

Supporting Student Engagement in Online Learning Settings

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Dedication

We received a great deal of support throughout this process. To those not named directly; we appreciate everyone who helped make these last three years possible. We would like to thank our advisor, Dr. Erin Henrick, who guided this project from start to finish. Her enthusiasm and encouragement throughout this process contributed greatly to our success. We also would like to thank Professor Mark Oliver, who navigated an incredibly busy schedule and challenging time differences to make this project possible. His insight into the University of Southern Queensland allowed this capstone to flourish.

Tim Holland

I would like to thank my family for their patience and support. I also wish to extend my gratitude to the communities of Grace Christian Academy and Caldwell Academy for their encouragement over the past three years. To all of my classmates in cohort six, and most especially Margaret Ryan and Alyssa Zelicof, I enthusiastically express my appreciation. Without them, finishing this Capstone would not have been possible.

Margaret Ryan

I would like to thank my family and friends for their constant support, guidance, and motivation. My greatest appreciation is to my parents who prioritized education and created a deep love of learning within me. To my educational guidepost and first mentor, Dr. David A. Wiley, thank you for being my teacher, mentor, and friend. To cohort six, especially Tim and Alyssa, I am grateful for your constant support and motivation as we worked through this program. I am humbled and honored to be part of such a remarkable cohort that celebrated all the good times and encouraged each other during the challenging times of the past three years.

Alyssa Zelicof

I would like to thank my family for always instilling the importance and impact of education. Specifically to my parents, it is because of your guidance, unwavering support and confidence in me that I proudly accomplished this milestone. My gratitude for you both is endless. To my husband, thank you for being my partner and greatest cheerleader. To Tim and Margaret, thank you for your commitment to this project and for your friendship over the past three years. It has been a privilege to share this experience with you both.

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Executive Summary

During the July-November 2021 semester, we partnered with the University of Southern Queensland (USQ) to help improve student engagement in the online EDC 1000: Introduction to the Profession course. Our Capstone project aimed to help USQ understand how the newly implemented course supports student engagement and learning. The findings of this project uncovered student engagement and interaction with weekly materials, the course instructor, and with peers throughout the semester.

Our body of research, in conjunction with the problem of practice, led us to address the following research questions:

Q1: How do students engage with course materials in the Introduction to the Profession course and how does it change throughout the course?

Q2: How do students engage with peers and instructors in the Introduction to the Profession course and how does it change throughout the course?

Through surveys, interviews, learning analytics, and Padlet responses, our capstone analyzed how students in the Introduction to the Profession course engaged at different points throughout the course. The Online Engagement Framework for Online Learning was the foundation of our conceptual framework, highlighting key elements crucial for effective student engagement within the online learning and teaching environment (Redmond et al., 2018). This study provided an in-depth examination of student engagement in an online class. Findings from this study hoped to support instructors in their efforts to provide high-quality learning experiences in virtual settings.

Our data collection and analysis utilized a mixed-methods approach combining quantitative and qualitative data sources to address our research questions. The study sample size

included all students enrolled in this course during the July 2021-November 2021 semester, totaling 267 students. Our quantitative data consisted of survey results and online learning analytics gathered from the course's learning management system (LMS). The early and late distribution of the survey allowed us to analyze student engagement twice throughout the term. Our qualitative data consisted of student interviews and Padlet responses, which we coded based on key indicators focusing on relationships, types of engagement, and challenges versus successes experienced throughout the term. The narratives shared in both the interviews and the Padlet responses further contextualized and substantiated the quantitative data we collected. Our data collection led to the following three findings:

- F1: Engagement with the course material in the Introduction to the Profession course steadily decreased over time. Learning analytics showed decreases in user access and views over time.
- F2: Peer interactions were limited throughout the course. Interview data indicated a lack of opportunity to engage with peers. The percentage of students that felt engagement was a crucial part of the course decreased from the start to the finish of the semester.
- F3: Student interactions with course materials and course instructors were mostly asynchronous. The only structured synchronous time provided to students throughout the course included the optional live weekly tutorials. The learning analytics sourced from the course's LMS alongside our interview data both indicated scarce opportunities for interaction to occur.

These findings informed the following recommendations on how to improve student engagement throughout the Introduction to the Profession course:

- R1: In order to ensure that all students have access to direct instruction and engagement opportunities, we recommend that mandatory, regularly sequenced synchronous (i.e., “live sessions”) be integrated into the course during each term.
- R2: It is important for there to be opportunities for non-academic socialization. Social events (e.g., regional meet-ups or campus convenings) can stimulate connections between students and instructors.
- R3: We believe increasing access to instructors will be crucial in increasing engagement. Therefore, USQ’s program will benefit by capping class sizes and providing opportunities for smaller TA-led sessions and optional tutoring.
- R4: Research on online learning environments indicates that alternative assessment models can increase student engagement and learning opportunities. We believe the continued, thoughtful implementation of assorted assessment activities will help students feel more engaged. This includes implementing student participation as a component of one’s grade.

Supporting Student Engagement in Online Learning Settings

The University of Southern Queensland (USQ) has explored different approaches to enhancing the first-year student experience. This comes in response to a myriad of external surveys and data that highlight the need for institutional change, particularly in considering student engagement.

For this capstone, we focused on changes made to USQ's teacher education program. In the 2020-2021 school year, an online "Introduction to the Profession" course was created as a first-year introductory course. It acted as the foundational course from which students could then identify which teaching track they wished to specialize in. The addition of this course diverges from the previous structure, where students were mandated to select their specialization upon entering the program. Our capstone focused on the second offering of this online course, opened to students in July-November 2021. The goal of our study was to help USQ understand how and in what ways the newly implemented Introduction to the Profession course furthers its goal of enhancing student engagement.

Our capstone project sought to understand student engagement with course materials, peers, and instructors as measured by a program-specific survey scale, weekly engagement analytics provided by the LMS, and qualitative interviews. Findings from this study aimed to inform faculty instructional practices and provide a deeper understanding of the overall educational experience.

Organizational Context

The context for this study was a single course within the teaching program in the School of Education at the University of Southern Queensland (USQ). The subsequent section outlines the larger university, the USQ School of Education, and the Introduction to the Profession course to contextualize the changes being made within the program.

University of Southern Queensland

The University of Southern Queensland (USQ) is a medium-sized regional university located in Queensland, on the east coast of Australia. With over 27,000 students, the university welcomes more than 90 nationalities and is recognized as Australia's most multicultural university (per capita). The student body spans three campus locations in Toowoomba, Springfield, and Ipswich, featuring an extensive online learning community. As it is uniquely positioned outside Australia's main cities, USQ developed new methods of reaching larger student populations and was recognized for its innovative approaches to teaching and learning. Among its recognitions is being named joint winner of *Australia's Good University Guides University of the Year Award* in 2001 for "Developing the e-University," alongside other prestigious accolades (University of Southern Queensland, 2021). USQ is a research-intensive university that offers diverse programming across all study levels at the undergraduate and graduate levels.

School of Education

The School of Education undergraduate and postgraduate programs are fully accredited by the Queensland College of Teachers and align with the Australian Professional Standards for Teachers. The postgraduate options provide "multiple opportunities for teachers to become highly skilled, well-equipped, industry-ready teachers who can teach effectively in diverse

educational contexts, including in regional, rural and remote settings” (About the School of Education, 2021).

The Introduction to the Profession course sits within the Teacher Education Program in the USQ School of Education. The program serves students preparing for a career in K-12 education, many of whom seek a career change. Professors teach students with qualifications unique to teacher education and experience traditional and experiential learning as a part of the program.

Introduction to the Profession

The Introduction to the Profession course is the mandatory introductory course taken by all students in the teacher education program, a four-year sequenced program. The course description (Appendix A) focuses on fundamental concepts, skills, and knowledge required when working in various educational settings. The content is underpinned by the Australian Professional Standards for Teachers (2011) and examines students’ learning, practice, and engagement. The course focuses on connections in four key ways: with self, with USQ, with the profession, and with the community. This course aims to help each student begin their journey to becoming a professional educator and craft their professional teacher identity (University of Southern Queensland, 2021).

The July-November 2021 offering of the Introduction to the Profession course included 267 students. It was taught by lecturer Professor Mark Oliver, the primary contact point for this capstone project. Professor Oliver works alongside his co-examiner, five teaching assistants, two student mentors, one “Read and Responder” replying to asynchronous student questions, and 30 registered teachers responsible for grading assignments.

This new course sought to introduce the pre-service educator to the profession and explored teaching in the 21st Century through an examination of professional knowledge, professional practice, and professional engagement. The Introduction to the Profession Course is also an opportunity to introduce students to the norms inherent in an online learning setting. Students are expected to participate in and contribute to a range of learning opportunities, including online study activities, lectures, tutorials, seminar presentations, group discussions, and self-directed study activities to apply the coursework and complete the course.

After reviewing internal and external survey data on student engagement, discussed in more detail below, USQ recognized the need to redesign the course. USQ was found to underperform in their efforts to effectively engage students compared to competitors. Further, the online structure required a fresh review to ensure the program provided the quality of education desired by the university.

Presently, there are no attendance requirements for the Introduction to the Profession Course. The syllabus stated, “it is the students’ responsibility to study all material provided to them or required to be accessed by them to maximize their chance of meeting the objectives of the course and to be informed of course-related activities and administration” (Appendix A).

Students were assessed in three ways during the Introduction to the Profession course: (1) feedback and reflection, (2) oral presentation, and (3) e-portfolio and action plan. Each assignment was due at different benchmarks throughout the course, with the feedback and reflection being the first due, followed by the oral presentation, and, finally, the e-portfolio and action plan. The feedback and reflection assessment was worth 20% of the overall course grade and required students to prepare an essay response in four separate sections on the topic of quality teaching. The oral presentation assessment was worth 40% of the overall course grade

and required students to give a ten- to fifteen-minute presentation to the teacher assistants with no more than ten accompanying slides on the topic of effective teaching. The e-portfolio and action plan assessment was also worth 40% of the overall course grade and required students to provide several personal statements, a personalized learning plan, and evidence of learning skills and reflection across the semester.

Professor Oliver articulated the structure of the modules for each week in our ongoing conversations. Each module is categorized based on its purpose of student learning and engagement. The first module category was Preview, which introduced weekly content and an overview of the remaining modules for the week. Second, the Read and Respond category encompassed the three Read and Respond forum prompts with which students were expected to engage. These prompts were focused on the weekly readings and materials. The third category was Learning Skills Development. This category focused primarily on the live tutorials and the additional resources and notes that reinforced the skills covered within that weekly topic. Fourth, the Interact category highlighted opportunities for the students to interact. The modules in this category included forums, Padlets, links to study groups, and breakout rooms. Finally, the Reflection category encompasses a variety of opportunities for students to reflect on the materials and their learning. This module contained forums and Padlet opportunities specifically for student reflection.

Upon successful completion of this course, students should be able to demonstrate knowledge of professional ethics, responsibilities, and conduct; demonstrate knowledge and understanding of the importance of ongoing professional learning for teachers; and demonstrate appropriate cognitive, literacy, and communication skills, including spelling, grammar, punctuation, and bibliographic referencing (University of Southern Queensland, 2021).

Problem of Practice

The purpose of this capstone study was to support the University of Southern Queensland in its efforts to improve student engagement in the Introduction to the Profession course.

Specifically, the capstone project illuminated how and in what ways the newly implemented approach supports student engagement and learning.

The focus on student engagement metrics comes in response to external surveys and data highlighting the need for institutional change. The Australian Student Engagement Survey, funded by the Australian Government Department of Education, Skills, and Employment, shows that USQ scored lower than the national average in Student Engagement on their most recent survey. In particular, the 2020 Student Experience Survey (SES) was administered to all higher education institutions in Australia to provide essential information on the student experience.

The survey covered the following areas of student experience: skills development, learner engagement, teaching quality, student support, and learning resources. Nationally, the overall 2020 learner engagement percentage for students dropped 16% from the previous year, with a 12% drop specifically around learner engagement. USQ dropped 3.4% from 2019 to 2020 and scored 12% lower than the average university (Student Experience Survey, 2020). Specifically, the learner engagement items measured in the SES study included: (1) Felt prepared for your study, (2) Had a sense of belonging to your university, (3) Participated in discussions online or face-to-face, (4) Worked with other students as part of your study, (5) Interacted with students outside study requirements, (6) Interacted with students who are very different from you, (7) Been given opportunities to interact with local students (Student Experience Survey, 2020).

USQ has recognized the necessity to restructure its program to better accommodate potential students who expect a rich and engaging educational experience. Findings gleaned from

surveys, interviews, learning analytics, and Padlet responses helped illuminate the arc of how students in the Introduction to the Profession course were engaged at different points throughout the course. By way of this project, we tracked student engagement through interaction with weekly materials, the course instructor, and peers throughout the semester.

Literature Review

In order to understand student engagement in this course, we first examined literature in the following five key areas: (1) student engagement, (2) online learning and instructional design, (3) assessment, (4) peer engagement, and (5) relationships. These topics provided a lens to understand better the University of Southern Queensland's introductory teacher education class and its link to student engagement. Our examination of engagement focused on students' interaction with their coursework rather than their engagement with university life. To better understand this problem of practice, we turned to the literature to see what is known about student engagement within remote settings.

Student Engagement

According to the National Survey of Student Engagement (2014), four key themes have been identified as drivers of student engagement: (1) academic challenge, (2) learning with peers, (3) experiences with faculty, and (4) campus environment. A series of engagement indicators accompany each theme. The academic challenge included higher-order thinking, reflective and integrative learning, learning strategies, and quantitative reasoning. Learning with peers featured collaborative learning and discussion with diverse others. Experiences with faculty involved student-faculty interaction and effective teaching practices. Finally, the campus environment involved the quality of interactions and a supportive environment (both equally available in online programs).

Jimerson et al. (2003) used the terms belonging, community, affiliation, membership, and motivation to define and clarify how students feel engaged in online learning environments. With increasing higher education coursework available in online learning settings, ensuring thoughtful instructional delivery is essential. According to Kahu (2013), a link exists between student engagement and achievement toward learning outcomes.

There is undoubtedly a need to create content specifically geared towards online learning environments. It has been proven that institutional commitments to designing creative pedagogy have led to increased learning in online settings (Robinson & Hullinger, 2008). This includes activities such as student collaboration on projects, which, while commonplace in brick-and-mortar settings, require more deliberate planning and design in online formats. While noting that the research on online learning is continually developing, Pike et al. (2011) acknowledge student characteristics that improve engagement and lead to numerous beneficial academic outcomes. When students are asked to participate in activities and a classroom structure designed for optimal learning in an online setting, they can learn and engage more successfully with the course content.

The quality and intentionality of planning and design make a difference in the quality of work and the connectedness a student feels to the learning environment. If students are assigned an increased workload without intentionality behind the assignment, they report perceiving their relationships with faculty as poor (Xerri et al. 2018). Online learning environments do not diminish the importance of relationships between students and instructors; however, relationships must be prioritized and developed differently.

Peer Engagement

Engagement between peers occurs differently in an online learning environment versus an in-person learning setting. Three universities in the UK implemented a program known as PeerWise in STEM subjects which allowed student-generated assessment questions to be answered, rated, and engaged by students in the program (Casey et al., 2014). PeerWise was introduced in each module, and student submissions were more than the minimum required. Educators within this program found a significant increase in students' general engagement with course materials when they encouraged peers to engage with one another (Casey et al., 2014). The implications of this finding could lead to a shift in how online educational environments are structured to maximize student engagement.

Online Learning and Instructional Design

It is no surprise that online learning has proliferated in recent years. The COVID-19 pandemic has only served to accelerate the pace at which online learning has been made accessible to students. A growing body of research has begun to examine the efficacy of this learning format and its impact on student engagement and learning outcomes. According to Sogunro (2017), when collegiate faculty believe their institutional leaders (i.e., administration) are committed to student learning, the quality of delivery by faculty tends to be better. Further, research suggests that, as online class size increases, it compromises instructors' ability to consistently provide meaningful feedback and support student learning (Sorensen, 2014).

Instructional Design Framework

While specific benefits of online learning platforms are obvious (e.g., convenience and accessibility), there are certain limitations, including a lack of face-to-face interaction with peers and faculty that can present genuine challenges (Dumford & Miller, 2018). Among online

learning's most important challenges is the creation of an instructional design that encourages meaningful student engagement. To better understand a possible way forward, Czerkowski and Lyman (2016) explicate an instructional design framework outlining four distinct steps that target fostering student engagement in online learning: (1) the identification of instructional needs, (2) defining instructional goals and objectives, (3) developing learning environments, and (4) summative assessment. By creating a feedback loop, these four steps coalesce into an e-learning, engagement, and design (ELED) framework (Czerkowski & Lyman, 2016). Identifying instructional needs involves conducting a needs assessment and performing a learning analysis. Instructional goals and objectives are formed by defining the goals and identifying professional standards. Learning environments are developed by conducting formative assessments, developing interaction and collaboration strategies, designing facilitation strategies and feedback, selecting media and instructional resources, and conducting content and task analysis. Finally, summative assessment includes conducting learning outcome assessments and the evaluation of instructional effectiveness. The ELED framework has begun implementation in online learning environments. Future inquiry will be important to determine how its application impacts students and any necessary iteration to the original design.

Assessment

Given the importance of assessment in the aforementioned framework, educators must consider its strategic use as a tool to enrich student engagement. As early as the 1990s, the notion that online learning assessments needed to improve was beginning to take root (Reeves, 2000). At the time, instructors were not yet equipped with a knowledge of best practices; thus, assessment was developed without the benefit of research-based evidence. With an undeniable growing demand, the nascent field of online learning began to attract even more attention.

Reeves (2000) points to three emerging directions in online assessment: cognitive assessment, performance assessment, and portfolio assessment. The cognitive assessment measures students' higher-order thinking abilities, attitudes, and communication skills (Reeves, 2000). Performance assessment focuses on application. Reeves (2000) states that its key attributes are "1) it is focused on complex learning, 2) engages higher-order thinking and problem-solving skills, 3) stimulates a wide range of active responses, 4) involves challenging tasks that require multiple steps, and 5) requires significant commitments of student time and effort" (p. 8). Finally, portfolio assessment involves storing a student's work over time to be reviewed in terms of both process and product (Reeves, 2000).

Like more traditional modes of instruction, online learning relies upon assessment for educators to ascertain whether students are learning what is being taught. One way to grasp how students engage with online content is by administering and interpreting national surveys (Kuh, 2001). In fact, USQ's course redesign relied, in part, on its review of Australia's Student Experience Survey (2021). Kuh (2001) suggests that if we are not aware of how students spend their time while learning in online settings (i.e., What is taking place when students are engaging with course materials?), the task of connecting learning outcomes to instruction and associated processes becomes almost impossible.

Despite the growing availability of scholarly research, online learning has continued its reliance on traditional measures of assessment (Guàrdia et al., 2017). Accurately assessing a student's knowledge in remote settings is crucial to legitimizing this teaching method. To this end, educators continue to examine how formative and summative assessments contribute to student learning in online environments. Yorke (2012) points out the critical importance of formative assessment as a building block toward summative assessment in higher education.

Through their interdependence, formative and summative assessments are vital to student learning outcomes. “Without informative feedback on what they do, students will have relatively little by which to chart their development” (Yorke, 2012, p. 483).

Supporting Student Engagement Online

Holmes (2015) conducted a study to better understand how students would receive ongoing low-stakes summative assessments in an undergraduate online learning setting. He found that introducing a carefully designed curriculum and assessment activities positively impacted student engagement based on positive student feedback regarding assessment methods and frequency. Further research indicates specific ways to support student engagement in an online learning environment, including incorporating an academically rigorous program design, timely student-faculty interactions, collaborative learning environments, and enriching activities for each student (Robinson & Hullinger, 2008).

From a learning standpoint, Dochy et al. (1999) discuss how using self, peer, and co-assessment can foster more robust learning outcomes. When students are granted the autonomy to contribute to the development of an assessment, the presence of a positive impact is often perceived by the students (Dochy et al., 1999).

Learning as a Social Practice

Online learning inherently lacks the human connection naturally embedded in an in-person classroom setting. As Dumford and Miller (2018) found, online learning requires some sacrifices. Isolation and self-directed learning can contribute to a lessening of collaboration between fellow students. However, for students in online learning settings to excel, educational designers must consider prioritizing relationships.

According to McGrath and Noble (2010), peer and faculty relationships support improved student outcomes and behaviors. Seeking ways to foster interaction within and outside class meetings makes a difference in students' experience in online learning settings—engagement, then, matters in both instructional and relational capacities.

In fact, Lave and Wenger (1999) theorize learning as participation (or engagement) in a community of practice. Through ongoing participation and engagement, students learn what it means to be a successful student or teacher. This practice, known as legitimate peripheral participation, extends beyond the ephemeral with lasting impact that can contribute to meaningful gains in student agency (Lave & Wenger, 1999). Whether peer-to-peer or peer-to-faculty, relationships have a demonstrable impact on students' experiences in any learning environment.

Summary

After reviewing the literature, several themes become clear. First, student engagement in online learning environments is a byproduct of intentional design. This relates to instructional planning and opportunities to develop meaningful relationships with faculty and peers. Students learning remotely desire relationship development the same way that students learning on a physical campus do.

Additionally, the way students spend their time learning online and how they are assessed also has significant implications for the quality of their experiences. Educators do well by regularly considering research-based strategies to determine what students know. Finally, as online education gains traction in higher education, its continued growth and success will largely rest upon intentionality and purposeful planning.

Conceptual Framework

The conceptual framework for understanding student engagement in traditional learning environments looks at the behavioral, cognitive, socio-cultural, and holistic perspectives. Combining these perspectives has the student at the center and highlights the myriad of factors contributing to student engagement. As information on best practices in online classroom settings is just recently becoming commonplace with the onset of COVID-19, our goal is to use the four previous perspectives as foundational knowledge to better understand our research on student engagement within the context of an online classroom. For this reason, we will be implementing the Online Engagement Framework for Online Learning (Redmond et al., 2018) to better understand how students engage more purposefully within the context of online educational environments (Figure 1).

Student Engagement in a Traditional Learning Environment

Within the behavioral perspective, student engagement is defined as the “time and effort students devote to educationally purposeful activities” (Radloff, 2010). Kahu et al. (2013) break down the behavioral perspective into three key elements: positive conduct and rule-following, including attendance; involvement in learning, including time on task and asking questions; and broader participation in extracurricular activities. Together, these actions are tangible markers for the time and energy spent on course assignments measured via quantitative data collection methods.

The cognitive perspective is defined as the students’ investment and willingness to exert the necessary efforts for the comprehension and mastering of complex ideas and difficult skills (Maroco et al., 2016). This cognitive dimension most commonly refers to students’ self-regulation and effective use of deep learning strategies. In practice, this would most closely be

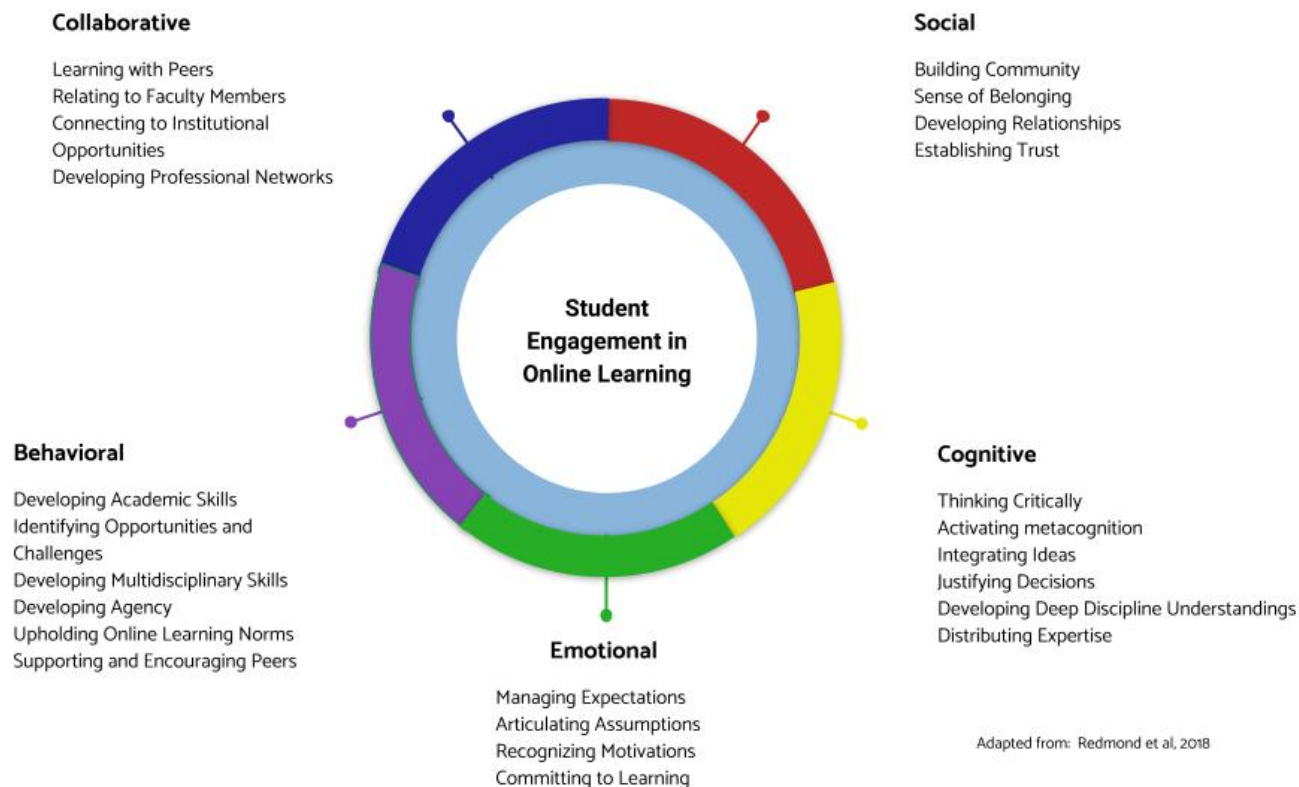
seen as critical thinking and a more abstract application of course content in class discussions, wall posts, and assignments.

The socio-cultural and holistic perspectives allow for recognizing external factors that can impact student engagement. Osterman (2000) postulates that belonging is crucial in fostering a positive learning environment and prevents feelings of isolation, alienation, and polarization. The focus on the “why” a student is disengaged in the context of support structures, institutional culture, and the student experience is acknowledged to provide a complete picture of each student. The strength of this perspective is its focus on emotion. It is possible to decipher between engagement level and what antecedents might have been the root cause through this lens.

Student Engagement in an Online Learning Environment

In their conceptual framework, Redmond et al. (2018) highlight five elements considered crucial for effective student engagement within the online learning and teaching environment: social engagement, cognitive engagement, behavioral engagement, collaborative engagement, and emotional engagement. While some factors notably overlap with the traditional engagement conceptualizations, the application of the constructs differs from previous traditional engagement models. The conceptual framework was created for “academics to reflect upon the learning engagement within their online courses and the implications for personal teaching practice as well as course and, ultimately, program design. The framework provides a tool to unpack the dynamic nature of online engagement” (Redmond et al., 2018, p. 191).

Figure 1

Conceptual Framework**Adapted Online Engagement Framework for Higher Education**

To implement this conceptual framework, we will operationalize the new definitions Redmond et al. (2018) use to define each engagement construct. The first concept, cognitive engagement, relates to how a learner actively takes in and processes information. This can be more complex in online contexts than in-person settings, as there are more distractions, and it is a drastically different learning environment. Instructors should be mindful of cognitive engagement when crafting lesson plans to obtain the highest level of active learning.

Behavioral engagement can be described as the actions taken by the student in the online learning environment. To some degree, these actions in an online environment look different

from an in-person learning environment, as a student could demonstrate active listening skills by turning their video camera on during class.

Social and collaborative engagement focuses on the importance of relationship building. “Social engagement in an online environment can be illustrated through actions that build community such as social forums and the use of open communication platforms. It includes the development of relationships with peers and instructors, whether via friendships and interactions beyond study requirements or effective working and studying relationships” (Redmond et al., 2018, p. 191). In practice, social engagement takes the form of students prioritizing social interactions with those in their online learning community. Collaborative engagement emphasizes the importance of creating positive collaborative relationships with peers, faculty, and the institution. As online learners tend to be geographically diverse, collaboration takes the form of online study groups or study partners. The instructor's role in this would be to “regularly establish a requirement for collaborative engagement through the use of group or team activities and assessment” (Redmond et al., 2018, p.194).

Lastly, emotional learning pertains to a learner's feelings towards the content, class, and peers. It is closely linked with holistic engagement, as it pertains to external factors that contribute to a student's level of engagement. The role of the student in an online setting is to recognize their desire to engage in a different type of learning environment. The role of the instructor is to harness students' desires to engage by clearly articulating online course expectations and assumptions.

In summary, applying the Online Engagement Framework for Online Learning to the Introduction to the Profession has clear implications for practice. With a greater understanding of

engagement, we can inform faculty instructional practices and provide a deeper understanding of the overall learning experience in an online class setting.

Project Questions

The purpose of this capstone study was to support USQ in its efforts to improve student engagement in the Introduction to the Profession course. To this end, we have sought to understand better how and in what ways the newly implemented course supports student engagement and learning in an online setting. Based on the problem of practice, a review of the literature, and the chosen online student engagement conceptual framework, we developed the following research questions to guide this study:

1. How do students engage with course materials in the Introduction to the Profession course and how does it change throughout the course?
2. How do students engage with peers and instructors in the Introduction to the Profession course and how does it change throughout the course?

Our research questions were developed to dive deeply into different forms of engagement highlighted within the conceptual framework. With a greater understanding of engagement, we can inform faculty instructional practices and provide a comprehensive understanding of the overall learning experience in an online class setting. In turn, USQ can better understand how students engage with the course to continue improving it for years to come and use findings from this analysis to inform continuous improvement efforts, not only specific to this course, but also programmatically.

Table 1***Research Question Alignment***

RESEARCH QUESTION	DATA COLLECTION	CONCEPTUAL FRAMEWORK
How do students engage with course materials in the Introduction to the Profession course and how does it change throughout the course?	Early/Late Survey Questions	Behavioral Engagement
	LMS Analytics	Cognitive Engagement
	Interview Protocols	
	Padlet	
How do students engage with peers and instructors in the Introduction to the Profession course and how does it change throughout the course?	Early/Late Survey Questions	Behavioral Engagement
		Cognitive Engagement
	LMS Analytics	Collaborative Engagement
		Social Engagement
	Interview Protocols	

Study Design and Methodology

We utilized a mixed-methods approach that combined quantitative and qualitative data sources to address our research questions. The literature and conceptual framework guided our study design, data collection, and analysis as we learned about student engagement, online learning pedagogy, and relationship building in higher education.

Participants

Professor Mark Oliver coordinated our efforts to collect data from his students. The Introduction to the Profession course had 267 students in the second term. Through our data analysis, we hoped to gain a comprehensive understanding of student engagement throughout the term (Figure 3). We administered a survey to all students enrolled in the Introduction to the

Profession course at two intervals throughout the term. Students were asked to create a unique identifier following a scripted pattern that utilized a combination of letters and numbers. Our method to collect unique participant identifiers was unsuccessful, as only 12 students used the same identifier for both survey administrations and had a single entry in each administration window. Although we wanted to compare pre and post data on the survey, we were unable to do so since there was no way to draw connections between the respondents in the early and late-term surveys. Therefore, we have 96 participant responses for the early administration of the (a response rate of 36 %) and 35 participant responses for the late administration (a response rate of 13%). Because we cannot determine if our two samples include the same participants, we are unable to report changes over time for the survey data. However, we can report descriptive data to look at differences between the two survey administrations.

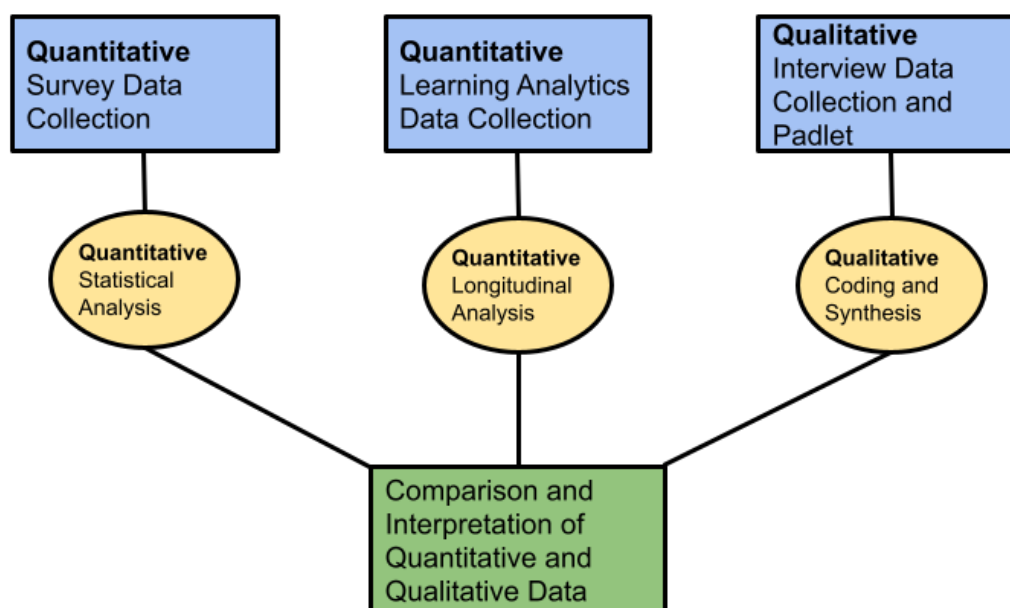
The LMS was also open to all 267 students in the course. Our reports do not identify which participants opened which module; however, they did track the number of students who accessed each module. The Padlet was also accessible to all 267 enrolled students as links in the LMS. Professor Oliver posted the Padlet links in the LMS and requested participation during tutorial sessions and via forum posts in the LMS.

Based on the student responses and his own encounters with individual students, Professor Oliver reached out to interested students via email and zoom to ask for participation in semi-structured interviews. The interview participants were chosen on a voluntary basis by Professor Oliver. He connected us with the five participants via email, and we established a time to conduct our interviews. Our data does not include demographic information, nor do we have information regarding academic achievement. Two factors limited our ability to gain more interview participants. First, the time difference between the United States and Australia was a

barrier to scheduling interviews. Second, COVID-19 presented issues due to several restrictions, including a lockdown in Australia during the time we hoped to schedule interviews.

Figure 2

Mixed-Methods Approach



Data Collection: Mixed-Methods Explanatory Design

Aside from the learning analytics data encompassing all engagement with the learning management system, our participants voluntarily engaged with our survey, interviews, and Padlet. Professor Oliver encouraged the entire student population to participate in the survey and Padlet data collection. He requested participation in the interviews from all students through the LMS and during tutorial sessions. Our data collection timeline (Figure 4) outlines our survey administrations, interview dates, and Padlet distributions.

We designed our research study so that the first distribution of our quantitative survey would act as an initial data set for our analysis. The first distribution of the survey was complete

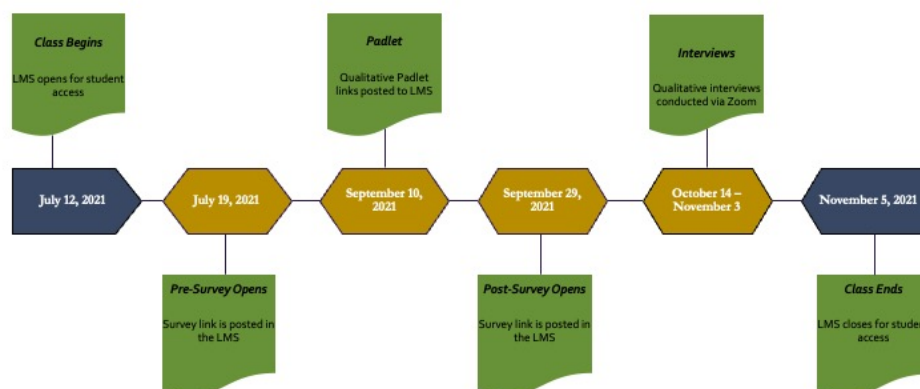
before we engaged in our qualitative interviews and Padlet distribution. The initial distribution of our survey began on July 24, 2021, and the second distribution opened on September 29, 2021. We conducted our qualitative interviews between October 10, 2021, and November 3, 2021. The Padlets were opened for responses from mid-September through the end of the term.

While we were hoping to conduct two to three interviews with each participant throughout the term to measure the change over time, the logistics of international interviews did not allow for multiple meeting opportunities. We selected a key point in the semester in which students could reflect on their experiences thus far and speak to the numerous different types of engagement embedded into the course structure.

Our survey questions and interview protocols were aligned with our conceptual framework, relevant literature, and research questions. We received approval from the Institutional Review Board at Vanderbilt University and the Ethics Board at the University of Southern Queensland to conduct human research as a quality improvement project.

Figure 3

Data Collection Timeline



Quantitative Survey

As seen in Table 2, the focus areas in our conceptual framework and our research questions informed our survey prompts (Appendix F). We administered the survey twice throughout the course, once in the initial weeks and once in the final weeks of the term. Our goal was to note any changes in student engagement as the course progressed. The survey prompts engaged students in a Likert response system, rating the prompts shown in Table 2 on a five-point scale, rating from Strongly Disagree to Strongly Agree. We utilized Qualtrics to administer our survey and aggregate the responses. We then exported the answers into a file format to sort and categorize the information by distribution and Likert response.

After eliminating incomplete surveys and students who duplicated their responses within one distribution window, we had a total of 96 surveys in our first distribution and 35 in our second distribution. We did not have a significant number of students who participated in both distributions, as indicated by their unique identifier. Therefore, we measured the percentages of respondents for each of the five Likert options for each of our surveys.

The last two questions on our survey focused on social engagement. We opted to consider these responses in our analysis due to limitations during the COVID-19 pandemic. COVID-19 not only limited extracurricular activities at USQ, but Australia was also under a full lockdown during most of our course. Therefore, these questions were eliminated from our analysis entirely.

Table 2***Survey Alignment***

RQ	SURVEY PROMPT	CONCEPTUAL FRAMEWORK
RQ 1	I pay attention in the lectures	Behavioral
RQ 1	I usually do my homework on time	Behavioral
RQ1	I put my best effort in responding to the read and response questions	Behavioral
RQ 1	I feel very accomplished in this course	Emotional
RQ 1	I feel excited about the coursework	Emotional
RQ 1	I feel confident about my success in this course	Emotional
RQ 2	I talk to people outside the school on matters that I learned in class	Collaborative
RQ 2	If I do not understand a concept, I try to solve the problem, for example, by asking a professor or classmate	Collaborative
RQ 2	I try to integrate the acquired knowledge into solving new problems	Collaborative
RQ 2	My family supports my academic aspirations	Social
RQ 2	I am involved in an extracurricular activity at USQ	Social






Quantitative Learning Analytics

The learning management system tracks the number of students who view each module. The number of students does not take into consideration how many times each student views a module, only that they have viewed it at least once. Since all students are expected to engage with the learning management system, this data reflects the engagement of the entire student population of the course.

For our purposes, we aggregated the modules into specific categories and calculated the percentage of views and users for each category for each weekly module. Figure 4 below describes each of the categories of engagement and the types of content within the modules for each. Although the Read and Respond category engages students with peers about the weekly readings, it differs from the Interact category, which prompts students to engage with other areas of the course content.

Figure 4

Learning Analytic Categories

LEARNING ANALYTICS BACKGROUND INFO	
	Preview: Introduction to the materials for the module each week
	Read/Respond: Forum posts with student responses to the readings for the week
	Learning Skill Development: Content development for each module.
	Interaction: Opportunities to interact with peers or instructors
	Reflection: Reflections on reading, materials, or module

Qualitative Interviews

Our interview protocols were built to consider our research questions and the facets of our conceptual framework (Table 3). We utilized a semi-structured interview protocol (Appendix B) with each of the five participants. Professor Oliver requested student participation in the interview process from the entire class and followed up with individual students who showed interest. He connected us via email to schedule the interview. We conducted each of the five interviews with either two or three members of our team present. The interviews were recorded in zoom and transcribed through otter.ai. Although we knew the identity of each student participant, the students were de-identified for data analysis.

Table 3

Interview and Padlet Alignment

RQ	INTERVIEW AND PADLET PROTOCOLS	CONCEPTUAL FRAMEWORK
RQ 1	How do you feel so far about your program of study and the Introduction to the Profession course? (RQ1)	Emotional
RQ 1	What tools does this class use to deliver content and engage you in the material?	Behavioral
RQ 2	How often do you engage with your teacher and how?	Collaborative
RQ 2	How often do you engage with your peers and how?	Collaborative
RQ 2	What are the benefits of engaging in this way?	Cognitive
RQ 2	What are the challenges of engaging in this way?	Cognitive
RQ 1	Please explain your weekly materials.	Cognitive
RQ 1	Of the five primary elements, which element is the most interesting and engaging for you as a student?	Emotional

RQ 1	Of the five primary elements, which element is the least interesting and engaging for you as a student?	Emotional
RQ 1	Please explain the structure of the assessment.	Cognitive
RQ 1	How did you feel about this assessment?	Emotional
RQ 1	How did your engagement in the weekly materials prepare you for this assessment?	Cognitive
RQ 2	How did your engagement with your teacher prepare you for this assessment?	Collaborative
RQ 2	How did your engagement with your peers prepare you for this assessment?	Collaborative
RQ 2	How important was engagement with activities, teacher, and peers to your completion of the assessment?	Collaborative

Qualitative Padlet

A Padlet is an online learning tool that allows students to respond to prompts freely and anonymously. Students can respond more than once, at any time, while the Padlet is open. There were two Padlets Professor Oliver linked to the learning management system. The first Padlet focused on engagement with people and repeated our interview questions from the collaborative lens of our conceptual framework. The second Padlet focused on engagement with pedagogy and focused on our conceptual framework's cognitive and emotional lenses. The questions corresponded with questions from our interview protocols and were aligned with our research questions and conceptual framework, as indicated in Table 3.

Due to the anonymous and open nature of a Padlet, students could respond to one or all prompts or more than once to each prompt. Therefore, we chose to analyze the responses as qualitative data rather than measure the number of responses for each question. The Padlet

allowed us to export the responses into a file format to view all responses in one file and gather those responses into a readable format for our analysis.

Mixed-Methods Data Analysis

Our first step in analyzing our quantitative information was to aggregate the data based on the goals of this research project. We began by sorting our survey data (Appendix C) based on the early and late distributions. We also sorted our learning analytic data (Appendix D) based on categories. Both data sets considered data over time with our early and late survey and the weekly metrics of the learning analytics over the term. We calculated averages and percentages for each of our data sources to determine engagement at different points in time and based on various categories.

To analyze our survey data, we first eliminated repeated responses. Any responses received twice within each administration window with the same identifier or with the same latitude/longitude or IP address identified in Qualtrics were eliminated. We had 96 valid responses for the start of term survey and 35 valid responses for the end of term survey. We grouped the Likert scale into three broad categories: Strongly Agree/Agree, Neither, and Strongly Disagree/Disagree. We calculated the percentages of students who responded to each of the nine prompts and charted the information.

To analyze our learning management system data, we created a spreadsheet of the users who opened each module in the reports during each week of the term. We had 19 weeks of metrics since the LMS remained open until the end of the term and was open during the two weeks of recess. We categorized each module into the five categories provided by our partner and calculated the average of students who engaged with each category. We also chose to focus on on-time metrics for some of our reports and only analyzed the number of students who

integrated with the modules during the week that the module was assigned. In addition, we also utilized the LMS data to determine the number of students who opened the module for the live session tutorials to determine synchronous engagement.

Our qualitative data consisted of student interviews and Padlet responses. Professor Oliver solicited student participation by asking for volunteers through the LMS. He followed up with individuals directly and reached out to individuals he felt would be open to the interview process. We had five candidates and conducted our interviews over zoom, utilizing our semi-structured interview protocols with each student. We then recorded the interviews in Zoom and imported them into otter.ai for transcription. Subsequently, we coded the interviews and Padlet responses to find themes related to engagement. We began with codes drawn from our conceptual framework about relationships and learning and added sub-categories as we analyzed. Finally, we established subcategories for our Relationships code for peers, instructors, and general collaboration. Our learning category was further developed with sub codes for the five elements of the course, resources, the LMS, and information about assessment materials.

The Padlet responses are open-ended and completely anonymous. The Padlet was created by Professor Oliver and utilized the same prompts we used on our interview protocols. He posted the link in the LMS and encouraged students to complete the Padlet. We have a myriad of responses but cannot tie them to one person. Additionally, one person could have responded more than once to the prompts. Therefore, we utilized the Padlet as descriptive data and added the quotes to our above-mentioned codes.

Research Question 1

How do students engage with course materials in the Introduction to the Profession course and how does it change throughout the course?

Quantitative Analysis

The learning analytics demonstrate the student engagement with each module of the course. We input the analytics into an Excel spreadsheet to provide an opportunity to use statistical formulas to understand the data. We then sorted the analytics based on the categories described previously and calculated the average student engagement with each category each week (Appendix D). Utilizing the two metrics provided by the learning management system, we separated our data by the count of users to access the modules to articulate a complete picture of student engagement.

Figure 5 below shows the average number of users that engaged with each module in each category during the 12 active weeks of the course. The total number of students in the course is 267. There were two weeks of recess (weeks of September 19 and 26) during which there were low numbers of student access, and no new content was assigned. Recess occurred after the completion of Topic 10. We examined the on-time engagement with each module to evaluate the number of users who interacted with the module during the week it was assigned. Each color in the legend represents one of the five categories of focus. The metrics show that the highest level of student user access was in the Read and Respond category (green) and the Reflection category (blue). Of note is the engagement in the initial weeks with all categories. Each of the five categories averaged the highest during the first week than subsequent weeks, as seen in Table 4:

Table 4***Engagement in Initial Week of Term***

Category	Topic/Week 1 Average users
Preview	85
Read and Respond	114
Learning Skill Development	66
Interact	72
Reflection	61

In addition to the weekly metrics, we utilized the total user count over the 19 weeks that the course was accessible to students. These metrics echoed our weekly metrics and showed that the Read and Respond and Reflection categories reflected the highest level of student access (Figure 6).

We also sought to understand student attendance during the weekly live tutorial session. One module in the LMS analytics provides the link for the live session Zoom meeting. The total number of users to access this link throughout the course was 167. Approximately 62.5% of the total student population accessed the link to the live tutorials. A majority (91) accessed the link during the first week of session. As demonstrated in Table 5, the number of new users who opened the tutorial link each week decreased dramatically after the first two weeks of the term.

Figure 5

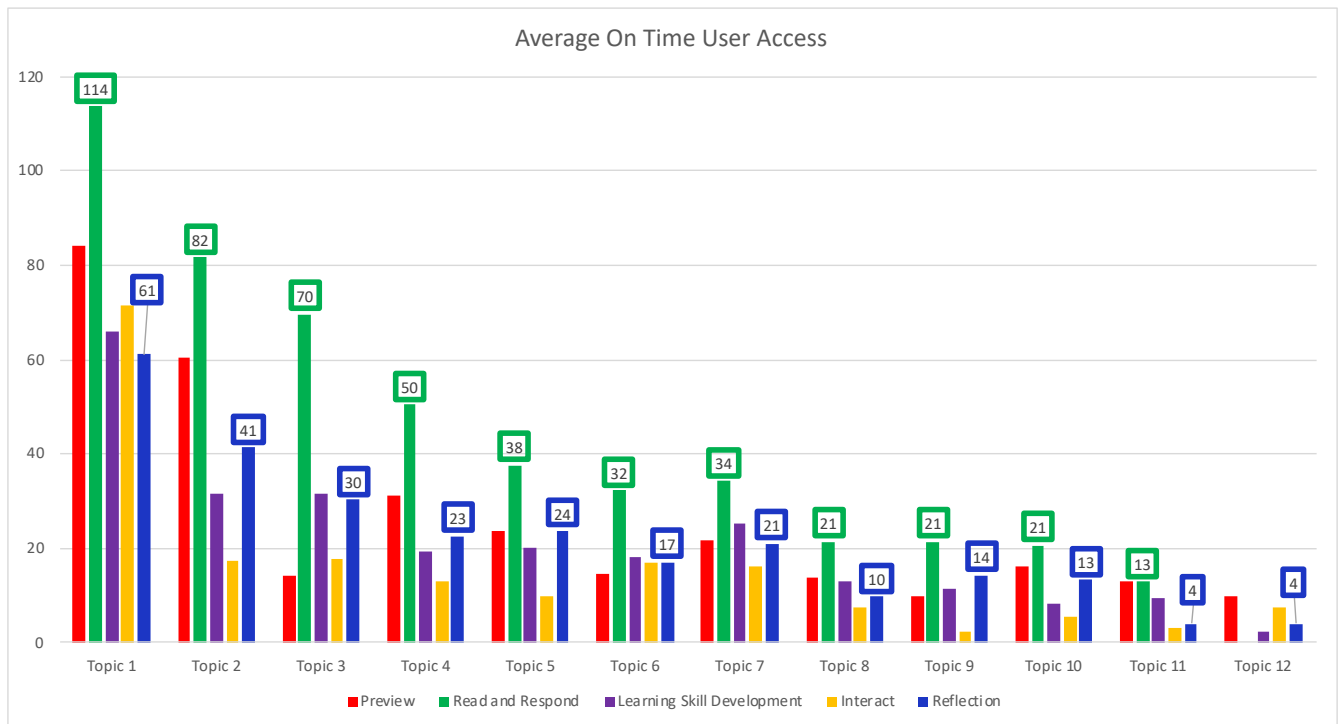
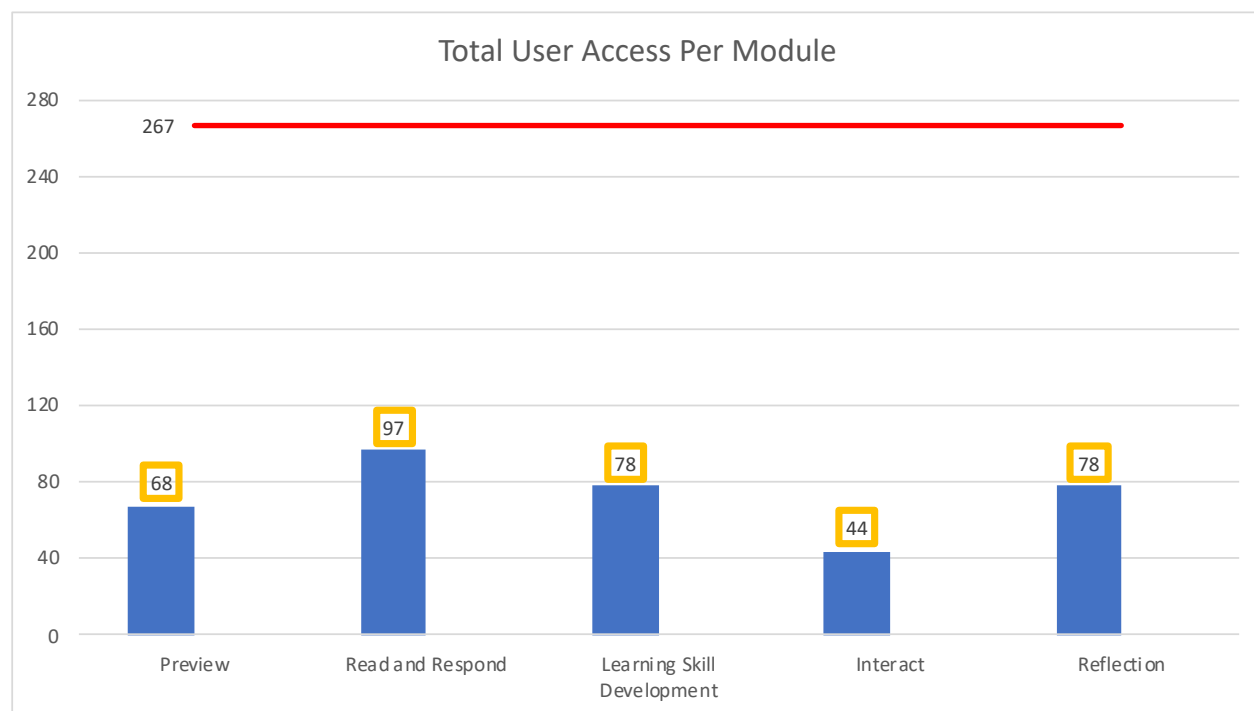
Average LMS On Time User Access

Figure 6***Total User Access by Category*****Table 5*****Total User Access for Live Tutorial Link***

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10	Topic 11	Topic 12
Percentage of Total Users (aggregate)	34%	50%	54%	57%	59%	60%	60%	60%	60%	61%	62%	63%
Percentage of New Users	34%	16%	4%	3%	2%	1%	0%	0%	0%	0%	1%	1%

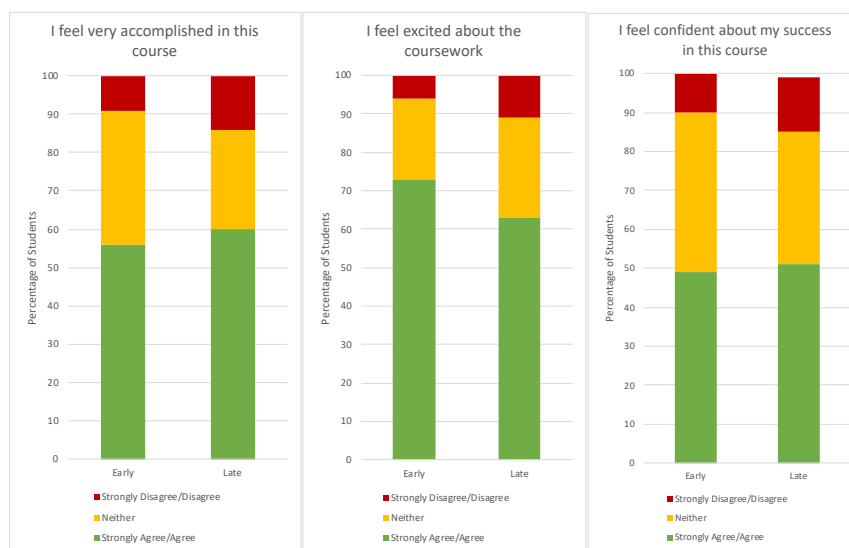
Our survey questions inquired about behavioral, emotional, collaborative, and social engagement. Due to the COVID-19 pandemic, we eliminated questions 10 and 11 in our analysis, as they prompted social engagement when social engagement opportunities were limited. The survey data (Appendix C) showed a predominant response across all questions of either Strongly Agree or Agree. We also noticed similar metrics for the Strongly Disagree and Disagree categories. Therefore, we aggregated the responses into three groups by combining the

Strongly Agree and Agree responses, maintaining the Neither category, and combining the Strongly Disagree and Disagree responses. We then sorted our data based on the categories of responses.

We asked three questions about emotional engagement to understand the participants' general feelings about their learning. Figure 7 shows the responses to the engagement prompts: I feel very accomplished in this course, I feel excited about the coursework, and I feel confident about my success in this course. The green bars indicate the percentage of respondents who chose Strongly Agree or Agree, the yellow bars indicate the percentage of respondents who chose Neither, and the red bars show the percentage of respondents who chose Strongly Disagree or Disagree. On average, there was a higher proportion of negative responses to the late term survey.

Figure 7

Emotional Engagement Prompts

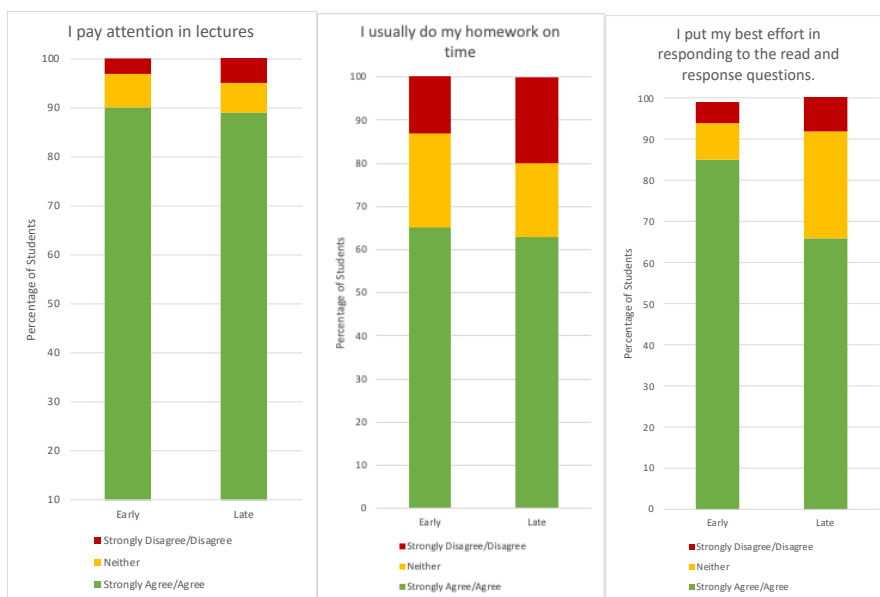


We also included prompts about student behavioral engagement during the course. Using the same legend as Figure 7, Figure 8 shows the student responses to prompts about behavioral engagement: I pay attention in lectures, I usually do my homework on time, and I put my best

effort into responding to the read and respond questions. On average, there was a higher percentage of negative responses and a lower percentage of positive responses in the late term survey.

Figure 8

Behavioral Engagement Prompts



Qualitative Analysis

Our interviews and Padlet responses prompted students to describe their course materials and how they utilized them. We hoped to conduct two or three rounds of semi-structured interviews, but the limitations of COVID-19 prevented multiple rounds. However, we have descriptive information regarding the course materials and resources. We noted two themes as students commented on their learning materials. First, the modules and LMS were consistent each week and reviewable later as needed. Second, the materials aligned and supported the students' work on assessments.

In both the interviews and Padlet responses, students noted consistency in the structure of the modules and the ability to go back and review later. This structure allowed them to navigate more freely and understand the different expectations. One student noted that, although he/she did not refer to the forum or Padlet responses after they were assigned, it was available throughout the term if needed. A second student noted the advantage of reviewing the tutorial recordings and how that helped him/her with assessments. The following Padlet highlights one student's use of the LMS:

I am an independent learner so find I can get all of my questions answered effectively during tutorials and through forums.

Aside from learning the new LMS at the start of term, no students mentioned navigational or content challenges in the LMS.

Students reported that the course materials supported their completion of assessments in both the interviews and Padlet responses. All five interview participants commented that the course materials helped them navigate through the assessments. One student shared that the participation in the forum responses throughout the term helped with the final ePortfolio assessment at the end of the term.

Finding 1: Engagement Changed Over Time

Our findings identified several key themes in response to our research questions. When USQ reviewed the 2020 Australian Student Engagement survey results, they found out that learning engagement had dropped 16% from the previous year nationwide, and that USQ specifically scored 12% lower than the average university. In short, they recognized a problem needing to be addressed. We considered these benchmarks as we began examining our quantitative and qualitative data.

Our first research question asks how students engage with course materials within the course. The downward trend in our learning analytics showed that student engagement with materials changed over time. With a solid start to the term, the overall engagement metrics declined as the weeks progressed. There is a slight burst of engagement in the final weeks of the term after a pattern of steady decline after the second week. Each of our modules showed a decrease, while the Read and Respond and Reflection modules continued to show the highest level of engagement across time.

Our survey responses also showed a difference in student engagement between distributions. The behavioral and emotional engagement prompts showed a difference between the early and late term surveys, as a higher percentage of students responded negatively on the late term survey.

Although our qualitative data was unable to measure change over time, it was significant to highlight the usage and functionality of the course materials as described by the students. Our interviews and Padlet responses highlighted the many uses of the LMS and the effectiveness of the modules to prepare students for their assessments.

Research Question 2

How do students engage with peers and instructors in the Introduction to the Profession course and how does it change throughout the course?

Quantitative Analysis

The learning analytics showed that the Interact module was the lowest category with which students engaged. Figure 9 shows only our “Interact” category within the LMS. The interact module included links to the Padlet forums, general forums, feedback requests, and modules pertaining to course assessment materials. This module most closely aligns with the

collaborative lens of our conceptual framework as that frame focuses on learning with others, including peers and instructors. Figure 9 reflects that there is a decline from the first week, but the average numbers of on-time engagement with interactive components are also markedly low, compared to the 267 total students enrolled in the course. This module offered opportunities for the students to engage with both their peers and instructional team throughout the term. The average total hits for the Interact category was 43.88, which was the lowest level of engagement of all five categories. The Newsletter Forum during week one had the highest number of students accessing the link, with 148 during week one and 250 total throughout the course.

We also had three prompts regarding collaborative engagement in our survey. Using the same legend as Figures 7 and 8, Figure 10 shows the student responses to prompts about collaborative engagement: I talk to people outside the school on matters I learned in class, If I do not understand a concept, I try to solve the problem, and I try to integrate the acquired knowledge in solving new problems. On average, the proportion of students who strongly agreed/agreed with these prompts was lower in the late administration of the survey than in the early administration of the survey.

Figure 9

Average Student Access Interact Category

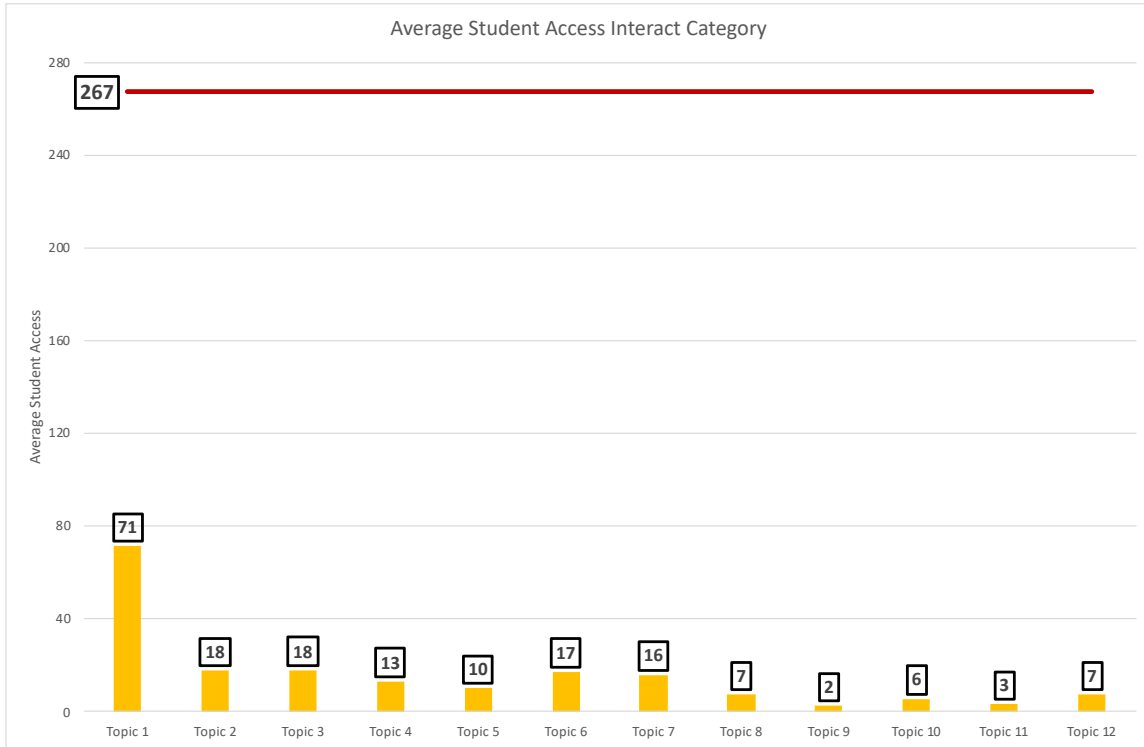
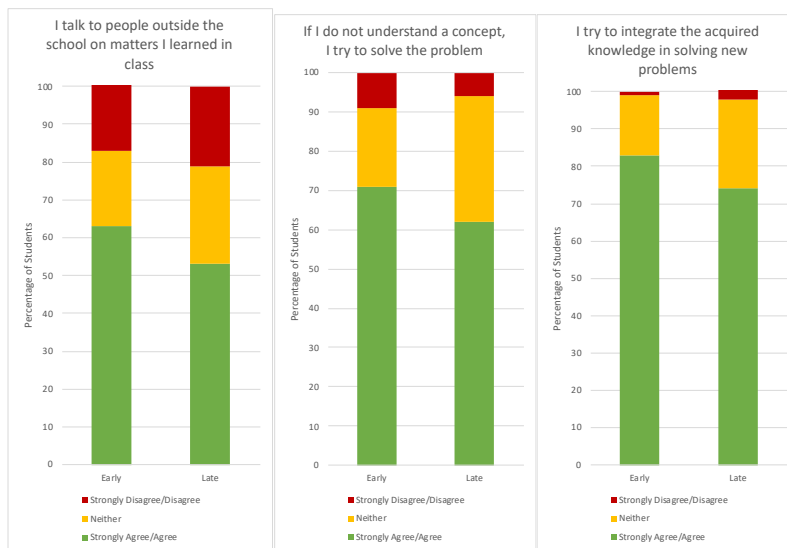


Figure 10

Collaborative Engagement Prompts



Qualitative Analysis

Our qualitative sources provided a robust data set regarding research question 2. The interview protocols deeply questioned student involvement with their peers and instructors. There were dynamic answers to the questions regarding interactions with others during the interviews. We built a category in our codebook (Appendix E) for Relationships and added sub-categories for instructors and peers. In our live interviews, these two areas were rich with information. As we coded our Padlet data, we saw the same level of information.

Two overarching themes emerged from our qualitative data. First, the general feelings about Professor Oliver and the other instructors and markers were very positive. In the interviews, the majority described positive interactions with Professor Oliver and appreciated his clear communication methodical teaching style. He allowed open communication, encouraged questions, and readily responded to student needs. Most students seemed to interact with the instructional team at tutorials with Professor Oliver, by email, and through the forums in the learning management system. Aside from tutorial sessions, the interactions with the instructional team were student-initiated based on questions or needs. One of our interview participants described her interactions with Mark:

The workshop was a two-hour session with Mark; he was the only lecturer that I that I had any contact with...the occasional email like if I was like I'm unsure... we would interact with the forum post, we see what he needs of us.

The second theme that emerged was limited opportunities for students to engage with each other. As the literature showed, online learning environments need to focus on social engagement to promote relationship building and behavioral engagement (Redmond et al., 2018). During our interviews, participants referenced a few sources of peer engagement, such as a

student-created Facebook group. Others sought out peers by following up with students they met during tutorials or breakout rooms. However, opportunities for interaction with peers throughout the course were limited. In the Padlet and interviews, several people commented that they did not interact with peers or did so only during weekly tutorial sessions. One student described wanting to engage with peers in class, noting that their busy schedule prohibited out of class engagement:

I don't really communicate with peers. I am quite a busy person and I just get in and do what I need to do. I haven't had the time to make connections and talk to peers. It is something I would really like to do though.

The connections referred to by this student provide a glimpse of what could be. Students' experiences varied in their responses, but these interactions were predominantly student-initiated.

Finding 2: Peer Interactions were Limited

The data that supported our second research question presented our second finding. Our research questions inquired about how students engaged with peers and instructors and how that engagement changed throughout the course. The indicators from qualitative and quantitative sources showed that interactions with peers were limited throughout the term. Some opportunities were built into the LMS and some student-initiated opportunities outside the course structure.

The qualitative responses were particularly poignant regarding peer interactions. A few of our interview participants mentioned experiences outside the system, such as a Facebook group. One also mentioned building a relationship with another classmate on their initiation and outside the course system. Our participants also said that they would have benefitted from interactions with their peers to support their learning and support their preparation for assessments. Some

mentioned a lack of connectedness which we learned from the literature is essential in an online learning environment (Redmond et al., 2018).

We found one student's quote particularly illustrative:

I felt so overwhelmed...and even though we could email or do a forum post, I'm not good at asking questions...because I am a verbal processor...it was more of a conversation that would have been helpful more than anything. And that wasn't really possible.

Finding 3: Student Interactions were mostly Asynchronous

Our third finding also stems from our second research question and is supported by our conceptual framework and data analysis. Student interactions throughout the course were primarily asynchronous. The only structured synchronous time was the live weekly tutorials. However, these tutorial sessions were optional and not required. Many of our interview participants expressed the benefits of the tutorial sessions and how those sessions impacted their general understanding and preparation for the assessments. One student described the strength of the course materials:

Because every tutorial and every skill that you were actually doing the skills learning as part of your module that was leading you and preparing you for, you know, writing that was preparing you for managing your time organizing an assignment, all those skills, they were actually giving you one week at a time.

We know from our learning analytics that the number of students who accessed the links to the tutorial sessions was consistently low. The live session tutorial link was one module in the learning management system that a total of 167 users accessed, and it was viewed 770 times throughout the term. Additionally, 81 users accessed the tutorial recordings a total of 191 times.

Less than half of the class population engaged with tutorials in this way. Since this was the only synchronous opportunity, the data shows that most student interactions were asynchronous.

In speaking of the optional tutorial sessions, which provide real-time availability to their professor, one student spoke about the value of this direct access:

The tutorial was the primary way I engaged with my instructor. I felt that he laid out clearly what was expected and where to find the appropriate resources to succeed. Clear and explicit instruction resulted in good understanding to do the work necessary.

Our qualitative data supports this finding as students spoke of the live sessions and utilized email and forum posts to connect with instructors and peers. These asynchronous methods, though beneficial, did not provide the connectedness and real-time interaction that synchronous learning can provide. Our interview participants also indicated that tutorials were valuable opportunities to ask questions in real-time and solicit responses from classmates and the instructional team.

Recommendations

USQ's guiding document on the first-year student experience (USQ, 2020) describes student engagement in the following way:

To stay and to feel like one belongs, a student must engage with the curriculum and its enactment. It is important to remember that engagement is a two-way commitment. The curriculum, and University teachers through that curriculum, must engage with students in order to compel students to engage reciprocally.

This point of view yields a critical institutional perspective that helps shape our recommendations in the following pages.

USQ's efforts to improve its teacher education program are laudable. A strong foundation has been laid from which to build. Certain steps must be taken to ensure that students in the program are given the best chance to succeed. We have identified a series of recommendations that we believe will help USQ experience desired improvements to the Introduction to the Profession course. Given the findings from this study, we share the following recommendations to build on the class successes and further improve student engagement.

Recommendation 1

Incorporate mandatory, regularly sequenced synchronous (i.e., “live sessions”) into the course during each term.

Given the lack of required attendance for any aspect of the course, we believe a change must occur. A common theme shared by students both during our interviews and in their Padlet responses concerned a lack of connection with others inside the program (certainly COVID-19 contributed to this feeling). One of the most positive experiences students referenced during the course was the tutorial sessions; however, these sessions were optional. Despite the direct access to the instructor, not all students chose to attend. As a result, learning opportunities that typically occur during live class sessions (e.g., a question or observation that helps others think in new ways) did not occur for many.

The literature supports this recommendation. Jimerson et al. (2003) emphasize how important belonging, community, and membership are in online learning environments. Live class sessions allow the opportunity to foster emotional connections so vital to students. An intentional instructional design that prioritizes real-time learning helps ensure that students realize many of the same benefits enjoyed in brick-and-mortar classrooms.

Recommendation 2**Opportunities for non-academic socialization are available and prioritized for students outside of class.**

Communities of learning are sustained by meaningful engagement within and beyond class time. McGrath and Noble (2010) found that in-person relationships improve student outcomes and pro-social behaviors. While online learning environments do not provide the same natural pathways to interpersonal connection, students benefit when given a chance to deepen relationships. USQ is no exception. The creation of social events (e.g., regional meet-ups or campus convenings) can reinforce and legitimize engagement between students and educators alike.

When education is reduced to a purely academic endeavor, students miss out on enrichment opportunities to transform their overall experience. Study groups organized by students are good, but the university can go further by providing a formal mechanism for students to connect (e.g., affinity groups). We believe students in USQ's teacher education program will enjoy improved levels of engagement as interactions with one another beyond the proverbial classroom walls grow.

Recommendation 3**Online class sections should cap a maximum enrollment number to ensure instructor effectiveness and student learning are focal priorities.**

The Introduction to the Profession course enrolled 267 students during the term we reviewed. A class of this size introduces limitations with instructional design and pedagogical practice. Sorensen (2014) concluded that "class size potentially has the most effect on instructors' ability to use their expertise, knowledge of the subject matter, and experience" (p.

574). He notes that with larger class sizes, “instructors use their expertise less effectively and consistently to support student learning” and that less quality feedback is given to students as well in online settings (p. 574).

It is not uncommon for introductory courses in many colleges and universities to have significantly larger class sizes than students experience subsequently as foci narrow. And yet, this introduces a paradox of sorts. Students finding their way early in a program of study need access to instructors. As such, we believe USQ’s program will benefit by capping class sizes and providing qualified individuals (be that faculty members or teaching assistants) to ensure students have access to instructors when needed. We realize that university resources are limited and that implementing this recommendation may take time. Nevertheless, we believe it is a worthwhile investment that will enrich the overall student experience and help students feel a greater sense of engagement.

By integrating this adjustment, we believe future quantitative and qualitative data will increase student engagement. The growth experienced will support both academic and pro-social outcomes.

Recommendation 4

Tailor assessment to the online learning environment.

Assessment and student engagement are interconnected (Reeves, 2000). Yet, despite what a growing body of research reflects, many online courses rely on traditional assessment measures not well suited for the environment (Guàrdia et al., 2017). As Casey et al. (2014) found, students asked to effectively crowdsource formative assessment questions demonstrated engagement beyond the minimum participation request. In sum, they were interested in contributing to the process of showing what they had learned. Guàrdia et al. (2017) also

classified various e-learning activities to include questions (open, closed, multiple-choice, etc.), essays, online discussions, concept maps, e-portfolios, role-playing, personal responses, and scenario-based activities. These activities represent a handful of formative and summative assessments that may be considered when course design occurs.

While USQ has incorporated specific assessments recommended for online learning programs (e.g., e-portfolios, online discussions, and personal responses), we recommend that they continue to evaluate how these assessments reinforce program objectives. Consulting the emergent research will help inform their practices and contribute to a diversification of assessment opportunities for students. Czerkawski & Lyman's (2016) ELED framework offers a strong foundation for formative and summative assessment from which to build. The ELED feedback loop offers a road map for instructional designers to follow to enrich the student learning experience through the intentional integration of assessment, collaboration, facilitation strategies, and student feedback. We believe the continued, thoughtful implementation of various assessment activities will help students feel more engaged and demonstrate reliable results upon which faculty can examine their instructional effectiveness. To this end, we believe the course should incorporate student participation as a component of one's grade.

Discussion

In this project, we endeavored to understand how and why student engagement in an online educational setting changed from the beginning of the course to the end. Via qualitative and quantitative data collection methods, we were able to ascertain when and why student engagement levels fluctuated throughout the semester and how deliberate structural changes can better help the student experience. Our recommendations to USQ are rooted in the interventions laid out in our conceptual framework and are therefore linked to best practices in an online

learning setting. It is the hope that with this information, USQ will amend the course accordingly to provide students with more frequent and deliberate opportunities to engage with peers, instructors, and course content in future semesters.

Limitations of Research

We were fortunate in our ability to have collected a wealth of comprehensive data for this capstone project. There are opportunities in our data collection process that we anticipated going differently when first creating the project design. Our original plan was to conduct three rounds of interviews to get multiple narratives at different points throughout the course. This information may have provided more insight into change in engagement over time. Due to logistical limitations, we could only conduct interviews at the end of the term. The limitations associated with the geographic location of our capstone partner also limited the number of interviews we were able to conduct. The extreme difference in time zone made the scheduling of interviews challenging. Lastly, the imbalance between pre- and post-survey responses also impacted the data we analyzed. Ninety-six students completed the pre-survey at the beginning of the term, and 35 completed the post-survey. This naturally impacted the findings we could draw from this data collection method.

Future Directions

Based on our findings, coupled with Mark Oliver's passion for this course, we are confident that the recommendations can greatly improve how connected students feel in their first year in their teaching program. A potential goal of Professor Oliver is to have our study act as the foundation for a longitudinal study tracking the success of future iterations of the Introduction to the Profession course. As the course continues to mature, we are hopeful that

there will be a meaningful increase in student engagement over time, ultimately leading to more engaged teaching professionals.

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Appendix A

EDC 1000 Course Description

2/16/22, 8:44 AM

Course specification for EDC1000



Course specification

The current and official versions of the course specifications are available on the web at <https://www.usq.edu.au/course/specification/current>.

Please consult the web for updates that may occur during the year.

EDC1000 Introduction to the Profession

Semester 1, 2021 On-campus Springfield

Short Description:	Introduction to the Profession
Units :	1
Faculty or Section :	Faculty of Business, Education, Law and Arts
School or Department :	School of Education
Student contribution band :	Band 1
ASCED code :	070111 - Teacher Education: Higher Educ
Grading basis :	Graded

Staffing

Examiner: Mark Oliver

Requisites

Enrolment is not permitted in EDC1000 if EHF1100 or EPP1100 or ESF1100 has been previously completed

Other requisites

Students enrolling in courses which do not follow the recommended enrolment pattern cannot be assured of a developmental learning experience or program completion within their preferred timeframe.

Enrolment is not permitted if EHF1100 Framing the Professional or ESF1100 The Educator as Professional Childhood Development has been previously completed.

Rationale

This course seeks to introduce the pre-service educator to the profession. The course examines teaching in the 21st Century through an examination of professional knowledge, professional practice and professional engagement. As a first year, first semester common course it also provides an introduction to the tertiary learning environment and academic literacies. This initial learning will be applied throughout the programme and culminate with a capstone course in the final semester of study, providing a four year scaffold to teacher professionalism.

Synopsis

This course introduces key concepts, skills and knowledge required when working in a diverse range of educational settings. The course is underpinned by the Australian Professional Standards for Teachers and examines knowledge, practice and engagement. The course is focused on connections in four key ways: with self, with USQ, with the profession, and with community. This course helps you to begin on your journey to becoming a professional educator and provides opportunities for reflection and the beginning of your professional teacher identity.

Objectives

On successful completion of this course students should be able to:

1. demonstrate knowledge of professional ethics, responsibilities and conduct (APST 7.1, 7.2);
2. demonstrate knowledge and understanding of the importance of ongoing professional learning for teachers (APST 6.1, 6.2);
3. demonstrate appropriate cognitive, literacy and communication skills, including spelling, grammar, punctuation and bibliographic referencing.

Topics

	Description	Weighting(%)
1.	Introduction to the profession	25.00
2.	Professional knowledge	25.00
3.	Professional practice	25.00
4.	Professional engagement	25.00

Text and materials required to be purchased or accessed

ALL textbooks and materials available to be purchased can be sourced from USQ's Online Bookshop (unless otherwise stated).

(<https://omnia.usq.edu.au/textbooks/?year=2021&sem=01&subject1=EDC1000>)

Please contact us for alternative purchase options from USQ Bookshop.

(<https://omnia.usq.edu.au/info/contact/>)

Allen, J., & White. S 2000, *Learning to teach in a new era*, Cambridge University Press.

Reference materials

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Student workload expectations

Activity	Hours
Directed Study	80.00
Private Study	85.00

Assessment details

Description	Marks out of	Wtg (%)	Due Date	Notes
Feedback and reflection	20	20	19 Mar 2021	
Oral Presentation	40	40	19 Apr 2021	
ePortfolio and Action Plan	40	40	26 May 2021	

Important assessment information

1. Attendance requirements:

On-campus Attendance requirements:

It is the students' responsibility to attend and participate appropriately in all activities (such as lectures and tutorials) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

ONL Attendance Requirements:

There are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2. Requirements for students to complete each assessment item satisfactorily:

To satisfactorily complete an individual assessment item a student must achieve at least 50% of the marks for that item.

3. Penalties for late submission of required work:

2/16/22, 8:44 AM

Course specification for EDC1000

Students should refer to the Assessment Procedure <http://policy.usq.edu.au/documents.php?id=14749PL> (point 4.2.4)

4. Requirements for student to be awarded a passing grade in the course:

To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.

5. Method used to combine assessment results to attain final grade:

The final grades for students will be assigned on the basis of the aggregate of the weighted marks obtained for each of the summative items for the course.

6. Examination information:

Not applicable.

7. Examination period when Deferred/Supplementary examinations will be held:

There is no examination in this course, there will be no deferred or supplementary examinations.

8. University Student Policies:

Students should read the USQ policies: Definitions, Assessment and Student Academic Misconduct to avoid actions which might contravene University policies and practices. These policies can be found at <http://policy.usq.edu.au>.

Assessment notes

1. Referencing in assignments must comply with the APA referencing system. This system should be used by students to format details of the information sources they have cited in their work. The APA style to be used is defined by the USQ library's referencing guide. This guide can be found at <http://www.usq.edu.au/library/referencing>.

Evaluation and benchmarking

In meeting the University's aims to establish quality learning and teaching for all programs, this course monitors and ensures quality assurance and improvements in at least two ways. This course:

1. conforms to the USQ Policy on Evaluation of Teaching, Courses and Programs to ensure ongoing monitoring and systematic improvement
2. forms part of the Bachelor of Education and is benchmarked against the:
 - a. internal USQ accreditation/reaccreditation processes which include (i) stringent standards in the independent accreditation of its academic programs, (ii) close integration between business and academic planning, and (iii) regular and rigorous review

- b. Queensland College of Teachers
- c. Australian Professional Standards for Teachers (APST) of the Australian Institute for Teaching and School Leadership (AITSL).

Other requirements

1. Participation: Students can expect it will be necessary to participate in and contribute to a range of learning opportunities in this course including online study activities, lectures, tutorials, seminar presentations, group discussions and self-directed study activities in order to apply the coursework that will enable quality assessment tasks to be submitted as evidence of professional development.

Date printed 18 June 2021

Appendix B

Interview Protocols

Explain the Purpose of the Interview:

Thank you for taking the time to meet with us today. As you know, we are interested in understanding how the recent changes in the teacher education program have impacted student engagement. I am going to be asking you questions about your class experiences, how you interacted with your teacher and peers throughout the term, and how you engaged in your learning.

Consent Process: Please be sure to obtain consent from the participant if s/he has not consented before. In all cases, tell the participant:

If recording: Before we begin the interview, I want to remind you that participating in this study is voluntary and your responses are completely confidential. At any point during the interview, if you would like us to pause our recording, just tell us to do so. Do you have any questions about the study before we begin?

OR

If not recording: Before we begin the interview, I want to remind you that participating in this study is voluntary and your responses are completely confidential. At any point during the interview, if you would like us to pause, just tell us to do so. Do you have any questions about the study before we begin?

Introductory Questions

We would like to ask you a few questions about your background as a student at USQ.

School-leavers vs non-school-leavers?

1. How long have you been a student at USQ?
2. What is your program of study and what courses have you already completed?

Document program of study and courses completed

3. How do you feel so far about your program of study and the Introduction to the Profession course?

Note feelings such as: good, so-so, difficult, easy, etc

Interaction Questions

We would like to ask you a few questions about how you interact with others during the Introduction to the Profession course.

1. What tools does this class use to deliver content and engage you in the material?
 1. *Document description of LMS and other delivery methods*
2. How often do you engage with your teacher and how?
 1. *Document measure of how often they engage*
 2. *Document various means of engagement (messages in LMS, email, face-to-face, digital one-on-one, etc*
3. How often do you engage with your peers and how?
 1. *Document measure of how often they engage*
 2. *Document various means of engagement (messages in LMS, email, face-to-face, digital one-on-one, etc*
4. What are the benefits to engaging in this way?
 1. *Note benefits of digital engagement vs in-person engagement*
5. What are the challenges to engaging in this way?
 1. *Note the challenges of digital engagement vs in-person engagement*

Weekly Engagement

We would like to ask you about your weekly assignments for this course.

1. Please explain your weekly materials.
 1. *Note the absence or presence of the 5 different elements of the course (preview, read & respond forums, learning skill development (module. collab padlet, reflective task), interact, reflection)*
 2. *Ask for further details as needed*

We understand there are five elements - preview, read/respond, learning skill development, interact, reflection -

2. Of the five primary elements, which element is the most interesting and engaging for you as a student?

Note the most engaging element of weekly work

Prompt to explain further and document explanation.

3. Of the five primary elements, which element is the least interesting and engaging for you as a student?

Note the least engaging element of weekly work

Prompt to explain further and document explanation.

Assessment Questions

You recently completed one of the three assessments in this course. We would like to ask you a few questions about that assessment.

1. Please explain the structure of the assessment.
 1. *Note the described structure*
2. How did you feel about this assessment?
 1. *Note feelings such as: difficult, easy, challenging, impossible, etc.*
3. How did your engagement in the weekly materials prepare you for this assessment?
 1. *Note connections between weekly material engagement and the assessment*
 2. *Prompt for detailed information such as specific materials/weeks/elements*

4. How did your engagement with your teacher prepare you for this assessment?
 1. *Note answers indicating whether or not the student engaged with the teacher*
 2. *Note answers indicating the content/purpose of the engagement with the teacher*
5. How did your engagement with your peers prepare you for this assessment?
 1. *Note answers indicating whether or not the student engaged with peers*
 2. *Note answers indicating the content/purpose of the engagement with peers*
6. How important was engagement with activities, teacher, and peers to your completion of the assessment?
 1. *Note answers indicating the importance: very, not at all, etc*
7. Moving into the next segment of the course, what, if anything, will you do differently to prepare for the next assessment?
 1. *Note and prompt for indicators of more/less engagement with material, teacher, or peers*

Closing Questions

Thank you for answering our questions today. We have a few final questions for you.

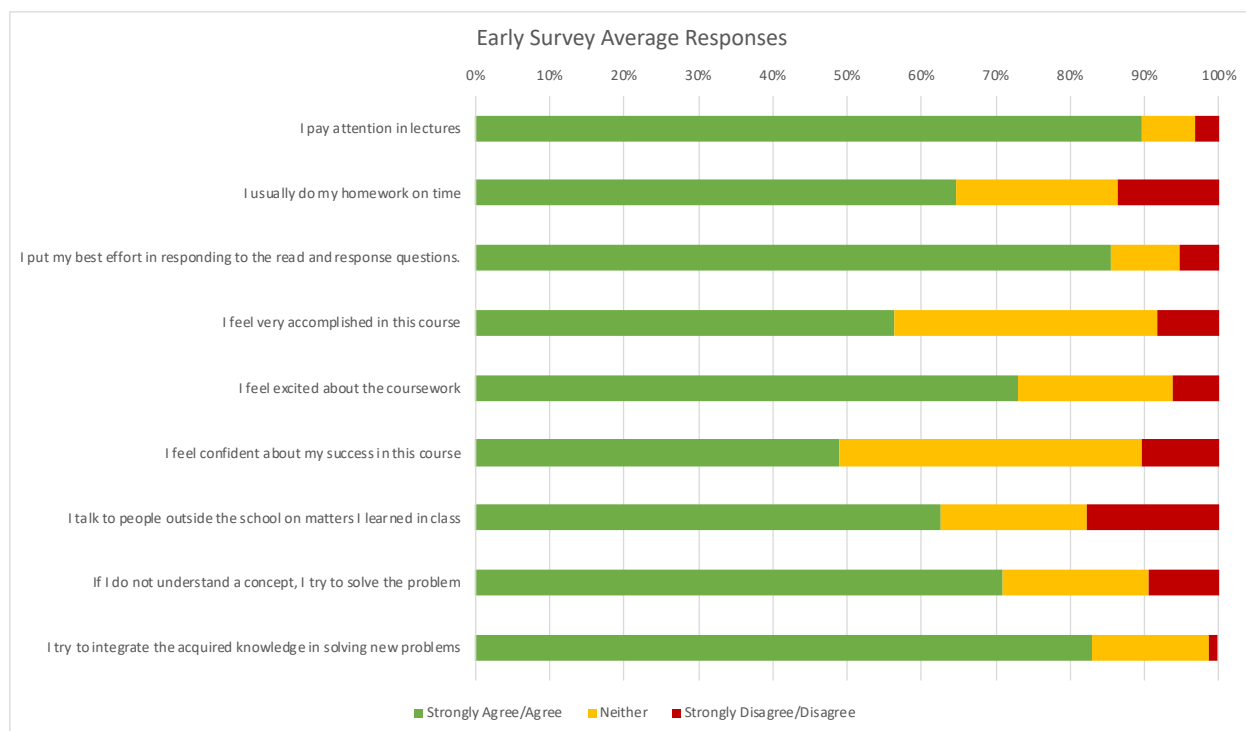
1. Overall, do you feel engaged in the content and with your teacher and peers in the Introduction to the Profession course?
 1. *Note yes/no*
 2. *Prompt for more detailed explanation and note reasons*
2. What do you hope to learn moving forward in this course?
3. What, if anything, would you change about the engagement opportunities in this course?
 1. *Note indicators of more/less in relation to materials, teacher, and peer engagement*
4. Do you have any questions for us?

Send transcript to subjects for approval after interview

Appendix C

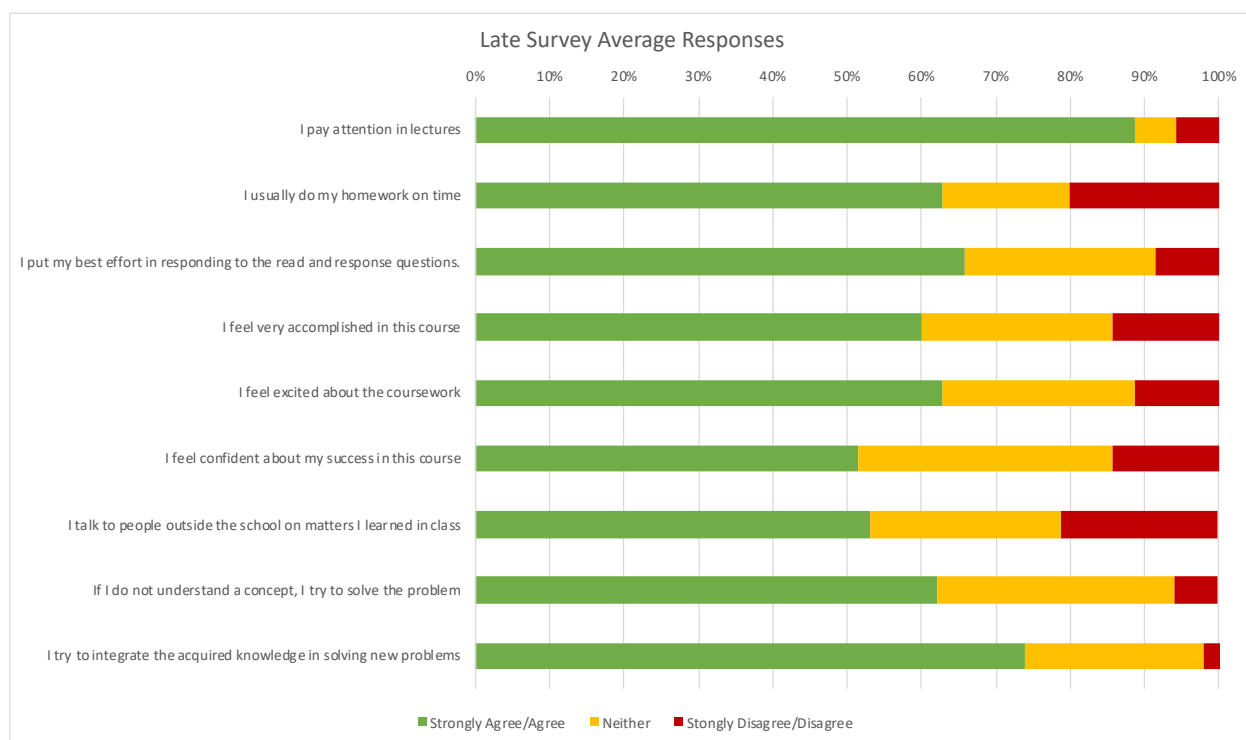
Early Survey Data

	1	2	3	4	5	6	7	8	9	10	11
Strongly Agree	22	17	27	5	16	10	13	10	12	58	2
Agree	64	45	55	49	54	37	47	58	67	30	3
Neither	7	21	9	34	20	39	19	19	15	5	6
Disagree	1	10	4	8	6	9	14	7	0	1	43
Strongly Disagree	2	3	1	0	0	1	3	2	1	2	42



Late Survey Data

	1	2	3	4	5	6	7	8	9	10	11
Strongly Agree											
Agree	4	3	6	2	3	2	2	2	3	13	0
Neither	27	19	17	19	19	16	16	19	22	18	1
Disagree	2	6	9	9	9	12	9	11	8	3	5
Strongly Disagree	2	6	3	2	2	4	5	2	0	1	16
Strongly Disagree	0	1	0	3	2	1	2	0	1	0	13



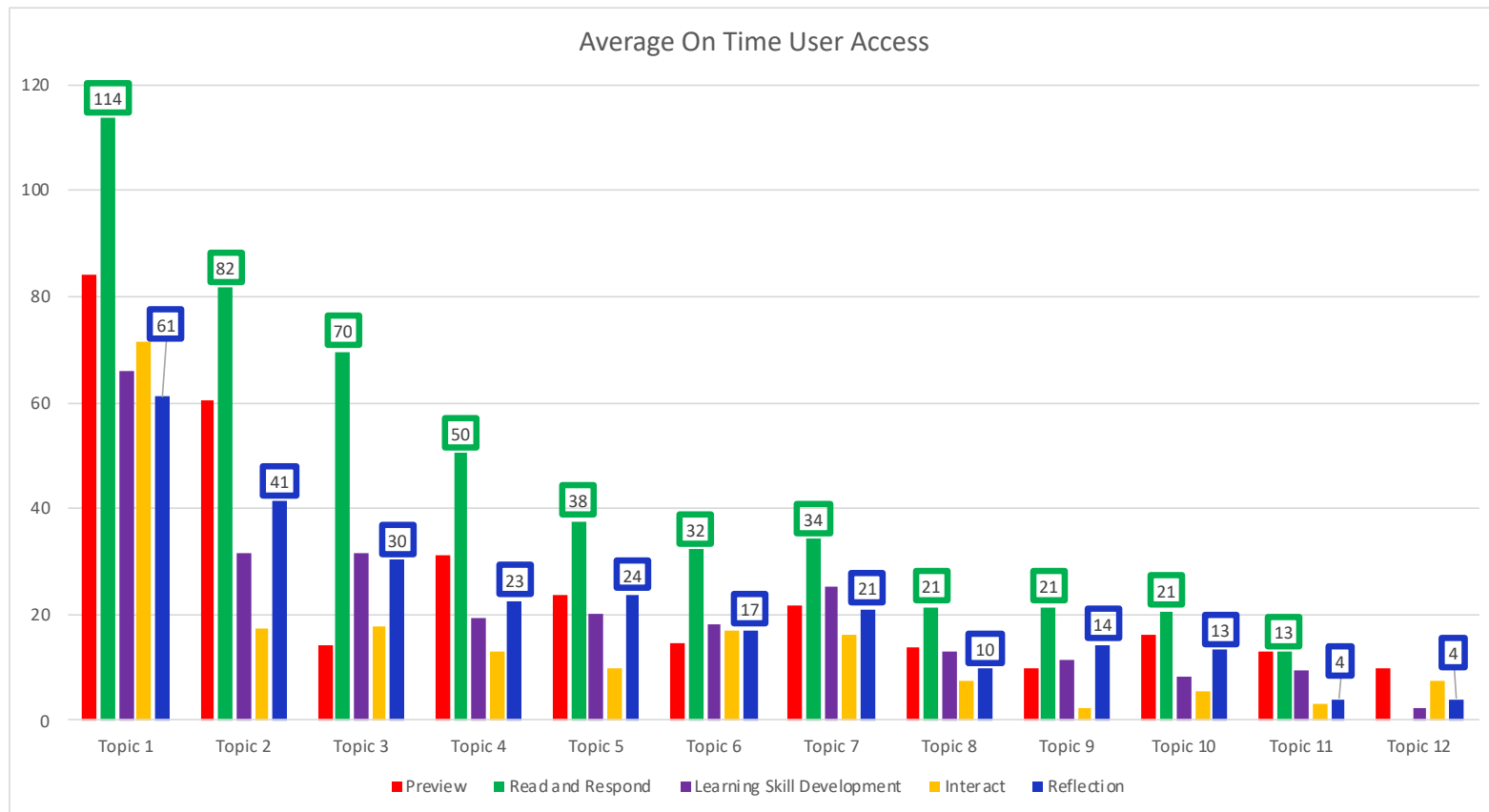
Survey Categories

	I pay attention in lectures	I usually do my homework on time	I put my best effort in responding to the read and response questions.	I feel very accomplished in this course	I feel excited about the coursework	I feel confident about my success in this course	I talk to people outside the school on matters I learned in class	If I do not understand a concept, I try to solve the problem	I try to integrate the acquired knowledge in solving new problems
SA/A Pre	89.58%	64.58%	85.42%	56.25%	72.92%	48.96%	62.50%	70.83%	83.00%
SA/A Post	88.57%	62.86%	65.71%	60.00%	62.86%	51.43%	53.00%	62.00%	74.00%
Neither Pre	7.29%	21.88%	9.38%	35.42%	20.83%	40.63%	19.79%	19.79%	15.63%
Neither Post	5.71%	17.14%	25.71%	25.71%	25.71%	34.29%	25.71%	32.00%	24.00%
D/SD Pre	3.13%	13.54%	5.21%	8.33%	6.25%	10.42%	17.71%	9.38%	1.04%
D/SD/Post	5.71%	20.00%	8.57%	14.29%	11.43%	14.29%	21.00%	5.71%	2.86%

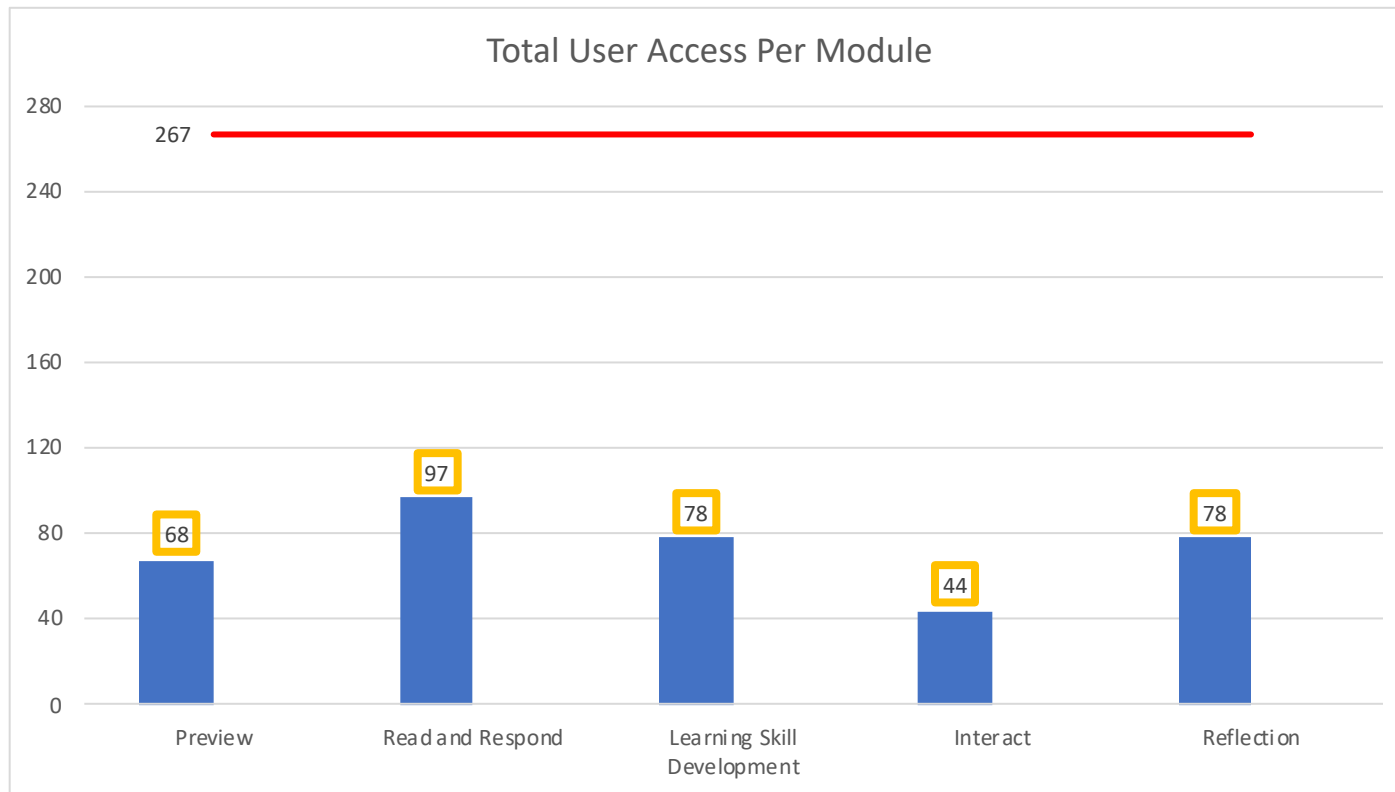
Appendix D

Learning Analytic Data

Category	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10	Topic 11	Topic 12
Preview	84.20	60.50	14.00	31.25	23.75	14.75	21.50	13.75	10.00	16.00	13.00	10.00
Read and Re	113.67	81.67	69.67	50.33	37.67	32.33	34.33	21.33	21.33	20.67	12.83	
Learning Skill	65.9	31.7	31.7	19.5	20.0	18.3	25.3	13.0	11.3	8.3	9.3	2.5
Interact	71.29	17.50	17.67	13.00	10.00	17.00	16.00	7.33	2.40	5.67	3.00	7.33
Reflection	61.00	41.33	30.33	22.67	23.67	17.00	21.00	9.67	14.33	13.33	4.00	4.00



Category	Total User Access
Preview	67.65
Read and Re	96.76
Learning Skill	78.0
Interact	43.88
Reflection	78.03



Appendix E

Codebook (Interviews)

Category	Interview 1
Relationships	
SUB - Collaboration	
SUB - instructors	<p>* I am normally quite reserved, and I'll only sort of reach out if I have to</p> <p>*I engaged with Mark, Rachel and Kate through the forum posts mainly</p> <p>*[Mark] is very responsive</p> <p>*But um, yeah, my marker. She, um, I don't know, she, like, wasn't interested. But I got the impression that we were going to be able to, like chat after, not for a long amount of time, but just a few minutes have like, a productive discussion, but she seemed a bit like stress or like, not interested</p> <p>*Yes, I think that when he said that he could turn off the recording, and anybody could ask whatever they wanted. That was really interesting, inviting. So I did ask a question about how to structure a personal statement, because I haven't, I'm not familiar with that sort of writing.</p>
SUB - peers	<p>*somebody created a Facebook group</p> <p>*I asked in there [FB group]like, you know, how do people's presentations go because that was our second assessment or</p>

	<p>presentation that was useful through</p> <ul style="list-style-type: none"> *I was there [breakout rooms] every week with Mark and there was another lady called Cindy and we were always in the same breakout room and so it was really actually nice to see her again *helped each other out *because I wasn't able to see them, see their whole body see the movements and sort of Judge of what they're thinking *I didn't really have many peers that I was engaging with, consistently * think it helped me understand that what I've done is good enough. In that, because when I was looking at her references, she asked me to this is Cindy, right over her third assessment, just to proofread, basically. And by this point, I'd finished mine. And I just um, yeah, it was good to see somebody else's stuff. And that's what I was really valued
Learning	
SUB - Reflection	<ul style="list-style-type: none"> *that part of the course was like reflecting on the weekly learning and like what I want to do next, because that sort of just comes naturally without prompting, like, I don't really put too much thought into it
SUB - Interaction	<ul style="list-style-type: none"> *it's sort of a bit less personal
SUB - tutorials	
SUB - Forums	<ul style="list-style-type: none"> *each week, we would, they would post the three forum questions, ask us to read the first chapter, second chapter, and then answer content questions on the forum posts, which is inside of that study desk *I think the weekly forum posts helped the most overall, for my assessment one *So I liked that I engaged with that I did those all four weeks of the response questions, which did help me
SUB - Resources	

SUB - LMS	<p>*I really liked the study desk, because it had everything there. And it had all the review like recordings for the tutorials as well.</p> <p>*go back to it when you needed to</p> <p>*So I could see like, where I'm going to end up where we are now, and how to get there in little chunks. So yeah, I find it really helpful</p>
SUB - Assessment materials	
SUB - Preview	<p>*Yes, so definitely previewing. I really liked that</p> <p>*I really liked being able to see what was expected, you know, and I really liked to retain the clarity around that.</p>
SUB - Understanding	<p>* it's been introduced really well. I feel like I sort of understand what to heard</p>
Challenges	
SUB - confusion	
SUB - figure it out on our own	<p>* I am normally quite reserved, and I'll only sort of reach out if I have to</p> <p>*because I'm on my own</p>
SUB - assessments	<p>*I thought that there's such broad questions. For my like, I want to answer that question properly. And I felt like it was a very broad statement, and I would have appreciated like little prompting questions, or a more extensive marking rubric</p>
Successes	

SUB - assessments	
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Category	Interview 2
Relationships	
SUB - Collaboration	
SUB - instructors	<p>*they're [Instructors] feeding you those information, points in the course, it was really obvious, I think they did a great job of hand holding, because they're handing you the sources that they're kind of thinking are going to be your key sources. So that was really helpful.</p> <p>*I actually found it really good and marks manner was really good.</p> <p>*I'm definitely going to stick with marks because his manner and his style was very, very slow.</p> <p>*his manner was so quite, you know, gentle and just just really methodical</p> <p>*presenting you with the options of different viewpoints and letting you sort of work through what you think about it, you know, what you're sensing, he didn't really offer a lot of over an opinion, he was actually very good at being really objective.</p> <p>*at any time from the course the professor's could be there. So there's accountability in it</p> <p>*Because he created opportunities to ask questions. He give information every time you know, at the start. And at the finish he gets he created a space where you could ask, what I found was often I, I felt so overwhelmed at the time of my tutorials that I couldn't. I couldn't think of a question</p>

	<p>*it was it was more of a conversation that would have been helpful more than anything. And that wasn't really possible. There was moments where it was possible, but I just wasn't able to really make the most of it. But that was I think that was my part. I don't feel like he created opportunity for that.</p>
SUB - peers	<p>*I'm part of a chat group, with other students who are first year, so they are doing like two or four courses</p> <p>*And so we would we organize, to meet up afterwards to discuss like assignments and stuff, which was really helpful.</p> <p>*short feedback session at the end of every breakout room, where maybe one or two would share just key points that were discussed. And that was good.</p> <p>*we thankfully we had a Zoom Room that was a study group Zoom Room</p> <p>*I just think this [zoom] is a really neutral and safe environment</p> <p>* I set up a few meetings on it [zoom]for students and we met a few times in the lead up to the second assignment.</p> <p>*So that was helpful. You Just hearing, or even just people's best guesses as to what that particular instruction? You know, I think it means this and someone else said, Oh, I thought it was this, you know, but it's helpful</p>
Learning	
SUB - Reflection	<p>*But the reflection, the 100 word reflection, even though that they actually that's a key part of the course. That wasn't Yeah, I don't know. Sometimes I felt like I don't know if it was helped me reflect I it probably did</p>
SUB - Interaction	<p>*So but that [padlet] was good for interaction It was good for and then we did breakout rooms, they were often very short, like, you know, five minutes</p> <p>*And so it [breakout rooms] wasn't very easy, you know, to get people to necessarily engage us. You know, some people wouldn't have their video on or they were just a bit shy. And so by the time we get everyone to sort of have a say, you</p>

	<p>wouldn't get many people to share, but it was still good, it was still good to connect with individuals</p> <p>*So I think that was probably one of the key things out, that would be really helpful on any course I think, to have that click, you know, in your course that you can all link into the same Zoom Room for a study group that was really useful for online part of it.</p> <p>*Yeah, I probably liked the interactive module like I, and even just the way it guided me through the reading. It was informative. And for me, yeah, I mean, being able to, like I didn't always enjoy during the read and respond in one sense, because it really made you have to think, but it was good. It was really effective</p> <p>*And of course, that does increase your engagement, because then he is using you as an example. Because your your face is there. And so he can tell you're open to that kind of using you as an example, whatever.</p>
SUB - tutorials	<p>*I went to the tutorial that was two hours. And so obviously, he would be lecturing, he would show his screen on our zoom, but he would also have a mentee link where we would link in and then we could see his PowerPoint a little bit more clearly. And then we could also give answers</p> <p>*so my favorite part was the tutorial. That definitely was my favorite part of the weekly routine. But that part, but because it was engaging, I didn't mind I looked forward to making a cup of tea sitting down and getting into the topic. Yeah.</p>
SUB - Forums	<p>*And that was, as I described earlier, and then there was there was forum posts in that topic, if anybody had questions, and so sometimes we would find, like a video link wouldn't work in it. And so then they'll be forum posts about it.</p>
SUB - Resources	<p>*padlets, where they would ask questions, and then we would, you know, there would be five different parts, and he might move through a couple at a time, and then we would just answer those ones</p> <p>*[padlets] I didn't refer back to it so much, I did a few times, but I didn't. I didn't necessarily use it because again, it wasn't</p>

	<p>admissible anyway</p> <p>*because I was doing an oral I actually logged into it [zoom] and did a practice run at six in the morning when I knew no one would be there. And that was really, really useful</p> <p>*the learning skills modules that they added into every topic that was really good, even though they're really basic and pretty obvious, mostly, just to hear it explicitly explained, just gets you thinking reminded you, you know, professional communication, you know, time management, academic writing, just really, you know, it's simple, but it's really, it's good to go through it.</p> <p>*So you couldn't necessarily work ahead or anything. But I, that was fine with me.</p> <p>*I mean, even though I didn't feel like I had the knowledge, the deeper part of the knowledge, I had the overview knowledge, because if you did, if you did the coursework, as they laid it out for you,</p> <p>*Because every tutorial and every skill that you were actually doing the skills learning as part of your module that that was leading you and preparing you for, you know, writing that was preparing you for managing your time organizing an assignment, all those skills, they were they were actually giving you one week at a time</p>
SUB - LMS	<p>*That was a good way to start. Get to know how to post forums and all that sort of thing</p> <p>*you could do it as a PDF, or you could do the interactive. So I suppose if your internet was limited, you could probably just do the PDF, but I liked the interactive a little bit better</p>
SUB - Assessment materials	
SUB - Preview	

SUB - Understanding	
Challenges	*I'm an in person, person, I'm not the kind of person who would even call somebody I would just go over, I would just drop in.
SUB - confusion	*And I just wrote to the messenger group kind of saying, you know, what do I do, and they were just really helpful, I couldn't even figure out how to find my assignment, once it was marked, because it was just this little, little picture, there was nothing really clear written, you just needed to know that sort of this little tiny picture, you needed to click on it to get it and I had no idea.
SUB - figure it out on our own	*it was it was more of a conversation that would have been helpful more than anything. And that wasn't really possible. There was moments where it was possible, but I just wasn't able to really make the most of it. But that was I think that was my part. I don't feel like he created opportunity for that.
SUB - assessments	<p>*key stress times have been assessments, and particularly that first, academic writing assignment was huge, because I hadn't written academically for such a long time</p> <p>*my first assignment, I was, I was in lockdown. And so I couldn't go, I had planned to go into the library, because I lived close enough to drive in about half an hour, 35 minutes to get to the Library at the University, and I wanted to get referencing help, because I knew that's a weakness, I don't have to do it, you know, I just want someone to sit down with me, I'm an interactive learner</p> <p>* And then I even just printed out a lot of stuff to sort of, and I found it just like, I felt like I was swimming in information. And I found it a little bit hard. And sometimes, you know, yeah, I know that they were just creating lots of ideas and giving you ideas that you could use, but I found it a little bit hard to set, it's probably just my lack of experience</p>

	<p>*But I just wondered if even at the end of the course, we're doing assessments that are based on having knowledge of these things,</p> <p>*I kind of thought I would love the quiz, I would have loved something like that. That's just really not points. Did you get the key information? Yeah, because you have to study a lot to get those points, you know, you actually have to understand what this one means is under this standard, and that's, that's how you achieve it. I think that would have prepared me for my first essay a little bit better.</p> <p>*imposter syndrome thing, like, you know, you kind of feel like you're faking it and and I know that's part of what I mean all life is like that a little bit. I mean, teaching half the time you get up and you just have to, you know, just sound like you know what you're talking about</p>
Successes	<p>*I think it was a really good course to start with</p> <p>*I feel like, gosh, I did it the right way</p>
SUB - assessments	<p>* I set up a few meetings on it [zoom] for students and we met a few times in the lead up to the second assignment.</p>

Category	Interview 3
Relationships	
SUB - Collaboration	

SUB - instructors	<p>*Like I've enjoyed it marks really good. I met him at my very first day, on the on campus. And he is very easy to talk to and seem full of energy. So that was good</p> <p>*But also, while not to mark specifically, but other leaders in the course, I've been talking them through the forums as well. And they've been responding to some of my question. So I posted in the forums and about our module activities as well.</p>
SUB - peers	<p>*Yes, I we do the, we've been doing the zoom tutorials every week, this semester. And we get when we are in the zoom tutorials, we go into the breakout rooms, we get to like interact with other peers from our class as well</p> <p>*Well, yeah, it's been to a couple of them over Facebook as well. And for emails, and yeah, through the breakout rooms that we do as part of the tutorials. It's another way that we keep in touch. And I know I know, a couple of them from around around tomorrow as well. So it's a good social aspect of it too.</p> <p>*And we'll separate the zoom meeting into groups. And we'll go and discuss these questions amongst ourselves and go off in tangents and sign as well. And, yeah, so it's good, like a thinking session where we will put forward our own ideas.</p>
Learning	
SUB - Reflection	
SUB - Interaction	<p>*I'm definitely the interact one, I feel like I learned a lot better when I'm able to discuss with other people and hear their points of view as well. And then being able to go back and reflect on that kind of what's the word solidifies that knowledge in my head? And makes a bit easier to put that into words.</p> <p>*when we've added tutorials, we do the padlets, and breakout rooms. And that actually helped me come up with some ideas and strategies that I put down into my assessment as well. Like, yeah, that was quite helpful.</p>

	<p>*Yeah, I feel like I definitely engaged the teacher in the paint my peers as well. It's, it's always pretty fun to see the same people like it is always Yeah, same group of people at the meet up for those tutorials. So that was good, kind of got to know them a bit better, and what was happening in their lives. So that definitely made a bit more engaging</p>
SUB - tutorials	<p>*he tutorials are definitely helpful. And just the way the mark delivers, delivers the tutorials as well, it's really easy to understand</p> <p>*And He always makes time at the end of the class to answer questions. So it's always good to hang around and listen to those questions as well. Because sometimes somebody will ask the same question that you want to ask say.</p>
SUB - Forums	
SUB - Resources	<p>*I can learn how I can be a better teacher and how I can improve really, definitely could. Yeah, I could definitely improve in a lot of areas, I think, definitely, I could be better with my time management. And I feel like if I keep on studying and keep on getting being motivated and working towards this, I get better at that eventually</p>
SUB - LMS	<p>*So we'd have a tutorial at the start of the week. And after that, I'd go and do the module activities, and engage in the Padlet activities as well. After we did breakout rooms and stuff like that, we'd have the 100 word reflections as well, after we did our readings, and we had to engage in at the end of each module. And then we put that those 100 word responses into our final assignment, which we did last week. And that was form formed part of our learning portfolio. So it all kind of came together at the end.</p>
SUB - Assessment materials	
SUB - Preview	

SUB - Understanding	
Challenges	<p>*but sometimes making time for it as well. I've got I have other responsibilities outside of uni, I work a couple of for over 20 hours a week and work to so I can pay my way through and I have horses and stuff and I compete</p> <p>*So I mean, it would have been nice if we could have like in person classes, like hands on sort of tutorials and stuff like that. But I guess at this point, it wasn't quite possible. I mean, it's it's still good. There's free sessions are really good. But I mean, I just like that aspect of it. And is more of a it's more social as well, when you got everyone in the room. And you could go to the quad to have lunch or something afterwards. We'll have a coffee.</p>
SUB - confusion	
SUB - figure it out on our own	
SUB - assessments	
Successes	<p>*I suppose it's given that a lot of people have access to technology, now it's really a lot more convenient. So they can do it from home or in their spare time sort of thing. Just makes it easier, or you can go to the library and use those resources as well. And it's portable, like you could do it in your bedroom or in your office. Or you're having a cup of coffee or something like that.</p>

Category	Interview 4
Relationships	
SUB - Collaboration	
SUB - instructors	<p>*I really only engaged with Mark during our tutorial periods. That was my choice, I didn't really have another means another need to</p> <p>*In our forum posts, we communicated with Rachel. Which was good, because that was another type of things as well. I was a bit stumped in the last assignment for some of the format for it</p> <p>*I could go and say, I'm totally not getting this. It's not happening. And then I got a response from Rachel</p> <p>*And then I went to Rachel got a forum response. And she gave me an alternate format to use.</p> <p>*Probably not a whole lot with I didn't really need. Um, well, the first one, I didn't really need help. The second one, I probably should have sought help. And the third one, the engagement with Rachel help.</p>
SUB - peers	<p>*So I found it a really peculiar situation to be pushed into talking to people. In that last assignment me and one of the other ladies did a zoom chat in the existing Zoom Room for it. Tutorial. So we went through a lot of our assignment and helped each other there. But that was the only time that I really engaged with a student on that subject outside of our actual tutorial group</p> <p>*That's a huge scope of people have varying levels of interest. I wouldn't necessarily say ability. I think everybody had, what they needed to succeed. But there were certainly some people that were less engaged and at times took away from conversations that were trying to be had</p>

	<p>*that little bit of zoom etiquette that we spoke about trying to have productive conversations and trying to have that so I was fortunate enough to lead in a breakout group with three or three other ladies in there. And we just had the best conversation</p> <p>*We helped each other with like reference point reference sources and stuff to, you know, we were really going to get that information for how we were going to link to that. And that was just the most productive breakout room that I had</p> <p>*And then I had a one on one study group with another lady Cindee. And we did the same thing we just, we really went through our first two parts of our assignments, we challenged each other where it wasn't clear what we were trying to say. We both copied each other on different reference sources that you could drop in there to make sure that it was well supported. And she was fantastic. So there was never a point where I felt like she was sponging off me or I was sponging off her. We really had constructive feedback to give each other and that definitely benefited my assignment that would definitely come out in my assignment</p>
Learning	
SUB - Reflection	<p>*And then the reflections. I think, by that stage typing out of reflection, we've we've done our Read and respond types, like typing out that and we've done our skill development reflection, which was part of our assignment, and they're doing a reflection as well, that was a lot better. By the time you typed a lot out, it was a lot to have done. Um, and I think maybe a verbal option.</p> <p>*And I just can't help but wonder if we would have been better off being able to bounce that off back off back off people. Because part of reflecting is someone being able to say, that's not really where it was at for me, or I thought about it this way. So reflecting without any kind of response was a bit tricky</p>

SUB - Interaction	<p>*breakout rooms is probably my favorite thing because it gave us a little bit more time to go in depth with people and get different types and different understandings</p> <p>*And we're all meant to be putting your best effort into these Padlets. And there's five of us that have done the reading</p> <p>*I think benefit particularly over being in a classroom is that you really get to choose, you get to be selective on who you're going to talk to.</p> <p>*So that was a really good thing that we could be selective in that manner and actually have that opportunity with them.</p>
SUB - tutorials	<p>*And there was a lot of zoom troubles, where everyone's at once</p>
SUB - Forums	<p>*And then we get to read in response, the reader response were, I think, like 150 words or something to that effect. And we had specific questions that we had to answer. That got pretty monotonous as time went on, and you're trying to keep up with everything</p> <p>*So the reader response was something that math DD in there that I can now use for my entire degree. I definitely got a lot out of that.</p> <p>*We fill in the padlets, which is kind of like the an online to post the question, and everyone puts their own responses into all anonymous. And that's been like, really helpful to go back and help me in like, form questions or answers for my assignment as well</p>
SUB - Resources	<p>*of my two subjects, it was definitely the content was the least engaging</p> <p>*I guess I was really cautious with doing the readings. And I try to stay on top of there was just a lot of like, a lot of people that didn't contribute</p> <p>*But really, if you, if I did the reading, I got everything I needed from the textbook, we did the skill development, which was</p>

	<p>fantastic</p> <p>*Yes, it was the perfect flow through it was the course was obviously written to the textbook format, it was the perfect flow through to that, you can see that they had put a lot of time into making sure it completely corresponded</p>
SUB - LMS	<p>*if you read the content, if you read that chapter, you will fully prepare for every conversation that was going to come. He knew what to do. You could have your notes there ready to go. You had the answers to the questions that Mark was going to ask.</p>
SUB - Assessment materials	
SUB - Preview	<p>*So you had a chapter to read, which for me was excellent. I would much rather read and watch a video. So I liked that aspect</p>
SUB - Understanding	
Challenges	<p>*learning the profession, like the standards and stuff is just compared to learning actual teaching strategies and curriculum isn't it isn't as engaging</p> <p>*it was really obvious that people hadn't done everything and really, and it could feel a little one sided</p> <p>*it's not always easy when you're put into a breakout room with people that haven't done what they needed to. That's definitely a challenge of the situation.</p>
SUB - confusion	<p>*There's also the technological challenges we're not everyone's really able to keep up at the same pace. I'm not very tech savvy,</p>

SUB - figure it out on our own	
SUB - assessments	<p>*At second one was more challenging, so it was an oral presentation. And we did that just one on one incident to a teacher</p> <p>*So our second one, we did an oral presentation, and we had to do a slideshow to it that stumped me. Because it didn't really know where to start. And I felt a little bit lost in the process. I didn't know whether to write what I was going to say. Or to do my slideshow first and then write what I needed to say. And I ended up starting on both. And that was not very successful. So that as time was looming, I did finish out my PowerPoint. And I had everything I needed.</p> <p>*But the [eportfolio] for this one really got me stumped. I, we were writing in first person for our E portfolios. So after having done all that still reflect us skill development and stuff on academic writing and tried to really nail that, to then turn around and do a personal reflection in first person in an academic writing style was tricky.</p>
Successes	*but all in all, it's been pretty successful so far.
SUB - assessments	<p>* So our first assessment was basically just a summary of what we had learned initially. So that was, I guess, a really soft introduction to what we were doing. I enjoyed it, because it was really obvious what to do</p> <p>*Really understand that enabled me to then use it further on in my assignments</p> <p>*And it's a when I actually presented, the whole thing felt a lot better, the lead up was quite stressful. But the actual assessment timeframe that we did, or the meeting that we did, was quite successful, it was lovely to have someone to actually talk to, and when I got to the end of it, we had just an oral conversation and spoke about a few different things.</p>
Category	Interview 5
Relationships	

SUB - Collaboration	
SUB - instructors	<p>*Mark actually make makes you feel very welcome. I don't like obviously, you've had some time to speak with him. And he has that way of presenting stuff. And yeah, so it was, it was good for me.</p> <p>*mostly was through that weekly meeting? The workshop it was a two Just over two hour session with Mark, he was he was the only the lecturer that I that I had any contact with, I guess through the course. And of course, the occasional email like if I was like I'm unsure, so all forum posts is actually what it is, we would we would interact with the forum post, we see what he needs of us.</p> <p>*So the forum post alongside the weekly workshops. And then he did this thing called mentee made up of breakout rooms and zoom meetings, which I think he's a massive fan on. He is the only lecturer that so far and in a year of TPP, and the last semester this that has used that</p>
SUB - peers	<p>*it was all on the forum posts, if I was to interact, I did very little interaction with my peers in this course. Basically, because it's a bit difficult online, or you don't have that when you're when you're on campus</p> <p>*So you're just seeing names come up on the forum post, and you're like, ah, oh, yeah, I think that might be whoever you know. So not that much interaction outside of the course, weekly, two hour session, whatever.</p> <p>*I feel like maybe I helped some peers in them rooms. I remember. We were really down there. It was in that two week study break. Actually, I did a writing workshop with one of the course examiner's. And during one of the breakout rooms there I had to be for one of the students maybe that she should be looking down a road that was introduced in week one or two, because she didn't understand something</p>

Learning	
SUB - Reflection	*most of the learning is, I felt was through the topics. And then of course, the reflecting on the topics
SUB - Interaction	<p>*I think it's definitely a positive approach. Just one take out from their mentee meeting, the breakout rooms that he might be interested to know is, it was often awkward in the first few seconds to get the like, he'd give us a meat, sorry, a minute and a half, two minutes</p> <p>*Because we often had a few students that would, would just not engage, I felt pain on them things that you can tell that though, like, especially the younger ones, so I was like, they were afraid to answer because, well, there was no wrong answers</p> <p>*Um, yeah, well, definitely in the breakout rooms, and it let us know that we were all in the same shoe, as I say, you know, in the same boat, who we basically sometimes it was just a bit of law hysteric like, what is the meaning like this? And then, of course, you'd have to just go, Well, I think we got it like, in some like at the very beginning</p>
SUB - tutorials	
SUB - Forums	<p>*they have these forum posts, there was quite a lot of forum posts, I think sometimes there was between all the subjects, there was like eight or nine forum posts per week, and that the takings I took from TPP was everything that you put in him forum posts has to be academically accurate</p> <p>*the reading respond, I felt probably the biggest advantage for me, especially coming into the assignment pieces, because they basically asked you, like the first three or four weeks of reading responses, that first assignment piece, and then the next is the next one. So I feel like that was a really good brain jogger when that assignment came along</p>

SUB - Resources	<p>*Mostly, it would be through the course modules that were assigned per week, like a topic per week. So I would, I was basically always behind the ball, right from the word go, because of the, the TPP where they were you finish up the program and where you start the program, this like only a week, between them and coming from not really understanding University to what is required and everything</p> <p>*the the mentee, meeting, the Padlet things to get ideas for assignment, I didn't really use, like I use them through engaging on the weekly two hour session. But coming into the assignment piece, I didn't really use them too much. Because if I put all my efforts into the reading response sort of thing,</p> <p>*It was, it was vital, I wouldn't, I wouldn't have been as successful. I don't know. Just reading, for example, I guess the alternative would be, here is the chapter of the textbook, go ahead and make some notes</p> <p>*even though it was a very smooth introduction, I felt like had they you said or read over your course, material, this is the access, you know, to it early. Like having that access early to at least get a week ahead on what's required, even if you don't understand anything, but you might be able to then go and read them text out of the textbook, and try and and then once again, like use the Google search to see if you know, and that that would have made it a little bit smoother for me and going into other courses, other subjects, I will definitely be approaching it like that</p>
SUB - LMS	
SUB - Assessment materials	
SUB - Preview	

SUB - Understanding	
Challenges	
SUB - confusion	<p>*Mark was very good at breaking things down I guess in the actual course right from the right from the start. Like he Yeah, the introduction was like it was it was very much over My head because of this frequently having to go back and and Google search all the stuff, and then the meanings and try and get some context in it.</p> <p>*It was mentioned of seeking learning advisors, about organizing time, etc. I think would be more practical to have at the start of the course. Because sometimes I would be like, I have no and I guess, you know, time is precious for the learning advisors to and to have 200 course members go</p>
SUB - figure it out on our own	
SUB - assessments	
Successes	*So heavy curriculum orientation, and stuff like that, and the teaching practices. So when you stuck in your head around that, it became easier to to engage. Yeah.
SUB - assessments	<p>*And also marks assignment layout was, was very step by step almost it was, it was like a walk in the park. If you've done the right work throughout the course, I think</p> <p>*, all the assessment pieces I really enjoyed doing. I know it sounds probably a bit bizarre, but never having learned anything</p>

or done official things. It was all very interesting for me. So I enjoyed doing it, especially because of the layout, as you as I said, was very step by step Mark

*I put in a lot of work throughout the course to get them reading responses to engage with the course. So for me, I felt that it was rewarding as well, when you get them marks back, especially when they get really high marks, and you've never done this before. It is very rewarding

Codebook (Padlet)

Category	Benefits	Challenges
Relationships		
SUB - Collaboration	<p>*The groups zoom sessions are good as it allows us to express our ideas and also interact with fellow course buddies!</p> <p>*In order to receive useful information and tips, as well as give ideas.</p> <p>*I am an independent learner so find I can get all of my questions answered effectively during tutes and through forums.</p> <p>*Having people to discuss in a formal and informal way about the challenges and successes has been really helpful. It makes online learning easier for me as an individual.</p> <p>*Allowing for consideration of different perspectives of peers and redirection/clarification from course instructors when necessary</p> <p>*The chat group is good for moments when I am feeling very stressed about an assignment or how to use one of the tech platforms for submission or help to prepare. Others who know</p>	<p>*anxiety to ask questions when you don't know the answer.</p> <p>*work/life/study commitments</p> <p>Scheduling time that fits with other commitments</p> <p>*Being confident enough to share your own thoughts and ideas and miscommunication</p> <p>*The challenges of engaging online are the interpersonal connection you receive face to face and online people can switch off and not engage in group work.</p> <p>*It can be difficult to stay motivated or interested. The tutorials all fall within my work hours so I miss these. In other subjects where i have been able to attend, i have found interaction with peers and tutors exceptionally helpful as i am able to bounce ideas, understanding and concepts with them.</p>

<p>how to use it can give me helpful advice, and communicate support to reduce my frustration.</p> <p>Engagement with a live tutorial is helpful to really think about the topic and feel part of the discussion which increases interest in the content.</p> <p>allows live questions rather than waiting for replies</p> <p>*Good to be able to talk to others and meet the people in your course</p> <p>*Get support from others who are enrolled in the same courses.</p> <p>Assistance with difficulties faced.</p> <p>Facebook is quick and easy to communicate, the responses are helpful and easy to follow</p> <p>*Gaining different forms of effective communication. Getting advice from peers.</p> <p>*Allows me to feel reassured in my understanding of course content and also allows me to learn from peers.</p> <p>feedback from others, check my understanding, ask any questions for clarification, networking</p> <p>*The breakout rooms are a great way to get to know some of the other students. I like the tutorials as I feel all of the</p>	<p>*However being unable to attend makes for isolation and a feeling of lacking support</p> <p>*I'm missing out on group chats where we can bounce ideas off each other. It would be helpful to share my ideas with others and see how others understand topics.</p>
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	<p>tutors/lecturers are very responsive and engaging.</p> <p>*As the term progressed I found it easier to engage in the tutorials and found I was able to understand the topic at a deeper level.</p>	
SUB - instructors	<p>*Rarely, however when I do it is through tutorials, forums and emails</p> <p>*Only through emails</p> <p>*I connected mostly through tutorials but did them email occasionally.</p> <p>*I watch all tutorials and lectures. I havent connected with them in a one on one situation.</p>	
SUB - peers	<p>*3 - 4 times a week, in tutorials and study groups as well as messages</p> <p>*Once to twice a week</p> <p>*Once through our zoom room.</p> <p>*In tutorials usually.</p> <p>*Once a week during tutorials</p> <p>*Throughout the week through a Messenger chat group discussing questions and supporting one another in course</p>	<p>*I don't really communicate with peers. I am quite a busy person and I just get in and do what I need to do. I haven't had the time to make connections and talk to peers. It is something I would really like to do though</p> <p>*Rarely, I'm unable to make the live tutorials so the only interactions I've had would be through forum responses</p> <p>*Only in the breakout rooms in the tutorials when required in the tutorials.</p>

	<p>work.</p> <p>*I've connected with a few people and we talk via text regularly to discuss the assignments and during class.</p> <p>*Through zoom breakout rooms and facebook posts in designated EDC1000 group</p>	*Not Often
Learning		
SUB - Reflection		
SUB - Interaction	<p>*I like talking to people</p> <p>*Interact is the most engaging. Being part of a discussion helps</p> <p>*Interactive modules</p> <p>*Motivation and interaction. Staying motivated about a topic by keeping it interesting is key to learning. Being able to actively interact with my learning also helps with keeping me motivated.</p>	
SUB - tutorials		
SUB - Forums		
SUB - Resources		

SUB - LMS	<p>*I like the read and respond, although there is sometimes a lot of reading to do, it is really great getting to see what other people think and understand about each topic.</p> <p>*Read and Respond - I usually don't enjoy reading tasks but how the reading is broken down and divided with questions allows me to think about what I've read and make connections to the content.</p> <p>*Read & respond; it allows the bigger text to get broken into smaller pieces and to express my point of view on the subject</p> <p>*The chunking method used with readings and then responding to the forums.</p> <p>*Read and interact. I enjoy being quizzed to ensure I am actually reading the work not just skimming</p>	
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Appendix F

Survey Protocols

Question	SURVEY PROMPT Likert responses Strongly Agree, Agree, Neither, Disagree, Strongly Disagree
1	I pay attention in the lectures
2	I usually do my homework on time
3	I put my best effort in responding to the read and response questions
4	I feel very accomplished in this course
5	I feel excited about the course work
6	I feel confident about my success in this course
6	I talk to people outside the school on matters that I learned in class
8	If I do not understand a concept, I try to solve the problem for example by asking a professor or classmate
9	I try to integrate the acquired knowledge in solving new problems
10	My family supports my academic aspirations
11	I am involved in an extracurricular activity at USQ