

Board 122: Preparing to Teach a Multi-Campus (Distributed Learning) Course

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Abstract

In this theory paper, a review of best practices for preparing to teach a course in a Multi-Campus format. Multi-campus instruction (MCI), also known as distributed learning, is an instructional format that involves a single instructor in a classroom at one location (the “local” cohort) while synchronously teaching “local” and “remote” cohorts of students that are situated at other campuses. Students in the “remote” cohorts attend using Information and Communications Technology (ICT) such as video conferencing equipment. Courses and full programs offered in this format are becoming increasingly popular at educational institutions around the world. Resources exist to support instructors, but they can be difficult to locate, are limited in scope, or have not been updated to keep up with technological advances. Whereas other literature typically considers a theory-based framework focusing on educational pedagogy and philosophical principles for developing an MCI course, this paper examines practical considerations when offering courses across multiple campuses, with a focus on planning and administration. It identifies and lays out common considerations one must make when delivering an MCI course, including maintaining equity across cohorts, contextual differences across cohorts, content delivery and student activity planning, communication, IT resources, human resources (teacher’s assistant, TA), and scheduling. Preferred presentation style: Traditional lecture

1 Introduction

Multi-campus instruction (MCI), also known as distributed learning or cross-campus instruction, is an instructional format that involves a single, main instructor in a classroom at one location (the “local” cohort) synchronously teaching “local” and “remote” cohorts of students that are situated at other campuses. Students in the “remote” cohorts attend through Information and Communications Technology (ICT) such as video conferencing equipment.

MCI courses offer many benefits to students, faculty and administration [1]–[3]. These include an increase in accessibility to educational opportunities including: experts in the field, a variety of courses, and recognized, credible programs with consistent standards. Improving educational possibilities for students in remote communities, without requiring relocation, can be a tremendous opportunity for rural students. Instructors benefit by expanding their perspectives by having students from different backgrounds living in different contexts, increasing their class size, and typically gaining access to resources at other institutions. Instructors can offer expertise to a broader group of students, potentially filling gaps in underserved communities [4]. There are also benefits to administration, such as potential for reduced program costs, opportunities for inter-campus collaboration, as well as transparency and information sharing.

Notwithstanding, challenges related to successfully administering courses in this format are often underestimated [5]. Successfully repurposing a single cohort class for a multi-campus context requires more consideration and course design than simply delivering a course using ICT [6]. Common challenges related to building community and maintaining equity often occur with commensurate impacts on student experience [4]. Students in the “remote” cohort often feel ignored or deprioritized, while the “local” cohort can perceive that the other cohorts are hindering their learning. Beyond pedagogy, there are also challenges to instructors in scheduling exams and finding teaching assistants across institutions, to administrators in course room and time allocation, and to program directors in ensuring quality and curricular alignment. Technological/IT challenges, along with communication challenges are always present.

Delivering a course in this format for the first time can be daunting. Table 1 presents some differences between the two instructional formats. Establishing equivalent learning opportunities across cohorts is one of most important factors in ensuring a rewarding experience for students [7], [8]. The students at remote cohort(s) may feel that they are an afterthought or budget tightening measure, while the students at the local cohort may feel the tensions for competing attention and support. It may be necessary to rebuild and redesign labs, tutorial activities, and exams for each cohort that reflect the needs and constraints of each learning context. Understandably, due consideration and careful planning is required on behalf of the administrative staff and instructor(s).

Table 1: Differences between conventional and multi-campus courses

Factor	Conventional	Multi-Campus	Implications
In-class student/instructor and student/student interactions	Attend to students in person. Students interact with one another in person	Attend to students in person, remotely, and online. Students interact in person, or through online platforms (Google docs, Padlet, Slido)	Increased cognitive load on instructor to attend to multiple groups. Students at remote sites have limited interaction with other sites
Instructor/lecturer	One instructor/guest speaker	Need for classroom support in other sites, and possibly for guest speakers	Need for administration and organization at each site, increased costs
Technology	Little reliance on technology (more choices available)	Reliance on technology for content delivery, and in class activities	Delays, and other complications due to technical difficulties.
Physical space	One location for all students	Multiple locations with different amenities and learning contexts	Differences in accessibility, including commute, parking, classroom space

Resources do exist to support multi-campus course instructors, but they are not easy to find and/or readily available. Many have been removed or are no longer current [9]. There are a range of needs beyond technological considerations that are based on experiential knowledge. This paper provides an introduction to planning and administering MCI courses. It identifies and lays out common considerations one must make when delivering an MCI course, including maintaining equity across cohorts, contextual differences across cohorts, student familiarity with MCI, content delivery and student activity planning, and scheduling. Conclusions are derived from both personal experiences engaging in multi-campus education and a survey of practice-oriented papers from an international context.

2 Key considerations

The following subsections describe considerations relevant to preparing for and delivering an MCI course. Planning for conventional courses is lower risk, modelled through past experiences, while unexpected challenges can arise with MCI courses. This section is intended to be a collection of various considerations that may require attention when preparing for an MCI course.

2.1 Context across cohorts

The instructor must consider how the learning environment differs across cohort locations and the corresponding differences in learning opportunities for each cohort [2], [10]. Differences can be subtle, where cohorts are simply located at different campuses of the same institution in a geographically close location with similar amenities, or quite significant, where cohorts are in different countries, time zones, and may speak different languages.

If students are in different time zones, they will be joining in at different points in their days. A lecture could be the first class in the morning for one cohort and later in evening for the other, affecting how students engage with the material and other students. Quality control, including student evaluation of teaching, may differ between institutions, and language barriers may significantly impact communication between the instructor, teaching assistants, and students. [11], [12]

The availability of resources like libraries, workspaces, labs, and support staff is another consideration. Inequitable access to these resources can have a disproportionately negative effect on students [13]. Libraries at various locations may have access to different materials or wait times. Differences in library holdings may influence how students conduct research for their courses, which may affect learning outcomes [14]. While some institutions have the means to provide broad access to learning resources online, this is not the case for all institutions. Students are also able to connect and meet with the librarian through online platforms.

Beyond libraries, access to and the types of workspaces available may vary between cohorts. Differences in workspace layouts can affect their suitability for group work and collaborative

projects. An enjoyable place to work with others may encourage students to spend more time working together on a project compared to students with less enjoyable workspaces that simply want to ‘get it done’ so they can go elsewhere. It is important for instructors to be aware of how this could influence student interaction and collaboration. In courses featuring laboratory components, discrepancies in equipment availability and functionality can lead to different learning outcomes and/or inequitable hands-on experiences. Equity across cohorts should be kept in mind when designing laboratory activities that are held at each location. The accessibility and quality of support staff can be different depending on location. Some staff may have more experience than others, some may be more preoccupied with other responsibilities. These types of factors can affect how they interact with and support student learning.

There may be cultural differences in courses that span regions or countries. Cultural differences between cohorts have been found to affect interest in the material [15]. These differences could affect the way faculty and staff function, including their expectations of timeliness, interactions with others, and work ethic/quality. There could also be variations in national or religious beliefs and practices that have direct implications to learning. Culture may affect the way students interact with others and/or the instructor. It may also affect how different groups of students (male vs female, younger vs older, etc.) may act in certain situations. Like culture, native languages may vary across student cohorts, requiring consideration to account for how the instructor communicates with students, and the learning materials employed.

2.2 Stakeholders

There are more stakeholders in MCI courses than in single cohort courses. These include the instructor of the course and two or more cohorts of students. There may also be teaching assistants (TA) on site with both cohorts. Program directors and administration staff also have a role to play. Table 2 summarizes these roles, and more detail is provided below.

The local TA may have very different duties from the remote TA. The local TA may be more occupied with marking assignments, while the remote TA may be responsible for setting up the ICT equipment and facilitating activities during the lecture [7], [14], [16], [17]. This leads to the need for the instructor to clearly identify everyone’s responsibilities and provide adequate training. TAs can be crucial for managing and resolving unexpected circumstances [18].

Program directors should understand the additional resources required to deliver an MCI course successfully. Administrative staff must also adopt the greater responsibilities for scheduling that reflect the context at all locations. Scheduling should permit exams and assessments to be delivered at the same time for all sites to ensure equitable evaluation of knowledge and skills.

Table 2: Stakeholder roles

Stakeholder	Roles and Responsibilities
Instructor(s)	<ul style="list-style-type: none"> -Administer the course -Encourage student learning -Plan and communicate with other stakeholders to support continuity at the different sites
Program director/administration staff	<ul style="list-style-type: none"> -Provide resources at each site -Develop suitable schedule (including room booking and exams) -Make financial decisions
Local cohort	<ul style="list-style-type: none"> -Engage with course material -Interact with local cohort -Interact with remote cohort through technology -Complete evaluations and assignments
Remote cohort	<ul style="list-style-type: none"> -Engage with course material -Interact with remote cohort -Interact with local cohort -Complete evaluations and assignments
Local TA	<ul style="list-style-type: none"> -Marking
Remote TA/site instructor	<ul style="list-style-type: none"> -Setting up and facilitating lectures -Answering in-class questions -Marking

2.3 Student familiarity with MCI

If students have no prior experience with MCI courses then they may have some preconceived ideas of what to expect (typically not positive) [19]. It is held among some multi-campus practitioners that the reality of MCI teaching is working toward an “equally miserable” student experience as a method to achieve equity in student experience, highlighting the need to control the narrative for both instructors and students engaged in MCI learning. If this is the first time students are part of an MCI course then a brief introduction to the format and how best to succeed may benefit them [16], [20]–[22]. Informing students about the benefits of MCI may help them to embrace the experience more positively. A solid foundation serves as a navigational guide, presenting unique aspects of MCI and fostering confidence in the students. By highlighting benefits, the students can form a different perspective from the beginning, thus setting the stage for a rewarding and constructive learning experience. The introduction serves as a foundational step, laying the groundwork for students to be open to MCI and enhance their engagement.

2.4 Communication

There are many effective ways of communicating within a classroom setting. Having a means to voice perspectives, opinions, and feelings within the course can improve sentiments of affective expression [23]. Access to, and ease of communication between students and instructors can have a profound effect on student experiential equity as they may feel that other cohorts have special access to the instructor [12], [14], [20]. Impediments to asking questions can discourage engagement within the classroom, reducing cognitive stimulation and retention [24]. The instructor should understand and be proficient in the methods/technologies that will be used to facilitate communication between all parties, including students and TAs.

The most obvious channel of communication is between the instructor and the students. This can be broken down into instructor and local cohort, and instructor and remote cohort. It can also be differentiated by in-class/lecture and out of-class/lecture communication. Figure 1 depicts various channels of communication between the instructor, local, and remote cohorts. During lectures, the local cohort communicates with the instructor by getting the instructor's attention and simply asking a question out loud. In MCI courses students and instructors may need to use a microphone in order to be heard by all students and/or instructors and facilitators. Adopting a procedure for communication for both cohorts should be considered. Classroom-based communication can be supplemented with other tools such as chat rooms, discussion boards, and messaging applications [16], [20], [24].

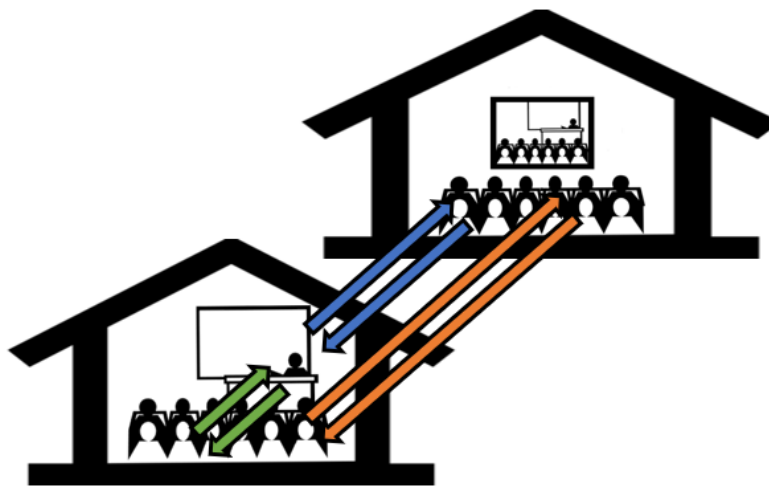


Figure 1: Communication channels during a lecture, where green shows instructor/local cohort, blue shows instructor/remote cohort, and orange shows local cohort/remote cohort.

The procedure for communicating with the instructor outside of class time should be considered as well to minimize perceived inequity in student access to instructional support.

Timely communication between the instructor and TA(s) is critical. Regular meetings or update emails to keep the TA abreast of information and what is required of them is especially necessary

given the varied roles of TAs in the course. Regular times and methods to meet and receive updates/instructions should be established during the planning stages of the course.

Communication between the TA(s) and students should also be considered. Ensuring that communication is equitable for all cohorts is critical. Communication advantages and challenges in every teaching space should be inspected with results used to inform pedagogy.

There may also be a need for the student cohorts to communicate with each other during or outside of class, which can reduce perceived discrepancies in affective expression between cohorts [14], [25]–[27].

2.5 Delivery mode

Instructional delivery methods, specifically the choice between synchronous and asynchronous components, are important when designing and delivering a course [28], [29], [30]. The nature of the content plays a pivotal role in determining the most effective approach, with certain types of material lending themselves more naturally to synchronous instruction, fostering real-time engagement and interaction. Conversely, other content may be better suited to asynchronous delivery, providing flexibility for learners to engage with the material at their own pace. Additionally, types of students that make up the cohorts can affect the choice of delivery method. Full-time undergraduates, whose schedules may be more amenable to scheduled lectures, offer different challenges than part-time, professional students taking classes while employed full-time.

2.6 In class activities

Hands-on activities are a valuable pedagogical tool for enriching the learning experience. Activities that promote active learning, creative and affective expression, or entertaining pedagogy can help encourage engagement and improve cognitive presence [20]. Activities that can be performed equitably across cohorts are preferred for multi-campus courses [31].

Effective communication strategies, such as relaying clear instructions to students and TAs as well as communicating demonstrations are important parts of successfully delivering activities to all cohorts. Storage and maintenance of physical items requires advanced planning and coordination with remote TAs. If possible, demonstrations should be held at each location to improve equity and enhance the effectiveness of triggering events [14].

2.7 Contingency planning

Anticipating and planning for scenarios where the ICT system fails midway through a lecture, such as the quick deployment of alternative technologies, including video conferencing on a laptop, is a worthwhile exercise. Contingency plans should be clearly defined, outlining protocols for execution in case of technical issues and all relevant stakeholders. Considerations

for communication protocols between the instructor and the facilitator (TA) at remote sites, access to IT support, initiation procedures, alternative facilitators at each location, and clearly identified responsibilities for implementation should be made.

2.8 Stakeholder feedback

Ongoing consultation with stakeholders, including students and TAs while the course is running, is especially essential [8], [32]. By soliciting feedback from students and TAs, instructors can identify potential issues and challenges early when they are new and/or minor in scope, thus preventing them from quickly escalating into larger problems. Feedback should be solicited within the first month of the course. The Online CoI Survey Tool [8], [33] is an example of a quick and easy to deploy tool intended precisely for this purpose.

2.9 Time allocation and compensation

The development and delivery of an MCI course demands a greater investment of time in planning, preparation, and delivery compared to traditional courses. Instructors and administrators should be cognizant of this increased workload and factor it into their considerations from the outset. More time and effort are required to coordinate multiple campuses, manage diverse resources, and ensure a successful and equitable learning experience. This increased commitment should be acknowledged by instructors and recognized as an inherent aspect of MCI courses.

Recognizing and appropriately compensating instructors for the additional time and effort invested in delivering a successful MCI course can contribute to fostering a positive teaching environment and maintaining instructor motivation in embracing this innovative instructional approach.

3 Conclusion

There are excellent benefits for all stakeholders engaging in multi-campus instruction and learning, however careful planning is required for those involved to equitably realize those benefits. Distinct and necessary efforts are imperative to prepare for teaching a multi-campus course with a commensurate increase in risk that can only be partially mitigated with a commitment of additional resources for the instructional team. Institutions must be willing to collaborate on communications, support hiring timelines, set quality standards, plan course logistics and timing, and share student resources. The instructor(s) must be flexible with both activities and examinations, demonstrating a willingness to modify course materials based on the resources and constraints applicable to each cohort and without introducing inequities in learning outcomes.

Failure to adequately plan ahead, including access to ample resources and a range of options for content delivery and learning, will greatly increase the risk of unsatisfactory outcomes, with many publications reflecting on the challenges, rather than the successes, of multi-campus course delivery. Contingency planning, frequent student engagement, instructor reflections, and well-trained instructional staff such as teaching assistants greatly impact the success of these courses, underscoring the need for additional considerations and added effort by administrators involved in promoting multi-campus engagement.

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