

IMSA Faculty Survey of Virtual Teaching and Learning Summary of Findings

October 20-26, 2020

Executive Summary

In an effort to gather as much information and input as possible from all stakeholders, IMSA implemented a series of surveys regarding virtual teaching and learning this fall. Thus, the purpose of this survey was to gather information from faculty members regarding their experiences with virtual teaching and learning this fall in order to know what has been working well and what needs to be improved.

The IMSA Faculty Survey of Virtual Teaching and Learning was conducted from Tuesday, October 20, 2020 through Monday, October 26, 2020. This memo presents a summary of results from 39 faculty members.

Summary of Quantitative Findings

- Over 80% of faculty responding indicated that they were either Satisfied or Very satisfied with the level of student engagement in their classes this fall.
- According to survey results, faculty spend an average of 19.1 hours per week planning and preparing for their classes.
- According to the survey, over 90% of faculty indicate that the amount of time they currently spend on planning and preparation for their classes is either a little or a lot more than when they were teaching in person.
- Faculty reported spending an average of 14 hours per week on assessments, which ranged from 4 to 25 hours per week.
- A majority of the faculty responding (85%) said that assessment takes either a little or a lot more time compared to when they were teaching in person.
- Faculty responding indicated that their needs for technology (76%), tech support (74%), and other resources (81%) have been met.
- Just over two-thirds of the faculty have made an out-of-pocket expense related to virtual teaching and learning this fall.

Summary of Qualitative Findings

- Faculty reported that student engagement in their classes is similar to in-person teaching, but expressed concerns regarding the slowly increasing disengagement of students as evidenced by the lack of Zoom cameras on during class and students struggling to turn in their work.
- Breakout rooms within Zoom appear to be an effective instructional strategy, provided there is a clearly defined objective or deliverable expected of the students.
- Some faculty responded that group work, discussions, and student collaboration have been extremely difficult in the virtual environment.
- Faculty expressed concerns about the time being allocated for the instruction of students, with some indicating that synchronous testing was interfering with valuable instructional time.
- A few individuals appreciate the new features that Canvas has compared to other LMS, while some other faculty would like a few specific features moving forward.
- A large majority of faculty commented on the additional time it takes to set things up in Canvas.
- Some faculty reported that there still seems to be a number of students who are having connectivity issues on their end, and as a result are turning off their cameras.
- A few faculty requested more stable internet access along with additional/better equipment.
- Other faculty have also requested specific software subscriptions, for which they have not received a response about whether it will be purchased or if they will be reimbursed for the expense.
- Several faculty indicated that they would appreciate time for training and/or collaboration with their colleagues to share strategies or apps that are working well.
- Faculty mentioned that working remotely has encouraged them to be creative in their approaches to teaching and assessment.
- Other benefits of working remotely included the absence of a commute, more time to spend with family, the ability to stay safe at home, and the flexibility of work hours.
- Working remotely has presented challenges with communication at all levels.
- Faculty also reported concerns of mental health mentioning that they are experiencing exhaustion, loss of motivation, and loneliness as they are missing the social interactions they had previously with colleagues and students.

Next Steps

The survey findings are being utilized to inform IMSA's virtual teaching and learning moving forward.

Demographic Information of Respondents

Faculty were asked to provide demographic information such as their department, race/ethnicity, and gender identity. For the latter two variables, respondents were provided a response option of "I prefer not to answer." (Please refer to figures 1 - 3 at the end of this document for complete details.)

Of the 39 faculty members responding to the survey, 28.2% were from the Mathematics/Computer Science department, 28.2% from Science, 12.8% from English, and 10.3% from each Fine Art/Wellness, History/Social Science, and World Languages. When asked to provide their race/ethnicity, 38.5% preferred not to answer. Of the faculty who identified their race (n = 24), the responses were as follows: 87.5% White, 8.3% Two or more races, and 4.2% Asian. Lastly, with regard to gender identity, 35.9% preferred not to answer. Of the faculty who identified their gender identity (n = 25), 64% identified as Female and 36% identified as Male.

Quantitative Findings

Faculty were asked to respond to a series of statements on topics such as student engagement, the effectiveness of Canvas, time spent on planning and preparation, as well as assessment, and how the time spent in these areas compares to when they were teaching in person. Below is a summary of the results (please refer to *Figures 4 – 8* at the end of this document for additional information).

- Over 80% of faculty responding indicated that they were either Satisfied or Very satisfied with the level of student engagement in their classes this fall.
- A little over one-third of faculty participating in the survey responded that Canvas was Slightly effective, with just under 50% responding that Canvas was either Moderately or Very effective.
- According to survey results, faculty spend an average of 19.1 hours per week planning and preparing for their classes. The range of responses was from 4 to 50 hours per week.
- According to the survey, over 90% of faculty indicate that the amount of time they currently spend on planning and preparation for their classes is either a little or a lot more than when they were teaching in person.
- Faculty reported spending an average of 14 hours per week on assessments, which ranged from 4 to 25 hours per week.
- A majority of the faculty responding (85%) said that assessment takes either a little or a lot more time compared to when they were teaching in person.

The final set of questions asked whether faculty had the technology, tech support, and other resources they needed in the virtual teaching and learning environment. This section also gathered feedback on the number of faculty making out-of-pocket expenditures related to virtual teaching and learning this fall. Below is a summary of the results (please refer to *Figures 7 and 8* at the end of this document for additional information).

- A majority of faculty responding indicated that their needs for technology (76%), tech support (74%), and other resources (81%) have been met.
- Responses from the survey suggest that over two-thirds of the faculty have made an out-of-pocket expense related to virtual teaching and learning this fall.

Qualitative Findings

In addition to the quantitative survey questions, faculty were asked to respond to a series of open-ended questions. The first question asked faculty to provide an explanation regarding their level of satisfaction with the student engagement in their classes. Below are the most prominent themes from faculty responses. If the terms were placed on a scale, it would range from smallest to largest as follows: "a few faculty," "a number of faculty," "many of the faculty," and "the large majority of the faculty." The quotes included in this document were selected because they are representative of the range of responses for each theme. The intention is to give the reader an idea of "typical" quote(s) that fall under a particular theme.

Student Engagement

Level of effort/engagement is similar to in-person, on-campus teaching

- "Level of effort I see so far is similar to what I would expect in person."
- "Students are generally very engaged or engaged. There is the usual struggle with making sure that everyone is engaged at all times, but overall, no complaints. Certainly not more than in person."
- "Most are engaged. Those that are not were hard to engage in a physical room too."

Students are exceeding faculty expectations

- "Overall, things are much better than I expected them to be."
- "Overall, they are doing the IMSA thing highly engaged and finding a way to make it happen. I'm impressed."
- "As best as can be hoped for."

While some faculty responded positively about the level of student engagement in their classes, other faculty members mentioned some concerns about student disengagement.

Zoom cameras are being turned off more frequently

- "Things are getting a little but rougher more screens off toward the end of the quarter."
- "Some students hide behind a box with their name on it and leave the room, which is apparent when you call on them."
- "While many students have their cameras on during class, not all of them do, even after repeatedly asking."
- "Over the course of Q1, students went from being cameras on and conversational basically all of the time, to increasingly withdrawn."

Most students are turning in their work on time, but others are struggling

- "I have more students than usual that aren't passing their class due to lack of completed work."
- "Students have been working very diligently and have delivered impressive products in terms of projects and presentations."
- "They are, for the most part, also working extremely hard between Zoom meetings, completing assignments, etc. However, there are too many who are not doing the work and have fallen very far behind, despite notifications, conversations, staffings, etc."
- "There are a few individuals who are withdrawn most of the time, and no type of intervention seems to be working."

Other disadvantages of virtual teaching and learning, as it relates to student engagement

- "It's too easy for students to be chatting online with their friends or watching videos. You see them start laughing, or smiling followed by typing. You know they are not involved in class."
- "I think we are moving so quickly to get through the material, answer questions, etc. that students have limited time to work together, discuss their work and collaborate. This causes a huge shift in the teaching approach and lacks a lot of the rich discussion and deeper thought."

Effective Instructional Strategies

The next set of open-ended questions asked faculty about the instructional strategies that have and have not worked well. Faculty also had the option of adding any additional comments or feedback they had related to virtual instructional methods and strategies. Below are the most common themes from faculty responses.

Breakout rooms within Zoom with a defined objective or deliverable

- "Having them work on an assignment during class when they can ask for help has been useful, particularly if they are in breakout rooms."
- "Breakout rooms with specific tasks to accomplish, clearly defined work to be done, screen share, and discussions."
- "Sending out some of the students to breakout rooms and working with the rest to go over some of the questions in more detail."

Pedagogical and classroom techniques

- "Flipped classroom activities seem to be working well. Having them work on an assignment during class when they can ask for help has been useful."
- "Using a shared document during class for them to fill in while they are working and then share later seems to have been effective."
- Using annotations on classroom documents (Biblio, Kami, Jamboard, Hypothesis)
- Adding short videos to explain classroom materials, online "scavenger hunts" for exemplars of course content/concepts, posting PowerPoint slides to Canvas for students to look back at later
- Creating student centered tasks and original projects

Formative feedback, assignments, and assessments

- "Anonymous formative assessments with the entire class (like Kahoot!) have worked best for me."
- Trying to give students opportunities to think and try to problem solve during class. Tools such as Formative have helped give low stakes feedback."
- "I've had students turn in notes on the readings for homework grades. This has increased their participation, because they have already engaged with the reading assignments."
- "Short written assignments and timely feedback."
- "Student presentations have gone quite well over Zoom."

Building relationships

- "Giving the students the opportunity to really share their input and viewpoints on how we spend our class time working to achieve our goals. I think it helps to have them be so involved in the timeline of their learning and growth."
- Regular conversations with students such as in breakout rooms, chat board postings, staying after class, one-on-one appointments, emails, etc.

Utilizing technology effectively

- "Having students keep their cameras on."
- "I like using the chat for students to post questions about a topic or reading. This helps develop critical thinking skills and helps us as teachers craft the unit around what students want."

Ineffective Instructional Strategies

Group work and discussions

- "The intrinsic problems of students 'carrying' others in their group project is exacerbated by the Zoom format, and I have not had very successful group work yet."
- "Whole group discussions and debates have been difficult. The most extrovert students tend to take over and the more timid ones either refuse to take part or do it reluctantly."
- "Class discussions that are open-ended without specific questions to answer as an assignment or on a shared document. In person, I can draw it out of them quite easily, but on Zoom it's more difficult to facilitate these kinds of discussions if there isn't an end product to focus on."

Administering assessments during class time

- "Giving tests during class time gave some of my students a lot of anxiety, and it wasted a ton of class time."
- "Testing now limited to scheduled course time with automatic time and a half for educational plans makes this ridiculously short and not necessarily representative."
- "Informal assessment is so much harder to do. Although students can screen share, it takes longer time to assess everyone and see what they are getting and not getting."

Other ineffective instructional strategies

- Lecturing for more than about 20 minutes.
- Asking students to prepare for class, preview an assignment, complete additional supplemental activities, etc.

Faculty concerns regarding the time allocated to teach students

- It is ineffective to try to teach and cover all of the course content in the same way and in the same amount of time as face-to-face instruction
- "Even though meetings on Zoom are tiring, we need more time with the students. 50 minutes is barely enough time to go over the instructions for an assignment after talking about the concepts and answering their questions. Students also need more time to collaborate with each other, which right now is not possible each meeting."
- "There is too much Zoom time for residential life versus some content courses. Foreign language needs time to speak, math needs time to process, science needs time for labs these courses have different needs than English/social science that can have a lot of work asynchronously."
- "Time should have been allocated for teaching students how to use Canvas before the start of the academic year. A considerable amount of time was spent teaching students how to use Canvas that

took away from the limited Zoom time. Now with the restrictions on asynchronous testing, more instruction is lost."

Canvas Feedback

After being asked to rate the effectiveness of Canvas as an online learning management system, faculty were offered space to provide feedback or additional comments related to Canvas. Below is a summary of the common themes from faculty responses.

Beneficial Features of Canvas

- "It's got a lot of stuff that previous systems didn't have...It has several cool features (like modules with prerequisites) that could be used for some interesting course design."
- "One stop shop. Students see the due dates in calendar. Quizzes are pretty good."
- "Canvas itself is nice. I like that you can link from any assignment or announcement directly to material in the course. I think that alone makes it super useful for organizational purposes."

While some faculty mentioned the beneficial features within Canvas, others noted that they would appreciate more time to work with Canvas and its features.

Faculty comments about the difficulties with Canvas were either related to the features of Canvas, student issues, and/or the additional time it takes to perform certain tasks within Canvas. Some examples of each of these comments is provided below.

Trouble with Canvas Features

- "They will not let you upload a number of images at one time."
- "I don't like that everyone's class has to have the exact same look. I think having one united platform is serving that goal."
- "It would have been a lot more effective if Canvas and PowerSchool communicated in the right way."
- "It would also be great to have some permissions back, like being able to enroll other teachers in our classes as students or teachers, so that it's easy to show what we are doing with our co-teachers (or others) and share materials."
- "No way to check for plagiarism so we have to check manually."

Student Issues

- Several faculty mentioned that the Canvas platform is cluttered with assignments; has too many paths to navigate to the same document; and/or difficulties with the students accessing the resources or modules that are posted for them.
- "Students also have had troubles with Canvas (discussion posts or my comments on papers disappearing) and they seem totally unsure of who to go to for help. I have no idea what's going on with Canvas, and thus cannot provide any help."

Extra Time for Faculty

- "It's also very cumbersome to set up anything. Even something as simple as posting a document for students to reference is a 10-click process where it used to be drag-and-drop in Google Classroom. Typically, posting a 3 week module takes 6 hours of work from me, as I have to constantly back-click through Canvas' many layers."
- "Unless the quiz is multiple choice, very hard to grade."
- "The gradebook and the whole assignment submission system is abysmal compared to other LMSs I am familiar with. It is incredibly inefficient and difficult to use, both by students and by me as a teacher."

Canvas was an Unnecessary and Late Change during COVID-19

- "I don't find it any more effective than Google Classroom so changing the LMS during the pandemic and remote teaching is baffling."
- "Overall, this seemed like an unnecessary change during the pandemic."
- "This doesn't excuse the extremely late rollout of our access to Canvas or the decision to switch to a new LMS without any faculty input, which further damaged the already-fractured trust relationship faculty have with administration."

Experiences with Technology and Future Needs

Faculty were also asked about how their experiences have been with technology in the virtual teaching and learning environment this fall. After the open-ended question, faculty were asked whether they had the technology, technology support, and other resources they needed in the virtual teaching and learning environment. If they responded no to any of those questions, they were given another open-ended question to further indicate what additional technology, technology support, and/or additional resources they needed. Below is a summary of faculty responses.

- According to those who responded, Zoom seems to be working well for faculty and students. Some faculty reported that there still seems to be a number of students who are having connectivity issues on their end, and as a result are turning off their cameras.
- Several faculty members noted that everything takes longer to teach virtually. One faculty responded, "Since everything is on the computer, planning, teaching, assessing, it gets very tiresome looking at a computer screen and everything takes longer."
- For those who had a tablet (prior to receiving one from IMSA), or who have received a MIFI, their technology experiences have been positive. Others mentioned a feeling of frustration as they felt that "The tablets (to write on) arrived a little too late in the semester, after the first quarter ended."

Additional Technology Needed

- A few faculty responding to the survey noted that they needed more stable internet access along with additional/better equipment such as cameras, computers, and printers.
- Some faculty have also requested specific software subscriptions, for which they have not received a response about whether it will be purchased or if they will be reimbursed for the expense.
 - One faculty member responded, "I have been requesting subscriptions to various programs and websites like campus, diffusion, and others, but have not gotten a response yet as to when I can gain access to them. There is a program I would love to use with my students that would allow them to talk to trained native speakers of different countries and I have not gotten any response on what our budget look like and whether that is possible."
- One faculty member expressed their concern about not knowing what they need by saying, "How would I know? What all is out there?...How can you know if you don't know what's possible?"

Additional Technology Support Needed - Training

- Faculty requested time for training and/or collaboration with their colleagues
 - Faculty would like a faster way to do uploads, training on the tablets, training on online testing, etc.
 - "I was recently told I have a license for Kami...I need time (and energy) to figure it out, or better yet, someone who can at least get me started."
 - "It would be wonderful to spend some time (maybe half a PD day or a faculty meeting or two) having teachers share what things they've found work well – apps, strategies, etc. It should be set up with a few short "sessions" and faculty choose ahead of time which ones would be most beneficial to them, so that we can be in smaller groups and get more questions answered."

- Some faculty also mentioned that student training is also needed
 - "I need technical support for the students. They were provided tablets, yet with no instructions, FAQ, or directed video tutorials that may help the setup and utilization...Students need more support and clarity in where to go for help. While I want to help them, there is not the time."
 - "Student training videos on technology-related tasks that are "uncommon." For example, switching devices mid-quiz on Canvas to scan and upload a picture."

Additional Resources Needed (Non-Technology)

- Supplies for students
 - One faculty member responded that they needed different supplies for their students such as more cameras and camera equipment.
 - A member of the mathematics team expressed that, "It would be nice if all MI and Geometry students had paper copies of the worksheets that serve as their textbook."
 - Another faculty member would like to send their students supplies such as small games or crafts for projects, if IMSA continues to teach virtually.
- Faculty needs
 - "If I were to continue teaching remotely, I would need to invest in a standing desk. The amount of time I have spent sitting to teach, plan, grade, communicate with students, or respond to surveys has been crippling on my back and mobility."
 - "I need more TIME. With the addition of Titan Crew, writing curriculum for Canvas, creating new assessments, altering instructional approach, there are not enough hours in the day."
 - "I wanted to make videos of the labs for my students, and I had plans to have our science lab managers help me with that. I currently do not have time to make all of the solutions, drag out the equipment, set up a camera on myself, etc. I would also like to send some kits to students to do safe experiments at home, but I don't have time to put them together. That is something that our lab managers could have done for us as well."

Out-of-Pocket Expenditures

Next, faculty were asked whether they were making out-of-pocket expenditures related to virtual teaching and learning. If they responded no, faculty were provided an open-ended question to further describe the out-of-pocket expenditures they were making. Below is a summary of faculty responses.

- Various types of technological equipment such as: tablet, desktop computer, monitor, computer docking station, tripod, scanner/printer, document camera, external webcam or microphone, and headphones with a built-in microphone.
- Supplemental office supplies including, but not limited to: ink/toner, paper, folders, notebooks, pens, staples, markers, desk chair, desk, and bookshelves.
- Software, teacher textbooks, website subscriptions, films, supplies for students
- Higher utility bills (electric, phone, internet) due to working from home and supporting additional equipment used for work purposes
 - "Upgraded internet (had to upgrade last spring to keep my camera on and keep from lagging."
 - "I upgraded my home internet so that it is faster so I can host the Zoom sessions with greater reliability."
 - "I had to get WiFi extenders and boost my internet speeds/data to accommodate all the Zoom/online work."
 - "Planning to upgrade phone to text colleague during class so we can properly teach a cotaught class."

Experiences and Challenges Working Remotely

Lastly, faculty were asked to respond to two open-ended questions about working remotely. The first question asked, "What has **gone well** while working remotely this fall?" which was followed by, "What **challenges** have you faced while working remotely this fall?" Below is a summary of faculty responses.

Educational Benefits of Working/Learning Remotely

- "Student attendance is way up, meaning that they don't go away so much for college visits, competitions, etc."
- "Students are engaged and are learning. Virtual labs are actually a pretty good substitute for the actual lab, develop students' lab skills and problem solving skills."
- "Being forced to get creative with our approaches to teaching and assessment. It's easy to get in a rut, especially when you teach the same class several semesters in a row with multiple sections."
- "I was able to figure out how to stream films and videos for students and that has helped a lot...Also, students have demonstrated tremendous skill and talent in putting together projects and collaborating with each other. I have been so impressed with the quality of their work and the maturity with which they approach every topic and discussion."

Other Benefits of Working Remotely

- Increased collaboration with colleagues
 - o "Colleagues have shared information and supported each other throughout."
 - o "Faculty working together to solve problems."
- Some faculty also mentioned the benefit of no commute, flexible work schedules, more time with family, and the ability to remain safe at home. One faculty member responded, "I really appreciate the shorter school day." Another commented, "Flexibility for hours and I feel less stressed...Even a 5 minute break is all I need and then I feel great."

With regard to the challenges faculty have experienced while working remotely, some responses echoed previously discussed topics such as: the quick pivot to Canvas with little training or prep-time; the limited instructional time of 50 minutes two day a week; not knowing when to step in and help a student; the difficulty of assessing virtually; the additional time needed to plan for classes and prepare content for Canvas; Zoom fatigue; and unreliable internet connections. Other challenges experienced while working remotely are presented below.

Titan Crew

- "Trying to make anything useful out of Team Titan, no curriculum and the students hate it."
- "Titan Crew takes productive time away from faculty and students, and increases Zoom fatigue."
- "The addition of an uncompensated fifth class with the "Titan Crew" class has been a drain on my time and energy. As students have repeatedly pointed out, the class is redundant with their student life programming, and it should be dropped."

Asynchronous Testing

- "Administration making arbitrary decisions (e.g., "no asynchronous tests") without having all the information or considering all the ramifications. They might even be right. But adapting to arbitrary decisions takes time and energy."
- "The Principal's Office stating we couldn't do asynchronous testing and then changing their minds (sort of) and backtracking a couple weeks later."

Difficulties with Communication

- "Too many meetings with individual students for clarifications."
- "Communication from the PO [Principal's Office] has been poor/poorly timed."
- "Communication from my supervisors is frequently lacking or, when it is abundant, it is contradictory...My supervisors seem to believe that my time is easily consumed and disposed of, and that I am effectively 'on call' at all time. This is untrue."

Mental Health Concerns

- Faculty reported experiencing exhaustion, loss of motivation, and loneliness due to missing social interactions with colleagues and students.
- "I am not getting much sleep."
- "My mental health is suffering."
- "The biggest challenge, though, is loss of social interaction. That is really needed for mental health. Also, I don't get enough exercise."

Data Points of Interest

Demographic Information of Faculty: Figures 1 - 3









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Gender Identity (n = 39)

Faculty's Satisfaction with the Level of Student Engagement (n = 39)

Faculty's Feedback Regarding the Effectiveness of Canvas (n = 37)



Faculty were asked the question, "How does your time spent on planning and preparation [and assessment] compare to when you were teaching in person?" Individuals were provided with a 5-point Likert-type scale with the response options of" A lot less time, A little less time, Same as before, A little more time, and A lot more time. Responses are represented in Figure 6 below.





Faculty Needs Met

Figure 7





