

Future of Instruction Task Force
Final Report
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Overview and Summary of Recommendations

In March 2021, Provost Wendland charged the Future of Instruction Task Force (FOI Task Force) with exploring the future nature of instruction and remote learning at the university as a result of changes prompted by the pandemic. This task force considered how the university might employ various forms of remote learning that have been found to benefit student learning.

The FOI Task Force members were guided by the following principles:

- University-wide generalizability. We recognize the decentralized structure of Washington University and the fact that different schools and programs have different instructional needs. However, we discovered practices that likely apply across schools. We have sought to selectively focus on those recommendations that would generalize across the University, while recognizing that school- or program-level policies vary.
- Academic freedom and instructor flexibility. We value academic freedom and are wary of policies and practices that stifle instructor creativity and flexibility. Our recommendations are meant to supplement and inform instructors, not supplant their judgment.
- Equity and inclusion. Given the diversity of our educational community, it is critical to review technologies, policies, and practices with an equity lens. Relatedly, the educational experience at Washington University in St. Louis should take place within a culture in which differences are embraced and all people feel like they belong.
- Academic excellence through continual improvement. Academic excellence is a process not a state or outcome. That is, academic excellence is something that must be continuously pursued by creating feedback loops to facilitate improvement at every level -- individuals, courses, programs, etc.
- Informed by science with consideration for local context. Scientific research in numerous fields (e.g., psychology, education, sociology, etc.) has produced a tremendous amount of knowledge about what works and what does not. Our technologies, policies, and practices should be informed by this evidence while considering the applicability to our unique context.

SUMMARY OF RECOMMENDATIONS:

For the details of the FOI Task Force's recommendations, please see the individual documents attached as appendices.

Philosophy for the use of online/remote learning in a post-COVID world
(Appendix 1)

Where academic programs are designed to be in-person, for traditional, full-time students, in-person learning should be the default, strongly dominant, mode of engagement. Courses should only be offered as hybrid or remote where those modalities represent a significant advantage to student learning, with fully remote courses occurring only in a few, specific circumstances.

Departments, programs, and/or schools must approve all courses offered as hybrid or remote, so as to ensure judicious use of these formats, and to promote a reasonable equivalence in student experience across comparable academic programs. Academic units should also monitor the use of remote contact hours within the context of “in-person” courses, such that courses listed as “in-person” do not become hybrid in practice.

Recommendations for Technology, Practices, and Data
(Appendix 2)

The FOI Task Force recommends that WashU instructors continue or consider the following practices that were adopted during the pandemic (for specific recommendations regarding recording of lectures and class attendance, see the next section):

- Mandatory use of Canvas or equivalent school-standard learning management system (LMS) (e.g., Keystone)
- Shift from infrequent, high-stakes testing to more frequent, lower-stakes testing
- Active use of pre-recorded video (e.g., flipping the classroom)
- Virtual integration of expert speakers into synchronous sessions
- Use of web-based engagement tools--both synchronous and asynchronous
- Building connections between student and instructor, and among students (see Appendix 2 for specific practices)
- Access to instructor support via online office hours
- Use of anonymous polling to encourage participation and expression of multiple viewpoints, including minority viewpoints

Additional recommendations were made regarding maintaining practices from the past year in instructor support, training, and accountability:

- Continued trainings offered both centrally and within schools to promote instructional development for faculty, grad students, and post-docs
- Formation of faculty learning groups
- Use of standard templates (e.g., in Canvas courses) and practices
- Departmental/programmatic review of course materials

The past year also brought an increased focus to the assessment of learning experiences, driving a set of recommendations for how we might generate structures to promote ongoing improvements in teaching and learning:

- Develop a comprehensive, centralized approach to collecting, analyzing, and sharing data on teaching and learning across the university
- Require, incentivize, and promote continual learning among instructors
- Leverage technology to support learning where appropriate
- Improve and sustain communication, collaboration, and coordination among all groups involved with supporting teaching and learning at WashU

Recommendations for recorded lectures and remote synchronous participation

(Appendix 3)

The broad availability of lecture recordings and the opportunity for students to actively participate in coursework remotely in the past academic year represented marked change from pre-pandemic condition. The recommendations below underscore methods for incentivizing student attendance and participation in class while retaining the benefits of recorded lectures and remote synchronous participation.

Given variations across course formats, recommendations were tailored to particular course types:

- For **typical lecture** courses, it is recommended to record in-class lectures and make them available immediately after class. Remote synchronous participation is not recommended.
- For **typical discussion/seminar** courses, it is not recommended to record class meetings. Synchronous remote participation is recommended as an alternative to in person attendance only in limited situations; instructors are encouraged to find other means of engaging students who may be forced to miss classes.
- For **typical studio, lab, or other active learning** courses, it is not recommended to record class meetings. Synchronous remote participation is only recommended when

there are significant extenuating circumstances, as effective remote participation in courses of this nature is substantially complex.

Technology in pooled classrooms is capable of supporting both recording and remote participation. Expansion of recording to the large majority of lecture classes will likely require financial support for additional camera operators where needed, such as in courses without undergraduate TAs or graduate AIs. FERPA guidelines restrict the use of recorded materials, when involving students, outside the confines of the active course; if instructors wish to reuse these materials, all identifying information must be edited out.

Copyright Ownership Statement

(Appendix 4)

The preponderance of course recordings and newly generated course materials over the past academic year spurred an interest in clarifying the university's Intellectual Property Policy as it pertains to course material. In general, without an agreement to the contrary between the university and instructor, all course materials are the property of the instructor. An instructor's use of dedicated university support resources (e.g., Center for Teaching and Learning (CTL), Center for Digital Education, etc.) does not automatically affect ownership of course materials. The university reserves the right to use course materials to support completing an in-progress course if the instructor is unavailable to finish the course.

Revised Course Modalities

(Appendix 5)

In order to identify courses with formats necessitated by the COVID-19 pandemic, two new "instruction types" were created within our Student Information System: H19 and R19, referring to courses offered in hybrid or remote format, respectively. The task force hereby recommends a set of instructional types and definitions to be used to describe course modalities in the post-pandemic world. The "Hyflex" modality designation is noted to be challenging for compliance monitoring where the intent of monitoring is to establish students' presence on campus.

Impacts of modality on compliance and reporting

(Appendix 6)

Taking online courses may impact academic standing for international students studying at WashU on F1 or J1 visas and the availability of housing benefits for veterans. WashU is required to report course instructional modalities through IPEDS, the Common Data Set, the US News & World Report, the A&S “Who Teaches What,” and the American Bar Association. In addition, “distance” courses and programs must be accurately report to the HLC.

NEXT STEPS:

Many of the conversations had by the FOI Task Force should be revisited on a recurring basis through standing committees (e.g., the CTL’s Faculty Advisory Board) and existing cross-school leadership groups (e.g., school deans, Vice Deans). Any recommendations endorsed by the Provost should be socialized with these groups for implementation, with a designated “owner” (i.e., individual, unit, committee, etc.) with responsibility for progress on each item. While in many ways the upcoming fall will represent a transition to a new future state, with remnants of COVID impact remaining, these recommendations should be shared this summer with schools and their faculty. The financial responsibility for additional camera operators for recording in classrooms should be determined prior to the start of the fall semester. Approval processes for remote course meetings within in-person courses should be established during the summer and put in-place before the fall; whereas approval processes for hybrid/remote courses should ideally be in-place in time to review spring ‘22 course offerings (mid-September).

Appendix 1. Philosophy for the use of remote and online learning within the context of in-person academic programs

- Learning and intellectual communities can be fostered in many ways, including through judicious use of educational technologies.
- Online programs create opportunities for engagement by a broader, global community, whereas in-person programs by their nature create space for serendipitous meetings and interactions.
- Where we have designed our educational programs to be grounded in an in-person experience, we are committed to maximizing the benefits of physical proximity, using virtual modes of teaching and connection only where they provide educational benefit beyond what traditional engagement modalities would offer. In-person programs designed for non-traditional students may make more extensive use of remote and online learning to best support the particular needs of their student populations.
- Outside of pandemic constraints, we expect in-person instruction to remain the strongly dominant mode of instruction for our in-person programs. The physical co-location of instructors and students will continue to occur in nearly all courses, and we are committed to enhancing our pedagogies to best use the time in physical proximity to its maximum potential.
- We recognize that remote learning can be a valuable component of in-person courses, and that it may also allow our students to learn from and with individuals with a breadth and depth of expertise and perspective that they would not otherwise be able to.
- Courses may be offered in a hybrid format (i.e., 20-80% of the course contact hours occurring remotely) when student learning may be substantively enhanced by the incorporation of remote components. In-person engagement is expected to occur weekly, at a minimum.

Courses may be offered fully remotely only:

- During times when students in in-person programs would not traditionally be expected to be present on campus (e.g., summer, intercession).
- If no appropriate physical space is available to adequately support necessary course activities
- When an instructor offering necessary expertise, unique experience, or perspective is only available remotely (this should occur as the exception rather than the rule for any given course)
- When the purpose of a course is best served by self-paced student learning

Offering courses in either hybrid or remote format within the context of an in-person program will require approval at the departmental, program, and/or school level. Departments, programs, and schools should be judicious in their use of both hybrid and remote learning opportunities, such that the individual student experience is not negatively impacted. Remote or hybrid courses must be identified as such in course listings before registration begins. Departments, programs, and/or schools should also establish approval processes for the use of remote learning to replace in-person contact hours in in-person courses. While this may be appropriate and beneficial in some instances (emergency situations, occasional instructor travel to conferences), it should not occur so frequently as to render a nominally in-person class as hybrid.

Appendix 2. Subgroup Report - Technology, Practices, & Data

Susan Appleton, Andy Butler, Lorien Carter, Carolyn Dufault, Andrew Knight

EXECUTIVE SUMMARY

COVID-19 forced the University to rapidly and dramatically change its instructional models. Shifting into fully virtual and hybrid modalities required faculty and staff to use new technologies, adopt new policies, and develop new practices. The purpose of this document is two-fold. First, we identify technologies, policies, and practices that -- although adopted in response to COVID-19 -- significantly improved educational access and quality; WashU should retain these innovations going forward. Second, we propose recommendations for elaborating upon and extending continuous teaching and learning practices that have flourished across the University during COVID-19.

PROCESS & GUIDING PRINCIPLES

To derive recommendations, our subgroup reviewed data collected across the University through the Spring and Fall of 2020. Several schools administered surveys to faculty and students, soliciting their perspectives on the efficacy of new technologies and practices, as well as the challenges and opportunities they identified from teaching during COVID-19. In addition, the Center for Teaching and Learning carried out a fall semester survey of over 400 instructors. These instructor survey results are available on [Provost's Office website](#). Beyond these COVID-centric data streams, we also considered other University efforts to document best practices for teaching and learning that were gaining traction before the pandemic. Our discussions and recommendations were informed and guided by several principles noted in the summary above.

RECOMMENDED TECHNOLOGIES, POLICIES, AND PRACTICES TO RETAIN

Based on a review of data across the University, we recommend that the University support and promote the following technologies, policies, and practices in our post-COVID educational experience:

Enabling Students' Learning

- *Mandatory instructor use of Canvas or an equivalent learning management system (LMS).* Prior to the pandemic, LMS use among instructors was very uneven across schools and departments, requiring students to navigate courses with many different ways of accessing key information (e.g., policies, procedures, assignments, grades, etc.). Regardless of the delivery mode, all courses should: (i) be published in Canvas or an equivalent LMS with an accompanying syllabus; (ii) ensure all digital course content is

accessible in Canvas or equivalent LMS (may be hosted elsewhere, but linked within the LMS); (iii) have grades for all course assignments and assessments entered in Canvas or equivalent LMS (overall and/or final course grades are not required); and (iv) ensure course-wide communication is available through Canvas or equivalent LMS.

- *Shift from infrequent high stakes testing to frequent, low-stakes assessment.* The pandemic caused serious problems for assessment within courses that utilize infrequent high-stakes testing that takes place in a closed-book environment. Many instructors pivoted to a different approach by increasing the frequency of assessment (and thus lowering the stakes) while also diversifying the types of assessment used. This change in strategy required more work for students and faculty, but it is much better for both learning and assessment (both formative and summative).
- *Active use of pre-recorded video.* Due both to the shift to virtual learning and the need to contend with students in multiple time zones, the use of video recording proliferated during the pandemic. Many instructors provided students with pre-recorded materials (e.g., lectures) to maximize the value of synchronous class sessions. Pushing toward a flipped classroom model, pre-recorded materials enable using synchronous class time for experiential learning and/or in-depth and integrative discussion and require instructors to be mindful of how they use class-based time. It is an academic best practice to ensure that instructors who use this model balance pre-recorded learning with impactful in-class experiential learning.
- *Recording of synchronous class sessions.* To accommodate students in different time zones, instructors also captured synchronous class experiences (e.g., recording of a live Zoom session, recording of a classroom-based discussion or lecture) and disseminated these recordings afterward. These recordings not only accommodate students unable to attend class due to illness but also provide an artifact that students can review when digesting material after class, such as during preparation for assessments.
- *Virtual integration of expert speakers into synchronous sessions.* External expert speakers and visitors can enrich students' learning, supplementing and extending the instructor's perspectives. Using Zoom enables integrating external expert speakers at very low cost, relative to having external speakers come to campus. Going forward, faculty can continue to bring speakers into in-person courses virtually.
- *Use of web-based engagement tools--both synchronous and asynchronous.* Asynchronous modes of interaction are central to courses that run fully online. During

COVID-19, instructors found value in using online tools (e.g., polls, discussion boards) in hybrid and in-person classes. These technologies are mature and provide an avenue for students to engage with the material and one another outside of class sessions. In addition to these mature tools, instructors also highlighted the benefits for students' learning of newer technologies that facilitate collective learning. Examples include Hypothesis for co-reading and annotation and Annoto for commenting and asking questions on videos. These kinds of tools should be used to enable both asynchronous and synchronous interactions among students.

In implementing these new practices, instructors have faced the challenge of knowing how much out-of-class work is too much for students. Indeed, one common point of tension in surveys of students is an overload of pre-work (e.g., watching videos, posting to discussion threads) amidst multi-course schedules. As instructors continue to learn and implement new practices, beyond the more traditional reading assignments, it will be necessary to proactively estimate the time required to complete the activities. Some universities (e.g., [Wake Forest](#), [Rice](#)) provide tools to help instructors estimate the time required for specific activities both to avoid burnout and to remain within approved course credit limits.

Furthermore, as instructors use these new practices, strategies to help students organize the activities that they are required to complete asynchronously will become increasingly important. Gone are the days when students could use the day and time of a class session as the pacer for their classwork. In a world in which students are asked to complete and submit digital work outside of classroom time, instructors should implement routine timelines (e.g., discussion thread contributions or reading annotations due every Wednesday by 5 PM CT) to make it easier for students to track when asynchronous assignments are due. An effective way to do this is to build due dates and times into Canvas "assignments" and "quizzes."

Cultivating a Learning Community

Shifting instruction more heavily into virtual modalities during COVID-19 sparked innovations in how instructors cultivated connections with and among students. For an institution that emphasizes in-person instruction, the vibrancy of this learning community is critical.

- *Building instructor-student connections.* Instructors developed connections with their students in a variety of ways--both synchronously and asynchronously--that can and should be retained in the future.
 - i. Instructors recorded introductory videos to their courses in which they introduced not just the course, but also themselves. This helped to humanize

instructors--often by showing them in their own home environments--and close some of the perceived power distance that can inhibit psychological safety.

- ii. Instructors used discussion boards (e.g., “introduce yourself to the class”), pre-class surveys (e.g., “4 things you want me to know about you”), and/or uploaded videos to learn about their students. In addition to humanizing their students, this also provides a path for instructors to learn about any specific needs or challenges that students face.
 - iii. Instructors reported that virtual office hours were more heavily attended than in-person office hours held in the past. Virtual office hours lower the cost for students to touch base, ask a question, or listen to a discussion.
 - iv. For class sessions and programs that have a heavier online component, faculty can remain in the online session for a few minutes after class. This mimics the time when students are walking out of a physical room and provides space for serendipitous conversations that build connections and a learning community.
- *Building connections among students.* Instructors created a context for students to get to know one another in a virtual world. These same practices can be used fruitfully post-COVID to help students build relationships more quickly.
 - i. *Collaborative note-taking.* Instructors experimented during COVID with collaborative note-taking applications (e.g., *Hypothesis*), which enable students to collectively annotate readings and course materials. These technologies provide a medium that extends classroom connections.
 - ii. *Course-specific collaboration software (e.g., MSFT Teams, Slack).* LMS platforms such as Canvas are effective hubs for coordinating some kinds of activities among students. However, they are sub-optimal means of helping students build connections with one another. Most students are digital natives who have grown up using social media applications to build relationships with their peers. Particularly for courses that operate in a hybrid or virtual mode, collaboration software like Microsoft Teams or Slack can provide a means for students to build relationships with one another within the context of a particular course--exchanging messages and sharing information and resources.

- iii. *Breakout groups using Zoom.* The shift to virtual learning provided a new medium for instructors to use small-group breakout work. Instructors sometimes face the challenge of insufficient physical space for using breakout groups during in-person classes. For some exercises, using Zoom breakout groups and virtual work can overcome physical space limitations. Zoom breakout groups also level the playing field and reduce potential instances of physical intimidation, with each person given equal area within the virtual room.

Promoting Equitable and Inclusive Instruction

- *Instructors should ensure that students receive their approved disability accommodations.* By law, instructors are required to ensure that students receive approved disability accommodations. Instructors should work with students and [WU Disability Resources](#) to ensure that students with documented disabilities have the resources that they need to be successful.
- *Access to instructors for academic support.* Regardless of the delivery mode of the course, all instructors should hold weekly office hours or an equivalent help session that is open to all students. One option that increased in popularity during the pandemic and should be retained is holding such office hours via Zoom or equivalent technology that enables synchronous remote interaction.
- *Use of open educational resources (OER).* OER are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing. The use of OER increased during the pandemic and positively affected students in numerous ways (ease of access to digital resources, lowered cost associated with courses, etc.).
- *Use of class recordings.* Per our recommendation above, the ubiquitous recording of class sessions during COVID was beneficial particularly for some students at WashU. Having an artifact to review, particularly one with transcription and captioning, was invaluable for some of our students. Recognizing that some faculty may not want their class sessions recorded, we would underscore the value for our ESL or hard of hearing students.
- *Anonymous polling.* Many instructors mentioned using anonymous polling (e.g., Canvas or PollEverywhere) to solicit students' perspectives about controversial issues. Anonymous polling can provide the means for launching discussions about controversial issues. It creates an opportunity for students who truly possess--or may simply believe they possess--minority perspectives to share their views. An alternative tactic that

instructors mentioned was the use of a “Zoom waterfall,” which requires each student to contribute a perspective at the same time to inhibit the effects of social influence and conformity. Zoom waterfalls can be accomplished either within the text-based chat or the participant response features.

Enabling Instructor Learning

Facing the need to rapidly transition their courses to new modalities, instructors relied on a number of resources to climb the learning curve mandated by COVID. Several instructors noted that the practices that they used to learn how to teach in new ways were meaningful and should be continued in the future:

- *Training and instruction for new teaching methods.* The surveys across schools provide some insight into variability across the university in the availability and structure of developmental opportunities for faculty focused on teaching. Even amidst this variability, though, COVID sparked efforts by the Center for Teaching and Learning (CTL) and program-specific instructional designers to help faculty learn new ways of teaching (e.g., how to use Zoom, how to best use Canvas, how to create video recordings both within and outside of the classroom, how to implement other technologies). Going forward, the University should increase investment in developmental opportunities for faculty. These opportunities should be both within centralized university resources (e.g., Center for Teaching and Learning) and within schools and programs that have discipline-specific teaching needs.
- *Faculty learning groups.* In addition to formal resources for helping instructors learn, COVID prompted instructors to build informal groups to exchange information and resources with one another. These groups convened both synchronously (e.g., regular Zoom meetings) and asynchronously (e.g., Microsoft Teams group), and large numbers were facilitated by the Center for Teaching and Learning as part of their “Virtual Conversations” series. To facilitate instructors’ continuous learning, the University should encourage as a best practice the use of, in particular, digitally-enabled learning groups for faculty to exchange best practices with one another.

Facilitating Consistency by Promoting a Cohesive Curricular Experience

In part because faculty and staff were simultaneously facing the shared challenge of re-thinking courses and curricula, COVID encouraged practices that contributed to a more consistent and cohesive experience for students. These practices, which shift the focus of individual courses to an integrated curriculum, can enhance students’ learning experiences:

- *Use of templates and standard practices.* Recognizing the importance of instructor judgment and academic freedom, the use of some templates and standard practices can significantly improve students' experience. As one example, centers for teaching and learning across campus supplied faculty during COVID with Canvas templates to use in setting their courses up for virtual instruction. These kinds of templates can save instructor time, while also ensuring that students know where to find common pieces of information within a learning management platform.
- *Program/Departmental Review.* The shift to centralizing course materials and communications to Canvas allowed department and program chairs and others a new and important window into the teaching and learning occurring in their departments and programs. This window created the conditions for important conversations about how individual elements of a given curriculum were unfolding and allowed for improved oversight to ensure that, from the students' perspective, all of the individual elements worked together to ensure a cohesive curricular experience. This form of digital transparency ultimately benefits the students and should be continued.

RECOMMENDED PRACTICES TO PROMOTE CONTINUOUS LEARNING

Amidst its tragedy, COVID was a spark that forced WashU to assess its instructional practices. We have identified above some of the key insights that WashU learned throughout COVID. But what is most important to recognize is that COVID sparked cycles of learning throughout the University. Because we were forced to rethink how we educated students, we also were conscious in assessing the practices that we were using for educating students.

Our second set of recommendations focuses specifically on the practices that emerged during COVID that we believe will help WashU continually improve in its instructional practices over time.

Collect, analyze, and share data on teaching and learning

The University needs to develop a comprehensive, centralized approach to collecting, analyzing, and sharing data on teaching and learning. Such an approach should enable the integration of data across systems (e.g., Canvas, SIS, E-Grades) and levels (e.g., course, program, department, school, university). With key metrics identified and appropriate data governance in place, this integration would produce data that can be analyzed to ask important questions such as how instructional practices impact student learning, how programmatic changes influence student attrition from majors, or whether interventions have changed achievement gaps. Importantly, the key metrics derived from these data should be made visible, broadly disseminated, and used to facilitate improvement at every level (individual students and faculty members,

programs, departments, schools, and institution-wide). The formative use of these data could be facilitated by the creation of dashboards (e.g., via Tableau) aimed at different roles (instructors, staff, administrators, etc.). The creation of common metrics could also be used for university reporting and accreditation purposes to complement the unique data collected by programs and schools.

We collect copious amounts of data about teaching and learning via our various systems (Canvas, Zoom, SIS, E-Grades, Blue, etc.), yet we struggle to utilize these data to inform practice and policy. Our difficulty with making these data actionable stems from a host of problems: data systems that do not talk to each other, absence of a unique identifier that follows students across systems, lack of institutional research capacity, etc. As a result, we rely on ineffective, resource-intensive methods to gather information that is needed to inform decisions about teaching and learning. One prime example is heavy use of surveys of students and instructors to learn about their practices and use of technologies. Although surveys are valuable for understanding student and instructor perspectives and needs, the information gleaned from them can be complemented and extended by looking at existing data and leveraging the analytics capabilities of the various tools in use. Here are some examples:

- Canvas provides ample data to understand faculty and student activity. The University could use these data not just to assess usage (e.g., how prevalent are virtual discussion threads), but also to assess impact (e.g., when instructors use discussion threads, whether students engage more with other materials posted to Canvas).
- Kaltura affords analytics to understand user behavior. The University could use Kaltura's analytics to understand consumption of video materials and, potentially, the impact on student's learning. A common concern among instructors that creates resistance to making recordings available is that students will "binge" watch recordings and learn less. By using Kaltura's analytics, particularly in conjunction with student assessments or engagement in other platforms, the University could assess the validity of this concern.
- Zoom provides the ability to understand user behavior. The University could use data from Zoom to assess students' attendance in virtual classes and activity during those classes (e.g., vocal contributions in class, chat-based contributions in class). This information could help craft evidence-based best practices for class activities and sessions that rely on virtual instruction.

Beyond thinking critically about *what* data to collect and analyze, the University should think innovatively about *how* to collect those data. Current methods suffer from issues such as

unrepresentative samples (e.g., surveys, course evaluations), sifting through massive amounts of data, and differences in the collection of demographic information, among others. For both digital trace data and survey data, it may be useful to design data collection efforts that are either targeted at specific subgroups or use a random sampling approach to achieve a representative sample of larger populations of students and faculty. It is important that these mechanisms are identified now so that they can be built into Workday Student Sunrise.

Require, incentivize, and promote continual learning among instructors

The average assistant professor arrives at Washington University with relatively little training and experience with teaching, and yet we lack a robust approach to support these new faculty members in becoming excellent teachers. Similarly, great teachers continue to learn throughout their career, and yet we often do not create time or incentivize our faculty to engage in professional development. Here are some ideas to address this issue:

- *Mandatory Pedagogical Training for First-Year Faculty.* First-year research and teaching faculty should be required to engage in a year-long pedagogical training program (with a process to request an exemption). The goal of such a program would be to develop faculty awareness of proven and effective approaches to teaching and understanding of how to use them in their unique course contexts. An added benefit would be to create networks of faculty who can support each other with teaching and other aspects of their position as they embark on their career. This should be part of a broader training program for beginning faculty that prepares them for other aspects of university life (writing grants, building research programs, mentoring students, managing time, etc.).
- *Professional Development.* One benefit of the past year has been an active effort to learn and innovate. The schools have administered multiple surveys to learn about new things that faculty are doing and to disseminate new practices and technologies. These kinds of continuous learning efforts should be an annual practice at WUSTL in a post-pandemic world and the University should incentivize professional development through mechanisms like tying it to merit salary increases. The University should also seek to increase the perceived value of professional development to faculty by annually collecting ideas from instructors about new practices, policies, and technologies that they have used that have worked well (and those they've tried that have not worked well). This brainstorming could be done through surveys, an ongoing virtual forum, and/or live virtual sessions.
- *Faculty Learning Communities (FLCs).* FLCs are groups of faculty who learn collaboratively by sharing and critically interrogating their practice with the goal of

enhancing student success and classroom community, such as the CTL educational book clubs. FLCs should be encouraged and facilitated at the program, department, school, or university level.

- *Create mechanisms to support educational innovation among faculty.* Education innovation needs to be encouraged, supported, incentivized, and rewarded. Many approaches are possible to achieve this goal. One idea would be creating a University society for teaching excellence, a teaching fellow program, or equivalent that requires participating faculty to create projects and outreach that will impact education. Internal funding opportunities could provide resources to support projects proposed by faculty.
- *Faculty observations.* An important mechanism for supporting educational innovation is developing a tradition of having faculty sit in on and observe the teaching styles of other instructors. This could be done on a large scale, with one week per semester designated as an observation week, when faculty are encouraged and/or rewarded for attending classes by their peers, or on more intimate scales through “teaching pairs” or “teaching triangles,” where small groups of faculty rotate in the observation of each others’ classes.
- *Align incentives with teaching excellence.* Assure that a diverse set of key metrics of teaching excellence (not just course evaluations; e.g., see section on data above) are part of tenure and promotion criteria, merit salary increases criteria, and other important decision-making processes that affect faculty.

Leverage technology to support teaching and learning

Technology has been transforming the world of higher education and WashU was far behind on this front until the pandemic forced changes. Now that we have come a long way in a short time, it is important to capitalize on these newfound technological practices and policies by continuing to improve.

- *Create a systematic approach for exploring and adopting new technologies.* Currently, our approach consists of a “bottom up” laboratories-of-innovation model in which individual instructors, programs, or schools experiment independently, with successful technologies (sometimes) bubbling up to the broader University. One central place for the exchange of such knowledge about innovation is the IT Teaching & Learning Domain Committee. This approach has value and should certainly continue, but the University should also engage in a “top down” strategy for identifying, funding, and implementing new technologies that would support teaching and learning. Rather than reacting to

problems or slowly adopting new technologies, there is value in identifying future problems and addressing them through targeted experiments with new technologies. For example, during the pandemic in which we could foresee the need to support hybrid modes of instruction, the CTL installed new hardware in 100 classrooms for improving the audio/visual quality of classroom-based recordings.

- *Educate students and faculty about open educational resources (OER) and encourage their use.* The cost of materials associated with courses is an equity issue that will continue to grow as the University diversifies its student body in the coming years. Students and faculty need to know that high-quality, free alternatives exist to support learning in many courses taught at the University. OER are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing. Some OER are also modifiable, which gives instructors freedom to mix, match, and edit materials in order to tailor them to specific course needs. One idea for making the cost visible would be to put sticker prices for course materials on course listings so that students can “know before they buy.”

Improve and sustain communication, coordination, and collaboration

The responsibility for teaching and learning is distributed throughout the University. Our collective academic excellence requires individuals, programs, departments, and schools to communicate, coordinate, and collaborate. Here are some ideas to improve and sustain this important aspect:

- *Strong and repeated public commitment from leadership.* The tone for teaching and learning at any university starts from the very top. The Chancellor, Provost, and other administrators need to continue to make regular public leadership commitments to the importance of evidence-based, student-centered teaching. Faculty need to hear this commitment everywhere -- especially starting in new faculty orientations where so often expectations for teaching excellence are a distant second to research excellence.
- *Improve communication, coordination, and collaboration among the various entities that support teaching and learning.* Many units across the university support teaching and learning or otherwise influence it (e.g., The Center for Teaching & Learning, A&S Undergraduate Dean’s Office, Assessment / Accreditation, Disability Services, Office for Student Success). The flow of information and interaction across these units has improved in recent years, especially during the pandemic. However, there is a need to make sure that it continues in future years through careful cultivation of cross-unit communication, coordination, and collaboration.

Appendix 3. Subgroup Report - Recorded Lectures and Remote Synchronous Participation

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EXECUTIVE SUMMARY

COVID-19 forced the university to rapidly and dramatically change its instructional models, accommodating remote and hyflex courses. To provide maximum flexibility, common practices included recording lectures originally intended for synchronous participation and allowing remote synchronous participation. In an [Educause survey](#) of fall 2020 students, recorded lectures were ranked as the most effective use of educational technology. The purpose of this document is to consider the value of both recorded lectures and remote synchronous participation with respect to the primary course learning goals. In general, we recommend that recordings should supplement and not supplant classroom attendance; remote participation should be allowed by exception.

PROCESS & GUIDING PRINCIPLES

To derive recommendations, our subgroup reviewed data collected across the University through the Spring and Fall of 2020. Several schools administered surveys to faculty and students, soliciting their perspectives on the efficacy of new technologies and practices, as well the challenges and opportunities they identified from teaching during COVID-19. These survey results are available in our [Future of Instruction shared folder](#). Beyond these COVID-centric data streams, we also consulted university teaching and learning specialists. Our discussions and recommendations were informed and guided by several principles noted in the overview above.

SUMMARY OF CONSIDERATIONS

Course recordings are valuable for delayed reinforcement of material, understanding difficult concepts, exam preparation, and are accessible anywhere, at any time, through multiple devices. They have particular value for students using accommodations, non-native English speakers, and students with unexpected absences of medical and other causes. Remote synchronous participation serves the critical purpose of allowing students who cannot attend class for legitimate reasons to remain involved in the course.

Recordings may in some cases discourage attendance and promote binge watching. Recording lectures may inhibit discussion of sensitive topics. In hyflex courses, instructors report that many students originally intending to be in-person ended up attending remotely. Paying attention to both in-person and remote students was a challenge for instructors. A significant

number of students report difficulty hearing discussions and feeling left out and had difficulty with lag time. A combination of careful planning, technologies that allowed students and the instructor to see all remote participants, and a dedicated remote monitor increased the quality of the student experience. Nevertheless, in many hyflex classes, learning for in-person and remote students is, or is perceived by students to be, inequitable.

The recommendations below underscore methods for incentivizing student attendance and participation in class while retaining the benefits of recorded lectures and remote synchronous participation.

COURSE TYPES

Primary activity is the delivery of dense content (typical of large lecture courses).

We recommend recording lectures with immediate release to all students.

The value of being able to review content in the days following the lecture outweighs the risk of skipping lectures and binge watching. Many instructors reduce the tendency to skip class or binge watch by incentivizing attendance and/or viewing recordings in a timely manner. Strategies include low-stakes testing either in-class, as Canvas “quizzes,” or built into the recordings (which also reinforces learning) and providing recorded course content in a format more difficult to use than video, such as audio recordings and slides.

There may be course-appropriate reasons for delaying or limiting video recording. Cognitive research suggests that students should review lecture content 24 hours to seven days after the lecture, so delaying release might be counterproductive to student learning. For the greatest learning benefit, students should have maximal access to recordings.

For students with accommodations, captioning is recommended. (ADA compliance may not be met by AI captioning technology, so manually editing may be necessary.)

We do not recommend remote synchronous participation.

The primary consideration is the ability of the instructor and available technology to produce an equitable experience for remote students. This can be difficult even with dedicated assistants to help with technical needs, monitor chats, and answer questions. Additionally, because there is a tendency of students to switch to the remote option, students are moving to what they also recognize to be a situation in which it is harder to engage and feel engaged in the course. The default should be in-person courses, with remote participation, if available, requiring special permission.

Primary activity is discussion (typical of seminar courses)

We do not recommend recording lectures.

Recorded lectures do not replace active participation in discussion. Having some students miss class can worsen the experience for all students. Importantly, instructors have found that recording sessions inhibits discussion of sensitive issues.

We recommend limited use of remote synchronous participation.

Instructors should consider synchronous remote sessions for students who cannot attend due to exceptional situations. An instructor can reasonably engage a few students on a laptop or computer monitor, if needed. Alternatively, some instructors may prefer individual follow up in office hours for students who cannot attend.

Primary activity is active learning done through group work (student movement, collaborative problem solving, case studies, labs, maker spaces)

We do not recommend recording lectures.

A recording cannot reasonably replace participating in class activities.

We recommend remote synchronous participation only for students who need special accommodations (due to illness, for example).

Remote synchronous participation would require cameras on both instructor and students, a/v support where needed, course monitors, and additional cameras so that small groups of classroom-based students can interact with zoom-based students.

EXCEPTIONS

Online courses

We recommend recording lectures and live sessions.

Recordings provide maximum flexibility, especially for unexpected technology or connectivity issues. Many instructors institute low-stakes testing, discussion boards, group annotated reading, etc., to ensure that students remain on track and engaged. Instructors also use regular, personalized check-ins (email or virtual) to reinforce personal connections and answer questions. We do not generally recommend self-paced learning.

Students with accommodations

We recommend conferring with individual students to discuss the role of recordings in their learning (the best way to make effective use of class time and recordings), identifying the particular needs of the student (for example, the student may lip-read, so may need to see the instructor's face, etc.).

NOTES

Classroom technology

We are well-suited to provide recorded lectures and remote synchronous participation where necessary:

- Pooled classrooms allow instructors to make adequate recordings.
- All pooled classrooms with the exception of the auditoria have ceiling array microphones that capture student comments and questions as well as the voice of the instructor.
- Microphones in a nerf ball (CatchBox) are available to record student comments and questions in the auditoria.
- Doc cams are available in about half of pooled classrooms and provide clearer notes than filming the blackboard or whiteboard; many classrooms also have “smart” boards that allow instructors to interact with presentation slides in an easily-seen manner.
- Smaller rooms can make use of Zoom.
- A few rooms have dual cameras.
- We have unlimited space to store digital recordings.
- The CTL can provide remote camera assistance, if needed.

FERPA

Faculty can use recordings that include students in the context of the current iteration of the course. If the recording is intended for re-use in contexts other than that course, students' names, images, chat messages, verbal discussions or other identifying information should be edited out of a recording in order to be compliant with FERPA. This can be done easily by the instructor using the Kaltura editing tools within Canvas. Alternatively, some faculty may choose to pause a recording when discussion begins so as not to record it at all, depending upon the sensitive nature of the discussion or if they know they wish to use the recording beyond the section in question.

Recording and remote participation should be allowed at the discretion of the faculty, in consultation with students, and in alignment with departmental curricular needs. Faculty should not be expected to take unusual measures to ensure video quality. However, in courses where student learning is dependent on video quality, faculty should consult with Classroom Services in CTL to ensure that audio and video expectations are met.

Appendix 4. Copyright Ownership Statement

Drafted by the Office of General Counsel

“The ownership and use of course materials created by Washington University instructors is governed by the University’s Intellectual Property Policy. The University considers course materials to be scholarly works under that Policy. Thus, absent a specific agreement to the contrary, materials that an instructor creates in connection with course development and instruction belong to the instructor who created them unless they were (1) created under the direction and control of the University; or (2) developed in the performance of a sponsored research or other third-party agreement.

Examples of course materials owned by the faculty/instructor creator include:

- a. Course syllabi;*
- b. Lecture notes;*
- c. PowerPoint or other digital presentations;*
- d. Class assignments, exams, and answer keys; and*
- e. Digital course materials, including video-recorded lectures that are self-produced or produced with assistance from University staff.*

The University encourages instructors to take advantage of University resources to enhance their course instruction. Thus, an instructor’s use of such support (for example, the resources available at the Center for Teaching and Learning or the use of University-owned studio facilities such as the Instructional Design Studio) will not change the nature of the instructor’s ownership of those materials.

The University may own course materials in certain situations, for example where content is specifically commissioned by a school or program. Typically, in such instances, the University and the instructor will explicitly agree as to the ownership of the commissioned materials. When an instructor is unable to complete a semester, the University reserves the right to access and use the instructor’s course materials, as necessary, to complete that course’s instruction. In that instance, however, the University will not assert ownership of the materials – only the ability to use them so it might complete the course instruction.

If you have questions about the ownership of specific course materials, please direct such inquiries to (relevant School official).”

Original clarifying language drafted in response to shift to online instruction – March, 2020:

Pursuant to the Chancellor's recent announcement, due to COVID-19 all Danforth classes will shift to online instruction until at least April 30, 2020. During this time, we anticipate that faculty and instructors will use Canvas or Zoom to provide instruction. According to those software provider's Terms of Use, course content that you post in connection with such instructions remains your sole property. Likewise, Washington University will not assert ownership rights in any instructional materials you create (including, but not limited to, class recordings) as a result of the temporary suspension of face-to-face classroom teaching due to COVID-19.

WUSTL IP Policy, §3. Ownership of Intellectual Property

- a. General Statement of Ownership. Except as noted below, all intellectual property (including lab notebooks, cell lines, software, human samples and other tangible research property) shall be owned by the university if significant university resources were used or if it is created pursuant to a research project funded through corporate, federal or other external sponsors administered by the university. Creators will provide, upon request by the university, assignments or other documents necessary to perfect the university's ownership rights. Generally, creators and research investigators will retain custody of tangible research property while at the university.
- b. Exceptions to the General Statement of Ownership. The creator shall retain ownership of the following:
 - i. All intellectual property developed without a significant use of university resources and without corporate, federal or other external sponsorship;
 - ii. All rights in artistic, literary and scholarly intellectual property, such as scholarly books, articles, and other publications (including those in electronic form), works of art, literature and music recordings are owned by their creators despite the use of university resources so long as such works are neither created under the direction and control of the university, nor developed in the performance of a sponsored research or other third party agreement; and
 - iii. All copyright in papers, theses and dissertations written as a student to earn credit in university courses or otherwise to satisfy university degree requirements.

Appendix 5. Revised Course Modalities

Universities have the prerogative to define course modes as needed. We are not required to define them according to our accrediting organizations' definitions. Rather, we must be prepared, if definitions such as those of the HLC or ABA differ from ours, to report accurately to those bodies which of our courses meet their definitions. Existing flags in WUCRSL are available to do so. For example, the School of Law registrar is prepared to request such a flag should any courses/sections fall into WashU's Online Hybrid modality by the ABA's "online" definition.

Course modalities are recorded in WUCRSL and displayed in Course Listings as "instruction types." Their descriptions/definitions are currently published only in WUCRSL user support [documentation](#). In preparation for Fall 20 and Spring 21, details about Covid modalities were added to the OUR website to help students understand how courses during this pandemic year were delivered.

We propose to revise the current definitions as below and publish them in more obvious places such as the OUR website and faculty handbooks. H19 and R19 should only be used with courses that cannot be assigned classrooms due to pandemic measures; class sections whose instructional delivery is permanently shifting should use OLH or OL as appropriate. Scheduling details such as "synchronous" or "asynchronous" can be recorded using days/times and common text in the description; Building/Room should reflect Remote for appropriate sections. We are exploring additional details for Final Exam codes to allow remote exams to be reflected correctly.

Course Modalities:

Classroom Instruction: A class in which 80% or more of the contact hours between instructor(s) and students represent in-person engagement.

Hybrid (H19): A class in which course content is delivered both in-person and remotely. Depending upon the course structure, students may be required to participate in both modalities, or have the option to participate in either exclusively. Refer to the course description or notes for details. Created in 2020 to facilitate instruction during the Covid-19 pandemic.

Hyflex (HFX)*: *A class in which course content is delivered both in person and remotely. Students may participate in either modality exclusively, or both, depending upon the course structure.*

**This institutionalizes the H19 model allowing students to attend in whatever modality they choose and requires an instructor to accommodate that. It could pose problems for students whose status (visa, athlete, veteran) restricts the amount of online instruction they can pursue.*

Online Hybrid Course (OLH): A class in which 20-79% of the contact hours between instructor(s) and students represent in-person engagement; the time spent with in-person engagement is reduced but not eliminated. Students must participate in both modalities.

Online Course (OLI): A class in which less than 20% of the contact hours between instructor(s) and students represent in-person engagement.

Remote per Covid-19 (R19): A class in which 100% of the course content is delivered remotely as a result of the University's Covid-19 protocols. Created in April 2020 to support the cancellation of in-person instruction.

Appendix 6. Impacts of Modality on Compliance and Reporting

The following captures potential impacts of offering online courses.

Students:

International Students: Students who are studying at WashU on F1 and J1 visas are allowed a maximum of one “online” course to contribute to their full-time status requirement (8 CFR 214.2). They must maintain full-time student status to be in good standing with Student Exchange Visitor Program (SEVP) requirements and remain in the country.

Veterans: Students who use Veterans’ Benefits and take classes designed to be offered online are not eligible for VA housing allowances. Students who attend programs that are partially online and partially “resident” (i.e. physically in-person) may be eligible for a housing allowance depending upon the proportion of online versus resident instruction, and their rate of progress through the program as certified by the VA certifying official at the University.

Student-athletes: the use of online courses for purposes of academic standing or satisfactory progress certification for NCAA eligibility (practice and competition) is determined by institutional regulations (i.e., if WashU allows it, the NCAA allows it).

Reporting:

WashU is required to report course modalities (sometimes a general statement about whether we offer “distance education” by program) via the following mechanisms or surveys:

- IPEDS – required federal reporting; modality is included in several surveys and publicly available via their website and the College Navigator tool.
- Common Data Set – collaboration between institutions, College Board, US News, and Peterson’s to improve information-sharing, make details available, and ease the reporting burden on institutions.
- US News & World Report annual college survey (rankings).
- Internal “Who Teaches What,” which is a critical faculty activity report used (primarily) within A&S.
- American Bar Association reporting – see below.

Accreditation:

Although WashU is approved for “distance learning” by the Higher Learning Commission, so there isn’t necessarily an extra hoop to jump through, we do have to ensure “distance” courses and programs (more than 50% online) are reflected accurately in any narrative reports to the HLC (i.e., faculty qualifications, assessment of student learning, curriculum, are at the same

quality as in-person classes). The HLC also generally regards a course as “online” if 75% or more of the interaction is not face-to-face.

The American Bar Association has a different framework for determining when a class proportionally moves from “in-person” to a “distance education course.” In the ABA’s framework, a “distance education course means one in which students are separated from the faculty member or each other for more than one-third of the instruction and the instruction involves the use of technology to support regular and substantive interaction among students and between the students and the faculty member, either synchronously or asynchronously.” In “normal” times, ABA-approved law schools may grant up to one-third the credits required for the JD in distance education courses. We require 86 credit hours for the JD. It’s possible the ABA will revise these standards. They are designed to let anyone with a JD from an accredited school to sit for the bar exam in any state. Some states require a specific amount of in-person instruction.