BLENDED LEARNING DISCUSSION –PART 3: CHALLENGES
TECHNOLOGICAL CHALLENGES
ACADEMIC COUNCIL –FEBRUARY 9, 2021

BLENDED LEARNING CHALLENGE – TECHNOLOGICAL REQUIREMENTS DISCUSSION SUMMARY

THE CHALLENGE

"Varying levels of technological requirements exist dependent on one's role in the 'classroom' be it student, instructor, or teaching assistant.
These include conditions necessary to create and consume participate/engage in the classroom experience as well as requirements related to technology use and health, for both educators and students."

CONTENT CREATION VS CONTENT CONSUMPTION

- They may be trying to accomplish the same thing, but the challenges can be very different.

PERSONAL COMPUTING

- Course outlines require the use of a PC, but many students are using Macs which simply cannot run some of the required software, or the software is simply not available for Macs.
- Although may be a discipline-specific challenge, problem may be compounded when students are undertaking courses from different disciplines.

RELIABLE TECHNOLOGY FOR INSTRUCTORS AND STUDENTS

- Not all instructors may have access to technology that enables the delivery of quality content (e.g. audio, video, digital).
- Perhaps having spare loaners or secondary devices (at least have some way of getting them at a discount) of good quality readily available on campus would help. Even having some recommended hardware, would go a long way.

MULTIPLE PLATFORMS AND TECHNOLOGY OVERLOAD

- Students can struggle if they have multiple classes using different tools for different courses (e.g., Zoom, Google Meets, Kaltura).
- To further compound the challenge of multiple platforms, courses setup within each do not follow a standard format, which can further frustrate students trying to navigate multiple courses.

STUDENT ENGAGEMENT

- How can we create that optimal, synchronous environment of engagement?
- Presented with too many technical barriers to setup, students may stop engaging completely.

SUPPORT

- May want to consider is support for remote teaching (not just tech support) but operational support.
- Whether it's the ability to effectively pre-select pre-programmed technical settings or having some administrative help to setup a class.
- "It's hard to be the actor, director, and camera operator at the same time".

TECHNICAL CONSIDERATIONS AND REQUIREMENTS IN CLASSROOMS

- What are the technological requirements of the classroom for long-term blended learning?
- What would be the best practices that can help us facilitate this method of teaching?

TEACHING FROM CAMPUS, BUT NOT FROM A CLASSROOM

- Do we consider remote lecturing from offices on campus?
- In that case, there may be some things that some of the technical requirements could be easier to implement if you're teaching from one's office (or the like) on campus where there is stable

Internet connection, may be easier to implement from a technical and financial perspective than a classroom.

TECHNOLOGY REQUIREMENTS AND EXPENSES

- The PD expenses may not be enough to cover additional devices required for remote teaching from home as opposed to being in in the classroom or office.

BLENDED LEARNING CHALLENGE – TECHNOLOGICAL REQUIREMENTS DISCUSSION DETAIL

CONTENT CREATION VS CONTENT CONSUMPTION

- 2-sided approach: a technological requirement for the instructors and a technological requirement for the students. They may be trying to accomplish the same thing, but the challenges can be very different.
- The platform is where they all come together, many instructors have found in the last year that the technology from last PC hardware refresh is not suitable for teaching in an online environment.
- However, still dealing with the equivalent of content creation and content consumption, and whether you know the platform or not.
- If one is trying to produce a live stream, bandwidth requirements may be different than if one consuming pre-recorded content, viewing a live stream. Even with a good Internet connection, it may be very different if you're broadcasting from your house as compared to if you are just trying to consume content.
- The problem is some of those aspects are simply beyond one's control.
- For example, regarding internet connections, (as an instructor) I have no control if it's simply unreliable and no (service providers) are perfect and the same applies to the students.
- And another big issue is that we've been forced into this online learning mode, but the technology may accommodate some of the classes. May work for some of the material, like a simple lecture, but it may never be able to accommodate a tutorial, which could prove to be a real disaster.
- For example, teaching a lab while a TA is brought into the virtual classroom to help a struggling student within a breakout room. It's a challenge with another 110 students, and half of them having problems so the technology is simply not ready yet. No matter how hard we are going to try it right now.
- Does technology fit the task? And the answer is, "not every time". The instructors simply need to adapt or modify the materials or, in some cases, simply remove (aspects) remove that simply don't apply easy to online technologies. Then, once we all go back to "normal", simply consider in the blended learning mode and determine what we're going to leave or and keep online and what we're going to bring back to the "live" (in-person) classroom.
- When defining technical requirements, one of the considerations would have to be that if we're going to tell someone they are going to be lecturing directly from their home (instructor), they should have a typical Internet speed of at least "x". Which may be different than if you are trying to consume content remotely (students).
- That perhaps can be some basic guidelines of internet connectivity, PC specifications, etc.
- Many instructors are not as technologically adept as others, but I think that a baseline like that is important. For example, if one were to present PowerPoint and talk live, then this connection

speed “x” is what you need. If one wants to present and run an application in real time at the same time online then "y” is what you might need, and that approach should be helpful to people because it's overwhelming to transition to online if you've never taught that way before, and the added aspect of frustration when your Internet doesn't work is monumental.

PERSONAL COMPUTING

- PCs versus Macs; course outlines require the use of a PC, but many students are using Macs which simply cannot run some of the required software, or the software is simply not available for Macs.
- Mac is a good personal computing device, but it's not a business productivity tool so, the bottom line is, it simply doesn't work in some cases, so I think we need to have a clear policy that perhaps requires students to have a PC because from instructors just simply cannot switch between the variety of models that are out there (e.g. “For Mac users do this, PC do it the other way.”) It's not feasible and becomes unmanageable.
- But this may be a discipline-specific challenge. For example, PCs may be required for Computer Science, FBIT or engineering, but for Social Science students, computer variability may not be as problematic. The problem may be compounded when students are undertaking courses from different disciplines.

RELIABLE TECHNOLOGY FOR INSTRUCTORS AND STUDENTS

- Not all instructors may have access to technology that enables the delivery of quality content (e.g. audio, video, digital).
- Being able to record something clearly using proper microphones, not necessarily those within one’s laptop.
- Good audio just improves the overall quality of the learning experience.
- Tenured/tenure-track faculty may be able to afford a better microphone, but if you're a TA who's running a tutorial or sessional instructor, you are not likely to spend $100 on a microphone.
- People are using their headsets (which helps), but at time others have poor audio can hardly be heard in meetings so some guidance may be required.
- From a technical perspective, using a tablet PC most of the time and writing on the screen is challenging when one can't rely on the camera, especially if that's also where one is also writing from. Otherwise, it's going to be awkward.
- Perhaps having spare loaners or secondary devices (at least have some way of getting them at a discount) of good quality readily available on campus would help. Even having some recommended hardware, would go a long way.
- Other in-class tools that enable instructors to annotate or illustrate for remote students (e.g. document cameras, tablet devices).

CHALLENGE: MULTIPLE PLATFORMS AND TECHNOLOGY OVERLOAD

- Students can struggle if they have multiple classes using different tools. Should make it Faculty-specific at this stage we not standardize. Disciplines are too different.
- The challenge we have seen from students within a single faculty using different tools for different courses (e.g., Zoom, Google Meets, Kaltura.).
- To further compound the challenge of multiple platforms, courses setup within each do not follow a standard format, which can further frustrate students trying to navigate multiple

courses. From a TLC perspective, that design element not something that is innate to some faculty.
- For example, FBIT have a standardized course outline template in Canvas and updated every semester to ensure the same look and feel across all the courses.
- Recommend that each Faculty will develop specific guidelines, template set of best practices or template for the LMS.

MANAGING TECH OVERLOAD

- We should consider aids the university can provide in managing the physical costs of tech overload, whether that's guidelines or longer time between classes in a schedule, especially when students are in back-to-back classes all day online. Help students create a positive home environment for learning which may have not have considered to date, because they've just made it work for the pandemic.
- It's not necessarily a technology solution, but it is something that needs to be addressed, perhaps outside of technology or as a result of the technology.

STUDENT ENGAGEMENT

- One of the biggest challenges have been lecturing to a "wall of muted cameras and microphones", and not getting that engagement.
- "How do we get more synchronous engagement with our students in this environment?"
- "If we have to teach online, how do create that optimal environment of engagement?"
- For students: presented with too many technical barriers to setup, students may tune out stop engaging completely.
- To compound this challenge, there are different types of instructors. There are people only on either teaching or research tracks and they may have very different preferences. Most importantly, there are sessionals and they may have an entirely different requirement all together. Also consider two different unions of those aforementioned and thus potentially different instructional requirements.
- There are no hard and fast rules on how you do any one thing, but recommendations (or a baseline) can be provided for those connecting from home, and whether one is delivering the content or if one is a student, some guidelines for consuming content.

SUPPORT

- May want to consider is support for remote teaching (not just tech support) but operational support.
- For example, the Google Meets may require splitting breakout rooms before beginning an online and waste 10 minutes of teaching time to setup.
- Whether it's the ability to effectively pre-select certain things or pre-programmed or having some administrative help to setup a class.
- "It's hard to be the actor, director, and camera operator at the same time" recognizing that some people have never taught online before. So even just teaching online is one thing, and now you're asking them to also start and do all those other things right- it's a lot. It's not an easy transition for some people.

TECHNICAL CONSIDERATIONS AND REQUIREMENTS IN CLASSROOMS

- An automated class start concept was applied in the "Synergy" rooms- to have it as easy as possible where an instructor just shows up and it pushed one button and it turns the system on. But you may have an instructor who's not familiar with the in-room technology (e.g. cameras, screens, etc.) and how to interact with those in the correct way to ensure the lecture is captured for the remote students.

- What are the technological requirements of the classroom for long-term blended learning? For example, if you are broadcasting to students at home, in person and recording your lectures as you are in a classroom? What would be the best practices that can help us facilitate this method of teaching? For example, having your lecture notes in front of you on a "comfort screen" and markings on the floor to demark the camera sight's range.
- Recommend to have some teaching faculty help in the design some of the classrooms.

TEACHING FROM CAMPUS, BUT NOT FROM A CLASSROOM

- Do we consider lecturing from offices on campus?
- In that case, there may be some things that some of the technical requirements could be easier to implement if you're teaching from one's office (or the like) on campus where there is stable Internet connection, may be easier to implement from a technical and financial perspective than a classroom.
- How you design offices if we're at a point where instructors are no longer required to work from home and aspects such as childcare have been addressed? One may be considering returning to office and where there is more space and access to adequate technology to record or stream.
- All TTT and teaching faculty are going to have a private office anyway, but if you have a TA or if you have a sessional instructor who may be in a bullpen normally, then they may actually want to set up a couple of these areas where they can do some of the broadcast.
- It would be important for instructors to know what tools they have available for remote teaching.
- If instructors do not have a reliable home Internet connection, an option to come to campus to use the stronger Internet connection and record a lecture from their office or classroom.
- Some instructors are recording in class because they want to use whiteboards and they have it (the course) setup that way so knowing that there could be an option to do that other than teaching from a basement with a webcam.
- Example: live streaming of nursing labs from the lab itself without on-campus students. Cameras focus on the mannequins, however there's a large technological requirement from the University side to make that feasible.

TECHNOLOGY REQUIREMENTS AND EXPENSES

- Technical requirements and expenses (may exceed PA funds).
- FT staff may have to use PD funds for technology upgrades, accessories or tools to teach. For a sessional position, for example, teaching one single course, may now be asked to upgrade their Internet connection, procure a standard microphone green screen, etc.
- Perhaps not an urgent matter at the moment but I think that's an important one eventually, so we need to kind of put it down into the document and see how it's all going to evolve in the future.
- The PD expenses may not be enough to cover additional devices required for remote teaching from home as opposed to being in in the classroom or office.
- Feedback may be that the PD account may be required for other things that could be related to research or things of that nature and in addition, required to video record lecture, then one should have access to something help do that.
- Instructors often trying to adapt the things that they would normally in a classroom in a remote setting (e.g. digital information delivery using document cameras), and so any of the technologies help us do this whether it be writing on a pad of paper in place of a whiteboard and be able to transmit that without having to spend 15 minutes to figure it out.

- Instructors don't necessarily know what is available, so a technological requirement could be if you're trying to do “x”, then “y” might be something to consider as a tool for remote teaching.

Blended learning AC meeting Feb 9, 2021

Room 2

Faculty resources and support needs

Describe the challenge and issues that need to be addressed to meet the challenge

- Use of videos in online format – e.g. youtube videos not being allowed to play in recorded sessions
- Recording not allowed, allowed for live sessions
    - Resources to help make decisions – e.g. copyright
- Help to get answers
- If you can't do what you want to do, what is the solution?
- Students not watching recordings
    - Recordings allow students to re-watch
    - Generally students want the recordings
- More TA resources needed
    - Especially for large classes
    - Monitoring the chat and answer the questions
- Reassess the assessment
- Time
    - Because it's new?
    - Maybe don't need as much time in the future?
- Could do more in the virtual space
- Investing in what we are doing physically? (in person)
    - Why do they need to come to campus? What is the value of in person sessions
    - Rethinking the methods of in person
- Is the culture open to re-inventing teaching?
    - People are open because the students like it
- Can we use AI for marking?
- Perusall
    - Reading or a video
    - Allows students to post
    - Keeps track of student posting and grading
- Lab resources
    - Connecting remotely
    - Improving experience in person
- Burn out of quizzes regularly
- In the online environment there are so many different tools, no more pen and pencil, different resources are available. Different rules.
- Better connection to other courses – for example how was the material presented in the pre-requests and in later classes
    - Sharing

    - We are siloed, we don't know how things are being done in other classes, could inform how we teach our courses
    - Faculty of Ed encourages the diversity of tools
- Best practice forums
- We overwhelm the students with the diversity of ways we present the information
    - We need resources to support faculty to be aware of what is going on across the faculty and within the faculties
- Alternative forms of assessment
    - Self-assessment and peer assessment
- Need a forum for sharing
    - Not just best practices
    - Hearing about the disasters – learning about the failures
    - How did you recover
- In the past – profs were given a huge amount of resources to develop online teaching, time, buy-outs, etc
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Blended Learning and Student Engagement:

Our discussion included a balance and variety of panel members from senior admin, deans, tenure track faculty and students, which provided several lenses on how student engagement is, or is not, occurring in blended or online classes.

Asynch Discussions: Providing students choice of how and where to discuss (staying on Canvas, or using external LMS) is key to ensuring engagement. Instructor participation in the asynch discussion is also key to maintaining engagement and meaningful reflection. The challenges of assigning a grade to reflection, the authenticity of reflections, and the issues of mandating reflection were discussed. While these may work for some students, there can still be a sense of isolation. One solution suggested was to create smaller "family pods" of students or "home groups" who can create stronger relationships when classes are large.

Videos: We were provided with a straightforward response that some students honestly never attended synchronous classes, but watched the videos of lectures on their own time. This creates a challenge of developing class community, but also has the advantage of anywhere anytime learning for students. Some felt it was a good way to flip the learning and ask questions of profs, others felt isolated. This may be an issue for students learning from home taking 5 classes all on video, so a balance of video and synchronous meetings in smaller pods may address this.

CANVAS LMS: Student perspective indicated some challenges in how each professor tends to use different features of canvas, post course material in pages, or modules, or files, so this was overwhelming for some students taking 5 courses set up in entirely different ways. On top of this, some professors prefer to use outside elements such as blogs, wikis, nings, which can add to student workload. So, the challenge is ensuring academic pedagogical freedom in course design, while trying to streamline for students where, and how, they are required to participate.

Social interaction: There appears to be a need to find ways to intentionally create virtual social communities, to redesign, or replace, the on campus experience (eg virtual coffee house, virtual concert, virtual social settings)

Blended Learning Discussion – Report from Room 4 – Change Management

February 11, 2021

Goals for Today:

We are asking each breakout room to:

- Describe the challenge succinctly.
- Identify the issues that need to be addressed to meet the challenge.

The breakout room leader will prepare a summary of the discussion and submit it to the USGC.

The Change Management Challenge – The Sticky Notes

Change Management: Represents change for some and people resist change; can be stressful because it's different; not understood by parents - needs to be explained; An explicit for-profit strategy - this will be noticed and criticized by our students; it is not a great way to improve our reputation and enrolment;

Who Was in Our Room?

Facilitator: C. Foy,

Attendees: M. Bliemel, G. Crawford, M. Eklund, L. Elliott, T. Pierce, C. Rodgers.

The Challenge Described:

- Articulating the approach– acknowledging the breadth and scope of activities and approaches to blended learning within the university, how do we describe it in a meaningful way that serves to differentiate the university? Is there a description we can all get behind?
- Once we know what we're communicating/getting behind: identifying the impact of the change on various stakeholders, and creating the conditions for their acceptance of the change. Stakeholders include: Students (all levels) Parents, Influencers(guidance counsellors, teachers etc.), Faculty, Teaching Support, Learning Support, Decision-Makes (resourcing), Business/Employers, Government and …

Meeting the challenge – Things to Consider

- Discussed model's of change management (See Resources slide)
- Leavitt's diamond – Structure, Technology, Task, People – change 1 and the other three will compensate to bring things back to equilibrium
- As the technology is changing, need to think about how are we changing the tasks, the structures and the people.
- Engage our community, what is in it for each of the stakeholders?
- Not doing it for doing its sake but to do things better/smarter/easier/less work/less confusion. Improve processes. Improve experience.
- Considerations of equity and equal distribution – people have to feel equally treated, equally supported from where they are (some more tech savvy than others)
- Can't perceive the change as top down or forced – all have to feel part of it.
- Supports in Teaching and Learning, Service orientation,
- Not technological determinism rather tech with a conscience (in what we adopt and how we do it)

Meeting the challenge – Things to Consider

- Consider a design principles and project management approach – start with the problem, what are the user needs? What are the engineering/design requirements? What are the options for solutions? Design and Test.
- Embrace consultation all the way through.
- Don’t lose sight of the problem(s) we are solving.
- Ontario Tech has to chart its own path technologically –constraints of the shared services model.
- How do we support faculty trying out new things in the classroom – constantly seeing what is possible?
- Need to consider the term “blended learning” – it’s used a lot and externally – what’s the external meaning?
- Who are the flagship institutions for blended learning? What can we learn?

Academic Integrity breakout room for blended learning discussion

Attendance: Philip Shon, Ferdinand Jones, Joe Stokes, Langis Roy, Elita Partosoedarso

Items discussed

- Philip attended a workshop hosted by Turnitin: he shared a couple of workarounds by students that lowered the "plagiarism score," that is the use of white quotations (inserting quotations but in white so that it is invisible to the naked eye) and the insertion of seemingly blank pages with white writing (again, invisible to the naked eye to lower the percentage of the word count).
- Ferdinand shared how he has an academic integrity pledge that students in his courses sign, as well as the adoption of multiple versions of assessments, used with no backtracking and randomized order of questions. Also the use of problem-based or scenario-based assessments to make it more difficult to search for answers online
- Joe encourages use to focus on major offenses, how to address mass cheating as it is easier to do online. Perhaps use instance of widespread cheating as an object lesson to reduce subsequent instances of cheating. Perhaps policy needs to be looked at as some cultures value group work and collective knowledge rather than individual submission such that academic integrity offences can be inadvertent or not deliberate. Talked about strategies and risk mitigation to focus on more serious instances of academic integrity
- Langis encouraged the use of multiple lower stakes assessments, perhaps with using alternate assessments in a iterative format to achieve final result.