and/or supporting students:
  - **Opportunities for individual support** - Through individual office hour meetings or emails, instructors addressed both academic and personal student concerns.
  - **Check in** - Instructors made a point to check in with students about their general well-being and stressors related to the pandemic. This often occurred as a large group at the beginning or end of a class session.
  - **Feedback** - Instructors used student feedback to make decisions about how their courses are run.
  - **Accommodation** - Instructors were sensitive to individual student circumstances and accommodated them when possible.
  - **Collaborative learning** - Instructors provided opportunities for students to communicate and work together in order to provide each other support and build a sense of community.
  - **Non-academic ways to increase morale** - Instructors attempted to provide distractors in the form of humor, recreational interest, or personal disclosure to lighten the often stressful atmosphere.

**Reflection Questions:**

- What strategies seemed to help – or might you try – to foster a sense of community in your course?
- How might your approach to building community address the fact that your first interactions with students might be online (i.e., without prior in-person relationships) and acknowledge incoming students’ unique experience?
Take Away #3: Students report live (synchronous) Zoom lecture/class sessions as a helpful form of instruction for their learning, and several of the top reasons align with learning science.

- Students indicated that they found live Zoom lecture/class sessions helpful (see graph below).

![Helpfulness Ratings of Live Zoom Lecture/Class](image)

- Top rationales from students for why they appreciate live Zoom lecture/sessions
  1. Normalcy - It is most similar to what was done before the transition.
  2. Feedback - Being able to ask questions in real time and receive immediate answers
  3. Engagement - Feeling more comfortable and/or motivated to engage with the class

- For live Zoom lecture/sessions, instructors selected the following Zoom features as the most effective for actively engaging students:
  - Screen sharing
  - Breakout rooms
  - Zoom chat

Reflection Questions:
- What strategies are you using to make live Zoom sessions active (and how did you implement them)?
- What other strategies, big or small, did you use to address the challenges of teaching lecture courses remotely?
**CUSTOMIZED SECTION: SEMINAR/DISCUSSION**

- In addition to live Zoom sessions, students in seminar/discussion-based courses indicated that they found live class-wide discussions to be helpful (see graph below)

![Helpfulness Ratings of Live Class-wide Discussion](image)

- Top rationales from students for why they appreciate live class-wide discussions in seminar/discussion courses:
  1. **Normalcy** - It is most similar to what was done before the transition.
  2. **Engagement** - Feeling more comfortable and/or motivated to engage with the class
  3. **Peer Learning** - Students feel as though they learn from hearing from other students, instead of only hearing from the instructor.

**Reflection Questions:**

- What strategies are you using to make live class-wide discussions active (and how did you implement them)?
- What other strategies, big or small, did you use to address the challenges of teaching seminar/discussion courses remotely?
**CUSTOMIZED SECTION: LAB COURSES**

- In addition to Live zoom sessions, students in lab courses indicated that they found **lower stakes assignments** to be one of the most helpful instructional strategies (see graph below).

![Helpfulness Ratings of Lower Stakes Assignments](image)

- **Top rationales from students for why they appreciate lower stakes assignments in lab courses:**
  1. **Reduces stress** - Students indicated that the low stakes assignments reduce stress for a variety of reasons, including: reducing overall workload, reducing the weight of the assignment on their overall grade.
  2. **Application of concepts** - Students appreciate the opportunity to practice concepts and to receive feedback.

**Reflection Questions:**

- What types of low stakes assignments are you providing in remote lab courses?
- What other strategies, big or small, did you use to address the challenges of teaching lab courses remotely?
**CUSTOMIZED SECTION: STUDIO**

- Students in studio courses indicated that they found **live small group discussions** to be one of the most helpful instructional strategies (see graph below).

![Helpfulness Ratings of Live Small Group Discussions](image)

- Top rationales from students for why they appreciate live small group discussions in studio courses:
  1. **Engagement** - Feeling more comfortable and/or motivated to engage with the class
  2. **Instructor Interaction** - Appreciate being able to interact with the instructor in real time.
  3. **Peer Learning** - Students feel as though they learn from hearing other student’s opinions, instead of hearing from the instructor only.

**Reflection Questions:**

- What strategies are you using to make live small-group discussions active (and how did you implement them)?
- What other strategies, big or small, did you use to address the challenges of teaching studio courses remotely?
Take Away #4: Instructors find assessing student learning in the online environment challenging, and students feel as though they perform their best with deviations from the traditional timed exam.

- Over 50% of instructor respondents indicated that conducting assessments of student learning was either “very” or “somewhat” challenging in the online format.

- Instructors provided the following as solutions to the challenges in assessing student learning:
  - **Flexibility** - make adjustments to the original assessments (more time provided, open-note, etc.), including alternative versions and flexibility for students to work in groups
  - **Reduced workload** - make adjustments to reduce the overall workload by reducing the number of, shortening, or scaffolding assessments
  - **Adjusted evaluation policies** - adjust expectations of how much content to be covered and assessed, as well as student output or performance

- Students rated the impact of various assessment methods on their performance (see graph below).

**Reflection Question:** How might you incorporate some of these suggestions into your assessment strategy?