The 2020 spring semester was an experience unlike any other, as Iowa State University adjusted operations due to the COVID-19 pandemic. With little time to prepare, faculty and teaching staff moved all instruction to a virtual environment; some 6,100 courses in total were shifted. The last on-campus classes were taught on March 13th; ten days later, on March 23rd all courses had shifted to a virtual environment. As the semester’s end approached, instructor’s insights and experiences regarding the transition to virtual instruction and work were captured via a survey. Respondents were asked about what went well, what challenges they faced, and how lessons learned from this experience could be applied to improve future situations. Additionally, it was important to understand how the transition impacted other faculty responsibilities, including research.

The Office of the Senior Vice President and Provost and Office of Institutional Research developed the survey instrument with input from multiple campus stakeholders, including Faculty Senate. The survey included a combination of rating, multiple choice, and open-ended questions to collect both quantitative and qualitative data. This Comprehensive Executive Summary provides analysis across the full spectrum of the survey: broad quantitative questions, open-ended qualitative questions, and course-specific questions.

The survey was sent via individual email links to 2,180 faculty and staff, including anyone who was teaching in the spring 2020 semester (excluding graduate students) and all faculty, regardless of current teaching status. The survey was open from April 29, 2020 to May 15, 2020. Two reminders were sent a week apart. The final response rate was 62% (1,352 respondents). Of the respondents, 82% reported that they transitioned at least one course, and provided information about the transition of 1,607 courses.

Key findings

In general, respondents who transitioned classes into virtual formats did so with adequate support and were satisfied with the tools they chose to use. Respondents relied on their colleagues to help them through the transition while developing new pedagogical skills along the way. As anticipated, however, respondents generally felt stressed, overwhelmed, and were concerned about a lack of connection with students and colleagues. Furthermore, respondents were concerned that learning was diminished for students, they would like
more time to prepare for such a change in the future, and they would like more autonomy to decide how to implement changes. Positively, respondents tried to make sure that students were not getting lost in the transition, they successfully engaged with and learned new technologies, and were able to maintain a sense of community with some of their colleagues in new ways.

Detailed findings

The following pages provide detailed findings from the survey. Questions about the survey report can be directed to the Office of Institutional Research, ir@iastate.edu.

1. Personal Impact and Connections

- When asked to write one word about how they are feeling, respondents most frequently wrote:
  - Overwhelm
  - Stress
  - Exhausted
  - Tired

- Loss of connection with colleagues or students was the most selected response for broad areas of stress

- There were slight differences by gender in terms of areas of stress:
  - Female respondents were most concerned about adjusting course content, loss of connection with students and colleagues, and balancing work with family obligations
  - Male respondents were most concerned with loss of connection with students and colleagues, adjusting course content, and worrying about the health impacts of COVID-19

- Two-thirds or more of respondents were satisfied with the communications received during this time from colleagues, departmental leadership, college leadership, and university senior leadership

- When asked to describe one thing done by their Department or Colleagues to positively impact their sense of community during this time, the themes from 1,005 respondents are highlighted below:
  - Supportive leadership and colleagues
  - Typical work meetings turned virtual
  - Virtual socializing
2. **Transition to Virtual Classes**

- 82% of respondents transitioned at least one course to virtual delivery due to COVID-19
- 57% of respondents had never taught online or hybrid prior to the transitions for COVID-19
- The majority of respondents relied on colleagues and CELT to assist with their transition to online teaching, with colleagues being selected almost twice as much as any other resource. There were some differences among colleges; instructors of courses in Business and Veterinary Medicine relied more on college resources, while Engineering instructors relied more on departmental/unit resources.
- 75% of respondents agreed or strongly agreed that they had adequate support for the transition to online
- The transition of courses by faculty rank (including both tenure-eligible and term) was fairly evenly distributed with 26% Professor, 35% Associate Professor, and 33% Assistant Professor
- Of the courses reported on that transitioned, 38% enrolled 20 or fewer students
- For 60% of the courses transitioned to a virtual learning environment, the instructors reported that they spent the equivalent of a week or less of additional time, above their normal teaching time, to transition their course to the virtual environment; 17% said they spent more than two weeks of additional time to transition their course.
- Among faculty who did not transition a course, if they had to transition a course in the future, their greatest concern would be finding the time to develop alternative course materials/activities
- When asked to describe one thing that they did well in the transition to virtual course delivery, the following themes were derived from 712 respondents:
  - Frequently checked in with students and staff
  - Adjusted course content or expectations
  - Learned and used new technologies
- When asked to provide any comments (positive, neutral, or negative) specifically related to the transition to virtual learning for the course they transitioned, the following themes emerged from the responses on 909 courses:
  - Diminished student learning
  - Diminished teaching quality
  - Burden on instructors
3. **Technology**

- Canvas and email were the most selected technologies used
- 88% of respondents were satisfied with the technologies they chose to use
- Half of the courses were transitioned using asynchronous methods.
- Student access to reliable internet was the most cited technological challenge
- Respondents indicated the limitations of technology (e.g. no digital whiteboards) was a significant technological challenge
- Courses where the instructor rated the effectiveness of the combination of technologies as “Very Effective” also reported the highest student engagement after the transition, with 54% of the courses reporting over half of the students remained engaged in the course

4. **Pedagogy/Teaching**

- Re-envisioning course activities was selected as the top pedagogical challenge
- 77% of respondents reported developing new pedagogical skills due to the transition to virtual learning
- Mentoring of graduate and undergraduate students were the activities most negatively impacted by the transition
- The top three changes made in courses due to the shift to virtual learning environment were:
  - Changing course assignments or activities (62%)
  - Reducing/eliminating some planned course activities (58%)
  - Lowering the expectations on the amount of work required of students (42%)
- For 2% of the courses, instructors stated that they increased the expectations on the amount of work required of students after the shift to virtual learning
- Over half of the courses transitioned typically include discussions, group work, and critical reasoning as components in their course
5. **Student Engagement/Outcomes**

- Prior to the transition, for 75% of the courses, instructors stated that at least half of the students were actively engaged in the course. After the transition to virtual learning, this percentage dropped to 42% of the courses.

- After the transition to virtual learning, “Lecture” courses showed the lowest level of student engagement and “Studio” courses showed the highest level of student engagement.

- For 76% of the courses, the instructors agreed or strongly agreed that students were able to achieve the core learning outcomes of the course, even with the shift to a virtual learning environment. When disaggregating by course level, the professional program in DVM had the largest negative response, with instructors from 37% of the courses disagreeing or strongly disagreeing that students were able to achieve core learning outcomes.

6. **Research**

- Two-thirds of Tenure/Tenure-Eligible Faculty agreed that:
  
  - Their research has slowed due to increased teaching and/or family obligations
  - They will be late on deliverables for one or more research projects

7. **Looking Forward**

- When asked what recommendations respondents would share to allow us to more effectively manage this type of transition, the major themes from 900 respondents were as follows:
  
  - Support for online utilization and engagement
  - Faculty morale and autonomy
  - Desire to return to face-to-face
8. **Innovation and valuing individuals in challenging times:**

In conclusion, the report highlights some unique responses that might be of interest in terms in generating ideas for how to approach things moving forward:

- “I created a Choose Your Own Acting Adventure menu, to allow students to select projects they could complete on their own timeline using the resources they had access to. This augmented the final two class assignments and filled in for what would have been a great deal of in-class work. The projects were fun and allowed for a lot of different approaches which students seemed to appreciate.”

- “Faculty members produced a video with them in their houses - doing some chore - in academic dress congratulating our 2020 class.”

- “Goodie baskets placed around the LVMC (CVM Teaching Hospital) to show appreciation for all the people still working to see the many ER and urgent cases despite less hands to help (no VM4 students).”

- “A member of our staff has been sending a song every day of the week to keep us connect. We now have a Spotify list of songs for the quarantine, which is really eclectic and overall great songs.”