THE GREAT ROTATION: EXPERIENCE-BASED LEARNING IN BUSINESS EDUCATION AT A DISTANCE IN 2020

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ABSTRACT

Although the abrupt emergence of COVID-19 in March of 2020 was shocking, it was not without precedent, either in its disruption to society or in its acceleration of online learning within higher education. However, there were key differences in how events unfolded around the COVID-19 pandemic and the specific impact on universities' experience-based learning (EBL) courses. This paper examines the virtual/remote adaptations of three EBL courses at the University of Pittsburgh's Joseph M. Katz Graduate School of Business and College of Business Administration ("Pitt Business") as case studies in identifying and extending best practices for EBL that have emerged during this difficult chapter in global history. The framework for analysis is a novel adaption of Moore's theory of transactional distance in distance education overlaid on synchronous and asynchronous dimensions to form a thorough view of opportunities to strengthen EBL going forward, whether in person or remotely. Early indications suggest that increased context, consistency, and collaboration correlate highly to improved student satisfaction and outcomes in a virtual/remote environment.

INTRODUCTION

Everything old is new again. Whether the centenarian scourge of a global pandemic or the rotation from classroom-based teaching and learning to technology-mediated distance education rooted in early computer-based training (CBT) that emerged over 40 years ago, the roots of the disruption to higher education in 2020 were not novel. However, what differed about how events unfolded in 2020 from similar periods in the past – and led to such a jolt to higher education – was two-fold: (1) the extremely rapid onset over the span of just several weeks in March 2020, and (2) the unprecedented scale in our populous, globalized, and connected world. Both of those factors combined to jolt higher education broadly into uncharted waters, and the impact was even more significant for its experience-based learning (EBL) courses, many of which have traditionally relied on in situ or mobility-based experiences to immerse students in authentic work/learning environments. No less affected were the faculty, staff, and students themselves – the human element – yet against this backdrop of uncertainty the decision was made by the University of Pittsburgh to carry on, first pausing instruction for one week to enable the development of creative solutions to continue its essential teaching and research missions, and then resuming those activities at a distance. Regarding the week-long pause, an internal memo from the university's senior administration at the time noted:

> "We believe that this [week-long pause] will provide important additional time for all of us to collaborate, to plan thoroughly, and to work through online instruction strategies that will enable the smoothest transitions possible.... The changes we must now realize around temporary remote teaching, events, and more are deeply significant and will present challenges... We are navigating very new waters—as a University and as individuals—in a quickly changing environment."

In turn, like the university's other academic units, Pitt Business rose to the challenge, embracing the "great rotation" from in person to virtual/remote EBL. The following case studies of three courses are analyzed through a framework of the instructional design theory of transactional distance (Moore, 1988, 1991, 1993, 2007) overlaid against the fundamental notion of synchronous and asynchronous instruction to yield a simple framework for analyzing what has worked and has not worked with respect to EBL during the pandemic disruption of 2020. (See Exhibit 1: Framework for Analyzing EBL Courses at a Distance.) As Moore (1991) notes, "When we recognize that distance education is education, we can apply much that we know about teaching and learning from conventional education in both our theory and practice of distance education. In practice, however, we discover that transactional distance in many programs is so great that the teaching we deliver cannot be just like conventional teaching. On the contrary, the

EXHIBIT 1

Framework for Analyzing EBL Courses at a Distance

Case Study Course	**Training and Development**	**Management Simulation Capstone**	**Services Marketing**
Level	**Undergraduate**	**Graduate**	**Undergraduate**
Dimension of Transactional Distance Analyzed	**Learner-Content**	**Learner-Instructor**	**Learner-Learner**
Asynchronous	• Communicate nature of course project via instructor introductory emails • University emails provide tutorials for learning management systems • Course assignments tied to learning management systems and training course foundational model • Weekly email exchanges between corporate mentors and student project groups focused on project adherence to foundational course training model	• Post/share stakeholder profiles (e.g., LinkedIn, resumes, school's public website, etc.) • Communicate faculty instructor's "Service Level Agreements (SLAs)" via all communication channels • Create consistency in stakeholder assignments (i.e., matching) • Complete LMS integration including calendar and notifications	• (No adjustments needed)
Synchronous	• Twice a week instructor Zoom sessions focused on exercises tied to foundational training model • Corporate project mentors weekly Zoom sessions focused on implementation of foundational training model	• Pivot a sub-set of stakeholder interactions from asynchronous to synchronous • Increase the number of synchronous meetings with students • Bring focus to attendance	• Allocate additional class sessions to active work on the project (utilizing Zoom breakout rooms) • Additional Zoom meetings with the instructor facilitating learner-learner discussions and brainstorming outside of scheduled class time • Expanding instructor meetings with "team leads" to include all students on the project team

transactional distance is such that special organizations and teaching procedures are essential." Further, as Moore (1993) noted a few years later, "...distance education is not simply a geographic separation of learners, but, more importantly, is a pedagogical concept." That concept features three sets of variables – those describing the structure of what is to be learned, a second examining the interaction or dialog between teacher and learner, and the final set focusing upon the autonomy or self-management of students in the designed structure. As instructors make instructional design decisions, they must focus on all three sets of variables to minimize transactional distance and maximize learning outcomes. Clearly the nature of that transactional distance and even the type of learning outcomes were altered given the changes forced by the pandemic. Finally, the role of three key constituencies – faculty, staff, and students – along those dimensions of transactional distance suggests future directions for leveraging the best of what has emerged from EBL business courses during this uncertain time to strengthen EBL business courses going forward, even in a post-pandemic environment. As the university's senior administration noted in its initial memo, these, "challenges...present opportunities—because when we address and resolve them we will be helping the Pitt community not just in this instance, but also into the future." In that spirit, the authors wish to contribute to the literature advancing EBL to new heights both now and in a post-pandemic future.

COURSE CASE STUDY: TRAINING AND DEVELOPMENT (LEARNER-CONTENT)

Training and Development is a three credit required course in the undergraduate Human Resource (HR) major in the College of Business at the University of Pittsburgh. The course is focused on group design, development, and delivery of a one hour training session to a client firm's employees during scheduled lunch-and-learn periods at the client's location. General topics for the training session are determined by the client and refined and targeted by the student groups. Following the development and presentation of the face to face session, student groups are then required to "convert" the in-person training to a one hour "online" training session maintaining the same core topic. Materials for both the face to face and online sessions are subsequently sent to Pittsburgh's Association for Talent Development (ATD) chapter for locally recognized certification in training design.

Prior to COVID-19-mandated course delivery changes, the class had featured a unique mix of instructional design and scheduling options to acquaint students with the variety of methods available for use in project design and delivery. Such an approach was adopted not only for use in the class, but as a way to acquaint HR majors with tools to be used in training positions they might secure upon graduation. In fact, two classes during each semester are devoted to assessing the variant methods and their viability for use in various training and development circumstances and scenarios. Thus the university mandated remote learning requirement instituted at the outset of the Fall 2020 term did not seem to pose an exceptionally high barrier to effective delivery of class material from a multivariate methods standpoint, but it did pose a challenge in regards to learner-content issues. Guardia, Maina & Sangre (2013) suggest "...design related teacher presence must be mediated and manifest throughout course design..." to effectively communicate course material.

Due to course pre-requisites and curriculum scheduling sequences, most students entering the training and development class have received limited exposure to client-centered projects in which student groups have great discretion in project focus, content, deadlines, and delivery. An exclusive remote learning environment for at least the first two weeks of such a client project immediately put transactional distance issues at the forefront of planning for the course and project. The traditional instructional design model, ADDIE, (Assessment, Design, Development, Implementation and Evaluation) is central to providing structure to both the aforementioned face-to-face and online student projects and is vital content to be learned at the start of the course. Two asynchronous activities, one introduced prior to the official start of the fall term and the second introduced the first day of class helped to reduce transactional distance and ensure this critical content was provided to students.

Students at the University of Pittsburgh not only faced the uncertainties of a pandemic at the beginning of the Fall 2020 term, but were also confronted with the need to master new learning tools. The university replaced the Blackboard Learning Management System (LMS) with the Canvas LMS effective at the start of the Fall 2020 term. At the same time Microsoft Teams was introduced as a communication platform for all College of Business Administration (CBA) activities including advising, career development, and student organizations.

To address these contextual changes and to introduce students to the variety of training methods which could be used in the client-based training projects, two weeks before the official start of classes, students were sent an email welcoming them to the course, introducing them to the projects to be completed, providing them choice about which organization they would like to work with on the semester project, and notifying them of the conversion of the learning management system to Canvas. The email explained in general terms the layout of the Training and Development course in Canvas and provided links for tutorials to assist in navigating the overall LMS. This instructor-delivered email was in parallel to university delivered emails with additional training tips and tutorial sites including ones dedicated to Microsoft Teams. Students arriving on campus or at off campus housing were required to shelter in place for one week prior to the start of classes. During this quarantine week, additional emails were sent encouraging students to use the tutorials to learn the new platforms and providing them additional information about the Training and Development class project and the participating organizations. Moore (1988) notes that such "...correspondence provides

EXHIBIT 2

Training and Development - ADDIE Model Assignments

Assignment 1: Assessment
• This summer was the conversion of the Blackboard Learning Management System to the Canvas version. The university needed to train all users and have them ready to utilize the system beginning on August 24, 2020. During May that date of first utilization changed to August 19, 2020. • What type of needs assessment was done by various stakeholders in the university before training was instituted? • Imagine you are back in May, 2018. You are a member of Pitt's CSSD (Computer Services and Systems Development) department. You are meeting with your Canvas Conversion Training Committee for the first time during a retreat. You have been charged with performing a needs assessment on a specific stakeholder group in the university which will be impacted by the change from Blackboard to Canvas. Identify that stakeholder group and conduct a thorough organizational, people and task analysis.
Assignment 2: Writing Objectives (Design)
• For this exercise you will again (as you did in Assignment #1 on needs assessment) focus on CSSD's need to train all relevant Pitt stakeholders on the Canvas Learning Management System. Using the Writing Training Objectives format covered in class, create four training objectives that could guide design and development of the course. Create a learning objective, a reaction objective, a training objective and an organizational objective.
Assignment 3: Lesson Plan (Design, Development)
• Using the training objectives developed for Assignment #2 (Writing Training Objectives) and the lesson plan format provided in class as a foundation, create a lesson plan for a 30 minute session of a Canvas to the stakeholder group you identified in Assignment 1 (Needs Assessment).
Assignment 4: Evaluation (Implementation Evaluation)
• Focus on the 30 minute Canvas training session you created the lesson plan for in Assignment #3. Now develop five evaluation statements for the session. Be sure that one of your evaluation statements looks at reaction as an outcome, one looks at learning as the outcome, etc.

superior learner-content interaction" and so these regular email reminders were designed to provide background on the semester project and build interest in it. Specifically the emails were designed to provide structure and dialog with students, two factors which Moore (1991) highlights as elements of transactional distance.

As classes officially convened, the Training and Development students were provided a series of asynchronous exercises that drew upon the Canvas and Microsoft Teams training to learn the steps within the ADDIE model and to apply them in a unique project scenario. These activities required students to choose one or the other new systems (Canvas or Microsoft Teams) and complete a detailed assessment of the training context, the lesson plan to teach an audience, and the evaluation of the lessons to learn ADDIE model terminology and develop applications for each system. (See Exhibit 2: Training and Development - ADDIE Model Assignments for the series of assignments covering each step.) Focusing on a training activity that the students were currently experiencing and delivering parallel training helped to address concerns about structure, autonomy, and dialog in the transactional distance equation as well as targeting learner-content interaction. Specifically, the ADDIE model provided the *structure* for the open-ended course project, the assignments focused on the student's choice of training type, thereby addressing *autonomy*, and the multiple email exchanges from both the university and instructor level helped establish a basis for *dialog* which was then supplemented by synchronous activities such as Zoom meetings and remote office hours.

Scheduled synchronous activities between class members and the instructor occurred twice a week through the Zoom platform. Additional synchronous meeting time was afforded to individual students or groups in remote office hours scheduled at the students' discretion. Each synchronous meeting during the first six class meetings was dedicated to covering in-depth a step in the ADDIE model using different training methods to ensure students understood the concepts and could apply them in their client-based projects. The careful attention to the choice of training method addresses the findings of Anderson et. al. (2001) that "instructional design and organization play an essential role" in making the most of online learning opportunities. Such efforts were again targeted to the structure and dialog distances between learner and content.

A second, planned synchronous activity focused on reducing transactional distance between learner and content was weekly meetings between the student project groups and mentors from each of the client organizations. Each student group had one assigned mentor from the participating organization with additional mentors added as project content dictated. Prior to the official start of the client projects, mentors met with group members in virtual icebreaker sessions where backgrounds and general information were shared between the parties. At the conclusion of the session, mentors provided information about the client audience for the final project presentation, pointedly noting the manner in which the first step in the ADDIE model – assessment – must be fully addressed to ensure successful delivery of training. Subsequent weekly remote meetings or email exchanges reinforced the specific aspect of the ADDIE model being addressed by the group. These meetings were designed to further reduce transactional distance by addressing dialog and structure factors.

Early correspondence on class design, the term long project, and the new LMS was specifically delivered to address the dialog aspect of the learner-content dimension in transactional distance. Further, the careful attention to choice of training method used during each synchronous session and the opportunity to reinforce the centrality of the training model during mentor meetings addressed the structure dimension. Early anecdotal comments from mentors leading the groups and responses from clients who have participated in the first scheduled training sessions through October 31, 2020, have been very positive.

COURSE CASE STUDY: MANAGEMENT SIMULATION CAPSTONE (LEARNER-INSTRUCTOR)

The MBA Management Simulation capstone is unique among traditional simulation courses in that students interact with a wide range of real-life stakeholders including the course instructor; an assigned Executive in Residence (EIR); and a volunteer board of directors made up of alumni at the senior executive level, local retired executives, or friends of the school (Davis & Magnuson, 2020). In turn, each of these learner-instructor relationships had to be enhanced as a result of the rapid pivot to remote instruction, and as with many other areas of adaptation, the changes were positive upgrades that have strengthened the course overall and shined a brighter spotlight on the need to ensure that strategic planning of the course remains a continuous process rather than a periodic one (AACSB, 2020).

As Moore (1991) notes, "What determines the success of distance teaching is the extent to which the institution and the individual instructor are able to provide the appropriate opportunity for, and quality of, dialogue between teacher and learner, as well as appropriately structured learning materials." Accordingly, the learner-instructor dimension of transactional distance was prioritized as the area of focus for many structural and hygiene-related enhancements that were made to the course mechanics. The goals of these enhancements was to create greater context, consistency, and collaboration – both from the asynchronous and synchronous perspectives. As noted previously, with the short runway for making changes in the abruptly disrupted Spring 2020 term, which included the emergence of the COVID-19 pandemic in March 2020, learner-instructor interaction in the course was simply transitioned to fully technology-mediated (e.g., email, asynchronous video content, live Zoom meetings, etc.), meaning that the more significant adaptations did not appear until the Summer 2020 and Fall 2020 terms.

With the benefit of additional planning time for those subsequent terms, many asynchronous adjustments were implemented first. To decrease the transactional distance along the learner-instructor dimension, these focused on driving context and consistency. To start, without the benefit of traditional in-person meetings and informal interactions on campus, it was important to increase the context for students as they began to work with the variety of stakeholders in the course (and vice versa). To that end, three enhancements were made quickly, and they began before the subsequent term(s) even started. First, the EIRs' profiles were posted to the public Pitt Business website so that students could learn more about the EIR who had been assigned to work with their team. Previously, this information was available only after the term started, so providing it earlier cut down the learner-instructor transactional distance. Similarly, the faculty instructor began collecting the team leads' resumes prior to the start of the term and in turn shared these with the relevant course stakeholders (e.g., EIRs and volunteer board members) in advance to accelerate the getting-to-know-you process. Third, and bi-directionally, the faculty instructor enhanced the course roster provided to all course stakeholders – including students, EIRs, and volunteer board members – to include everyone's LinkedIn profile so that all parties could begin to develop richer context faster, in turn further reducing transactional distance along the learner-instructor dimension. That enhancement in particular was well received: One long-time volunteer board member commented, "This is great...thank you. I especially appreciate that you included the LinkedIn links on the roster." Next in terms of the asynchronous enhancements, increasing consistency was of primary concern so that students could more quickly orient to how they would work along the learner-instructor dimension. This was also accomplished in three primary ways. First, the faculty instructor explicitly communicated his "service level agreements (SLAs)" in terms of availability via all virtual communication channels. While these had always been excellent, they had been largely unstated in the past and supplemented via informal, ad hoc, in person conversations with students on campus. With those types of interactions off the table, being clear and explicit about ways for students to contact the faculty instructor and what turnaround times to expect was critical. Second, the faculty instructor significantly shored up the vetting/onboarding process for new volunteer board members and the process for forming volunteer boards and EIR assignments throughout the academic year so that assignments remained consistent. This consistency ensured that students would be working with a "known commodity" and could consult with students from prior terms who had worked with the same combination of board members and EIR to accelerate their own onboarding to the course, thereby cutting down on the learner-instructor transactional distance. To supplement that "high touch" consistency, the faculty instructor placed paramount importance on uplifting the "high tech" consistency in the course as well by going "all in" on the university's new LMS. While the transition from the university's legacy LMS to its replacement had been piloted during the Spring 2020 term when the pandemic hit, the faculty instructor gave priority in the subsequent term(s) to completely integrating the course with the LMS to reduce learner-instructor transactional distance. This included migrating all course meetings and events to the LMS calendar and devoting time in the orientation module and kickoff class meeting to ensure that students had their desktop and mobile notifications set up correctly to receive any of the instructor's updates real time. Taken together, these asynchronous enhancements that focused on context and consistency laid the foundation for the additional synchronous enhancements to reduce transactional distance along the learner-instructor dimension.

Along the learner-instructor dimension, the synchronous enhancements focused largely on collaboration. The first enhancement was indirect in reducing the transactional distance along the learner-instructor dimension but laid the groundwork for many of the other synchronous enhancements. As part of this first enhancement, the faculty instructor met with each individual volunteer board of directors at the end of the term to debrief what had worked well and what could be improved. The conversation

EXHIBIT 3

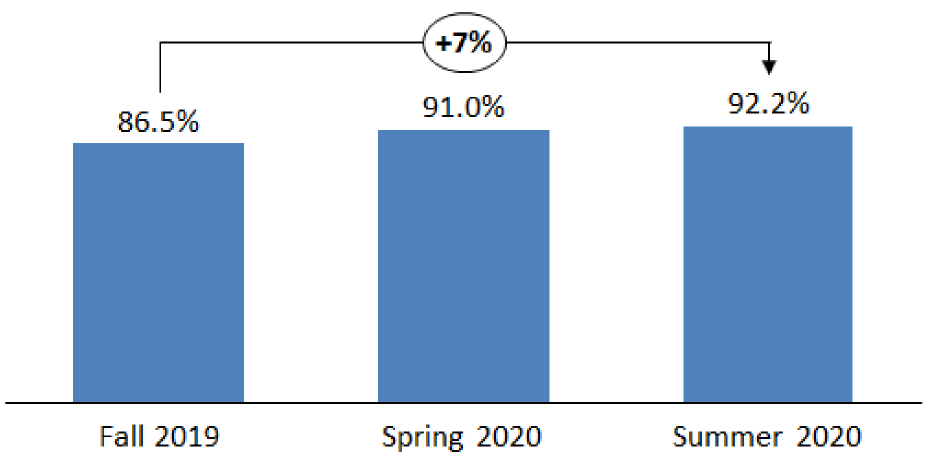
Management Simulation Capstone - Student Survey of Experience with Volunteer Boards of Directors and EIRs

Item	Type
My board provided quality constructive feedback regarding team performance.	Likert Scale
My board provided quality constructive feedback regarding our strategy.	Likert Scale
My board provided clear, actionable steps for our team. (In other words, there was never any confusion about what the board wanted.)	Likert Scale
My board was invested in the success of the team.	Likert Scale
My board was invested in the success of the company.	Likert Scale
My board did not micro-manage and therefore allowed opportunities for learning through failure.	Likert Scale
My board added to the overall learning experience of the class.	Likert Scale
How would you rate the approach or tone your board used?	Likert Scale
How would you rate the overall effectiveness of the board?	Likert Scale
List one thing your board provided that was very valuable.	Free-Form Text
List one thing you wish your board would have done differently.	Free-Form Text
My Presentation Coach (Katz EIR) provided quality constructive feedback regarding our strategy.	Likert Scale
My Presentation Coach (Katz EIR) was invested in the success of the company.	Likert Scale
My Presentation Coach (Katz EIR) was sufficiently available to provide guidance on our presentation materials and delivery.	Likert Scale
List one thing your Presentation Coach (Katz EIR) provided that was very valuable.	Free-Form Text
List one thing you wish your Presentation Coach (Katz EIR) would have done differently.	Free-Form Text

starter for these meetings was the report from an end-of-term survey that the students completed regarding their experience working with their volunteer board of directors throughout the term. (See Exhibit 3: Management Simulation Capstone - Student Survey of Experience with Volunteer Boards of Directors and EIRs). This survey was a longstanding feature of the course; however, traditionally the results were shared with the volunteer boards of directors asynchronously. The upgrade to a synchronous, albeit virtual, debrief meeting was very well received and served to generate half a dozen course improvement ideas that otherwise would not have surfaced. In turn, largely as a result of the positive enhancement of that additional synchronous meeting, the faculty instructor increased the number of class meetings with the students each term radically (+67%). This served to reduce the learner-instructor transactional distance by ensuring that each student team had an individual, scheduled, weekly meeting (branded as "Office Hours") with the instructor each week of the term when the simulation was active. In addition, the faculty instructor increased the number of meetings with the student team leads by 17%. While these various types of class meetings had existed traditionally, increasing their frequency as a feature of the virtual/remote course delivery served to increase collaboration through short touchpoints with each student team each week. Finally, the faculty instructor drove focus on attendance by actively reporting on it after each "board meeting." Between that and the faculty instructor's increased synchronous engagement with both the volunteer boards of directors and the students, volunteer board member participation at the students' board meetings increased from a pre-pandemic average of 86.5% to a post-pandemic average of 92.2%. (See Exhibit 4: Management Simulation Capstone - Volunteer Board Member Meeting Participation by Term). While this was certainly partly a function of the volunteer board members' increased ease of attending the meetings virtually (rather than driving to campus, parking, finding the physical meeting room, etc.), the faculty instructor's increased focus on driving synchronous learner-instructor collaboration – whether directly with volunteer board members, directly with the instructor, directly with the students, or among all parties – yielded positive results in terms of consistency in spite of the virtual/remote format.

EXHIBIT 4

Management Simulation Capstone - Volunteer Board Member Meeting Participation by Term



Overall, by focusing explicitly on the learner-instructor dimension, the transactional distance in the MBA Management Simulation Capstone course has been further reduced now that it is offered in a remote/distance format. As Zelihic (2015) notes, "productive and meaningful relationships are formed as a result of quality interaction regardless of the venue." In turn, initial evidence shows a correlation with improved student outcomes and satisfaction over the period including end-of-term student feedback (Exhibit 5: Management Simulation Capstone - Sample Student Survey Feedback Regarding Experience with Shift to Remote Instruction) as well as increases in key measures of student perception and average Final Exam Scores (Exhibit 6: Management Simulation Capstone - Selected Student Evaluation Ratings and Average Final Exam Scores by Term).

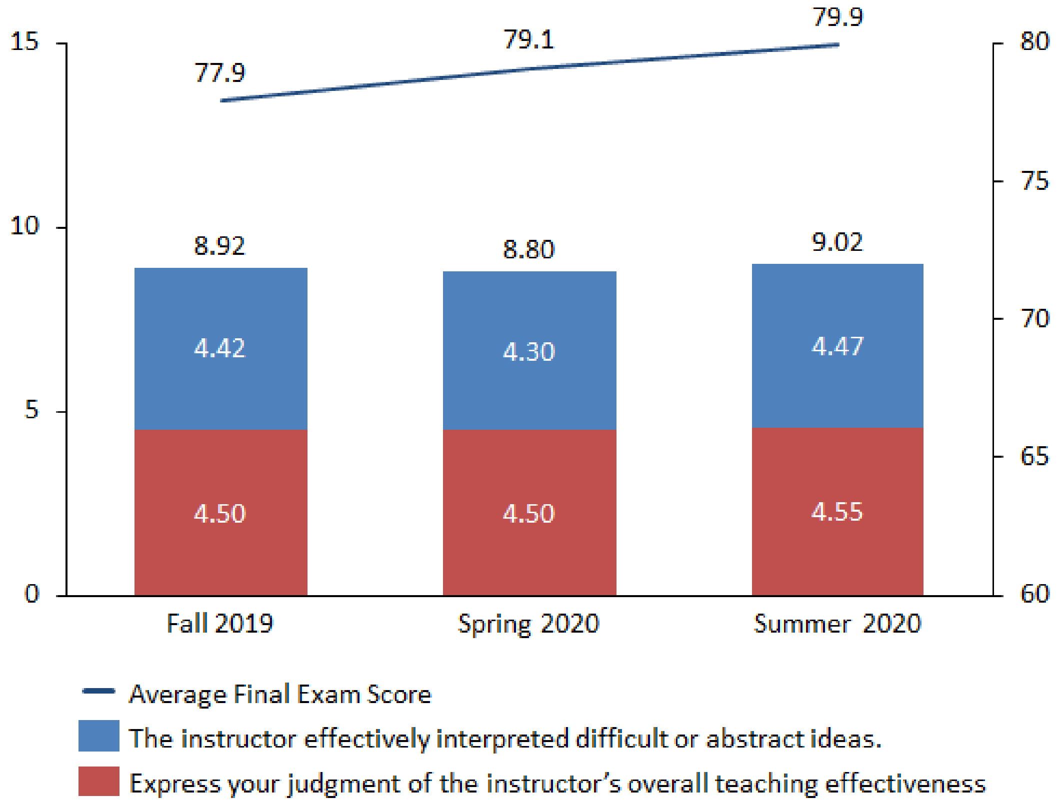
EXHIBIT 5

Management Simulation Capstone - Sample Student Survey Feedback Regarding Experience with Shift to Remote Instruction

Spring 2020
• "Moving the entire course online took away some of the interactions that are afforded in person, mostly with other teams, but did not greatly impair the ability to work within the team, communicate with the [volunteer] board...or with the professor."
Summer 2020
• "MBA students are very capable of meeting with teams and receiving instruction in an online format. It is becoming normal for the students." • "...the [remote/virtual] accommodations made in this class were acceptable given the circumstances." • "I think that the remote format worked well for this class. You will always lose some of the dynamic flow of conversation you get when working in–person, but this did work well because it was small groups."

EXHIBIT 6

Management Simulation Capstone - Selected Student Evaluation Ratings and Average Final Exam Scores by Term



COURSE CASE STUDY: SERVICES MARKETING (LEARNER-LEARNER)

Services Marketing is an undergraduate course taken primarily by Marketing majors and dual/multi-degree students with Marketing as one of their major areas of study. The composition of the class during the Spring 2020 semester is detailed in Exhibit 7: Services Marketing - Student Profiles. The course is designed to introduce students to the unique challenges of marketing intangible services. A core component of the class is a semester-long consulting project with a local non-profit organization. This project allows students to get exposure to the challenges of marketing services as well as working with a client to do hands-on research/analysis and to produce recommendations for the client. Students complete the project in teams, so the learner-learner dimension is critical. While there is structure and scaffolding around the project, the project teams have quite a bit of autonomy in how they approach their work with the client. As such, the approach one team takes to tackle the challenge is often quite different from how another team approaches that same challenge. As Hoover (2008) points out, "the experiential teacher plays a primary role in the design of the experiential learning experience the student is undergoing"; however, "as the student becomes more responsible for the learning process, it is taken more out of the hands of the experiential teacher." The project teams are a mixture of students at different stages in the program, having taken different courses, having different foci of study, and bringing different skills to their teams. This creates a rich opportunity for the students to learn from and build off the skills they learn through interactions with their teammates.

Prior to COVID-19-mandated course delivery changes, learner-learner interactions took place both synchronously and asynchronously. Based on conversations with students in the course, synchronous interactions happened primarily during the scheduled class sessions. While a few class sessions were allocated entirely to working on the project, the instructor (over many years of teaching the course) observed many synchronous team meetings occurring during the 5-10 minutes prior to class starting and/or any time that remained after the instructor finished covering content. Given the varied demands and schedules of students, finding synchronous time for the team to meet can often be quite challenging. Outside of synchronous team interactions around scheduled class sessions, student teams interact primarily asynchronously, whether through Google Drive, GroupMe, group texting, email, or any number of tools available.

While learner-learner interactions still took place both synchronously and asynchronously after the COVID-19-mandated course delivery changes, the synchronous interactions were the interactions most at risk with the transition to remote learning. It was no longer easy for teams to "arrive to class" 5-10 minutes early and grab a space in the classroom to meet. They faced similar challenges in utilizing any remaining class time for impromptu group meetings. As noted previously, interactive dialogue, whether in -person or remote, is a key way to decrease transactional distance (Moore, 2007). While asynchronous dialogue can certainly be interactive, the opportunity for synchronous learner-learner dialogue, typically rich in interactivity, was at risk with the transition to remote instruction. Hypothesizing that many teams would default to primarily asynchronous interactions, the instructor took a more active role in facilitating synchronous team meetings.

Knowing the importance of effective teamwork to the learning experience of the project, compounded with the switch to remote instruction, one of the first adjustments was to allocate additional class sessions to active work on the project. During these class sessions, the instructor utilized breakout rooms to encourage synchronous team meetings. Further, the instructor scheduled multiple Zoom meetings with each team, outside of regular class time, to facilitate teamwork and creative problem solving given the new challenges brought on by the pandemic. During these team meetings, the instructor facilitated the conversation between team members, allowing the teams to brainstorm together to develop solutions to the challenges they faced. One example of the effectiveness of this approach is particularly illuminating: During one such team meeting, the team was struggling with how to collect their needed primary data given the challenges related to the pandemic. The team had originally planned on interviewing students face-to-face at strategic locations on campus. One of the key things they looked to collect was information on the routes students typically walked during a standard week. The team believed that interviewing students in person at various places on campus would allow students to better visualize their routes and thus be better able to describe those routes in more detail and with more accuracy. The information on commonly traveled routes was a crucial part of their data collection because they wanted a measure of how frequently students walked by the local office for the non-profit client so they could compare that with student awareness of the non-profit client. The team suspected that students walked by the office on a regular basis but had little to no awareness of the non-profit or even recognition that the office even existed. However, given the team's inability to interview students in person and on the sidewalks in the city's urban campus, the team was worried about the loss of richness and understanding of student routes. During this meeting the instructor occasionally asked questions but mostly observed the brainstorming going on between the team. After running through multiple ideas, none of which the team was excited about, one of the team members came up with the idea to do Zoom interviews where the team could use Google Maps during the interview (either sharing their screen or having the interviewee sharing their screen) and having the interviewee "walk" them through their normal routes on various days of the week. The rest of the team got quite excited about this idea and they all started building off that idea and designed a very rich plan for how to implement their interviews. This idea, that came out of the synchronous group brainstorming session, developed into something richer than any ideas the instructor would possibly have proposed.

Further, multiple examples of learner-learner connections came through differing familiarity with marketing research tools and analysis among students in the class. The client project does require primary data collection and analysis, so familiarity with marketing research tools and analysis is an advantage when working on the project. As detailed in Exhibit 7, the students in the course have different interests and are at different stages in the program. The Marketing Research course is a course students can take nearly any semester after having taken the pre-requisite course, Introduction to Marketing. While the program encourages students to take Marketing Research as early as possible in the program, many students wait until their senior year to take the course. While most of the seniors in the class had taken Marketing Research prior to Services Marketing, several seniors were taking it concurrently with Services Marketing. Most of the sophomores had only taken Introduction to Marketing prior to taking the Services Marketing course, and the juniors were mixed between taking the course concurrently, having already taken the course, or not having taken the Marketing Research course at all. While the instructor does not require a team to have someone who has already taken

EXHIBIT 7
Services Marketing - Student Profiles

	Sophomore	Junior	Senior	Total
Marketing	1	4	12	**17**
Marketing/Accounting			1	**1**
Marketing/Finance		1	1	**2**
Marketing/Supply Chain Management (SCM)	2		1	**3**
Marketing/International Business	1			**1**
Marketing/Innovation & Entrepreneurship			1	**1**
Marketing/Business Information Systems			1	**1**
Marketing/Finance/International Business			1	**1**
Marketing/SCM/ Innovation & Entrepreneurship		1		**1**
Exchange Student		1		**1**
Business – Undeclared major	3	3		**6**
Total	**7**	**10**	**18**	**35**

Marketing Research, the instructor does encourage teams to form in such a way that their team has at least one member who has taken Marketing Research. In previous offerings of the Services Marketing course, the instructor would often meet with the marketing research "experts" on each team in order to review the team's planned approach to data collection and analysis. With the transition to a distance education format due to the pandemic, these conversations about marketing research were expanded to include the entire team, not just the "experts" from each team. This broadening allowed for the students with little to no exposure to marketing research to learn more from their more knowledgeable teammates. Some students in the class, because they had not previously taken Marketing Research, we not familiar with Qualtrics, a very robust survey and analysis tool available to all students at the university. Through working with the more knowledgeable students on their teams, they gained familiarity with Qualtrics that they would not have otherwise learned through other aspects of the course.

While the course ended up being delivered very differently for the last 4-5 weeks of the semester, including a big portion of the client project, student feedback on the course in terms of official teaching evaluations, was almost identical to the previous offering of the course. In response to the question "The instructor created an atmosphere conducive to learning." the mean (5-point scale) in Spring 2019 was 4.64 and in Spring 2020 was 4.60. In response to the item "The course increased my knowledge." the mean (5-point scale) in Spring 2019 was 4.14 and was 4.13 in Spring 2020. The consistency in these responses from year-to-year is encouraging, especially given the responses to some questions added to the official university teaching evaluations, specifically related to the shift to remote instruction. Students were asked about the level of difficulty given the move to remote instruction (*Much more difficult* (1) to *Much easier* (5)). Fifty percent of respondents indicated it was either *Much more difficult* (25%) or *Somewhat difficult* (25%) and just under 44% of students indicated there was *No difference in difficulty*. With 50% of students indicating the switch to remote instruction was at least somewhat more difficult, it is encouraging that students still felt the learning environment was conducive to learning and that the course had a significant impact on their learning.

CONCLUSION AND FUTURE DIRECTIONS

As discussed in the literature, distance education is not inherently better or worse for learners; rather, there can be both pros and cons of certain approaches (Smith, 2010). The challenge during the Spring 2020 term when the COVID-19 pandemic emerged was that courses originally designed as in-person courses quickly had to transition to a distance learning format in a very short timeframe. Following the theory of transactional distance in distance education (Moore, 1991, 2007), the authors have detailed three case studies of courses in which transactional distance was actively reduced – one for each of Moore's three dimensions (learner-content, learner-instructor, learner-learner) – as they shifted their courses from in-person to at-a-distance.

Looking to the future, the authors believe that an emerging area for future research is the *positive* impact of the transition to distance learning on student outcomes after graduating from Pitt Business. While the shift to distance learning may have initially been perceived in a negative light, the authors expect that business students who aspire to work at multi-national corporations (MNCs) upon graduation will find the shift to virtual collaboration is actually accelerating their readiness for the work environment they will encounter when they secure those job roles. According to research published in 2012 by the Society of Human Resource Management (SHRM), "organizations with multinational operations are more than twice as likely (66 percent) to use virtual teams compared with those having U.S.-based operations (28 percent)." (Minton-Eversole, 2012). In fact, given the explosion of tools for virtual collaboration over the last eight years, both multi-national corporations and domestic-only corporations are increasing their use of virtual teams. What is also taking place as employers are seeing the benefits of having employees work from home is a shift to permanent work-from-home (Berliner, 2020). Companies such as Twitter, Facebook, Slack, and Groupe PSA are planning for either their full workforce or part of their workforce to be entirely remote, even after the pandemic (McLean, 2020). This "great rotation" to increasingly virtual teams indeed transcends academia, and the preparation student are now getting at Pitt Business to adapt to that environment confirms the university senior administration's initial assertion that we are in fact, "helping the Pitt community not just in this instance, but also into the future" as they enter the workforce during and beyond the COVID-19 pandemic.

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