EXPLORING THE POSSIBILITIES OF ONLINE LEARNING EXPERIENCES

by

Chia-ling Yang

Dissertation Committee:
Professor Hope Jensen Leichter, Sponsor
Professor Megan Laverty

Approved by the Committee on the Degree of Doctor of Education

Date February 12, 2020

Submitted in partial fulfillment of the
Requirements for the Degree of Doctor of Education
Teachers College, Columbia University

2020
ABSTRACT

EXPLORING THE POSSIBILITIES OF ONLINE LEARNING EXPERIENCES

Chia-ling Yang

This reflective study, which explored how students learn in an online setting, involved an initial sample of 588 students who have taken the Health Education for Teachers course from fall 2013 to spring 2018 at Teachers College. A survey featuring open-ended questions were administered by email to the students, among whom 57 returned their questionnaires in June 2019. Of these participants, six agreed to be interviewed face to face or via Skype. The semi-structured interviews were conducted in July and August 2019, but when necessary, follow-up questions were asked in September and October that year. Professor Katherine Roberts, the instructor of the course, was also interviewed.

The results showed that the students did not consider online discussions or email correspondence as interactions and desired more human exchanges. They decided on an online course for convenience and flexibility, but had they been given a choice, more of them would have opted for face-to-face settings. The themes emerging from the interview data were the necessity of flexibility and convenience rather than choice, the belief that
flexibility is not beneficial to studying, and the difficulty of having a social presence. In recounting their learning experiences, the most memorable moments recalled by the students were places they have been to and people with whom they interacted. The interview with Professor Roberts revealed the difficulty of evaluating student progress in an online context and the importance of technical support from the institution.

This research explored the validity of online communities, illuminated the significance of phatic communication, raised questions about educational costs, and identified the need for technical assistance from institutions. The findings suggested that instead of building an online community, which can rarely exist, educators should incorporate local community participation into educational programs. Finally, when institutions want to offer online courses, they should do so for pedagogical reasons and not solely for income. Educators need to continue exploring learning possibilities in both online and face-to-face avenues.
I want to express my deepest appreciation to Professor Leichter, my dissertation committee chairperson. Thank you for encouraging me to pursue my topic and offering me critical advice on how I could improve my dissertation. More importantly, you have been a role model and mentor, demonstrating how to be a scholar. Thank you for making your office our academic home and a place we can always go back to.

My gratitude goes to Professor Laverty. Thank you for telling me to find my voice and helping me to perfect my research over time. Thank you for introducing me to the different philosophical concepts and broadening my intellectual horizon. You demonstrated the perfect office setting, which I have always emulated. Hopefully, one day I can be as organized as you are.

I also want to thank Professor Roberts for allowing me to study in her class, being open to new ideas, guiding me through this critical learning process, encouraging me to publish my work, and offering me visions on future research directions. Thank you for demonstrating the idea of leading by example. Whatever I do, I will think of how to be a better example for my students.

Professors Hans Meihoefer and Qian Guo have been my long-time friends and mentors. With your intellectual guidance and support, I can finish my journey and start a new chapter of my life.

Thank you to the Choi family—Yanghwan, Hyunju, Ian, and Ivy. Thank you for treating me like one of your family members. Everything you have done—the apple picking trip, the seafood dinner, the supermarket shopping trip, goodies from Costco,
rides to home, and more—provided me with the most needed support during one of the most critical times of my life. I could not have finished my dissertation without all of you.

Thank you, Makiko, for being my dearest friend. Your friendship and support have made my academic journey an enjoyable experience. Thank you, Gabriella, for helping to perfect dissertation and put it together beautifully. Thank you to all my Teachers College friends and everyone who has helped me on campus. You have created a beautiful learning community, and I am proud to be part of it. I want to thank all the study participants for taking the time to complete the survey and be interviewed. Your insights helped me to understand different aspects of online learning and to finish my research and make my contribution to the academic community.

Finally, I want to thank my family members—my father, mother, sister, Eric, and Patricia. Even though we are far from each other, with your support, I can overcome all kinds of challenges. Lastly, I want to thank Kimchi, my cat. Thank you for accompanying me every late night. Even though we cannot communicate through words, we connect on a spiritual level. Thank you for being a kind friend.

C. Y.
# TABLE OF CONTENTS

Chapter I – INTRODUCTION ........................................................................................................ 1  
Online Learning in Higher Education ...................................................................................... 1  
Survey of Selected Online Education Courses ........................................................................ 6  
Observations ............................................................................................................................ 11  
  Fall 2016 Math 127: Calculus for Life .............................................................................. 11  
  Spring 2017 FINA 3010: Financial Management ............................................................ 13  
  Summer 2015 PHL 101: Introduction to Philosophy ......................................................... 15  
Personal Research Interest .................................................................................................... 17  
Purpose of the Study ............................................................................................................... 22

Chapter II – LITERATURE REVIEW ......................................................................................... 24  
  Part I: Online Community, Social Presence, and Interactions ........................................... 24  
    The Community of Inquiry Framework ........................................................................... 25  
    Lipman and community of inquiry .................................................................................. 25  
    The concept of Community of Inquiry (CoI) framework ............................................... 28  
    Social Presence ............................................................................................................... 30  
    Interaction ....................................................................................................................... 34  
    Facebook as a Learning Community ............................................................................... 40  
  Part II: Configuration of Education .................................................................................... 41  
    The Concept of the Configuration of Education ................................................................. 41  
    Applying the Configuration of Education ...................................................................... 43  
    Physical vs. Virtual Institutions ...................................................................................... 45  
    The Concept of Educative Style ...................................................................................... 46  
  Part III: Concepts Related to the Research ......................................................................... 47  
    Phatic Communication ..................................................................................................... 47  
    Summary ......................................................................................................................... 48

Chapter III – METHODOLOGY ................................................................................................ 49  
  Study Site ............................................................................................................................. 49  
  Class Materials ................................................................................................................... 51  
    Quizzes .............................................................................................................................. 52  
    Discussions ..................................................................................................................... 52  
    Family Health Newsletter Assignment ............................................................................ 53  
    Final Group Project ......................................................................................................... 53  
    Interactions ...................................................................................................................... 53  
  The Instructor ..................................................................................................................... 54  
    From Canvas .................................................................................................................... 54  
    In Person .......................................................................................................................... 55  
  Participants ......................................................................................................................... 56  
  Instruments .......................................................................................................................... 57  
    Survey Questionnaire ...................................................................................................... 57  
    Interviews ......................................................................................................................... 59
Chapter III (continued)

Procedure ........................................................................................................ 59
Data Analysis ................................................................................................. 60
Survey ............................................................................................................. 60
Interviews ......................................................................................................... 60
Role of the Researcher .................................................................................... 60

Chapter IV – RESEARCH RESULTS ................................................................. 62
Survey Results ................................................................................................ 62
Survey Response Rate .................................................................................... 62
Past Students (Spring 2013-Fall 2016) ........................................................... 64
Students’ Overall Impressions of Online Courses ......................................... 65
Impressions of the Health Education for Teachers Course .............................. 69
Memory ........................................................................................................... 71
Knowledge Application ................................................................................... 71
Face-to-face vs. Online Learning ..................................................................... 72
Recent Students (Spring 2017-Fall 2018) ....................................................... 74
Students’ Overall Impressions of Online Courses ......................................... 76
Canvas Experience .......................................................................................... 78
Online Discussions ........................................................................................ 78
Group Project .................................................................................................. 79
Face-to-face vs. Online Learning ..................................................................... 80
Past Students vs. Recent Students .................................................................. 81
Emerging Themes From Student Interviews .................................................. 82
Flexibility and Convenience .......................................................................... 83
  Flexibility and convenience are necessities, not choices .............................. 83
  Newcomers need flexibility ......................................................................... 86
Benefits or Costs of Flexibility ....................................................................... 87
  Flexibility is not beneficial for studying ....................................................... 87
  Flexibility in scheduling, but inflexibility in other aspects ......................... 89
  Flexibility: Whose decision? ..................................................................... 90
Social Presence ............................................................................................... 91
  Social presence: The difficulties ................................................................. 92
  Might social presence work? ..................................................................... 94
  Social presence can occur outside the online chat room ............................ 95
Memorable Stories .......................................................................................... 96
  Places Still Matter ...................................................................................... 96
Human Interactions ......................................................................................... 97
Interview With Professor Roberts ................................................................... 99
Discussion ...................................................................................................... 100
Interaction ..................................................................................................... 100
Social Presence .............................................................................................. 101
Community of Inquiry (CoI) Framework ...................................................... 102
Phatic Communication Matters .................................................................... 103
Subject Matter and Educational Costs ......................................................... 105
Chapter IV (continued)

An Evaluation of the Level of Technical Support Provided by Teachers College .......................................................... 106
Technological Limitations ........................................................................................................................................... 107
Not All Face-to-Face Classes Are Created Equal ................................................................. 108
About Memory ......................................................................................................................................................... 108

Chapter V – CONCLUSION .............................................................................................................................................. 109
Review of Methodology ............................................................................................................................................ 109
Conclusion ................................................................................................................................................................. 110
Suggestions for Future Study ........................................................................................................................................ 112
Reflections on Future Implications .............................................................................................................................. 115
The Fifth Interaction: Interaction With the Existing Community ............................................................... 115
The Importance of Situating Ourselves ...................................................................................................................... 118
Final Reflection ......................................................................................................................................................... 121

REFERENCES ............................................................................................................................................................. 124

APPENDICES
Appendix A  Fall 2016 Math 127 Calculus for Life and Social Sciences Course ........ 129
Appendix B  Spring 2017 FINA 3010 Financial Management Course ....................... 131
Appendix C  Summer 2015 PHL 101: Introduction to Philosophy Course ................. 137
Appendix D  Health Education for Teachers Syllabus ..................................................... 140
Appendix E  Survey Questions for Past Students ............................................................... 143
Appendix F  Survey Questions for Recent Students .......................................................... 148
Appendix G  Interview Questions ......................................................................................... 153
Appendix H  Glossary ..................................................................................................................... 154
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blended Education</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Activities and Descriptions</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Educational Processes in Selected Institutions With Which Families Engage</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>Students’ Comfort Level With Technology</td>
<td>65</td>
</tr>
<tr>
<td>5</td>
<td>Number of Classes Taken</td>
<td>66</td>
</tr>
<tr>
<td>6</td>
<td>Students’ Comfort Level With Technology</td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>Number of Classes Taken</td>
<td>76</td>
</tr>
<tr>
<td>8</td>
<td>Students’ Background Information</td>
<td>83</td>
</tr>
<tr>
<td>9</td>
<td>Educational Processes in Selected Institutions With Which Students Can Be Engaged</td>
<td>119</td>
</tr>
</tbody>
</table>
Chapter I

INTRODUCTION

Online Learning in Higher Education

Taking distance learning courses, or courses that educate students who are not physically present, has become common for higher education students. Data from the National Center for Education Statistics (NCES, 2018) revealed that, in fall 2015, 28.8% of students in higher education were taking all or at least one distance learning courses, and in fall 2016, this percentage increased to 31.7%. A new report by the Babson Survey Research Group, published in January 2018, confirmed this trend, noting that distance learning student enrollments increased for the 14th straight year in 2016. The popularization of distance learning could not have happened without the introduction of new technology: “The invention of the World Wide Web in 1992 made online education increasingly accessible and allowed new pedagogical models to emerge” (Harasim, 2000, p. 42). Due to the overwhelming number of distance learning courses hosted over the Internet, online learning has become synonymous with distance learning, even though the definitions of distance learning and online learning are different. Distance learning refers to students and their teachers who are physically separated, and students are learning the materials without in-person interaction with their instructor or peers. Distance learning students can obtain learning materials online or utilize other materials such as DVDs,
CDs, and books. By contrast, online learning means using online tools for learning. Educators and students communicate through the Internet, and in some synchronous online learning courses, students and instructors do communicate directly with each other through online communication software or apps. The present study mainly focused on online learning.

In addition to revealing the prevalence of distance learning and suggested future trends, the NCES data help to reconsider actual numbers of students who might have taken online courses and had online learning experiences. First, the NCES data only indicate students who took an online course or courses in fall 2015 and 2016. The number of students enrolled in online courses may differ from term to term. Many higher education institutions offer either more online courses or their entire online course selection during summer. For example, all summer courses at the University of North Carolina at Greensboro are online. At Teachers College, Columbia University, all summer 2018 courses provided by the Communication, Media, and Learning Technologies Design program are online. Thus, if NCES were to conduct a survey during the summer, the percentage of students enrolled in online courses could be higher. Students might also take all face-to-face classes during their fall and spring semesters but online courses during the summer. The NCES data likely do not reflect these students, thus underestimating the number of students with online education experiences.

Second, the NCES data do not show whether students had taken online courses before, instead providing information only for the fall semester. During the NCES survey, students who did not take any online courses in a particular semester were classified as face-to-face students, even if they had taken online courses previously. In short, when
students are asked about their online learning experiences, their past learning experiences should be considered. In addition, the way in which the NCES constructs data might inaccurately depict online learning experiences as being exclusive to online learning students.

Third, the NCES data do not include students who took online learning supplement courses to enhance their learning or gain credentials. Massive Open Online Courses (MOOCs) provide learning materials and create interactive lessons for anyone interested. For example, Coursera, one of the most popular MOOC sites which provides educational resources for top schools like Harvard and Columbia, has over 33 million registered learners (High, 2018). Though this number encompasses learners from all over the world, the sheer number shows that numerous students are engaging in the online learning environment. It also reveals that the number of students with online learning experience may be underestimated.

In addition, when we talk about face-to-face and online learning experiences, they are framed as two different and discrete options. In reality, students who take all face-to-face courses might also have online learning experiences, as face-to-face courses have been adopting Internet technology to help students’ learning: “A learning management system (LMS) is software used for delivering, tracking and managing training/education” (Mahnegar, 2012, p. 148). Popular LMSs include Blackboard, Moodle, and Canvas; these allow higher education instructors to extend their teachings beyond the classroom and combine face-to-face and online learning experiences. For example, in my History of Education class at Teachers College in fall 2015, Professor Fevronia Soumakis often posted discussion questions on Moodle prior to the class. My classmates and I would then
post our answers and read the other students’ answers on the Moodle discussion board before the class started. We continued discussing the topics during class time. According to the Center for Educational Innovation at the University of Buffalo, 3,015 higher education institutions adopted LMSs in spring 2016.

LMSs are not the only type of online software that higher education instructors are adopting for their classes. For example, in my History of Communication class at Teachers College, Professor Robert McClintock asked all students to maintain their own online Wikipedia page, post their reflections on weekly readings, and reply to other students. Students’ grades were based entirely on their Wikipedia pages; thus, online learning was an essential part of the class. Professor McClintock’s goal was to generate a broader discussion and encourage people even outside Teachers College to comment on students’ Wikipedia pages. This approach is called blended learning, or “the thoughtful integration of classroom face-to-face learning experiences with online learning experiences” (Garrison & Kanuka, 2004, p. 96).

Acrobatiq, an institution that provides education assistance in the classroom, identified seven kinds of blended education; these are described in Table 1 below. By contrast, instructors of online learning courses can also find ways to encourage their students to engage in face-to-face learning experiences and, ultimately, foster blended learning experiences. For example, an art appreciation class assignment may require students to talk to museum curators, or a math class may require students to sign up with tutors. These choices depend largely on how instructors design their courses and what kinds of learning experiences they establish for their students.
Table 1

*Blended Education*

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face driver model</td>
<td>This model is based in the classroom. It replaces online activities, such as reading, quizzes, and exams, with a significant amount of classroom time. This model allows students and faculty to use more class time for learning activities, such as discussions and group projects.</td>
</tr>
<tr>
<td>Online driver model</td>
<td>This type of class is conducted mostly online, though it might include some in-person activities, such as exams, labs, or field investigations.</td>
</tr>
<tr>
<td>Flipped classroom model</td>
<td>In this model, students watch short lecture videos online, then go to the classroom and complete various activities (e.g., group work, projects, or other exercises) face-to-face.</td>
</tr>
<tr>
<td>Rotation model</td>
<td>In this model, students rotate among various modules, one of which is online learning. For example, in the lab rotation model, students rotate among several campus locations and one online learning lab.</td>
</tr>
<tr>
<td>Self-blend model</td>
<td>This is a program-level model in which learners enroll in online courses and face-to-face courses simultaneously.</td>
</tr>
<tr>
<td>Blended MOOC</td>
<td>In this model, students access MOOC materials outside of class, then attend class meetings for discussions or in-class activities.</td>
</tr>
<tr>
<td>Flexible mode courses</td>
<td>In this model, all instruction is offered both in person and online, and students can choose how they take their course. For example, San Francisco State University’s hybrid flexible model offers classroom-based and online options for all or most learning activities, allowing students to choose whether to attend classes online or in person.</td>
</tr>
</tbody>
</table>
Most learning experiences are blended learning experiences. Students do not learn only in the classroom or only online; rather, learning is a continuous process that can take place anywhere, at any time. For example, regardless of whether they are taking classes online or in a face-to-face setting, it is common for students to use Google and other search engines to find related information whenever they desire. Therefore, it is important to define online education clearly in its context. In this research, online education refers to courses conducted exclusively over the internet, in which all learning activities take place through the LMS. Instructors post necessary learning materials, and students submit assignments, take exams, and engage in discussion forums online. Some online courses are synchronous, meaning that all students log in and listen to the lecture at the same time. However, the majority of online courses are asynchronous, meaning that students log in, study class materials, and finish assignments at their own pace. Course members, including both instructors and students, do not meet in person unless there is a special arrangement. The term online learning experience refers to the kind of learning students have in this fully online learning environment.

Survey of Selected Online Education Courses

What does an online course look like? How does it actually operate? What kinds of experiences can students possibly have? Before conducting research on online learning in higher education, it is important to understand how teaching has been conducted online in practice. Because of their popularity, I chose to observe the online courses at the University of Massachusetts. To ensure diversity, I observed three University of Massachusetts online courses from three campuses: Fall 2016 Math 127 Calculus for
Life and Social Sciences; Spring 2017 FINA 3010: Financial Management; and Summer 2015 PHL 101: Introduction to Philosophy. My students were registered for those courses, and I was their tutor for the three courses.

In 2017, an article from *Inside Higher Ed* titled “UMass Online Surpasses $100 Million in Annual Revenue as Enrollment Grows” described the online success experienced by the University of Massachusetts. Mark Lieberman, the author, first indicated that “UMass Online’s course enrollments have grown steadily in the last five years, up from 54,000 in 2012 to more than 75,000 this past school year.” Then, he framed the success in monetary terms, noting that the program had generated “$104 million in total for the five campuses during the 2016-17 academic year. Revenue in fiscal year 2012 totaled $72 million and has grown between 7 and 10 percent each subsequent year.” While readers might argue over the definition of success in higher education, they can agree that significant numbers of students are taking UMass Online courses.

There are several reasons for the financial success of the University of Massachusetts online courses. First, compared to other schools, the University of Massachusetts makes it easy for students to take online courses. Students do not need to undergo a long application process to take courses; they only need to provide their personal information and pay the tuition and administration fee. Each credit costs about $400. Though each campus has a separate registration process, all the campuses make the process user-friendly. Normally, students receive access to their classes within 48 hours of registering. In addition, all available courses are organized on one website. Students can search for their desired courses according to semester, campus, format, registration
status, and course level. The course search process is simple, and students do not need to learn how to navigate any campus course selection system.

Though the other school registration processes I surveyed allowed outside students to take online courses, they also required students to fill out application forms and took longer than a week. Thus, their course selection systems were not as accessible as the system of the University of Massachusetts campuses. For example, while the University of North Carolina at Greensboro (UNCG) has an extensive online course selection, a student who wishes to take an online course has to apply for visiting student status. Though the student simply needs to fill out a form, the procedure is not as easy as the registration procedure at the University of Massachusetts. After students obtain visiting student status, they must check the UNCG course selection system, which is the same for online and regular students. Thus, visiting students must learn how to navigate the UNCG system before registering for class.

Second, five campuses (Amherst, Boston, Dartmouth, Lowell, and Worcester) offer over 1,000 online courses each fall, summer, and spring semester. Amherst, Boston, and Dartmouth also offer over 200 joint winter courses. Thus, the University of Massachusetts offers a rich selection of online courses. Over the past few years, I have known many students who have turned to University of Massachusetts online courses for their summer courses. Some have even taken courses during the winter session to accelerate their graduation time. In addition, the majority of the University of Massachusetts online courses post course syllabi on the registration site. For the students who need to transfer credits back to their home universities, they can employ the syllabi to get approval from their home university advisors. Students who are seeking to take
online courses and transfer back to their home universities do not need to e-mail the course instructors to get the syllabi. The University of Massachusetts thus has saved them much time and effort. In brief, the University of Massachusetts understands its audiences and their needs and provides the best service possible.

Third, from a teaching standpoint, the easy registration process allows non-University of Massachusetts students from all over the world to register in online courses, creating a more diverse class composition. This could make online discussion forums more vibrant by ensuring the presence of many different kinds of voices.

Easy registration for online courses has helped the University of Massachusetts attain financial success. However, it has also created a big educational uncertainty: Are we simply providing courses for a fee or are we actually educating students? Some classes at the University of Massachusetts have no prerequisites, meaning that students who lack the necessary preparation to succeed in a class may still get in. For example, one of my students from China took an online College Writing I course from the Lowell campus and found the class very challenging. As an international student, at the college in which he later intended to enroll (which was not the University of Massachusetts), he was required to take an English placement test before he took any writing course. In fact, it is a common practice for universities to require international students to take English placement tests to determine the kind of writing courses they should take. Some universities, such as Syracuse University, do not give any English placement tests and simply ask international students to take extra writing courses. With his English abilities, my student appeared ill-equipped to succeed in College Writing I. However, because of the lack of prerequisites for course registration at the University of Massachusetts, he was
able to register for the class. At any college, he would have been asked to take extra writing courses. More importantly, his intention was to avoid the English placement test when he enrolled in his intended college. As long as he finished College Writing I with a C, he had proved his English abilities to his intended college. He did finish the class with a C, with much help from different editors; however, given his English proficiency, he probably would have had a hard time passing the English placement test at his intended university. In short, taking the online writing course from the University of Massachusetts created a loophole for him. He is not alone. Many students whom I have tutored registered in the University of Massachusetts’ online courses because they believed online courses were easier. For example, in many classes, exams are open book and open notes. As I mentioned earlier, the University of Massachusetts has posted syllabi online so that students can check them before they register.

Scholars have long been concerned about cheating in an online setting. For example, in their 2009 study, King, Guyette, and Piotrowski found that “73.6% of the students in the sample held the perception that it is easier to cheat in an online versus traditional course” (p. 1). Case, King, and Case (2019) found that “participation in e-cheating is on the rise” (p. 102). However, when students intentionally seek loopholes to get their degree, even though they are not actively cheating on an exam, how can educators provide better advice? More importantly, when borders among schools become so blurred that students can shop for online courses from any school, schools such as the University of Massachusetts will make their courses more desirable to attract more students.
Moreover, allowing anyone to register for a course may make it harder for the instructor to teach. In the case where a course has no prerequisites, instructors who need to ensure that students from different backgrounds and proficiency levels understand the subject may have to make adjustments. If they do not, non-University of Massachusetts students may have to drop their classes. This issue should be critical for the University of Massachusetts or any school providing easy registration for online courses. While these classes attract more students to register, they might eventually run into retention rate issues. “Online course administrators believe the failed retention rate for online courses to be 10 to 20% higher than traditional classroom environments” (Herbert, 2006, p. 300). When retention rate is low, universities might not be able to sustain their online programs. Even though retention rate is not the focus of this research, it is important to take retention rate into consideration when exploring the possibilities of online learning.

**Observations**

What does a University of Massachusetts online course look like? UMass online courses might provide insights into current online teaching practices. In observing several UMass Online courses, my goal was to understand—through examinations of the course setting, student and faculty interactions, evaluation methods, and instructors’ roles—how online courses are being taught. Below, I discuss three of the online courses that I observed as part of my study.

**Fall 2016 Math 127: Calculus for Life and Social Sciences.** The first class I observed was the Fall 2016 Math 127 Calculus for Life and Social Sciences course (see Appendix A) from the University of Massachusetts at Amherst. This course used the WileyPLUS online system for all its homework and midterms. Homework counted for
15% of the final grade, and each of the six midterms counted for 10% of the final grade. Each midterm represented a learning module such that, when students finished one midterm, they finished one module. WileyPLUS is a self-run online system. Some questions are multiple-choice, and others require students to type in answers. The system automatically compiles grades after students finish each homework assignment and midterm exam. The only two bits of information that Adena Calden, the lecturer/instructor of the course, knows about her students’ quiz and midterm performance are their scores and the types of questions they miss. Lecturer Calden has no way to understand how or why students make certain mistakes.

Other than e-mail correspondence, the only communication between students and professors is the online discussion forum. There are six discussion forums, one for each of the six modules. The discussion forum is also the only place students can interact with other students. The discussion forum assignment requires students to post at least once in each discussion forum topic, and most of the students post questions about online homework while the others post answers. The online discussion is 5% of the students’ final grades. At the end of the course, the students take the final exam either on campus or off campus with an approved proctor. The final exam is on paper and consists of all multiple-choice questions; it counts for 20% of the final grade.

How do students learn the materials? At the beginning of the class, lecturer Calden posts videos (all from YouTube) demonstrating different calculus concepts. Students learned the material through online textbooks, online videos, and discussions with other students. One might think that lecturer Calden would post videos or notes to clarify certain concepts, especially when numerous students miss the same homework
question. This approach would help to integrate lecturer Calden more into her teaching role. However, in this class—perhaps because all the students were doing the homework at their own pace—all the materials and videos posted by the instructor were preset. The only announcements were to cover administrative issues, such as reminders for the midterm exam. Other than posting comments on discussion boards and answering e-mails, lecturer Calden played a minimal role in online teaching. Overall, then, one could say that lecturer Calden was more of an administrator than a teacher.

The University of Massachusetts at Amherst was still offering the same course through WileyPLUS in fall 2018. In fact, many online courses offered by the University of Massachusetts at Amherst adopted WileyPLUS in the spring 2018 semester: Applied Calculus (Math 127 and Math 128), Biochemistry for Chemists, Differential Equations, Introduction to Statistics, Materials Science, and Non-Majors Nutrition. The University of Massachusetts at Amherst is not the only school using WileyPLUS. Several schools worldwide—including public 4-year colleges and universities, 2-year community colleges, and private institutions—use WileyPLUS. Some adopt WileyPLUS for entire online courses, while others adopt it only for assignments. More importantly, WileyPLUS is not the only company with an online system. Large textbook companies, such as Cengage, McGraw-Hill, and Pearson, have similar online systems for higher education courses.

Spring 2017 FINA 3010: Financial Management. The second class I observed was Spring 2017 FINA 3010 Financial Management (see Appendix B), offered by the University of Massachusetts at Lowell. The University of Massachusetts at Lowell is still offering this class as of fall 2019. Though, unlike Math 127, this class did not run on a
WileyPLUS module, Professor Steven Freund, the instructor of the course, created an online setting similar to the WileyPLUS module. There were two midterms and a final exam. Each midterm was 25% of the final grade, and the final exam was worth 35% of the final grade. All exams were multiple-choice. Each of the seven homework assignments counted for 15% of the final grade. Each homework assignment covered one chapter of the textbook and all homework assignments were in multiple-choice form.

The class assignment and exam for this course expose another critical concern in online learning: how to assess students’ understanding of the materials properly. To save time for the instructors, many textbook publishers provide sample questions for them. The reality is that when instructors use these sample questions, students can also find the answers online from websites like coursehero.com, chegg.com, quizlet.com, and studyblue.com. By paying a subscription fee, students can access thousands of questions and answers. For example, all of the answers to the FINA 3010 Financial Management assignments were available online. The student I worked with who was taking this class did not reveal whether he had found the answers to the exam online, though I suspect that might have been the case.

Professor Freund did not post any videos. Instead, he posted notes on the different chapters and answer keys for end-of-chapter questions. He also posted announcements concerning class logistics, such as exam reminders and average exam scores.

The only place students could interact was the discussion forum. The first broad discussion assignment asked all the students to post a personal introduction; however, it did not require students to post replies to their classmates. It is possible, therefore, that students might not have read all the introductions or known everyone in the class. The
two other discussion forum topics were titled “Post Questions About Course Material Here” and “Post Errors and Typos Found in the Notes Here.” Students seldom posted anything on these two discussion forums. Since the discussion forum assignment did not count in the final grade, it was easy for students to ignore this function.

Overall, FINA 3010 was very similar to Math 127 from the University of Massachusetts at Amherst. The instructor served more as an administrator while students learned at their own pace and had little interaction with other students. Since instruction was minimal, these courses could be seen as independent courses conducted online.

**Summer 2015 PHL 101: Introduction to Philosophy.** Two of the above courses involved numbers, resulting in discrete answers. Therefore, instructors set up course modules and taught using multiple-choice formats. To examine a contrasting situation, therefore, I also observed PHL 101: Introduction to Philosophy (see Appendix C) from the University of Massachusetts at Dartmouth in summer 2015.

The course grade for PHL 101 was based on three take-home essay exams (worth 25% each) and a discussion forum (worth 25%). Unlike the instructors of the other classes I observed, Professor Timothy Nulty, the instructor of the course, had to pay serious attention to the discussion forum, for which he had clear expectations. According to the course syllabus, “the minimum expectation is that you will be online at least every other day, and that you will participate by replying to discussion board questions. By ‘participate,’ I mean that you should ask intelligent questions about the reading, respond to other students’ questions and my posted questions, and offer relevant examples, etc.” (Nulty, 2015). Students were required to engage in the discussion. Throughout the class, Professor Nulty posted questions such as “What methods do you think philosophers use
to study various topics?” and “Present an action you think is morally good, one which is neutral and one which you think is morally bad.” Students were encouraged to engage in deep conversation about the questions. The professor posted 19 questions over the course of the entire semester.

Before we discuss how online discussion can be generated, it is important to discuss its limitations. In most online discussion forum settings, the question is on the top of the screen, and all participants post their thoughts under the question banner. Each person’s post is one message, like a personal forum subpage. Therefore, when students want to read other students’ comments, they have to enter the others’ forum subpages and read only one message at a time. In other words, students are free to enter others’ personal “chatrooms” to initiate further discussion; however, such conversations only start if a student clicks to read the other students’ posts. The result is a significant lack of interaction. The online discussion forum setting does not allow group discussion like face-to-face education, in which all members participate in one discussion session; instead, each conversation is independent from the others. Therefore, the most vibrant discussions were usually between Professor Nulty and individual students. Occasionally, two students (with one of the students joining another’s forum page) and Professor Nulty would discuss a topic back and forth, but this kind of conversation was rare. This was an online discussion about a current technical design issue. It is possible to improve the technical design issue in the future.

The take-home exams were essay questions such as “Explain the difference between hard determinism, libertarianism, and soft determinism (also called compatibilism). Explain one argument from the reading for each type of theory. You
need specific premises and a conclusion for each argument” (Nulty, 2015). Students were required to use class notes and texts to address the questions. Each student received individual comments from Professor Nulty about their essay answers. Professor Nulty also posted exam comments to explain how to answer each question and to discuss overall class performance on the exam. Students could read the comments and learn how to answer questions on the next exam.

Overall, PHL 101 was unlike the other two classes I mentioned earlier. It involved more interactions among the students, and the instructor served more as a mentor or teacher. However, it still ran like an independent study course. As Professor Nulty mentioned in the syllabus, he was like a trainer, and the students were expected to work out their muscles. Therefore, online learning experience was considered a one-on-one learning experience, not a group learning experience.

**Personal Research Interest**

In 2010, when I first came to New York City, I got a job tutoring an 8-year-old girl. I remember that our first lesson was about multiplication. I started by asking her where her multiplication cards were, which was the same question I had been asking for 12 years as a math tutor. Kids today can buy multiplication cards with nice prints, but when I was a kid, I made my own cards and drew my own colors on the cards. I had multiple ways to write numbers and saw this as a fun way to spend time with one of my learning tools. By showing students how to play with their cards, I could help them maximize their results. In this case, however, the girl looked confused and asked me which cards I meant. Over the following 5 minutes, I explained about the learning tool
that I had known so well since I was 6 years old. “A multiplication card has a multiplication equation, for example, 7x8, on one side, and its answer on the other side 56. You can flip cards and quiz yourself.”

After I explained the function of the cards, the girl understood and told me that she did not have any but wanted to show me something. She came back with an iPad. In less than 5 seconds, her small fingers entered some numbers on the screen, and I saw many tiny squares. Her finger touched one of the squares, and a gigantic animal came out. It might have been a tiger, but I was so absorbed in figuring out what was happening that I did not notice. I heard some music for marching, and many more squares appeared. What I assumed was a tiger said “Welcome.” As the girl moved her fingers, the tiger presented us with a quiz, asking us the product of 8x7. The screen quickly represented three possible answers: 16, 56, and 40. When we selected the right answer, 56, many more animals showed up to celebrate and there was a shower of sparkles and the words “You got it” appeared in a large font on the screen. It was September of 2010, and it was the first time I had seen an iPad, as the product had just been released in April. I had heard of it but not had a chance to look at one. As my young pupil showed me more functions of the program, I could not help thinking that the iPad was going to replace multiplication cards—or maybe even me.

In my next class at Teachers College, to show how we needed to adjust ourselves as teachers, I shared the story. My classmates laughed and could not believe that multiplication cards could be made obsolete. I shared the same story in February 2013, almost 3 years after the iPad had been introduced to the market, and my classmates responded by discussing different apps and their adaptions at some of their schools. In
fact, some of my classmates, including myself, used iPads to read assigned articles and take class notes. When I visited a high school in Long Island, New York in February of 2014, I learned that the school had adopted a one-on-one iPad education program and was planning to add more online courses. A little over 3 years after the introduction of the iPad, it has become a superstar of our educational system. This shows how fast we can accept and embrace new technology.

Whenever I thought of myself as a teacher, I thought of the time I spent with my 8-year-old student. Usually, I started our classes by quizzing her on multiplication tables. I wrote quiz questions on a piece of paper and focused my questions on the equation with which she was less familiar. In fact, I quizzed her randomly. For example, when she kept forgetting 7 times 8 was 56, I asked her during the break or at the end of lesson: “So what is seven times eight?” I remembered a few equations she missed frequently and quizzed her. When I found she had mastered certain equations, I moved on to the other equations with which she was less familiar.

If she answered every question correctly at the first quiz, I allowed her to choose one of my Muji pens. She loved going through my pencil box and trying different kinds of pens. She was a nice little girl but had a hard time keeping her supplies together. One time I found she broke the mechanical pencil she borrowed from me. I told about how we should respect other people’s belongings. Moreover, it was important to treasure such tools and objects because we have only limited resources. The girl’s mother was there and told her she should listen to me, and they would buy a replacement for me. On a couple of occasions when I was at their apartment, her mother joined us and told the girl that she should have asked me about turning on the air conditioning. After reminding her
a couple of times, whenever I tutored her on a hot day, my little student asked me whether I needed to have air conditioning on. Whenever she asked me about it, I gave her a hug to thank her.

However, what do experiences, such as taking quizzes, choosing Muji pens, turning on the air conditioning, and hugging this little girl mean in our educational system? What place do our interactions have in this little girl’s life? How can I compare our face-to-face interactions with her iPad learning experience? The year 2012 was labeled the year of Massive Open Online Courses (MOOCs). Reaching more people seemed to be the goal of education. However, on December 10, 2013, 2 years after the glorious introduction of MOOCs, a New York Times article by Tamar Lewin entitled “After Setbacks, Online Courses Are Rethought” revealed that “on average, only about half of those who registered for a course ever viewed a lecture, and only about 4 percent completed the courses.” Many online students have expressed that they miss face-to-face interaction. As online courses and education apps are focused on knowledge or skills learning, the question arises as to whether they really contribute to our education. How about nurturing a person? Can online education or education apps nurture a person?

On April 22, 2015, I woke up early in the morning and started to study for my Theories of Communication class. I tried to focus, but I could not overcome my anxiety. I decided that a change of scenery might be a good idea, so I went to school to study at the library, telling myself that I had to be prepared. After lunch, I went to have my hair done. As my hairstylist was blow-drying my long hair, I began reading my notes for class.

I arrived at class early where I saw several classmates who were equally as excited as I was—one student had even dressed up. You could feel the excitement in the
air. The day had finally come: We were going to meet our professor, Robert McClintock, for the first time in person. He lives in Mexico and conducts the class in New York City via Skype. Some of us had talked to him via Skype but never face-to-face in person, so we were all eager to see him. When he finally showed up, he was like a rare and precious centerpiece in our classroom. All eyes were upon him. He was much skinnier than I thought he would be. Although I had seen him on a computer screen, I had never seen him in a standing position. That was also the first time that I realized how tall he was. His demeanor reminded me of a wise monk from a Buddhist temple. His eyes communicated that he knew all the answers or else had the right directions to find the answers, provided that one asked the right questions. Once he started talking, the sound of his voice seemed both familiar and wise. I thought to myself, “Robbie is finally here. What an intellectual treat!”

For almost a year, I was talking to a computer screen with help from another instructor, Mr. Tucker Harding. As a person who embraces face-to-face interactions, I found that the setting only bothered me on the first day of class. After initially starting the readings, Professor McClintock began to answer our questions as well as comment on the readings and the personal web pages (our thoughts on education). After that, the setting became irrelevant to me.

My class experience with Professor McClintock has inspired my desire to learn. As Dewey (1938) explained, “the most important attitude that can be formed is that of desire to go on learning” (p. 48). This was one of the best educational experiences I have ever had. It was also one of the most memorable stories I have from being at TC. In a practical sense, the class helped me to find direction in my dissertation and my future
studies. This is neither a strictly online class nor a face-to-face class. Rather, it is a hybrid class. I realized it is not merely about online setting or face-to-face setting. It is about the quality of education. It is about what kind of learning experience students desire and how we as educators can deliver a meaningful learning experience.

**Purpose of the Study**

The aim of this study was to understand how students learn in an online setting, what they expect from their online course, how their online course relates to their overall learning experience, how an educator can evaluate the students’ learning progress, and where memorable stories occur in students’ learning experience.

The Internet is full of learning resources that enable learning experiences to take place in the online setting, and if the goal of education is to foster more future learning, how can students advance their learning after they finish the class? In addition, what is the role of instructors in the learning process in higher education? Are they teachers, facilitators, or managers? Does the online setting make face-to-face engagement between students and instructors a rare occurrence? Does the learning process necessitate face-to-face engagement between students and instructors, or can the instructors initiate different educative experiential possibilities without any face-to-face engagement? Ultimately, not all courses are suitable to teach online, but by understanding students’ learning experiences in a particular course, educators can decide which types of courses are more suitable to offer as online versions when they need to develop them. Also, by having a better understanding of online education, educators might develop a new understanding
of face-to-face education and create a blended learning experience that will benefit students.

The study sought to contribute to a deeper understanding of students’ online learning experiences. Through open-ended questionnaires and interviews, students were able to demonstrate both the challenges they have faced and the progress they have made in online settings. The research will help to clarify student interest in online learning environments and provide suggestions for online course development. Through observation of an online course and instructor interviews, the study will also help to explain the challenges instructors might encounter in online settings. Finally, the results of the study will help online course instructors, traditional setting instructors, college advisors, college administrators, and college technical support providers to develop existing and future online courses.

The next chapter presents a review of the literature on online learning experiences and possible learning models for online courses. The literature review provides an analytical framework to discuss the research findings and offers possible directions for future online courses.
Chapter II
LITERATURE REVIEW

The purpose of this study was to understand students’ online learning experiences. Through observation of an online course Health Education for Teachers, the study aimed to recognize the concerns and struggles of students as well as instructors. The results of the study will assist online course developers in designing their courses more effectively. Since the purpose of the study was to understand students’ learning experiences in online settings, the literature review now discusses important concepts that contributed to the theoretical foundation of the study. The literature review is organized into three parts. Part I presents research focusing on how to create an online community, an optimal online learning environment for students, and Part II focuses on communal learning and how to incorporate different institutions into students’ learning experience. Part III is about phatic communication, which contributes to the difference between online learning and face-to-face learning.

Part I: Online Community, Social Presence, and Interactions

The primary difference between face-to-face and online settings is the connections students can form with their instructors and other students. Since students taking asynchronous online courses do not see the other students, it is easy for students to
feel the course is self-directed and self-learned. High attrition rates in online classes are an issue for the development and growth of online courses (Bawa, 2016). Accordingly, scholars have argued that, for online learning to be effective, students need to feel that they are in a supportive learning community. Creating online community and online engagement is essential for the success of online courses.

**The Community of Inquiry Framework**

The community of inquiry (CoI) framework developed by Garrison, Anderson, and Archer (1999) focuses on creating a community of learners online. Before discussing CoI further, it is important to understand the origin of the CoI concept. In their article, “Critical Inquiry in a Text-based Environment: Computer Conferencing in Higher Education,” Garrison et al. indicated that they adopted the concept of Community of Inquiry from Lipman for their research on online learning.

**Lipman and community of inquiry.** (For the remainder of this research, “CoI” will refer to the framework Garrison et al. developed, and “community of inquiry” is associated with Lipman’s original application.) To Lipman (2003), inquiry is asking for information and exploring ideas. When we inquire, we initiate interactions. It is inherent that inquiry involves social and communal aspects. A community of inquiry has a goal: It has a sense of direction and follows wherever the argument goes. A community of inquiry is not a regular conversation: “It is dialogical. This means it has a structure” (p. 83). A community of inquiry is a group of people participating in the exploration of a topic, given that an inquiry is a process of exploring—meaning that the participants may not have reached an agreement. “But while all inquiry may be predicated upon community, it does not follow that all community is predicated upon inquiry” (p. 83).
Since community is a group of people sharing the same attitude or ideas, participants might not form a community by the end of the exercise.

Lipman also listed the features of community of inquiry in detail. The most important element of community of inquiry is inclusiveness. All the students in a class session involving community of inquiry are included in activities (see Table 2).

Table 2

Activities and Descriptions

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>Students are encouraged to participate, but they are not required to do so. All the participants (including teachers) are treated equally. The goal is to draw out participation through creating an encouraging learning environment.</td>
</tr>
<tr>
<td>Shared Cognition</td>
<td>Students engage in a series mental acts to analyze the topics. Students adopt any techniques (defining, inferring, questioning, supposing, or imaging) to share their understanding of the subject.</td>
</tr>
<tr>
<td>Face-to-Face Relationship</td>
<td>Even though a face-to-face relationship is not required, community of inquiry does benefit from face-to-face interactions. In the face-to-face setting, students do not only communicate through verbal engagement, but also their facial expressions and body language. Face-to-face interactions help participants understand the other students’ thinking.</td>
</tr>
<tr>
<td>Feelings of Social Solidarity</td>
<td>Students are found to bond with each other during community of inquiry, where students share their views and their personal experiences. It is easy to see that students can find something in common and become friends during class.</td>
</tr>
<tr>
<td>Deliberation</td>
<td>Deliberation is a thinking process that involves “a weighing of the reasons and the alternatives” (Lipman, 2003, p. 96). Deliberation provides alternatives. A person believes in something, and he or she delivers a thought that the others do not need to accept.</td>
</tr>
<tr>
<td>Impartiality</td>
<td>A class involving community of inquiry should pursue impartial inquiry, and the process should include all kinds of viewpoints as well as the interests of all participants.</td>
</tr>
</tbody>
</table>

Table 2 (continued)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>When a class involving community of inquiry uses a children’s novel as the learning material, children can choose the fictional character in the novel as a model. In traditional pedagogy, teachers serve as models. Students might have different models. These fictional characters might be closer to children.</td>
</tr>
<tr>
<td>Thinking for oneself</td>
<td>In a class session involving the community of inquiry, students are encouraged to express their ideas and build upon others’ ideas. Through this process, some ideas may gain more attention than others. Students should be proud of their good ideas. Also, they should not be afraid to express conflicting or opposing ideas.</td>
</tr>
<tr>
<td>Challenging as a procedure</td>
<td>Participants might counter each other’s ideas. Challenging is encouraged; however, heated conversation is not.</td>
</tr>
<tr>
<td>Reasonableness</td>
<td>As students in a class session involving the community of inquiry should be able to employ rational procedures. For example, a medical doctor understands how to deal with a patient with a contagious virus when he enters the emergency room, thanks to a set of procedures he must follow. Students need to develop rational procedures that help them probe a subject. Moreover, reasonableness is also about students’ capacity to listen to others and be open to new ideas.</td>
</tr>
<tr>
<td>The reading</td>
<td>Reading is about students’ capacity to reflect on class materials and discussion. Lipman (2003) encouraged students to read text out loud at the beginning of class to help them gain a deeper understanding of the text.</td>
</tr>
<tr>
<td>The questioning</td>
<td>Questioning in the community of inquiry is about asking questions. It is a process of formulating and selecting discussion questions. At the beginning of the session, the teacher invites students who are puzzled by the reading to formulate their questions. Students put their questions on the blackboard with contributors’ names. “Completed, the list of questions on the board represents the various interests and perspectives of the members of the community in the topic to be discussed” (Lipman, 2003, p. 83). Then, students vote for the question they wish to discuss.</td>
</tr>
</tbody>
</table>
Table 2 (continued)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion</td>
<td>In a class session involving community of inquiry, the discussion might start with understanding the question. Why this particular question? Discussion helps students to further understand the text, negotiate understanding, and investigate and examine the topic. Discussion might involve multiple lines of inquiry and the teacher might have to orchestrate multiple lines of inquiry at one time. Lipman (2003) demonstrated that community of inquiry is a methodical way to learn topics. At the same time, it is a methodology that requires participants to work on and practice it consistently. In a class session involving community of inquiry, students do not only learn the materials, but also how to approach the materials and practice the approach. The practice itself makes the community (the class) closer. “The glue that holds a community together is practice” (p. 83). In short, we cannot assume that a class session involving community of inquiry will simply start a lively discussion without any guidance or continuing practice.</td>
</tr>
</tbody>
</table>

The features of community of inquiry help to demonstrate the complexity of community of inquiry. The inquiry process involves careful planning and designing of the learning session. Lipman (2003) methodically applied the community of inquiry concept to the educational setting, especially for K-12 class sessions. To practice community of inquiry, Lipman stated that a classroom could convert into a community, a learning environment that encourages positive contributions.

The concept of Community of Inquiry (CoI) framework. Based on Lipman’s (1991) community of inquiry, Garrison et al. (1999) formulated the Community of Inquiry (CoI) framework. Garrison et al. cited the first edition of Lipman’s Think in Education when they explained their concept framework of social presence and cognitive presence.
Lipman (1991) notes the importance of community in higher-order thinking. He sees a community of inquiry as a valuable if not necessary context for an educational experience if critical thinking is to be facilitated and deep learning is to be an outcome. Lipman describes the characteristics of a community of inquiry in terms of questioning, reasoning, connecting, deliberating, challenging, and developing problem-solving techniques. (p. 8)

It is clear that Lipman stressed the importance not only of community but also of what students should do (features that the previous section listed, such as questioning, reasoning, connecting, and deliberating) in the community in order to learn. Garrison et al. (1999) acknowledged the effectiveness of the community of inquiry and focused on how communal learning helps participants in the learning process. Then, they concluded the social element as an important part of the educational process and included social presence as one of the elements in their CoI concept. Their approach, however, was a departure from Lipman’s community of inquiry concept. Lipman stressed inclusiveness, where social solidarity is the result of practicing his community of inquiry. Garrison et al. assumed that social presence should exist to help students to learn.

Moreover, Garrison et al. (1999) also discussed the importance of collaboration in learning. “Collaboration is seen as an essential aspect of cognitive development since cognition cannot be separated from the social context” (p. 8). When students collaborate with other students, the process helps them to reason and reflect on their topics. While interacting with the others, they also feel support. Garrison et al. cited an observation from Dewey (1959), in “that the educational process has two sides—one psychological and one sociological; and that neither can be subordinated to the other or neglected without evil results following” (p. 20). Garrison et al. tried to stress the importance of social presence to cognitive development and reinforced the importance of social presence in CoI.
The immediate challenge of using Garrison et al.’s (1999) conceptualization of CoI in this study is the limitation of a virtual environment. Lipman indicated that one of the benefits of community of inquiry is a face-to-face relationship. How, then, do questioning, reasoning, connecting, deliberating, challenging, and developing problem-solving techniques apply in Garrison et al.’s CoI, as well as in the online application of community of inquiry, when questioning, reasoning, and connecting are all activities that are easy to conduct through face-to-face oral communication but not virtual communication?

Garrison et al. (1999) suggested that in higher education, text exchange might be better than verbal exchange. They recognized that “socially and emotionally, face-to-face oral communication is rich” (p. 6). But since text-based communication allows time for reflection, they believed that “written communication may actually be preferable to oral communication when the objective is higher-order cognitive learning” (p. 6). Therefore, Garrison et al. held that a CoI could be applied to a virtual environment such as a computer conference or online education.

Garrison et al. (1999) stressed that social presence is perhaps the most important element of CoI. Without social presence, it is impossible to foster community learning, collaboration, or support, and educational experiences do not exist. It is important to understand social presence to understand Garrison et al.’s CoI.

**Social Presence**

Garrison et al. (1999) used three categories—open communication, affective expression, and group cohesion—to demonstrate how social presence exists. First, open communication means that participants can freely express their ideas. For example, in an
online setting, students will not be afraid to write their opinions. They will be willing to play “devil’s advocate” and challenge their classmates. Through intensive discussion, participants can develop a better understanding of the materials. Affective expression occurs when participants engage in caring communication to foster a supportive communication environment. Thus, affective expression helps create an environment in which participants feel comfortable enough to have open communication. Even though people are not afraid to express their ideas and challenge each other, they will still respect each other. For example, participants will not discriminate against others according to their geographical region or gender, and they will not let others feel uncomfortable in the discussion. Group cohesion means the participants feel close to the other participants. They feel they are in the same community.

However, social presence cannot be limited to the social interaction and emotion-sharing level. For example, people can go online to supportive group sites and interact with others. They may have pleasant exchanges, and their interactions may provide emotional support for some users. But this is not the kind of social presence with which CoI is concerned. CoI is rooted in Lipman’s community of inquiry practice, where participants question, reason with, challenge, deliver, and develop problem-solving techniques. Participants are led to engage in higher-order thinking.

CoI is looking for a similar result. Therefore, social presence in learning is rather narrowly defined by CoI, which only accounts for the exchange in academic terms. Basically, the goal of open communication and affective expression is to create a nurturing learning environment for formal academic materials. By comfortably engaging with their thoughts about academic materials, participants can engage in higher-order
thinking. However, the assumption that, in keeping the exchange to only academic terms, participants will be led to engage in higher-order thinking requires further investigation.

What, then, are the relationships between open communication, affective expression, and group cohesion? Vaughan (2004) suggested that “after the social relationships were established and the group became more focused on purposeful activities that cohesive comments begin to take precedence” (n.p.). Open communication and affective expression help to create a sense of community, which can then enable students to start focusing on academic collaboration. Interestingly, open communication and affective expression have also demonstrated an inverse relationship with group cohesion. One explanation for this finding is that after a group has created an effective learning environment, group cohesion is less necessary. Another explanation is that when practical outcomes are stressed, such as when a group project is initially assigned, group cohesion becomes more important than affective expression.

In online settings, social presence is about the participants’ ability to project themselves though online interactions with others. In other words, the other class members have to feel that a participant has a real personal presence in their online discussion. Without the feeling that other people are real people, it is difficult to form a community. It is possible for a student to participate in an online class for an entire semester without the other members feeling his or her existence. For example, a teacher can post a discussion question, “Do you think the minimum wage is necessary?” The student can reply, “Yes, I do.” Other than the participant believing that the minimum wage is necessary, the other class members learn little about the person. However, the teacher may post the following alternative discussion question: “Do you think the
minimum wage is necessary? Share a personal story. Hint: You and someone you know are working at an hourly rate. How does the minimum wage requirement affect your lives?” In this scenario, the participant may share his or her family’s struggles; the other members may respond to this initial post, and then they may start bonding with each other.

CoI sees social presence as an important element in online learning because without social presence, it is impossible to foster collaboration and support within a learning community; thus, the kinds of educational experiences Garrison et al. (1999) described will not exist. This assertion might be true in a face-to-face setting, but is it necessary for online students to bond in order to have a better educational experience? In the three online courses observed in this study at the University of Massachusetts (see Chapter I), two of them had no social presence. Can it be assumed that none of the students had good educational experiences?

When Garrison et al. (1999) asserted the necessity of social presence in online education, most of the cases they had were from business schools. It could be argued that some subjects can be successfully learned without any social presence in the online setting or in a face-to-face setting. For example, in some literature classes, assignments require students to focus on interpreting the readings and writing their own reflections on the different stories. Some students might want to discuss with other students; however, some students might want to spend time to reflect on the details and sharpen their writing skills without any discussion. Social presence might not be necessary for some students. This example also shows that learning is personal. Some students might choose online courses because they want to avoid social interactions. For example, some non-traditional
learners who decide to obtain a college degree might intentionally take online courses to avoid having social interactions with younger classmates. In sum, social presence in online education proclamation needs to be further examined and studied.

**Interactions**

The learning process requires engagement. When students study online, what types of engagement are most beneficial? Moore (1989) suggested that for students to engage in distance learning, three types of interactions are essential: learner-content interaction, learner-instructor interaction, and learner-learner interaction. Learner-content interaction refers to how interaction enhances students’ understanding of the particular subject through their interaction with the course materials. Learner-content interaction “may include reading informational texts, using study guides, watching videos, interacting with computer-based multimedia, using simulations, or using cognitive support software (e.g., statistical software), as well as searching for information, completing assignments, and working on projects” (Bernard et al., 2009, p. 1248). As technology progresses, learner-content interaction has come to include interactions with social media-based multimedia.

While learner-instructor interaction in face-to-face settings focuses on dialogue between the instructor and the students, learner-instructor interaction in distance learning settings focuses on how instructors stimulate or at least maintain their students’ interest in the subject (Moore, 1989). Learner-instructor interaction may include telephone calls, videoconferencing, online chats, e-mail, discussion boards, and assignment responses. Since students on campus are increasingly taking online courses, face-to-face meetings are also a possible form of learner-instructor interaction.
Moore (1989) defined learner-learner interaction as interaction among learners working in small groups. In online settings, learner-learner interaction may include telephone calls and messaging, videoconferencing, online chats, e-mail, discussion boards, and social media correspondence. If on-campus students are taking online courses, learner-learner interaction may include face-to-face meetings.

After the Internet became a popular medium for online learning, understanding computer interfaces became the first step to studying in an online setting. Hillman, Willis, and Gunawardena (1994) proposed adding the concept of learner-interface interaction to this list in order to specify the role of instructional design strategies in helping students to engage in distance learning. Learner-interface interaction may include all the technologies that help to deliver the course materials. For example, different schools adopt different learning management systems, such as Canvas, Blackboard, and Moodle.

After Moore proposed three essential types of interactions in distance learning, several scholars conducted studies to help define interactions in online courses. Swan (2001) concluded that three factors have influenced students’ satisfaction and perceived learning in online settings: “clarity of design, interaction with instructors, and active discussion among course participants” (p. 306). In Swan’s study, 3,800 students were enrolled in 264 online courses offered through the State University of New York (SUNY) Learning Network. The students were asked to take a mostly multiple-choice survey, with the opportunity of giving comments on the survey.

Swan (2001) found that in terms of learner-content interaction, the “students who reported higher levels of activity in courses also reported higher levels of satisfaction and higher levels of learning from them” (p. 315). Therefore, when educators design course
materials, they need to take the frequency of students’ engagement with the materials into consideration.

In terms of learner-instructor interaction, Swan (2001) found that the students who had sufficient interactions with their instructors had higher levels of satisfaction with the course and also higher levels of learning than the students who had insufficient or no interactions with their instructors. Swan concluded that courses with adequate opportunities to interact with instructors are preferable. However, an important question arose from Swan’s research: What is the definition of “sufficient”? Swan asked the students to rate their interactions with their instructor as follows: “a great deal,” “sufficient,” “insufficient,” or “no” interaction. Is the notion of what is “sufficient” more than a subjective feeling? If not, how can educators take individual feelings into consideration?

In terms of learner-learner interaction, Swan’s (2001) results were almost identical to those for learner-instructor interaction. The students who had sufficient interactions with their peers had higher levels of satisfaction with the course and also higher levels of learning than the students who had insufficient or no interactions with their peers. However, the question remains: Is the notion of what is “sufficient” more than a subjective feeling? How researchers can better define interactions is also an important question. Overall, Swan’s findings supported Moore’s (1989) three types of interactions.

While Swan used the subjects’ feelings to rate interactions, Jiang and Ting (2000) used numerical count to define interactions. They conducted a study involving 299 students enrolled in 19 online courses offered through the SUNY Learning Network.
(SLN) in spring 1997. Their findings also supported the importance of interactions and “an interactive and collaborative course environment” (p. 327). Jiang and Ting found that “online discussion appeared to make a difference in students’ perceptions of learning from one SLN course to another” (p. 327). They suggested that instructors should assign a high percentage of the grade to online discussion, providing specific quality and quantity requirements. Students would then be motivated to join the online discussion. When more students are actively participating in the online discussion, it will become a vital part of their learning process. Unlike Swan’s (2006) use of “sufficient” to rate the level of interactions, Jiang and Ting used a raw count of the number of activities to calculate their findings. For example, they used the number of e-mails and discussion responses to rate the interactions. However, the problem with this approach is that the number showed the frequency but not the quality of the responses and interactions.

Sher’s (2009) research allowed students to use Likert-type scales to rate the quality of their interactions. Sher conducted a study of 652 students enrolled in a U.S. East Coast university online learning program in the spring semester of 2003. According to Sher, “student-instructor interaction and student-student interaction were found to be significant contributors of student learning and satisfaction” (p. 102). Sher’s survey adopted a 5-point Likert-type scale, ranging from 1 as “strongly disagree” to 5 as “strongly agree.” The students were asked to measure statements such as “I was able to interact with the instructor during the course discussions” and “The instructor provided me feedback on my work through comment.” The study defined interactions for the participants, although the students might have had their own interpretations of the interactions.
Among all pertinent studies, Dennen, Aubteen Darabi, and Smith’s (2007) research included the most items for students to rate. Dennen et al. conducted a study including both students and instructors. In the study, 32 online instructors and 170 students from different private and public universities were asked to rate 19 items considered relevant to online learning. These items included actions such as “post to discussion board,” “provide timely feedback,” “communicate rules/expectations,” and “provide extensive feedback.” Dennen et al. culled items from the previous research, covering a wide array of actions involved in online learning. This study was more comprehensive than the other studies by Swan as well as Jiang and Ting because it examined more items. These findings showed that “instructors believe that learner performance is more likely tied to instructor actions that are focused on course content and provide both proactive (models, expectations) and reactive (feedback) to learners” (p. 65). Learners’ satisfaction is more likely to be tied to their feeling that their “interpersonal communication needs are met” (p. 65). Overall, Dennen et al.’s study reinforced the importance of learner-instructor interaction.

Young’s (2006) research adopted a Likert-type scale and allowed participants to give open-ended comments at the end of the survey. In the open-ended comments, the students stated a desire for timely responses from instructors. The students viewed a lack of instructor involvement in discussions and a lack of feedback on their work as ineffective online teaching. Young conducted a study on students’ views of effective online teaching in higher education. The study concluded that a combination of seven items contributes to effective online teaching: adapting to student needs, providing meaningful examples, motivating students to do their best, facilitating the course
effectively, delivering a valuable course, communicating effectively, and showing concern for student learning. This finding showed that while the courses are conducted online, the students are still looking for a connection with each other. There is a need for a community and social presence. Their findings are consistent with those of the other previous studies.

Conducting a survey that allows students and instructors to rate their experiences is not the only way to perform an online learning experience study. If a researcher were to adopt a different method, the results might differ from those of the closed-question survey approach. For example, Teräsvirta (2016) used narrative analysis to understand seven educators’ online learning experiences. Through the educators’ stories, Teräsvirta’s research demonstrated that because different learners have different learning expectations and skills, “there is therefore no uniform experience of online collaborative learning, nor is there a one-size-fits-all solution to implementing it” (p. 272). In Teräsvirta’s study, the participants discussed their struggles in forming an online community. In contrast with the findings of previous research, some participants were happy that they did not have a learning community. They wanted to focus on developing their own skills and did not think building a learning community was their primary concern. Teräsvirta’s findings challenge the importance of a learning community, social presence, and interactions in online learning and revealed that different ways of conducting a study might lead to different results.

The above research studies have demonstrated the difficulty of defining interactions in online settings and determined that interactions do help the learning process. Also, when the researchers adopted different research methods, they arrived at
different conclusions. The importance of a learning community, social presence, and interactions in online learning clearly needs to be further examined.

**Facebook as a Learning Community**

Created in 2003, Facebook was intended to increase connectivity among users. As of September 2019, there were “1.63 billion daily active users on Facebook on average” (Company Info | Facebook Newsroom, 2019). Facebook, as an existing social media platform, has been adopted in higher education to increase connectivity among students, and scholars have found that Facebook does enhance students’ learning experiences. Schroeder and Greenbowe (2009) invited students to join a Facebook group called Chemistry 231L during their first class, where they were encouraged to discuss questions. The authors found that those who joined Facebook used it more than WebCT, the class’s official discussion site. They believed that “students were already accessing Facebook for personal use and checked in on the group when they accessed Facebook for other reasons.” Duncan and Barczyk (2016) encouraged, but did not require, students to use Facebook to have virtual meetings, post relevant YouTube links and research findings, and comment on one another’s work. They also found that “Facebook-enhanced courses experienced a somewhat more positive community of practice, sense of learning and sense of connectedness compared to students in non-Facebook-enhanced courses” (p. 14). In both studies, students were encouraged to use Facebook to connect with others, with Facebook serving as part of the learning management system function.

Some scholars believe that online community is essential for online learning; can Facebook help to create such a sense of learning community in online courses? DeSchryver, Mishra, Koehler, and Francis (2009) compared students’ discussion forums...
on Facebook and Moodle for an online introductory educational psychology course and found that “students assigned to the Facebook section did not write longer or more frequent discussion postings than students assigned to the Moodle section” (p. 5). Students in the Facebook section did not perceive “a higher level of social presence than students assigned to the Moodle section” (p. 5). The difference between the research by DeSchryver et al. and the two previously mentioned studies was that the latter examined face-to-face classes. The research results suggested that Facebook can be a good supplement for enhancing connectivity when students know each through a face-to-face setting, but for students who are taking online courses and have little connection with other students, Facebook is comparable to the Moodle learning management system.

Part II: Configuration of Education

The Concept of the Configuration of Education

Lawrence Cremin (1973) presented a compelling ideology relating to the configuration of education in Notes Toward a Theory of Education. He defined education “as the deliberate, systematic, and sustained effort to transmit, evoke, or acquire knowledge, values, attitudes, skills, and sensibilities (and the results of that effort)” (p. 4). Education is a continuous process, and while people often learn in a face-to-face setting, education does not end in the classroom. Learning also occurs in online settings, yet education does not stop when the student turns off the internet. The reality is that people can learn at any moment, at any place, and in any situation: “Education generally proceeds via many individuals and institutions—parents, peers, siblings, and friends as well as families, churches, libraries, museums, summer camps, schools, and colleges”
Cremin’s concept of the configuration of education reminds educators that all the people and institutions a person encounters play a role in that person’s education, and school is only one of those institutions.

In addition, Cremin (1973) argued that “the various educators in a community often relate to one another in configurations, though it cautions that such relationships may be dissonant as well as consonant, contradictory as well as complementary” (p. 4). The term configuration seems to imply a harmonious relationship, but Cremin pointed out that different institutions may not always agree with each other. For example, a student might learn that God is the creator of the universe; meanwhile, in a different curriculum, he might be taught Darwin’s principles of evolution. In this situation, the information provided by the two institutions is contradictory. It is natural for different institutions to have different agendas; the key is to understand a person’s educational objectives, how a person interacts with different institutions, and how a particular individual or institution helps form a person’s configuration of education. As Cremin noted:

Individuals come to educational situations with their own temperaments, histories, and purposes…different individuals will interact with any given educational institution or configuration in different ways and with different outcomes, and...in considering the interactions and the outcomes it is as necessary to examine the lives of those undergoing education as it is to examine the efforts of the educators. (p. 3)

Given that educators do recognize the existence of other institutions and individuals in the configuration of education, their effectiveness can be measured by how well they allow students to interact with other elements. Competent instructors are often great counselors and coordinators in the overall configuration of education and have the ability to create different educative models for their students.
Applying the Configuration of Education

One of the important strengths of the configuration of education is to help map out “the relations among educative institutions in a given time and place, enabling comparison among institutions and consideration of the special features” (Butler & Sussman, 1989, p. 30). In their study on how museums can enrich family life, Leichter, Hensel, and Larsen (1989) illustrated the possibility of a comparison using a diagram in their article “Families and Museums: Issues and Perspectives” which appeared in Butler and Sussman’s book (1989) *Museum Visits and Activities for Family Life Enrichment* (see Table 3).

This diagram “shows how the education that goes forward in selected institutions with which families are engaged can be analyzed and compared in terms of basic dimensions” (Butler & Sussman, 1989, p. 30). It compares different institutions by their location, attendance, social composition, outcome measures, spatial organization, temporal organization, and pedagogic and educative style. The intention of Leichter et al. here was to raise questions and not provide answers. For example, to compare the pedagogic and educative style of different institutions, educators can understand how families engage with different institutions, how the education provided by different institutions is dissonant and consonant, and how they can construct a better configuration to achieve desired educational purposes. The configuration of education, then, is a framework with which to explore different means of potential educational cooperation among institutions. Leichter et al.’s diagram revealed several possibilities and can help educators to reflect on their educational goals and map out the institutions with which
Table 3

*Educational Processes in Selected Institutions With Which Families Engage*

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>ATTENDANCE</th>
<th>SOCIAL COMPOSITION</th>
<th>OUTCOME MEASURES</th>
<th>SPATIAL ORGANIZATION</th>
<th>TEMPORAL ORGANIZATION</th>
<th>PEDAGOGIC &amp; EDUCATIVE STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELEVISION</td>
<td>In home</td>
<td>Voluntary</td>
<td>Multigenerational</td>
<td>Ratings ---</td>
<td>Constrained by screen size ---</td>
<td>Fixed schedules --- Impersonal ---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No learner credentials ---</td>
<td>Household-related</td>
<td>No immediate feedback ---</td>
</tr>
<tr>
<td>SCHOOLS</td>
<td>Outside home</td>
<td>Mandatory</td>
<td>Individuals ---</td>
<td>Formal evaluations ---</td>
<td>Standardized</td>
<td>Fixed schedules --- Variable ---</td>
</tr>
<tr>
<td></td>
<td>(+homework)</td>
<td></td>
<td>Age-segregated</td>
<td>Learner Credentials ---</td>
<td>---</td>
<td>Occasionally one-to-one</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sex-segregated</td>
<td>Success and failure ---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>HEALTH CARE</td>
<td>Outside and</td>
<td>Need-related</td>
<td>Individuals and</td>
<td>Course of illness and</td>
<td>Fixed schedules ---</td>
<td>Variable ---</td>
</tr>
<tr>
<td>AGENCIES</td>
<td>in home</td>
<td></td>
<td>family groups</td>
<td>cure</td>
<td>Disease-related</td>
<td>Professionally geared ---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>---</td>
<td>---</td>
<td>Emotionally charged ---</td>
</tr>
<tr>
<td>MUSEUMS</td>
<td>Outside home</td>
<td>Voluntary</td>
<td>Multigenerational</td>
<td>Some institutional evaluations ---</td>
<td>Variable ---</td>
<td>Variable ---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No learner credentials ---</td>
<td>possibilities ---</td>
<td>Self-instruction possibilities ---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>---</td>
<td>Learner determined ---</td>
<td>Multimedia ---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>---</td>
<td>---</td>
<td>Multisensory ---</td>
</tr>
</tbody>
</table>

their students might have engaged in a particular time and space. Through their own diagrams, educators can explore different pedagogic plans for their students.

**Physical vs. Virtual Institutions**

Due to the huge increase in internet access from the 1990s onwards, institutions can use the internet to become multifunctional, thus blurring the borders between institutions. When Cremin introduced the concept of the configuration of education in 1973, he referred to institutions with a physical space at the time, such as schools, colleges, families, churches, libraries, museums, and summer camps. Now, because of the internet, institutions can have multiple functions in both the physical space and the virtual space. For example, the American Museum of Natural History (AMNH) is a museum founded 150 years ago, but “During the late nineties, AMNH initiated several partnerships with higher education institutions, including City University of New York’s (CUNY’s) Brooklyn and Lehman Colleges, Bank Street College of Education, Barnard College, and Teachers College, Columbia University” (Aquino, Kelly, & Bayne, 2010, p. 226). Through its partnerships with higher education institutions, AMNH was able to understand the demands of science education, and in 2000, it began offering Seminars on Science online courses. As of 2019, students enrolled in the degree programs at Bank Street College of Education, CUNY, Hamline University, and Western Governors University can take Seminars on Science online courses as part of their studies. Students seeking teaching certifications can also check with their home college to see whether it will accept transfer credits. In this way, AMNH is not only a museum; it is also a school. Institutions are able to invest more funding to perform more functions and establish their
Because more people now participate in virtual institutions, it is important to know how their participation in virtual institutions affects their willingness to participate in real institutions and influences their practice in real institutions. In the 2008 article “Enchanting the Spiritual Relationship: The Impact of Virtual Worship on the Real World Church Experience,” Robinson-Neal found “virtual worship does not have a strong impact on their real world experience” (p. 241). However, Robinson-Neal’s research did not reveal whether participating in online worship reduces people’s willingness to attend real churches to worship. Because of their virtual presence, institutions have become more complicated to define and study. Consequently, the purpose of the configuration of education has become more complicated and dynamic.

The Concept of Educative Style

The various configurations of education show how diverse institutions can educate an individual at any given time, raising the question of which institutions educators should focus on when examining the configuration of education. How do individuals engage in various institutions? People have distinct ways of reflecting, absorbing, and synthesizing the educative influences of diverse institutions, and a person’s educative style changes over time. Thus, the concept of educative style “appears to offer a significant point of entry for our analysis of how the individual mediates his various educative experiences” (Leichter, 1973, p. 240).

The concept of educative style helps educators understand how individuals engage with diverse institutions and how they accumulate educative experiences over
time. When educators propose a configuration of education as their educational goal, they gain a better understanding of which institutions students could have more deeply engaged with and how diverse institutions could complement one another.

In *A Generation of Women*, Ellen Lagemann (1979) documented five women’s educational biographies. Through these biographies, she found that various people learned differently at the same institutions. One person who is able to engage well with a particular institution does not guarantee that another person will have the same experience at that institution. Lagemann pointed out that while educators talk about educative experience, learners are the ones who decide whether an experience is educative or not. As Lagemann wrote, “Experience was rendered educative by the intent of the learner rather than the purposes of the teacher or the inherent structure of the situation” (p. 6). Thus, Lagemann reinforced the importance of looking at the individual experience. Educative style provides a frame for assessing individual educative experiences and engagement at diverse institutions.

**Part III: Phatic Communication**

**Phatic Communication**

Phatic communication serves a social function; it is not meant to gather more information from the other parties, but rather is polite small talk, like “How are you?” “Have a nice day,” and “Take good care.” The content may be insignificant at the time, but phatic communication helps to establish and maintain social bonds between participants. There are several important characteristics of phatic communication. First, it happens daily; “Phatic exchanges are very common in everyday discourse” (Zegarac,
Second, among young people, phatic communication can serve as “badge of identity”: “It is a way of saying ‘we are similar sorts of people!’ It can also be just a way of people getting along together” (Burnard, 2003, p. 681). For example, when some young people talk, they enjoy using the term *like*. When they talk with others who make the same word choice, they thus feel connected to them. Third, phatic communication is mean to develop friendships. Sun (2001, as cited in Burnard, 2003, p. 681) conducted research on phone conversations and found that informal telephone conversations are largely phatic; “The point of such telephone conversations, then, is not particularly to exchange information but to develop friendships” (p. 681). Phatic communication might seem trivial in our daily lives, but it is important for fostering friendships and further connecting people.

**Summary**

Part I of the literature review focused on research literature that discussed the importance of social presence and interactions in online courses and how to build an online learning community. Part II of the literature review introduced the configuration of education, a way to look at how institutions educate at the time. It also introduced the concept of educative style, which looks at how individuals modify the way they engage in different educative settings. Part III focused on a topic related to this study: phatic communication.

The next chapter discusses the methodology of the study. It explains the study site, study subjects, research procedures, and data analysis in detail.
Chapter III
METHODOLOGY

The purpose of this study was to comprehend college students’ online learning experiences. Using the graduate course *Health Education for Teachers* for the study, this research intends to understand the concerns and challenges of both students and instructors. This study utilized a qualitative research method, which included an open-ended questionnaire and in-depth interview. The questionnaire helped reach more participants in the target population to understand their overall impression of the online learning setting. With the survey, I was able to recruit interview subjects in the target population. The in-depth interviews helped me further understand the students’ overall expectations, experiences, and concerns in online learning. The research results were based on 57 survey returns, six student interviews, and the instructor’s interview.

**Study Site**

*Health Education for Teachers* (Appendix D: Syllabus) can either be an online course or an online driver model course for various students. For students who have already completed have not joined the Dignity for All Students Act (DASA) workshop, *Health Education for Teachers* is a pure online course. For students who have joined the have participated in the DASA workshop, *Health Education for Teachers* is an online
driver model course. The DASA workshop is required for educator certification in New York State. The training addresses harassment, bullying, and discrimination prevention and intervention in schools. The length of the training is six hours, with at least three clock hours completed in-person. The DASA workshop is a 3-hour face-to-face seminar.

In the United States, teachers are state-mandated reporters. When teachers observe any signs of suspected child abuse or neglect, they are legally required to take action and report their suspicions to the proper authorities, such as Child Protective Services. Teachers should also prevent bullying and ensure the safety of students. The DASA workshop is meant to ensure that teachers have sufficient knowledge and skills to be able to prevent bullying, intervene in bullying situations, and report any child abuse or neglect and maintain a safe environment for students.

The goal of this research was to understand students’ online learning experience. Therefore, although some students joined attended the face-to-face DASA workshop, Health Education for Teachers was the ideal study site because most students’ learning experiences happened in the online setting. In addition, as some students joined did attend the DASA workshop, learning about their perspective of the online driver model was interesting. The students even provided a direct comparison between Health Education for Teachers and the DASA workshop learning experience.

From its class title Health Education for Teachers, one might think that this class is all about physical health topics, such as nutrition and physical activities. However, as one of the course purposes of Health Education for Teachers is to provide the DASA workshop, the class materials cover DASA-required topics such as discrimination, intimidation, taunting, harassment, and bullying. For this reason, the class materials
included in *Health Education for Teachers* are merely about physical health topics, and their scope is rather restricted. The eight topics covered in *Health Education for Teachers* are risk and resiliency; child abuse and maltreatment; discrimination and harassment; violence prevention; mental health and suicide; nutrition and physical activity; alcohol, tobacco, and other drugs; and personal safety.

*Health Education for Teachers* is a required subject for multiple programs at Teachers College, Columbia University: M.A. in Elementary Inclusive Education (Gifted) with Initial Certification in Childhood Education and NYS extension in Gifted Education for Grades 1-6, and all graduate programs in Communication Sciences & Disorders. In addition, all programs with initial certifications at Teachers College require students to complete the DASA workshop; taking *Health Education for Teachers* is one way to fulfill this requirement.

Students can take *Health Education for Teachers* for either two or three credits. Students who are taking three credits are given in-depth materials in nutrition and physical activities.

Because *Health Education for Teachers* is an online course, it does not try to mimic the face-to-face learning experience. Instead, it tries to incorporate possible features found online to enrich students’ learning experiences and provide vast online information for students.

**Class Materials**

All sessions have required readings, a lecture presentation to illustrate the topic of the week, and a website of interest to provide additional information on the topic. Videos
are often used to introduce additional information. This part of the instruction is similar to any class asking students to read assigned readings and listen to the instructor lecturing on important points. However, in this course, students cannot ask instructors questions during lecture presentations. The information (including different web links and related readings within PowerPoint slides) encourages students to find additional information to answer their own questions. A website of interest often includes newspapers or other relevant websites that can provide additional information.

**Quizzes**

The quizzes in the course are open book and open notes. Quiz questions are mostly derived from textbooks, class literature notes, and PowerPoint slides and involve facts. Students can either read the class materials before they take a quiz or find the answer during the quiz.

**Discussions**

Session discussions are versatile and cover lesson planning, scenario analysis, class material assessment, website evaluation, and peer assessment in the final project. When students want to answer discussion questions, they create their own column. Students are required to respond to at least two classmates. When other students want to respond, they reply to the column. When comments are thought-provoking, they have more responses. The drawback of the online discussion forum is that some comments may not receive any responses and important comments may not be discussed thoroughly.
**Family Health Newsletter Assignment**

The family health newsletter assignment allows students to learn how to design newsletters for parents. The information that students need to include in the family health newsletter demonstrates their understanding of a particular topic. The nutrition or physical activity assignment also allows for the creation of a lesson plan that integrates health issues into other school subjects. Even though health education is a required course in K-12 schools, in the elementary school there is a specific time requirement for the health education class. This assignment gives students a chance to analyze further the integration of health issues into their teaching. It also allows the instructor, Professor Katherine Roberts, to assess students’ understanding.

**Final Group Project**

The final group project is to prepare a campaign for a particular group, with each group having five or six members. For example, students can create playground-safety flyers and booklets for parents of Grade 1 and 2 pupils. The final group project allows students to meet personally and finish the project together. However, the students can decide whether they want to meet or not.

**Interactions**

Although the students cannot have direct interactions with their instructors or other students, the environment that Professor Roberts has created for the *Health Education for Teachers* course allows students to have different interactions and propels them to find answers through available online information. For instance, Professor Roberts has allocated office hours where students can make appointments to talk to her.
At the end of the semester, a group project is given, which allows students to get together to finish the project. Moreover, if the students join the DASA workshop, they then will have more interactions with other students.

**The Instructor**

The instructor of the course *Health Education for Teachers* is Professor Katherine Roberts. As the focus of the research was to understand the online learning experience, understanding how a person is perceived online and in person is beneficial.

**From Canvas**

Professor Roberts has been teaching the face-to-face and online versions of *Health Education for Teachers* for more than 10 years. During the first online discussion in the course, Professor Roberts introduces her involvement in different projects, such as a substance abuse prevention curriculum for middle school students, Project SUCCESS, and an elementary school nutrition program called Ironwill Kids PowerUp! She also describes her credentials, such as Master Certified Health Education Specialist and Certified in Public Health. Then, she shares her interests and lifestyle.

I practice what I preach. I compete in a variety of athletic endeavors, including marathons and ironman triathlons, where I consume only natural, organic, and non-processed energy drinks and food (e.g., coconut water and salt, dates and almond butter; no Gatorade or highly processed gels!). As teachers, you are all role models and therefore you can and do affect students’ behaviors through your own example.

From her own description, students can perceive that she is a health-conscious person.

When I first read this description, I envisioned a very fit and athletic type of person running to the local farmers’ market for her produce. I especially thought of her
statement, “You are all role models, and therefore you can and do affect students’ behaviors through your own example.” How can teachers act in their classroom? How can they promote health consciousness in the classroom? Perhaps, they should never drink soda and only consume water from reusable bottles. Her introduction motivated me to contemplate. Although I had never met her before, from her Canvas introduction, I knew I could reach out to her anytime.

In Person

Professor Roberts demonstrates the “I preach what I practice” philosophy. In our first meeting, when we discussed topics about nutrition, she told me that milk is actually not a good kind of drink and explained how soybean is highly processed. To prove her points, she even sent me some articles about milk. Because of her, I am making my own soybean milk now.

Professor Roberts has been working extremely hard to make Health Education for Teachers a requirement for the elementary education program. Accordingly, she also extensively talks about how she wants to help teachers incorporate health education concepts into their class. For example, how can a mathematics teacher present the importance of eating vegetables? Discussing such concepts seems to be difficult when health education is not strictly required. As such, teaching educators how to conduct online classes is even more difficult.

Professor Roberts shared with me one of my most memorable moments at Teachers College. The first English sentence I ever learned was “How are you?” In the past, I was outspoken about my feelings. Indeed, I have learned that asking “How are you?” is a kind of formality in the United States. It shows that one party cares; when
another party replies “Fine,” it shows that the latter has acknowledged that care. After the greeting, the two parties seem to agree that they are both in the same state of mind to start the meeting. To illustrate, last year, my cat got very sick and was hospitalized. I planned to visit my cat after I met with Professor Roberts. I had been worrying about my cat and did not sleep well for several days. When I saw Professor Roberts, she asked me, “How are you?” Then, I did something unthinkable: I burst into tears and said, “I am no good. My cat is in the hospital.” I broke the golden rule of a greeting and cried. For the first time, I realized how much I cared for my cat, and Professor Roberts not only comforted me but also let me reconsider an important element of online learning. Professor Roberts told me stories about her dogs and explained to me the strong ties we have with our pets. For the first time, I did not say “Fine,” but I actually felt fine. As I saw Professor Roberts walk away after the meeting, I felt that her presence was illuminating. I asked myself, “How can this light break through a computer screen to students? How can students feel that they have been cared for in the online setting?”

Participants

From fall 2013 to spring 2018, 588 students have taken Health Education for Teachers. From fall 2013 to spring 2018, each semester has at least one section. Since there are two sections during the summer, there are at least four sections in an academic year. The maximum enrollment of each section is 20 students. Students are classified into two groups: past students who have taken Health Education for Teachers from fall 2013 to fall 2016 and recent students who have taken Health Education for Teachers from spring 2017 to spring 2018. As the goal of this study was to understand their online
learning experience, 80% of the questions to both groups were the same. For past students, because they took the class more than 3 years ago, some questions focused on their memory retention and how well they applied the knowledge learned in the course. For recent students, some questions focused on their learning experience with Canvas, the learning management platform that Teachers College has adopted. The survey was sent to all students in June 2019. Among 401 past students, 35 returned their surveys. Among 187 recent students, 22 returned their surveys. Among these 57 survey participants, 28 participants expressed their willingness to be contacted for further research. A total of 28 interview invitations were sent, and six people agreed to have an interview. In addition to the students’ surveys and interviews, I also interviewed Professor Roberts, the course instructor.

**Instruments**

**Survey Questionnaire**

Other than questions about facts, such as the number of online courses that students have taken, open-ended questions were also given in the survey. For past students, 15 questions were asked (Appendix E: Survey Questions for Past Students). For recent students, 17 questions were asked (Appendix F: Survey Questions for Recent Students).

This research adopted an open-ended questionnaire mainly to avoid bias. An open-ended questionnaire allows survey takers to construct their own answers and avoid bias from suggesting responses to survey takers (Reja, Manfreda, Hlebec, & Vehovar,
2003). This type of questionnaire may also draw out answers that I never anticipated. Moreover, this research attempted to understand what students have learned and remembered in an online setting and where pivotal experience may occur. Thus, what they did not say was as important as what they said. Understanding why participants have no recollection of their learning experience was also important. Although open-ended questionnaires may challenge participants’ memory (which may be necessary for the research), a closed-ended questionnaire may supply a false memory and distort the research results. In addition, as I did not know any participant prior to the research, participants may have been uncomfortable talking about their experiences during the in-depth interviews. The participants’ open-ended questionnaire responses helped me gain some understanding of them prior to the interviews and ask some icebreaker questions. I was also able to create a relaxed environment and stimulate participants to share their learning experiences. However, an open-ended questionnaire has several disadvantages. First, some participants may opt to skip questions because the survey takes too long. Accordingly, I shortened the survey time to 20 minutes which did not allow the participants to skip questions. The participants could simply type a few words and move on to the next questions. As a result, the research did not collect a large number of responses and this research specifically had a 10% response rate. Second, differentiating between whether the participants did not remember anything or did not want to remember was difficult. These disadvantages were taken into consideration during the survey results analysis.
Interviews

In-depth interviews help acquire new and firsthand information. “The studies present the words of individuals who know about the issues from their own experience and knowledge; hence, they portray real people, real events, real experiences” (Rubin & Rubin, 2011, p. 60). As the research aimed to understand students’ online learning experience in Health Education for Teachers, in-depth interviews were appropriate for this purpose.

Six students and instructor interviews took place in July and August 2019, and the follow-up clarifications were made in September and October 2019. The length of the interviews ranged from 35 to 60 minutes long. I recorded conversations in iPad files and transcribed them later. I made sure that no one could access my recordings and transcripts. All interview questions were open-ended (Appendix G: Interview Questions). I interviewed Professor Katherine Roberts in August 2019. The interview was meant to understand the challenges that an instructor may encounter while teaching an online course.

Procedure

Professor Roberts sent the survey to the students was sent in June 2019. The survey was expected to be finished within 3 weeks. Once students finished the survey, the results were automatically collected by Qualtrics, a survey software.

Of the six interviewees, five interviews took place over Skype, as per students’ request, and one student interview was conducted face to face.
Data Analysis

Survey

Descriptive statistics were used to summarize the students’ age and computer skills. Word-based text analysis techniques were adopted to analyze answers from students’ open-ended questionnaires. I identified different themes from the answers.

Interviews

Semi-constructed interviews were conducted. In the first part of the interview, the interviewees were asked to introduce themselves and elaborate on their online introduction. They were encouraged to tell stories about their educational background, online education experience, and memorable moment at TC; in addition, they were asked how they identified abused students, dealt with bullying and cyberbullying in the school setting, and helped people with substance abuse issues.

Role of the Researcher

I took Health Education for Teachers in fall 2017. Because of the research, I formed an academic relationship with Professor Roberts. We often talked about the class and how to improve the students’ learning experience. Unlike other students who only learned the class materials and objectives through Canvas, I learned the course objective through Professor Roberts. In fact, because I learned so much about the course and materials from Professor Roberts, I consider myself a student who has taken both the online and face-to-face versions of the course. Therefore, when I interviewed the students, I paid particular attention to objectivity. For example, one of the students complained that the Health Education for Teachers materials did not fully stress nutrition and personal
health. However, as *Health Education for Teachers* serves special purposes, it has to cover certain topics. As a result, the *Health Education for Teachers* materials cannot cover nutrition and personal health more extensively. I realized that the student did not realize *Health Education for Teachers* served special purposes and misunderstood that the curriculum covered many unrelated materials. The course syllabus discusses different certifications and explains curriculum choices. Because the information is online, the student might have missed it easily. Professor Roberts explained to me that the course has to cover various materials in person. If *Health Education for Teachers* were a face-to-face class, then students would have asked the same question and fully understood the curriculum. The fact that this one student misunderstood demonstrates a deficit of the online course. In the interview, I allowed the student to complain without explaining to him. In general, although objectivity was difficult to maintain in the whole research process, I tried to let the interviewees speak their respective stories.
Chapter IV

RESEARCH RESULTS

Survey Results

Survey Response Rate

A total of 588 surveys were sent out: 401 surveys were sent to students who had taken *Health Education for Teachers* from spring 2013 to fall 2016, and 187 surveys were sent to students who had taken *Health Education for Teachers* from spring 2017 to fall 2018. The overall response rate was low, at about 10%. Of the 588 surveys delivered, 57 students responded. One primary reason for the low response rate was the issue of reachability. All the emails were sent to the participants’ Teachers College email accounts, and some of the participants might not have checked these accounts because they had graduated. When potential participants do not get emails, the system will not bounce back and report the reachability issue. Therefore, even though 588 emails were sent out, a significant number of potential participants may not have received the email invitation. The factors that affect online survey response rates are follow-ups, incentives, and the length and presentation of the questionnaire (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004).

To maximize the response rate for this survey, three follow-ups were sent. Incentives were also created to increase the response rate. Furthermore, every respondent
received a $5.00 gift card. However, given the number of responses, the $5.00 gift card may not have been enough to motivate students to take the survey. Of the 57 students who responded to the survey, only 24 students offered their e-mail addresses so that they could receive the gift card. The others simply skipped the question and noted they did not need the gift card. In discussing their survey, Galesic and Bosnjak (2009) concluded that “more respondents stayed until the end of the assigned questionnaire when it lasted approximately 10 minutes than when it took 30 minutes to complete. This suggests that even the respondents who were motivated enough to start the longer questionnaire eventually ‘lost their breath’ as the survey progressed” (p. 358). Galesic and Bosnjak suggested the ideal length of a survey is about 10 minutes. Because the survey in the current study was meant to elicit the students’ own answers, open-ended questions were used. The survey took approximately 20 minutes to complete. It is possible that when the students saw the required survey time, they decided not to take it.

According to Mahon-Haft and Dillman (2010), there is “limited evidence suggesting that aesthetically displeasing screen design can detrimentally impact respondents’ behavior” (p. 57). This study used Qualtrics for the survey process. Even though the Qualtrics layout is not as visually appealing as other survey tools such as SurveyMonkey and Typeform, Qualtrics surveys are not difficult to follow. In the analysis, the possible reasons for the low survey response rate were identified as length of the survey and low incentive. Because of the nature of the study, it was not possible to change the length of the survey. Furthermore, the $5.00 gift card was the maximum I could offer.
**Past Students (Spring 2013-Fall 2016)**

Digital natives were born after the 1980s or later and are comfortable with digital technology. Digital immigrants were born before 1980 and did not grow up with digital technology. Among digital immigrants, different people might have different reactions to new technology (Prensky, 2001). Of the 35 respondents, 31 were digital natives and four were digital immigrants. Therefore, from their age, I assumed 88.6% of the participants were comfortable with digital technology.

When the participants were asked to rate their comfort level with different technologies, other than coding, fixing their own computers, and assessing their own computers, most (more than 80%) could master adjusting to new apps, discovering new apps for something they want to achieve; using a smartphone to take pictures; investigating new functions on a smartphone; and downloading new apps, such as Adobe Flash, from the Internet. This group thus seemed to have sufficient ability to navigate an online learning environment.

Table 4 shows students’ comfort level with different technology. Of the 35 students, 14 had never taken an online course before.

Table 5 shows the number of online classes students had previously taken; one student did not answer the question. Of the students who had taken online courses, one had taken 10-20 courses and one had taken 5-9. Most of the students had taken fewer than three online courses. It is fair to say that, compared to their face-to-face learning experiences, the students had little online learning experience.
Students’ Overall Impressions of Online Courses

The first question to consider is: What were the students’ overall impressions of the online courses? The study sorted students’ responses into three groups: positive, negative, and practical suggestions. Of the 33 students, 7 expressed positive and 17 expressed negative impressions of online courses. Three simply stated that they did not like online courses, without providing any reasons. One student did not like online courses because they were hard to navigate and too much work: “I hate them. In addition

Table 4

Students’ Comfort Level With Technology

<table>
<thead>
<tr>
<th>Activity</th>
<th>Extremely Comfortable</th>
<th>Somewhat Comfortable</th>
<th>Neither Comfortable Nor Uncomfortable</th>
<th>Somewhat Uncomfortable</th>
<th>Extremely Uncomfortable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting to new apps</td>
<td>42.86% (15)</td>
<td>45.71% (16)</td>
<td>8.57% (3)</td>
<td>2.86% (1)</td>
<td>0.00% (0)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Discovering new apps for something you want to achieve</td>
<td>45.71% (16)</td>
<td>37.14% (13)</td>
<td>11.43% (4)</td>
<td>5.71% (2)</td>
<td>0.00% (0)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Fixing your computer when it crashes</td>
<td>14.29% (5)</td>
<td>28.57% (10)</td>
<td>14.29% (5)</td>
<td>31.43% (11)</td>
<td>11.43% (4)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Coding programs</td>
<td>0.00% (0)</td>
<td>8.57% (3)</td>
<td>22.86% (8)</td>
<td>14.29% (5)</td>
<td>54.29% (19)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Assembling your computer</td>
<td>8.57% (3)</td>
<td>2.86% (1)</td>
<td>20.00% (7)</td>
<td>22.86% (8)</td>
<td>45.71% (16)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Using a smartphone to take pictures</td>
<td>82.86% (29)</td>
<td>14.29% (5)</td>
<td>2.86% (1)</td>
<td>0.00% (0)</td>
<td>0.00% (0)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Investigating new functions on a smartphone</td>
<td>65.71% (23)</td>
<td>22.86% (8)</td>
<td>8.57% (3)</td>
<td>2.86% (1)</td>
<td>0.00% (0)</td>
<td>100% (35)</td>
</tr>
<tr>
<td>Downloading new apps, for example, Adobe Flash, from the Internet</td>
<td>54.29% (19)</td>
<td>31.43% (11)</td>
<td>5.71% (2)</td>
<td>5.71% (2)</td>
<td>2.86% (1)</td>
<td>100% (35)</td>
</tr>
</tbody>
</table>
Table 5

*Number of Classes Taken*

<table>
<thead>
<tr>
<th>Number of Classes Taken</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>20.00</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>25.00</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>40.00</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>5-9</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>10-20</td>
<td>1</td>
<td>5.00</td>
</tr>
<tr>
<td>21+</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

to the technical difficulty, they involve much more work for the same number of credits.”

Ironically, another student did not like online course because it was easy to pass: “It did not feel like a real class—it is easy to do the minimum to get by, and I don’t feel like I learned nearly as much in this course as I did in my other graduate and TC courses.” This shows that students construct their own meaning of education—while some students want to pass a class without too much work, others want to learn as much as possible.

The greatest concern students had was missing human interaction in online courses. As one student stated:

I didn’t enjoy not having contact with other humans. I feel that the contact with others reaffirms that I am either understanding the material or that there were certain elements that I need to revisit to ensure full understanding. Also, communicating with faculty only online took away from the personable nature of attending office hours.
Also, because there was no interaction, communication was minimal and students had a hard time understanding the course’s expectations. As one student indicated, “Expectations for the course were not always clear because communication with the professor was minimal.”

While the other students were also concerned with missing human interaction, they acknowledged the convenience of online courses. One student remarked, “They are convenient, especially for a parent (like me), but I found the participation component difficult because I prefer in-person class discussions.” Other statements included: “Self-paced learning is helpful, online discussions seem unnatural at times.” “They aren’t as engaging but they get the job done.” “I miss the human interaction, but it’s convenient.” Students’ responses revealed that online courses were not their preferred mode of learning. However, when there was no other choice, they had to take online courses because they were convenient.

Acknowledging the convenience of online courses, one student also gave a warning about taking too many online courses: Because online courses lack human interaction, it is harder to focus.

They are great in terms of cost savings and for convenience’s sake but I wouldn’t recommend students take them for the majority of classes because it feels like it’s harder to remember content without having that in-person component; harder to remain focused and motivated; and sometimes classes can be conducted in ways that are quite tedious (e.g., message board responses).

Interestingly, one student who had a more positive view of online courses was still concerned that human interaction was missing in an online setting:

I found it interesting; however, it was difficult to place a face to a name and “humanize” the students in my class as well as my teacher. I learned a lot from not only my teacher, but through presentations my peers made and shared so it
would be nice to know who they are in person. This is mostly for all online classes I suppose, though, not just this one in particular.

When students expressed positive impressions of online courses, they were mostly about convenience and flexibility because online courses allow students to work independently on their own time. Some comments on this perspective were: “I love them. They are especially helpful to working professionals.” “Online courses provide you with invaluable knowledge that transcends geographical/time barriers.” “They are great because they allow me to do schoolwork on my own time schedule.”

Some students’ answers focused on how online courses need to be delivered. For example, one student talked about Moodle—a learning management system—which the student did not like. Teachers College used to use Moodle but, after 2017, switched to Canvas. The student’s response showed the importance of the learning management system and how different systems affect students’ learning experience.

I enjoy them for their flexibility. I do not usually like the online platforms which are archaic, such as Moodle. I am currently taking three online courses through the UFT teachers union on Moodle and it is not my favorite, but I prefer the flexibility to gain knowledge and continue my education.

Students were also concerned about the role of the professor. They believed professors should be more engaging and manage the learning system well. The following represent different students’ viewpoints:

For the most part I have had a positive experience with them. It is usually very beneficial to me if the professor has placed everything in an organized and user-friendly manner for me to access.

I’m not a fan of them but it depends on the professor, and the TA or GTA who they have do the grading because some of them let the position go to their head per se.
One student believed the *Health Education for Teachers* course can be more interactive. The student suggested having live videos; more importantly, for the student, a good online course is one in which students feel they are learning independently. “The other university that I took an online course at was spectacular and so very interactive it did not feel like I was reading and completing assignments independently.”

One student raised one of the most important questions to ask: What kind of topics are better taught online? As the student stated, “I believe that they can be useful, but some topics are better taught online than others.” Another student indicated that, when taking online courses, “students need to be highly motivated and disciplined. And the learning experiences significantly depends on the learner him/herself.”

**Impressions of the *Health Education for Teachers* Course**

The study found that the students’ impressions of online courses and their impression of the *Health Education for Teachers* course were not mutually exclusive. When the students were asked to use one sentence to describe the *Health Education for Teachers* course, 10 out of 33 said they did not remember the significance of the content. Only one student provided the following reason: “I recall very little, possibly because it pertained less to early childhood education, partly because of the online, non-personal format.”

Thirteen students had positive impressions of the course; they thought that it was informative. As one student noted, “It was informative and, as a non-health education student, I was unaware of how powerful media and TV shows influence students in inculcating poor practices.” One student stated that he or she was still using the textbook.
Seven students had strong negative impressions of the course. In particular, three students mentioned how the cost of the course affected their impressions of it. One stated that the class was “very expensive for everyday knowledge.” Another noted that the class was “not worth the money, meaningless. I feel like I could have learned everything I learned in that class on Google, and, honestly, I already knew most of the information.” One student wrote a long passage about how the course fell short:

As a graduate-level course aimed at future educators, *Health Education for Teachers* offered VERY LITTLE in terms of academic rigor, readily applicable information, and/or strategies that can be implemented in classroom settings, research-backed teaching methods for mental/physical health (e.g., de-escalation techniques, how to approach students with anger issues, how to approach students with specific mental disabilities that may translate to anger issues/emotional issues, morning meeting, and bullying, etc.), and meaningful end-of-course assessments, which, in my opinion, did not justify the course’s exorbitant tuition cost.

Students can actually find information about how to approach students with anger issues or those with specific mental disabilities that may translate to anger issues/emotional issues, morning meetings, and bullying on the course’s Canvas website. However, in an online setting, it is possible that students felt overwhelmed by all the information links. With face-to-face meetings, it is easier for a professor to deliver course-related information. More importantly, it is clear that, with increasingly high tuition costs, students are conscious about their investment.

Other students had negative impressions of *Health Education for Teachers* for different reasons. One student thought the class merely ran through information. One student did not think the assignments had much value: “I thought most of the assignments to be busy work rather than functional info.” One student thought it was difficult to do a group project when students cannot meet in person: “The collaborative projects were
awkward and logistically complicated to complete (i.e., PowerPoint presentation) given the fact that students were not in the same time zone/hadn’t met in person.”

**Memory**

Most of the students could not recall the class materials that facilitated their further thinking on health education. The ones who did remember the content mentioned the final project and family education newsletter, in which students actually created a document. One student noted, “Perhaps a group assignment was given, and we needed to meet up with our group members for discussions.” Another student mentioned the playground safety project, stating, “I learned a lot about the design of playgrounds and how they can be safer for children.” Making the family newsletter taught one student how to communicate better with families:

> This was helpful because it made me more attuned to what was needed to attract families to read a newsletter, to fully understand what it said, and how it can empower families either with knowledge of the situation or to act upon the issue in a positive manner.

The students did not seem to remember the videos, article links, and other information provided by the class. In an online setting, assignments help to facilitate the students’ ability to create and design, which can help improve their memory retention.

**Knowledge Application**

From the survey responses, students who took *Health Education for Teachers* between spring 2013 and fall 2016 did indeed apply the knowledge they learned. One of the most important goals of *Health Education for Teachers* is to make sure teachers can identify students who display signs of abuse and take appropriate action. From the survey results, *Health Education for Teachers* appears to have achieved this goal. Survey
participants who identified students who display signs of abuse did not only write
detailed descriptions of these signs, but also referred the incident to either the school
board or the Administration for Children’s Services (ACS). As some students indicated:

I’ve encountered a student who appeared to be very evasive about how his arm
was broken, who was frequently absent from school and would refuse to report
why, whose mother was reported “hard to deal with,” and who has come in with
scratches on his face. I have alerted the social worker to the signs he displayed on
two separate occasions, and she then reported the family to ACS.

The signs were bruising, lack of parental response in emergency situations and
arriving to school with illegal substances. I detected them based on the mandatory
child abuse training we receive as teachers. After I encountered these events, I
contacted the authorities.

Those signs were also mentioned in the DASA workshop.

Participants who answered that they helped a friend or a student with stress, anger,
or conflict management issues were able to identify the signs and provide help. They
answered questions in detail and provided solutions. Some statements in this vein were:

“We have a menu of appropriate calming strategies taped to the wall with picture
references to help the students figure out what they need. Certain students have behavior
plans with specific strategies that work for them.” “Lots of communication with school
counselors, social-emotional lessons, identifying and talking through emotions, etc.”

These quotes illustrate that the participants engaged with the issues.

Face-to-face vs. Online Learning

Of the 33 students who answered the survey questions, 22 said they would prefer
the face-to-face version of the course if they could choose. A majority of students said
they enjoyed face-to-face interactions: “I am a people person and a lot can be learned
through shared experiences among different cultures and age groups.” “I enjoy face-to-
face interactions.” “I prefer the element of face-to-face human interaction and the experience of multi-modal learning that an online version of the course cannot provide.”

Students also noted that in a face-to-face setting, they can have better discussions and learn more from others. As one statement indicated, “I dislike online courses, and this one would have been much more interesting if we could actually discuss things.”

One student pointed out that face-to-face classes allow students to hear others:

I think the face-to-face version would be a good experience because I would be able to hear other people’s experiences and ideas and learn from them. In an online class you don’t get other people’s opinions and thoughts unless you read what they post online, but it’s not the same as hearing what they have to say first-hand.

Hearing is an important element of human learning. Even though students can read each other’s posts, it is not the same as listening to them. Some students prefer a face-to-face setting because they recognize that the online version of the class requires more self-discipline, “because learning at home is too relaxing for me. I am easily distracted by others.” Students also think a face-to-face class might be more memorable.

Some statements indicating this view were: “Face-to-face time might help with better retention of content and skills” and “It might have been more memorable.” Overall, when students prefer a face-to-face class, they want to have a learning experience with more contact with others; they want a learning community.

However, eight students preferred to have online classes, the most frequent reason being its convenience. Some statements expressed this preference: “I enjoyed the convenience of the online version and felt like I got significant information about it.” “I only took the online course as the easiest way to acquire the remaining credits I needed to graduate.” “I appreciated the online version as I was student teaching full-time.”
One student suggested having a more interactive online class rather than a face-to-face class: “Weekly video calls or videos to watch, etc. There are so many ways to increase interaction without having to be face-to-face.”

One student wanted to take the class online because this student believed working remotely with others is something we need to learn how to do: “I was forced to learn how to work collaboratively with my peers who I could not see face-to-face. This is the reality of our world today owing to globalization.” Taking an online course helps students to practice that skill.

**Recent Students (Spring 2017-Fall 2018)**

Of the 22 recent respondents, 21 were digital natives and one was a digital immigrant. Therefore, from their age, I assumed 95.5% of participants were comfortable with digital technology.

When participants were asked to rate their comfort level with different technologies, other than coding, fixing their own computers, and assessing their own computers, most (more than 90%) could master adjusting to new apps; discovering new apps for something they want to achieve; using a smartphone to take pictures; investigating new functions on a smartphone; and downloading new apps, such as Adobe Flash, from the Internet. This group seemed to have sufficient ability to navigate an online learning environment.

Table 6 shows students’ comfortable level with different technology.
Table 6

Students’ Comfort Level With Technology

<table>
<thead>
<tr>
<th>Activity</th>
<th>Extremely Comfortable</th>
<th>Somewhat Comfortable</th>
<th>Neither Comfortable Nor Uncomfortable</th>
<th>Somewhat Uncomfortable</th>
<th>Extremely Uncomfortable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting to new apps</td>
<td>50.00%</td>
<td>45.45%</td>
<td>4.55%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100%</td>
</tr>
<tr>
<td>Discovering new apps for something you want to achieve</td>
<td>50.00%</td>
<td>40.91%</td>
<td>4.55%</td>
<td>4.55%</td>
<td>0.00%</td>
<td>100%</td>
</tr>
<tr>
<td>Fixing your computer when it crashes</td>
<td>13.64%</td>
<td>31.82%</td>
<td>13.64%</td>
<td>18.18%</td>
<td>22.73%</td>
<td>100%</td>
</tr>
<tr>
<td>Coding programs</td>
<td>0.00%</td>
<td>14.29%</td>
<td>23.81%</td>
<td>14.29%</td>
<td>47.62%</td>
<td>100%</td>
</tr>
<tr>
<td>Assembling your computer</td>
<td>4.55%</td>
<td>9.09%</td>
<td>22.73%</td>
<td>22.73%</td>
<td>40.91%</td>
<td>100%</td>
</tr>
<tr>
<td>Using a smartphone to take pictures</td>
<td>100.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100%</td>
</tr>
<tr>
<td>Investigating new functions on a smartphone</td>
<td>63.64%</td>
<td>36.36%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100%</td>
</tr>
<tr>
<td>Downloading new apps, for example, Adobe Flash, from the Internet</td>
<td>63.64%</td>
<td>27.27%</td>
<td>4.55%</td>
<td>4.55%</td>
<td>0.00%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of the 22 students, six had never taken an online course before. Table 7 shows the number of online classes students had previously taken. Of the students who had taken online courses, most had taken fewer than three online courses. It is fair to say that, compared to their face-to-face learning experiences, the students had little online learning experience.
Table 7

Number of Classes Taken

<table>
<thead>
<tr>
<th>Number of Classes Taken</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>31.25</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>5-9</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>10-20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Students’ Overall Impressions of Online Courses

Of the 22 students, 11 expressed negative impressions of online courses. Three simply stated that they did not like online courses, without providing any reasons.

The greatest concern these students had was still missing human interaction in online courses. Some comments included: “Very impersonal, and very hard to get accurate feedback” and “I like them but I do miss the personal interactions with a professor and classmate.”

While the other students acknowledged the convenience of online courses, they were still concerned with missing human interaction. “Ultimately I don’t think that the learning in online courses can be as meaningful as in-person courses. It is much more difficult to engage with and retain material that is presented online.” “Convenient but
hard to have an interactive experience with students in terms of discussion and it’s hard to do group work.”

The students did not like online courses because they posed several challenges to learning. A student stated that an online course was hard to follow: “[It’s] great for time, but [it] can be challenging to follow along if unclear instructions are given.” One stated it was hard to engage fully.

The positive impressions of online courses expressed by the students mostly concerned convenience and flexibility because online courses allowed them to work independently on their own time. For example, one student said, “I enjoyed the freedom to do my assignments when it was convenient to my schedule. I also appreciated reviewing materials if needed.”

Some students thought that online courses saved them money: “They are a great time and money saver.” One student praised not only the low cost of online courses but also their educational value.

Online courses are valuable and cheaper to me. It allows me to connect with people and ideas that I may not normally encounter within my community. While I know students don’t enjoy reading and online discussions, they are valuable in the long run when done appropriately. I also enjoy ways that online learning is utilized outside of just online discussion boards.

The students in the group had taken Health Education for Teachers more recently, so they had more concerns about the practical aspects of online learning. For example, one student liked online courses because they were “easy to navigate, [and the student] enjoyed the group session [and the] functional projects.” Some students expressed concerns about group work: “It was fine, but I thought it was not a great platform for doing collaborative work, at least not in the TC health class.” “Overall I believe that
taking an online course is a great option, but [it] can be difficult at times, especially when group work is required.” A student thought that online courses did not foster critical thinking: “They are generally just getting boxes checked. [There is] little critical thought, more busy work.”

**Canvas Experience**

Of the 22 students who answered the survey, four expressed negative opinions about Canvas. Three preferred Blackboard: “I prefer Blackboard. I find Canvas confusing.” One student simply stated that Canvas was difficult to navigate. However, other students opined that Canvas was similar to Blackboard and Moodle and they found it easy to use: “It was pretty similar in terms of layout and navigability. It was pretty easy to figure out how to access pages.” Overall, the students did not have many issues with Canvas.

**Online Discussions**

Online discussions are a place where students can have more interactions with other students. A total of 27.78% of students read less than 25% of online discussion exchanges; 22.22% of students read between 25-49% of online discussion exchanges. This indicates that 50% of students do not read more than 50% of the discussions online. It also shows that students treat online discussions as one of the assignments they need to do.

A majority of students answered the posts because they were inspired, thoughtful, insightful, and interesting: “I read (or skimmed) all of the responses and generally chose a post that I thought had a meaningful idea that I supported or was inspired to expand on.”
“I saw something that sparked a thought in me—that way responding felt organic.” “I chose to respond to posts that seemed insightful and either connected to my own thoughts.” A couple of students treated online discussions as part of their assignments, responding to “whatever post was easiest for me to understand and reply to.” Reading their responses, they seemed to use online discussions to engage in meaningful discussions. However, given the students’ overall impressions of online courses, it is clear they lacked (and would prefer more) human interaction. Interestingly, there was a discrepancy between their responses to the online discussions and their overall impressions of online courses. One explanation for the discrepancy is that when actual human interaction is not an option, students will settle for an online discussion.

**Group Project**

At the end of the semester, a group project must be completed. Of the 20 students, five met in person. The others used either online chats or collaborated through Google Drive. Some students expressed their desire to meet in person, but not all students were in New York City and therefore could only collaborate online. As one student stated, “Most of the members lived in different parts of the world! And different time zones! It was incredibly difficult to organize with the group.”

Even though the group project is intended to foster discussion among members so they work together, most students just divided the work among members and turned in the final project. According to one student, “It was difficult to contact everyone in the group and we did this through group messaging where we created a Google doc and then split the work equally.” This working arrangement did not always deliver the best results, as one student noted: “People worked on separate parts of the project, which likely led to
it being a bit haphazard.” While it is often difficult to foster a good group working environment, it is even more difficult to do so online. This is especially true when students do not know each other and have not established a relationship.

**Face-to-face vs. Online Learning**

Out of 18 students, nine expressed that they preferred a face-to-face course. Students believed that in the face-to-face setting, discussions would go deeper: “I feel like in-person classes tend to go deeper because of the discussions that happen.” “I think in-person would lead to deeper conversations about surface-level topics.” One student also expressed that face-to-face classes allow group members to complete the assignment together: “I like being able to discuss in person, and it would’ve been much easier to complete group projects if we had been in the same location.”

Some students attended DASA and believed that they learned more from the professor. “The class set is very interesting and I really enjoyed when we meet for DASA.” One student even wrote a long comment about Professor Roberts:

> I would! I went to Professor Roberts’ DASA training and was VERY impressed with her synthesis of information, passion for the field, and critical questions about difficult subjects. She was very adept at supporting and facilitating thoughtful conversations that were applicable to our areas of study. I would absolutely be interested in taking a face-to-face version of the course with Dr. Roberts. If it were another professor, I am not sure if I would have the same answer.

One student specifically expressed the importance of communicating with the class professor: “I believe it to be really helpful to have communication with your professors because they are the experts and I am interested to hear their ideas and opinions.”

The majority of students who preferred the online version of the class enjoyed the convenience and flexibility of online courses: “I preferred the flexibility of the schedule
of the online class” and “I enjoyed the flexibility of this course!” Some students expressed that the materials were not too difficult, and they believed that online learning was sufficient. Some statements to this point were: “I felt the online version of the course was sufficient for the content because it was great to read and respond about the content.” “I don’t think I would have gotten more from discussions because I feel most of the information is cut and dry.” The two main reasons for students choosing the online version of the class were its flexibility and their judgment of course materials.

**Past Students vs. Recent Students**

Compared to recent students (50.00%), more past students (66.67%) preferred the face-to-face option for taking *Health Education for Teachers*. The recent students’ reflections showed that they gave more weight to the flexibility of their schedule than the other factors and accordingly chose the online option. This trend had several possible explanations. First, even though the two groups of students were 2-4 years apart, the trends showed that online courses had gained popularity and students had become more accepting of online courses. Second, many past students had worked as teachers and realized the importance of health education information, so they believed that face-to-face settings were better environments for learning information. Third, the recent students might have remembered some points from courses they had taken in the past few years, but the past students looked back on their experiences and found that the courses were not memorable. They believed that face-to-face courses would be more memorable. Finally, since participants were teachers or students pursuing a degree in education, they
generally preferred face-to-face settings. This characteristic of participants is the potential bias the study needs to consider.

**Emerging Themes From Student Interviews**

Six students participated in the interviews—namely, Emily, Jessica, Ashley, Brittany, Bred, and Neha. (To protect their privacy, a pseudonym was assigned to each student.) Emily is 23 years old; she came to Teachers College immediately after graduating from a top-ranking private university. Jessica is 34 years old; she worked for 7 years before entering college. Ashley is 25 years old; she came to Teachers College immediately after graduating from a public university. Brittany is 29 years old; she accumulated a few years of work experience before entering Teachers College. Bred is 31 years old; he has a master’s degree from an elite university and also holds a Master of Arts in Elementary Education from Teachers College. Finally, Neha is an international student from India; she is 28 years old, and before entering the Teachers College program, she taught at a public high school in India. See Table 8 for students’ characteristics.

Upon examining the transcripts of the interviews, I identified a number of emerging themes, including flexibility and convenience, social presence, and associations with memorable stories. Flexibility and convenience were important reasons why the students decided to take online courses. The students also suggested that it was difficult to secure a social presence in an online setting. Finally, they stated that memorable stories were mostly associated with certain places and people.

Each of these emerging themes will be discussed individually in the following sections.
Table 8

Students’ Background Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Digital Citizenship</th>
<th>Undergraduate Institution</th>
<th>Number of Online Courses Taken Before</th>
<th>Occupation</th>
<th>When Did Students Take the Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily</td>
<td>Digital Native</td>
<td>Top-ranking private university</td>
<td>1</td>
<td>TC Student</td>
<td>2018</td>
</tr>
<tr>
<td>Jessica</td>
<td>Digital Native</td>
<td>Local private university</td>
<td>More than 10</td>
<td>Special Ed Teacher</td>
<td>2017</td>
</tr>
<tr>
<td>Ashley</td>
<td>Digital Native</td>
<td>Top-ranking private university</td>
<td>0</td>
<td>Special Ed Teacher</td>
<td>2017</td>
</tr>
<tr>
<td>Brittany</td>
<td>Digital Native</td>
<td>Local public university</td>
<td>1</td>
<td>Special Ed Teacher</td>
<td>2017</td>
</tr>
<tr>
<td>Bred</td>
<td>Digital Native</td>
<td>Elite national university</td>
<td>2</td>
<td>Middle School Teacher</td>
<td>2016</td>
</tr>
</tbody>
</table>
| Neha   | Digital Native      | An overseas university                     | 0                                    | Elementary School Teacher | 2018 |}

Flexibility and Convenience

**Flexibility and convenience are necessities, not choices.** In the survey report for this study, the students stated that flexibility and convenience were the main reasons why they enjoyed taking online courses. Why are flexibility and convenience such important elements in the students’ learning process? In this research study, it is important to know that most students who enrolled in the Health Education for Teachers course were in a master’s program with an Initial Certification emphasis at Teachers College. This Initial Certification requires all students do a school-based practicum (all six of the interviewees in this study fulfilled their student teaching requirement while taking the Health
Education for Teachers course). Therefore, while enrolled at Teachers College, students need to do their student teaching during the day and take classes at night. Thus, they are full-time students with a full-time work schedule.

While further investigating the flexibility and convenience issues through the interviews with the students, it became apparent that, due to the lack of flexibility in their schedules, the online setting was a better option when the students needed to make decisions about taking courses in a face-to-face setting or an online setting. Online courses gave them the flexibility they desired, so they could take them in their spare time. The students’ program curriculum design contributed to this decision-making process, and students were semi-forced to accept the online option.

When I first began interviewing students, some of them started describing their busy schedule and stressed how it had shaped their learning experience, but the online setting helped them carve out personal time. Even though different students used different approaches to managing their learning experience, a busy schedule was an important factor for them to consider.

Ashley was a good example of how a busy schedule shapes students’ views about online courses and the process they undergo to choose their courses. When she answered the survey question about the possibility of taking Health Education for Teachers in a face-to-face setting, Ashley’s answer was “No, not really. I have a lot of course load that semester and I would not want to add to it.”

When I interviewed her, however, Ashley repeatedly expressed that flexibility was important to her. She liked taking online courses because they give her the ability to manage her schedule. She said:
So, I liked the online course and because it...for a lot of flexibility in terms of, just because as grad students, we don’t have a lot of time to take an extra course. But I know it’s a requirement. And it was nice. I liked the formatting of it.

Ashley also noted that the online format allowed her to study at her own pace. She treated an online course as independent individual work. Whenever she had questions, she e-mailed the professor. Following the weekly modules and instruction, she completed the course. Health Education for Teachers was her first online course, and she had not given much thought to taking online courses before. With her busy schedule, the flexibility of online learning helped her finish one required course and enabled her to carve out personal time. She said:

And so, I don’t know if I gave any thought to online courses. But I know I got involved in it because I thought, well once I wanted to take an online course because of just the flexibility in the schedule. Because during the days, we had our internships and then we had night classes, like two or three days of the week. And so just to find, so I can create time in my own schedule or do something over the weekend if possible. I wanted an online course. And then I also took this because it has those two workshops that I needed anyways, to it.

Even though the flexibility of having her own time was important, it was clear that Ashley’s acceptance of an online course as a flexible option did not apply to all of her classes. She trusted the online format for this class because she believed that the Health Education for Teachers course material could be studied independently. Her degree of acceptance was closely associated with her perception of the class. As Ashley said:

In graduate school we all have different schedules and we have internships and night classes and so, as an elective, it was really nice to take it online because it was, any time during the week when we were able to fit it into our schedule.

It is important to differentiate between Ashley’s attitude towards online courses and Health Education for Teachers as an online course. Flexibility does not take
precedence over every other consideration. For less important courses such as elective
courses, an online course could be a fine option. Even though Health Education for
Teachers is not an elective (it is one of the core courses needed to fulfill her program
requirement), Ashley’s reaction showed that the class materials can shape the students’
perceptions of the course while their perceptions of the course shape the process they use
to choose their courses. This point is further examined in a later section.

Jessica was another student who expressed her approval of online courses because
of their flexibility and convenience:

We’re working, when you’re in grad school you have your student teaching
that you’re doing and you’re taking all your coursework. I found that taking an
online class was so great and so convenient for me to just be able to maybe stay
in my dorm at the time and just take my class. It felt like it was very, very
convenient for me. I loved it.

Again, with her busy schedule, the fact that Health Education for Teachers was an online
course allowed Jessica to manage her time. Interestingly, unlike Ashley who did not have
any online course experience prior to this class, Jessica had taken multiple courses online
and she was very comfortable with the online setting.

Newcomers need flexibility. Among all the interviewees, Neha was the only
international student. She was a teacher in India who had come to the United States with
her husband and decided that she wanted to teach in New York. Even though her English
ability is as good as any native speaker, taking the class for the first time in the United
States while also doing her student teaching in an unfamiliar environment was a daunting
experience. She was particularly overwhelmed by the amount of information Health
Education for Teachers provided. To digest all the information, Neha allocated her
weekend to doing assignments from that course because she was too busy with her other classes. She said:

At times, when I was taking this class, I was also student teaching, I was taking many other classes, so it did become an information overload sometimes, when I had to just be like, “I cannot look at this right now, I have to come back to it when I’m ready.”

When Neha was describing her schedule, I could feel the tension she experienced when she was enrolled at Teachers College. She started her day at 7:30 a.m., and then she needed to teach the entire day. Afterwards, she went to Teachers College to attend different classes at night. Because she was in the accelerated program, her schedule was extremely tight. The online setting provided her with an opportunity to better manage her time and study the class materials so she could feel less overwhelmed. She noted: “I did not have to come to TC, I could do stuff online. But I could not do it during the week.” When she could complete the *Health Education for Teachers* assignments at her own pace, she felt more in control. She needed flexibility and convenience.

**Benefits or Costs of Flexibility**

While some of the students I interviewed focused on the benefits of flexible scheduling or the medium in an online setting, others had different thoughts about flexibility. Even though they experienced the same tight schedule and flexibility was presented as the option, they still preferred taking a face-to-face course.

**Flexibility is not beneficial for studying.** As soon as I started talking to Brittany, she dismissed the effectiveness of an online course:

To be honest, I don’t think [online setting] works super well for me. Because compared to my physical face-to-face classes, I actually didn’t remember this course as well. I had to look through my e-mails while I was taking your survey to
remember the specifics in what I did for the class. I’m sorry. I’m still loading that e-mail by the way of when I took this course.

While she agreed that an online course was convenient during the winter session, because Brittany lives in Brooklyn, she did not need to go to the Teachers College campus. Based on her previous online learning experience, she believed that flexibility requires more self-motivation and discipline to learn. As Brittany said:

This is probably only the second online course I’ve taken in school. I’ve taken a few online classes outside of school, like for learning languages, but I have to have a huge amount of self-motivation and drive and a schedule to help me keep on track. This is hard to do when you have work and students to take care of and your own issues.

Brittany pointed out that, due to flexibility, learning in an online setting actually takes more effort. A student needs to be well-organized and extremely self-motivated to learn in that type of setting. When Teachers College students have a busy schedule that incorporates student teaching and night classes, it might be even more difficult for them to be motivated to learn in an online setting. Flexibility can be a significant challenge as well as a two-edged sword in a student’s learning progress.

Therefore, when I asked whether Brittany would take the same class in a face-to-face setting, she replied, “Yeah. If it were a semester-long course, I would have to be in school anyway, so I wouldn’t mind taking it along with my other classes.” When she took the class, it was a short course which did not synchronize with her other classes at Teachers College and she did not want to commute to Teachers College for one class. However, if the Health Education for Teachers course were offered with the other face-to-face courses, she would have taken it in that format. Even though she had a busy schedule, Brittany recognized that learning in an online setting might be flexible but, in fact, a face-to-face setting would save her time for studying.
Flexibility in scheduling, but it is not inflexible in other aspects. Bred is a middle school teacher who has encountered numerous issues related to health education at his school, and he is very interested in how to teach nutrition, food politics, and sex education in a school setting. He expressed his preference for the face-to-face setting, and he challenged the idea of the flexibility of an online setting. (He mentioned the only time he took two online courses was in senior year at college. He intended to save money because online course fees were simply cheaper than those of face-to-face sessions.) He pointed out that, in a face-to-face setting, it is easier to incorporate current issues into the class. Especially in a course like *Health Education for Teachers*, a class needs to cover many different issues; thus, it is necessary to incorporate current issues to enrich the course curriculum. He also challenged the idea that, since students need to do student teaching, having an online course can help them accommodate their busy schedule. He noted that, since all the students are doing their student teaching, they can bring what they have witnessed in the schools where they teach to the *Health Education for Teachers* class and enrich each other’s learning experience. He said:

And I think for this particular course, that would have been that much better because I definitely took it while I was also student teaching. So, to be able to bounce off actual narratives of children that I was experiencing every day would have been so much better to be able to do in a space with other people who, too, were doing the same thing and had so many other stories to bring to the table.

In the interview, Bred expressed many concerns about children’s health issues. To him, having the opportunity to understand issues and explore different children’s stories was more important than flexibility in his schedule.

**Flexibility: Whose decision?** Emily was the only student I met in person. When we started corresponding, she expressed her desire to meet in person. She was in her
early 20s and very passionate about teaching young children. She was working at a Columbia summer camp for children and looking forward to working as an elementary school teacher. As soon as we started our interview, she dismissed the online course, saying: “I don’t love online courses. They definitely have their pros and cons, but I definitely more prefer to be in class with a professor and have that in-person interaction.” Emily said that in-person interactions were important to her. She also demonstrated it by agreeing to meet me in person. Throughout our interview, she did not focus on the flexibility of her schedule. She cared about the information she learned and how she could apply the information in her classroom. She mentioned that New York State only required one face-to-face meeting for Health Education for Teachers and noted how much she learned from that session:

I just think we, so we had to meet once, I forget what it was for, for a certification or for a five-hour class one Saturday, and the teacher was there for it and you could tell that she was very engaged, and she included a lot of the students and she had a lot of information to share that was information I never heard before, because I had never had a conversation with her before and we never had a class discussion. So, definitely different information was shared while we were in person versus over online.

If Emily could choose, she would take the face-to-face option. However, Health Education for Teachers does not have a face-to-face option. According to the instructor Professor Roberts, there used to be both a face-to-face option and an online option. In 2010, the administration decided to offer only the online option since enrollment in the face-to-face class was dwindling, while the online option always had full enrollment. Because so many years have passed since that decision was made, it is difficult to determine the reasons why the administration limited the course to an online setting. Perhaps the decision was made because New York State law certification only requires 4
hours of face-to-face meetings and the other materials can be taught online. Perhaps the administration considered classroom management and other logistics and decided to offer *Health Education for Teachers* only in an online setting. While eliminating the face-to-face option so might give the administration more flexibility to manage the enrollment of the course better, unfortunately the administration has neglected the needs of students like Emily.

**Social Presence**

In their review, Sun and Chen (2016) summed up that “Social presence is a key component in online education and has a direct impact in many ways on the development of a learning community and interaction in online environments” (p. 167). Without social presence, it is impossible to foster community learning, collaboration, or support, and educational experiences are not promoted. In other words, meaningful and educational interactions are very important.

In online settings, social presence is about the participants’ ability to project themselves through online interactions with others (Garrison et al., 1999). That is, class members need to feel that the other participants have a real personal presence in their online discussion. Without feeling that the other participants are real people, it is difficult to form a community.

**Social presence: The difficulties.** The results of the six interviews demonstrated that it is very difficult to achieve a social presence in an online setting. Online discussion forums are “things they need to do.” For example, Ashley expressed, “Especially what I was going to say is since it’s every week we have to do it. It’s kind of just something you need to get done for the course.” To Ashley, because online discussion forums often
occur, they have become a kind of routine, something she just needs to finish. Neha had a similar reaction: She just looked through the other students’ answers, found something interesting to respond to, and finished her work. She was not there to look for a meaningful online discussion.

Ashley suggested that having just a couple of discussions would allow people to have deeper discussions and might be a better option. “But, if it maybe [occurred] just once or twice throughout the semester, you [would] have to put a lot of thought into somebody’s post, or maybe people would spend more time or be more critical if it wasn’t just a routine thing that they had to do.” However, without discussions, or with only one discussion, it would be difficult for students to project themselves through online interactions with others; there would be no social presence.

When I started talking about discussions with the interviewees, most of them mentioned their preference for face-to-face discussions. For example, Bred immediately associated discussion with a face-to-face setting. He believed that some ideas or concepts need to have a series of discussions “to understand what’s being presented to you or understand a piece of text.” Online discussions simply cannot do this. Ashley believed she was more engaged in a face-to-face setting: “I think I have a better time verbalizing, or like maybe I’m just more like engaged when I’m in a classroom setting versus like online.” In fact, in the survey, many students expressed that while taking the *Health Education for Teachers* course, they missed having human interaction elements in their learning experience.

Emily said she had learned a lot from the discussions, but the learning was not coming from her interactions with others online; the learning came from reading as many
discussion posts as possible. Her conclusion was about meeting in person: “I hope that if this class did meet more in person that it would have been a lot more beneficial.” She mentioned that for her DASA workshop, the face-to-face class was very helpful.

Jessica also expressed the importance of having a group of students going through the same experience in a face-to-face setting. In Jessica’s case, the support was even more important because she is a non-traditional student. After high school, she started working as a teaching assistant. The reason for her decision was that she had been diagnosed as someone with a learning disability, and her teacher simply did not think she could pass the SAT. However, at age 25, Jessica’s parents encouraged her to take college courses. She started taking courses at the SUNY Empire State College, and to her surprise, she received As. Feeling encouraged, she transferred to Long Island University, and after finishing her study there, she got into Teachers College. To her, getting in was a kind of accomplishment, but at the same time it was overwhelming. When she described her experience at Teachers College, it was clear that the support from the Teachers College community was very important to her “because that community of talking with other professionals and learning from your advisors, of actually sitting face-to-face, it’s really, really useful. You can learn that you have a community who can come together and kind of like support you.” Through talking to her, I would say that getting into Teachers College boosted Jessica’s confidence and having support from this community helped her to become the kind of professional she always wanted to be. She then told me how much she enjoyed living on campus and going to different places at Teachers College. For a student like Jessica, her experience at Teachers College has helped her to participate in the kind of student life she was missing. In an online setting, it is hard to
feel supported, and Jessica implied that social presence is hard to achieve online.

**Might social presence work?** In the interviews, only Jessica expressed that online discussions were helpful. As a very shy person, she prefers writing instead of talking. She said, “I’m a little shy in class when I’m talking in person, so I kind of liked that I could just write something and express myself.” She noted that in a face-to-face setting, she might not raise her hand to provide an answer. However, while having a hard time talking with people in person, she read all the online discussion posts and then contemplated and wrote her answers to the other students. The online setting gave her a platform through which she could provide her answers, and it allowed her to feel that she was participating. However, this was about her choice of communication style. It did not mean that she felt she had experienced a social presence in an online discussion forum.

Moreover, even though Jessica had been engaging in online discussions, she did not think she had formed a connection with others. However, for her, online courses were very convenient because she could take them while she was working. After she graduated from Teachers College, she gained a degree from the Florida Institute of Technology (FIT) by only taking online courses, and she believed that a blended education is ideal. Her responses also helped the researcher reconsider the definition of social presence in this study.

**Social presence can occur outside the online chat room.** Since Jessica needs an additional degree to become an applied behavioral analyst and does not want to quit work and study full-time, the only way for her to obtain the additional degree is through online courses. Because her online courses are not synchronous, she feels that everyone is there doing his or her own thing.
You know, taking courses online, they were like weekly courses, and there were like, there were students in like my weekly courses, but I never really knew who they were. Because we were kind of just logging on and you know like you’re in like a little like chatroom kind of a thing. So, I did feel like there was some sense of community a little bit, but it's not really the same as taking a class in person, and like, and having that like on-site support. So, I think that a combination of both things could be really good.

What does Jessica mean by “a combination of both things”? First, she proposed having Skype or Zoom meetings to increase interactions among students. This approach would be like having a face-to-face meeting because the technology mimics the face-to-face experience. Second, she mentioned that FIT required her to undertake on-site student observations. Through these, she has met her supervisors and the other people involved in the applied behavioral analyst course, and she has learned a lot from these people. Perhaps, if an online course can foster students to interact with others and create a learning community for themselves, social presence would have a new meaning in an online setting.

Emily’s impression of the DASA workshop supported this idea:

I just think we, so, we had to meet once, I forget what it was for, for a certification or for a 5-hour class one Saturday, and the teacher was there for it, and you could tell that she was very engaged, and she included a lot of the students, and she had a lot of information to share that was information I never heard before because I had never had a conversation with her before, and we never had a class discussion. So, it was definitely different information [that] was shared while we were in person versus over online.

Therefore, a face-to-face meeting combined with online lessons or assignments requiring students to have face-to-face interactions is ideal. A later section discusses requiring creativity from teachers.

Memorable Stories
Places Still Matter

In the discussion of the advantages of online learning, bricks and mortar were seen as a classroom and a place to meet. Throughout the interviews, students displayed their connection to physical places. When students attend a physical campus, they have chances not only to use different facilities, such as libraries, gyms, study rooms, and cafeterias, but also to attend activities such as seminars, recruitment events, workshops, and special performances. Places are not merely physical locations. More importantly, places bring special meanings and may help students in their learning process.

When Jessica talked about her most memorable moment at Teachers College, she mentioned seeing staff setting up for the graduation ceremony in 2013 and 2014. It was not her time to graduate, but she looked at the tent set up for graduation and told herself, “One day that’s gonna be me. And, like that feeling that I was gonna be like a graduate of Teachers College was like one of like the proudest things I ever felt.” As someone diagnosed with a learning disability, Jessica always thought she was not smart enough to succeed in college. To realize she was going to graduate from an Ivy League school is something she will always remember. Neha also mentioned the time she was on campus and how much she enjoyed using different facilities at Teachers College. Jessica’s and Neha’s connections with places show that place still matters.

As higher education is becoming more and more expensive, it is important to understand what students are willing to pay for their education. Some of the students who participated in the interviews mentioned that Teachers College tuition is high and they had to take out a loan to finish their education. However, they all said they did not regret the decision. They enjoyed the classes and appreciated the support from their professors.
and the campus community. They came to the campus and used the facilities. They felt their education was worth the money. Would they feel the same way if all the courses they were taking were online? Neha said that one of the reasons she chose Teachers College was because it was not an online degree. Bred shared his reason for taking two undergraduate courses online: Online was cheaper than his face-to-face classes. Otherwise, though, he preferred to go on campus and have face-to-face classes. His decision revealed that he valued online courses less than face-to-face courses, at least in the monetary sense.

**Human Interactions**

All interview participants said that no interactions took place during the class, other than in the workshop. They did not consider e-mail correspondence and online discussion comments to be interactions. As one student commented, “I would say that interaction is having a meeting with the professor.” Their answers were consistent with the survey results.

Bred’s most memorable time at Teachers College was forming a relationship with a professor who would later become an amazing mentor both in and out of the field of education. Bred still visits this professor at Teachers College frequently. He did not
believe he could have formed this relationship if he had taken the online course from this professor.

The subtlety of interaction is hard to observe online. Without face-to-face interaction, students can sometimes feel uncomfortable expressing their feelings. Since Neha is from India, she has a British accent and writing style. When she first entered Teachers College, she was very self-conscious about her accent and was afraid that her professors would not like her essays because of her writing style. Neha approached her professor to explain her situation. In India, professors are not readily accessible, and Neha was genuinely afraid.

But when I told her that, she was really willing to help me and, like, accept me. She was, like, “I understand the heritage that you bring; it doesn’t matter whether you use British English or American English, as long as you meet the criteria for, like, completing the assignments and so on and so forth.”

Neha said that the conversation set the tone for her studies at Teachers College. After that day, she was not afraid anymore. She learned to embrace her differences and to appreciate the culture in the United States. She said that it was the most memorable moment she had had at Teachers College.

I asked her whether she would have been able to write to the professor if it had been an online course and whether the professor would have told her the same thing. She said that she would not even have been able to ask. She believed the environment her professor created in the class and the vibe she felt, which was subtle, warm, and comforting, had enabled her to express herself. Somehow, these elements are hard to transmit in an online setting.
Interview With Professor Roberts

Teachers College has offered both face-to-face and online versions of the *Health Education for Teachers* course for approximately 10 years. Over time, the administration found that more and more students were registering for the online version (probably due to their busy schedules), and it was decided to offer the online version only. Professor Roberts believed that it was much easier to engage in meaningful discussions in the face-to-face version.

Professor Roberts’ interactions with her students mainly consist of e-mail correspondence and online discussion comments. Other than that, students can schedule office appointments with her, but they seldom do. She considered making her class more interactive, for example, by having an online room session to answer students’ questions. However, it is hard to find time to do a synchronous session. In addition, running the class online allows students to think less of the course.

In terms of support from Teachers College, Professor Roberts said that when it adopted Canvas, she had a TA with the necessary technical knowledge to move all the class materials from Moodle to Canvas. Other than that, Teachers College has a technical support office. However, it does not help to generate online teaching ideas (e.g., how to make classes more fun and creative or how to promote student interactions).

Professor Roberts finds teaching online challenging because it is difficult to carry out assessments and inspire students. She said that she wants her students to think about functional knowledge, which is essential and useable knowledge. Therefore, she creates quizzes to encourage her students to read her lecture notes and the textbook. However, some students simply search for the answers online. “They know that they can get the
information online, instead of actually thinking about it,” she said. Professor Roberts does not know how to encourage her students to think about functional knowledge. In addition, she finds it difficult to inspire her students when she does not meet them.

**Discussion**

**Interaction**

Most of the students who participated in the surveys and interviews did not feel there was much interaction between students and instructors or among the students in the course *Health Education for Teachers*. These findings contradicted those from the literature, and there are two major reasons for this contradiction.

First, interaction has been defined in different ways. This study used open-ended questionnaires, whereby the students set their own meanings of interaction. When students in both the surveys and the interviews mentioned interactions, they meant human interactions, such as talking to a professor face-to-face or engaging in synchronous online meetings. The research studies of Jiang and Ting, Swan, Sher, Young, and Dennen et al. adopted closed-ended questionnaires; the researchers set their own meanings of interaction. Jiang and Ting recognized e-mail responses and online discussion responses as kinds of interactions. Swan, Sher, Young, and Dennen et al. asked participants to rate their experiences. The students’ definitions differed from those found in previous studies. Students enrolled in *Health Education for Teachers* looked for more than e-mail correspondence and discussion responses.

Second, most students are used to blended learning environments. As mentioned earlier in this study, it is popular for professors in face-to-face classes to use the learning
management system (LMS). When students take face-to-face courses, they might take quizzes online, upload their assignments through LMS, and correspond by e-mail with their professors. It is thus clear why students do not consider e-mail correspondence to be a form of interaction: E-mail correspondence with their professors and classmates is a way for them to clarify assignments as well as check up on schedules and class-related issues, but it is not a way to discuss class materials thoroughly.

**Social Presence**

Garrison et al. (1999) defined the three categories of social presence as open communication, affective expression, and group cohesion. Open communication means that participants can freely express their ideas. From both the surveys and the interviews, the students in *Health Education for Teachers* did not feel any restriction when they participated in online discussions. However, in terms of affective expression, the discussion topics were related to health education issues, such as something students might encounter in the classroom. For example, in Session 3: Child Abuse Scenario Discussion, students were asked to evaluate a possible neglected girl. In Session 8: Drug-Free America Website Review, students were asked to evaluate websites. The posts were mostly related to practical issues in teaching; therefore, it was hard to engage in caring communication to foster a supportive interaction environment. Most of the students simply treated discussion posts as part of an assignment and had no intention to engage in caring communication. In the absence of affective expression, group cohesion and social presence did not exist in *Health Education for Teachers*.

Some scholars have suggested incorporating Facebook into online learning. Through the Facebook platform, students can better connect and increase their social
presence in the class. However, it seems that the nature of academic discussion questions does foster the kind of discussion and social presence Garrison et al. was seeking. DeSchryver et al.’s research also revealed that it was not about the setting, but about the topics students need to discuss. The study showed that when students were on Facebook, an environment to encourage socializing and interactions, they did interact with the others as much as the scholars expected.

**Community of Inquiry (CoI) Framework**

CoI assumes that “written communication may actually be preferable to oral communication when the objective is higher-order cognitive learning” (Garrison et al., 1999, p. 6). However, this was not the case with the students in *Health Education for Teachers*. The students stressed the effectiveness of face-to-face meetings. CoI is not applicable to the *Health Education for Teachers* class.

The case of Garrison et al.’s application of CoI demonstrates the importance of maintaining the essence of the theory or concept. Garrison et al.’s CoI framework did not capture the essence of Lipman’s community of inquiry, which employed his methodical approach to inquiry. If Garrison et al. had focused on Lipman’s methodical approach to inquiry, they might have been able to develop a better framework for online learning. For example, they might have instead developed a framework that focuses on helping students acquire inquiry techniques, including text-based inquiry techniques. If Garrison et al. had realized the difficulty of using an inquiry-based learning model without oral communication, they may have found that Lipman’s community of inquiry is not applicable to online learning.
In addition, when any theory or concept is adapted, current practices must be taken into consideration. For example, most online courses are taught by adjunct faculty. “Regular faculty are very reluctant to do it [teach online] because it is a lot of work…and universities who want to do it have to hire adjuncts to get it done” (Carnevale, 2004, p. A31). Garrison et al.’s CoI may be sound in theory, but it cannot be used to analyze many online courses. Due to budget issues, instructors in many online courses are the managers of LMS. They do not attempt to foster social presence (e.g., the Math class and Finance class I observed at the University of Massachusetts; see Chapter I). It is not helpful for scholars who are seeking empirical support for their framework if no empirical evidence is available.

**Phatic Communication Matters**

In each session of Professor Leichter’s Families/Communities as Educator seminar, the first thing she does is greet each student. She approaches each student, asking, “How are you?” Everyone then has a brief exchange with her before the class proceeds. This is an example of phatic communication. The professor’s individual greetings help establish and maintain social bonds not only between her and her students but also between students and their classmates. When Professor Leichter greets a particular student in class, the other students listen to the conversation. During one class, a classmate expressed frustration at not getting into a specific class. The others immediately offered solutions. In another class, my best friend, who was sitting next to me, told Professor Leichter that his daughter was sick. I immediately inquired about his daughter. After the class, we had a conversation about how to manage a cold.
Saying “How are you?” shows care for another party. When the other person replies “Fine,” it shows that he or she has received the care. In an educational setting, phatic communication helps students open up and allows them to build relationships with their teachers and classmates. A class of students may even create their own phrase or reach some kind of unique understanding of a phrase. When the phrase is mentioned, they feel they are part of a community. In Professor Leichter’s Families/Communities as Educator seminar, for example, students know that “consultation” means an open session in which everyone brings his or her expertise to provide suggestions about a presenter’s topics. The goal is to foster a sharing of more ideas. When I encounter students who previously took Professor Leichter’s Families/Communities as Educator seminar, we sometimes discuss the consultations they had. While the discussion topic is academic, I often feel I am talking to my brother or sister. The sense of belonging the class creates extends beyond the individual class sessions to the larger community. As Professor Leichter likes to say, “A good class has an afterlife.” A good class continues to affect students long after the course has ended.

Garrison et al.’s (1999) CoI model asks students to have open communication when engaging in online discussion so they can create a supportive environment. Eventually, participants feel close to others, developing group cohesion. Professor Leichter achieves this complicated process by simply greeting each student in every class. Online courses must be synchronous to have phatic communication. When scholars talk about creating online learning communities through asynchronous online courses, they usually neglect the importance of phatic communication. Though Garrison et al. argued that students can get to know each other and establish social bonds through online written
discussions, the students who participated in this study reported otherwise.

Online learning advocates not only neglect the importance of phatic communication but also dismiss other forms of communication. They believe that written communication can substitute for all other kinds; however, in educational settings, nonverbal communication, for example, is as important as other forms. In a class, a professor’s gestures can deliver many messages. How online settings can develop substitutions for these kinds of communication is an important question.

**Subject Matter and Educational Costs**

While researching which subjects fit the online format and which subjects students want to take, the study found that the nature of the subject did not seem to be the students’ primary concern. Students took some online courses in particular because they thought the courses were less important for their academic goals. For example, Jessica needed to take a science course and she was not a science person. She was not very interested in the course material and only took the class to receive the credits. In this case, the perceived personal importance of the material to the student was paramount in Jessica’s decision to take the course online. In another case, Emily needed three basic math credits for her teaching certificate. She chose to take those courses online because the online version was cheaper than the classes given in person.

Students also chose online courses because they were less expensive. Bred made it clear that if online courses and face-to-face courses were the same price, he would not take online courses. When students talked about the *Health Education for Teachers* course, some said it was “not worth the money.” A couple of students related the amount of knowledge they received to the price of the course. Some students felt the course was
not worth the cost and was “very expensive for everyday knowledge.” Another student felt the benefit gained from taking the course “did not justify the course’s exorbitant tuition cost.” Because Health Education for Teachers is a regular Teachers College course, students pay the normal Teachers College fee for this online course. Given the comments sampled above, some students did not think the course was worth the money. This kind of information is important in institutions’ decision-making process to offer online courses. In summary, the price point of online courses is an important factor for students.

An Evaluation of the Level of Technical Support Provided by Teachers College

As a new form of learning, online teaching requires different kinds of support from institutions: “The success of online teaching is closely tied to the ability of an institution to overcome barriers [that] faculty members face when creating and teaching online courses” (Orr, Williams, & Pennington, 2009, p. 257). Barriers to successful online teaching as identified by Orr et al. are: (a) time constraints and the need for compensation; (b) anxiety as a consequence of organizational change; and (c) the need for technical expertise, support, and infrastructure. Time constraints and the need for compensation refer to the extra time that faculty members need to spend preparing online courses and the costs of compensating them for this. Anxiety, as a consequence of the organizational changes needed to facilitate the development of new online courses, is a second barrier. Lastly, the provision of administrative and technical support is essential for the development of online courses.

Teachers College was unsuccessful in overcoming two of these barriers. First, it did not provide adequate administrative and technical support to Professor Roberts when
she needed to determine how to move files from Moodle to Canvas. At the very least, Teachers College should have hosted a seminar to show faculty members how to use the new learning management system, but it did not. Second, Teachers College did not compensate Professor Roberts for the extra work she had to take on to teach the online courses. As an adjunct professor, in order to teach online, she had to spend extra time creating the courses using the Canvas framework. In future, if Teachers College wishes to develop more online courses, it needs to pay attention to overcoming these two barriers.

**Technological Limitations**

Many students indicated that they wanted *Health Education for Teachers* to be more interactive; however, the options for interaction are limited with Canvas. Professor Roberts was able to set up meetings on Canvas, and the students could hold online conferences with their peers. However, Canvas remains technologically limited regarding visual or interactive functions, such as the provision of game features.

Numerous universities have adopted learning management systems (LMSs) such as Canvas, Moodle, and Blackboard to host their online courses. Nevertheless, it is important to understand how LMSs limit the interface design of online courses. The creation of a truly interactive online course is costly. For example, the American Museum of National History (AMNH) hosts an online educational resource, Seminars on Science. It was possible for the Seminars on Science courses to utilize the museum’s resources and create interactive features as they had access to funding and the support of personnel from the AMNH. Therefore, institutions should not merely view online courses as a source of income. Initially, at least, they will have to invest considerable resources to
ensure that their online courses are well-designed. With their progression, institutions would also need to consider the costs of maintaining the courses.

Not All Face-To-Face Classes Are Created Equal

When the study mentioned face-to-face courses, it did not specify the type of face-to-face course. There are, in fact, many different kinds of face-to-face classes. Some have a large number of students; others are lecture-based, with instructors reading their PowerPoint presentations. However, some face-to-face courses are discussion-based while others are based in the field. I did not provide a firm definition because I wanted students to define face-to-face courses for themselves.

About Memory

In the study, students expressed that they did not remember much about the class. It is important to note that students might not remember much about their face-to-face course materials either. However, because face-to-face course participants interact with others and must move from one physical space to another physical space, it is likely that they have more memories of their overall learning experience.
Chapter V
CONCLUSION

The aim of this study was to gather students’ learning experience in an online course setting, their expectations of their online course, and memorable stories of their learning experience. The study also aimed to understand the subject matter, the instructor’s role, and design issues in an online setting. By having a better understanding of the online learning experience, educators might gain a better understanding of face-to-face education and blended learning experiences in order to design new ways to approach learning.

Review of Methodology

Through observation of the course Health Education for Teachers, this study focused on students’ learning experiences in the context of one online asynchronous course at Teachers College. The case study approach allows students to define terms, such as their interactions, and to describe their learning experience, which both facilitate the connection of more variables and a deeper understanding of the topic. “A case study is an empirical method that investigates a contemporary phenomenon (the “case”) in depth within its real-world context” (Yin, 2017, p. 15). The goal of this study was not to generalize students’ online learning experiences; rather, it aimed to emphasize the
importance of understanding different individual learning experiences. Through the data, the study verified the validity of certain concepts and found a discrepancy between the concept and the study. Quantitative studies often use pre-set and pre-defined terms to create their closed questionnaire surveys, making it easy to generate certain kinds of answers. The findings of this study supported the need to use a qualitative approach and to allow subjects to construct their own meanings.

**Conclusion**

The study revealed that no social presence and learning community were associated with *Health Education for Teachers*. For students in this class, interactions were limited to e-mail correspondence with the instructor and other students as well as a discussion with the instructor and the other students in an online forum. Students treated e-mail correspondence with the instructor and other students more like a Q&A section. They asked the instructor about the deadline and details of assignments. There was no sign that e-mail correspondence can help generate further discussion of class topics. Students also treated the online discussions as part of their assignments, and they finished online discussions to get by and obtain the grade. The online forum did not generate interactions or increase intimacy among students. In taking *Health Education for Teachers*, students felt they had limited human interactions, which many of them expressed they were missing.

In terms of class materials, most students did not remember much of the course after graduation. Some students who took the class within 2 years did not remember much of the course either. The materials students remembered the most were those they
needed to design, such as the family newsletter, or collaborative work, such as the final project. Students did remember the DASA workshop, which was the only face-to-face encounter with the instructor and other students. After the course, students did not remember many of the videos they watched, the web links they analyzed, or the materials provided in the class. Nor did they go back to their account to review materials the instructor uploaded.

Even though students stated they did not remember much from the classes, they were about to perform their duties at work. They were also able to identify students at work who were neglected. When there were signs of abuse, they were able to detect them. It is difficult to conclude that *Health Education for Teachers* did help them obtain this vital information. However, it showed that the information provided by *Health Education for Teachers* was not exclusive. Students can access the same information from other sources. Also, after students became teachers and entered school settings, they may have come to understand the issues further by talking to other teachers. Since students can access the information provided by *Health Education for Teachers*, it was not exclusive from multiple sources, which makes some students think that *Health Education for Teachers* can be offered online, allowing them to study individually.

Students did not choose online courses because they considered online learning a better mode of education. Rather, most students chose online courses because of their convenience. To students, a well-designed online course was one with more interactive features, although students did not specify what features they were seeking. However, reading materials, videos, and website links were static to students. They believed that
absent interactive features or human interactions, online courses were similar to self-learning courses.

This study also revealed the need for technical and design support for online courses. When Teachers College changed its learning management system (LMS) to Canvas in 2017, there was only one teaching assistant who knew how to use Canvas to help Professor Roberts manage the *Health Education for Teachers* class. However, there is no additional technical support to assist professors or students who want to become familiar with and use the system. If universities want to offer online courses, they need to pay more attention to barriers to successful online teaching. They need to construct a well-supported system for instructors first.

This study also found that students treated online courses as inferior. They did not want to pay the same tuition and fees as they paid for face-to-face classes. Some students believed online options were easier than face-to-face options. When they were interested in the subject and were only looking to gain credits, they would choose online courses.

Finally, the places students visited and the people they interacted with enriched their learning experiences. These memorable moments allowed them to treasure their education at Teachers College. While tuitions and fees were high and students took loans to finance their education, students believed their experiences could not be judged in monetary terms alone.

**Suggestions for Future Study**

First, the study used an open questionnaire survey and an in-depth interview to gather information. It is recommended that future studies use the same research method
to study different online courses. Even though an open questionnaire survey and in-depth interviews do not reach a great number of people at once, the research method provides a deeper understanding of students’ online learning experiences. Current studies use a closed questionnaire to conduct research, with only limited results.

Second, among the four interactions, scholars have focused more closely on interaction between students and instructors and interaction among students. This study demonstrated the need to focus on the fourth interaction: students’ interaction with the interface. The important question is: “How can the current learning management system create interactive features for students?” If it cannot do that, what alternatives can educators pursue?

Third, scholars have focused on social presence and the learning community in an online setting. However, it may be that, for some students, social presence and the learning community are irrelevant to their online learning experience. What kind of online courses are such students seeking? What do they expect from their learning experience?

Fourth, because creating a new interactive online system is expensive, scholars should be more creative in finding ways to enrich existing online courses. It is important to explore options for students that include their current communities. Researchers should explore the manner in which educational configurations are implemented. A fifth interaction—the interaction of students with their community outside the classroom—should be considered.

Fifth, several students throughout the study mentioned the cost of online courses. Because little human interaction was provided, they did not believe the course justified its
expense. A future study could focus on how students perceive the cost of online education in order to assess the fees of online courses.

Sixth, academia should address concerns about inequality issues. For example, Columbia University does not accept any online course transfer credits, and New York University only accepts up to 16 online transfer credits. In the e-mail that Fordham University sends to potential students, it notes that certain courses meeting certain conditions may not transfer. These include online courses, physical education courses, college courses taken prior to high school graduation (dual enrollment), and courses that are worth less than three credit hours (i.e., first-year experience programs). It is clear that these elite universities consider online coursework inferior. Because some schools offer online courses that are less expensive than face-to-face courses, students who cannot afford a high tuition will take more online courses, and inequality may be intrinsic. In the future, taking face-to-face classes may resemble an expensive evening at the theater with live actors, while taking an online course will be like going to the movies and watching a prerecorded film on a budget: only the elite will be able to afford face-to-face classes. Online courses could thus potentially increase inequality in higher education.

Seventh, phatic communication is a part of daily life. When students take online courses, phatic communication is eliminated in the online setting. Phatic communication may play an important role in how students sense their community and how they create a supportive learning environment, so future studies could focus on how to create phatic communication in an online setting.

Eighth, because most institutions have a website to serve their students, people are able to obtain information without physically being on campus. Therefore, what are the
functions of institutions’ physical locations? Why are people going to campuses? Through this study, the surveyed students expressed that they are able to learn with other materials. However, people have long depended on Google for information and learning materials, which raises questions about the necessities of physical spaces for institutions.

Finally, with the study’s title “Exploring the Possibilities of Online Learning Experiences,” I attempted to explore various possible pedagogical approaches rather than to provide firm answers. The primary suggestion for future studies is to be open-minded about research selections, creative in the research method, and objective about the research results. If educators design them well, online courses may provide a means of reaching a broader audience and creating exciting opportunities to educate more people in meaningful ways. It is important to explore possibilities for face-to-face learning experiences. With many new developments in technology, educators should evaluate their current face-to-face courses to find ways to create new and better courses to enhance students’ learning experiences.

**Reflections on Future Implications**

**The Fifth Interaction: Interaction With the Existing Community**

During her interview, Jessica talked about on-site student observations which allowed her to have interactions with others. In this way, Jessica felt a sense of community. As it may be difficult for students to have a social presence during online courses and to foster a learning community, perhaps online courses can employ the existing community surrounding the students.
In addition to the four interactions the early research assumed, the study recommends adding one more, a fifth interaction—interaction with the existing community surrounding the student. This study proposes the incorporation of face-to-face interactions into online courses. For example, at the University of California, Rachel Lehman created the Active Learning Office Hours and Assignments (Aloha) program for students in online math courses. Aloha enables students to meet in person and do assignments together. More importantly, students who cannot attend Aloha on campus can attend video chats and participate in an online version of office hours where small groups meet with Lehman. Lehman found that students feel more empowered and supported in these classes. “Students tell Lehman that they have found friends in Aloha and that it helped them feel connected to the course. She said they are also more confident” (Supiano, 2019, n.p.). The Aloha example thus demonstrates the effectiveness of different possible interactions in online courses.

Online instructors can also incorporate other institutions to educate students. For example, another student who took an art history class at the University of North Carolina at Greensboro in 2017 had to visit a local museum to write his report. Even though he did not interact with the other students taking his online course, he had interactions with people at the museum. Through the experience, he learned extensively about how to plan an exhibition. As can be seen in this example, there are many possibilities for new kinds of assignments, and teachers can be creative with their online courses.

Online education has long sought to create an online learning community and help students connect with their virtual classmates. The reality is that with current online
course settings, it is almost impossible for students to engage in an effective online learning community. As mentioned previously, online discussion forums do not encourage students to interact more frequently with each other. For example, in my studies on forums, when students wanted to read other students’ comments, they had to enter the forum’s subpages and read only one message at a time. Students were free to enter others’ subpages to initiate further discussion; however, such conversations only started if a student clicked on the other students’ posts. Therefore, for the online courses I observed, effective learning communities did not exist.

The convenience of the Internet allows people to reach audiences all over the world. A learning community should not be narrowly defined as the online community established among online classmates. The community can include anyone in the configuration (person or institution) who can improve students’ educational experiences. A possible approach to improving online learning is to offer class assignments that encourage students to expand their configuration of education. For example, in an online course on U.S. history, the instructor can ask students to write a report about a local historical site. The assignment might require students to talk to a curator. If students live in an area with no historical sites, they can visit a well-established local store with history to complete their reports. The goal is for students to recognize the larger educational configuration that exists and learn how to approach various questions.

There are many curriculum possibilities to help students learn from a wider configuration. For example, in an introductory nutrition class, the instructor can ask students to research some online discussion boards to understand people’s ideas about nutrition. Students can choose a discussion board, initiate discussion with the other
posters, and write a report on their findings. In reality, instructors are more like administrators in current online courses. It is possible for online instructors to go a step further and help students to administrate their configuration of education.

The concept of education configuration concerns using a group of people or institutions who can improve students’ educational experiences. For example, a student goes to school, then to the public library, then to a movie theater, and finally, to his or her home. All of these institutions are in the student’s configuration of education. Therefore, insofar as anyone (whether a person or institution) can enrich a student’s learning, online instructors can include those persons or institutions in his or her configuration. A learning community need not be narrowly defined as the online community established among online classmates. An English assignment can be about an interview with a local store owner. An economics assignment can include attending a talk on the current state of the economy. Using this concept, the entire community becomes the source of education. Instructors can recreate the earlier figure (Educational Processes in Selected Institutions With Which families Engage by Leichter et al.) for their teaching purpose. They can include institutions providing online service into the new figure (Table 9) and apply the configuration of education concept.

The Importance of Situating Ourselves

When online course advocates speak about the strengths of online courses, they always say that “You can take your time at any place any time.” However, is this really a strength? When I was in elementary school, my school bell would ring before the end of break. The first bell was two minutes before the class started, and the second was when the class began. My teacher always said that the first bell reminded us that we needed to
<table>
<thead>
<tr>
<th>LOCATION</th>
<th>ATTENDANCE</th>
<th>SOCIAL COMPOSITION</th>
<th>OUTCOME MEASURES</th>
<th>SPATIAL ORGANIZATION</th>
<th>TEMPORAL ORGANIZATION</th>
<th>PEDAGOGIC &amp; EDUCATIVE STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONLINE VIDEOS</td>
<td>Any place</td>
<td>Voluntary</td>
<td>Multigenerational</td>
<td>Viewer comments --- No learner credentials</td>
<td>Variable possibilities</td>
<td>Variable</td>
</tr>
<tr>
<td>SCHOOLS (face-to-face/online)</td>
<td>Outside home (+homework) --- Online</td>
<td>Mandatory</td>
<td>Individuals --- Age-segregated Sex-segregated --- Multigenerational</td>
<td>Formal evaluations --- Learner credentials --- Success and failure</td>
<td>Variable possibilities</td>
<td>Variable --- Occasionally one-to-one --- Online</td>
</tr>
<tr>
<td>HEALTH CARE AGENCIES</td>
<td>Outside and in home --- Online</td>
<td>Need-related</td>
<td>Individuals and family groups</td>
<td>Course of illness and cure --- Consulting</td>
<td>Variable possibilities</td>
<td>Variable --- Disease-related</td>
</tr>
<tr>
<td>MUSEUMS</td>
<td>Outside home --- Online</td>
<td>Voluntary</td>
<td>Multigenerational</td>
<td>Some institutional evaluations --- No learner credentials</td>
<td>Variable possibilities</td>
<td>Variable --- Learner-determined</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Variable --- Self-instruction possibilities multimedia --- Multisensory</td>
</tr>
</tbody>
</table>
get ourselves situated for the class. We should not wait until the second bell to get to the classroom. In the Brick Presbyterian Church’s program sheet for its congregation, the staff of this New York City church indicated that “the moments before worship are a transition from ‘getting here’ to ‘being here.’” The program talked about taking “a few minutes to quit our mind” and asked attendants to keep silence for a few minutes before the worship.

These two examples illustrate the importance of situating ourselves in the moment, whether in the learning mode or the worshiping mode. Situating ourselves is like a ritual or process that helps us to get ready to focus. When students go to a class regularly or people worship every Sunday, they experience a kind of rhythm. That rhythm can be the classroom activity or the presentation sequence of the worship material. The rhythm relates to the atmosphere created by all the participants. In my case, the reason I do not like to miss class is because I will feel out of sync and need to rediscover the rhythm. The ritual and the rhythm may seem inconsequential. However, they do affect the quality of learning.

In an online setting, since students can take the class at any place at any time, there is no ritual or process to help students situate themselves to start the course. There are no learning sequences or class interactions to create the kind of rhythm we can find in a face-to-face setting. How can educators help students to situate themselves in online learning? Can educators create a ritual or rhythm in the online setting? It is clear that online education advocates need to consider many factors other than convenience and flexibility.
Final Reflection

In March 2019, the article “UMass System Aims to Join the Mega-University Club” was published in The Chronicle of Higher Education. UMass plans to expand its online program to compete with universities like Liberty, Southern New Hampshire, and Western Governors, which are known for their practical, flexible, and inexpensive online programs. The article stated, “It’s about money” (Gardner, 2019). For example, Southern New Hampshire’s online program has made as much as a 35% profit, which has helped finance a new $55-million engineering building. The article also stated that both increasing enrollment and serving adult students motivate its online offerings. The analysis of UMass’s competitiveness with existing Mega online universities in the articles seemed to indicate that online course expansion is based more on profits than on pedagogical necessities. More importantly, UMass can join the online trend, which it will use to increase its brand awareness to attract more online business. “Maryland and Arizona State, Penn State, and Purdue Universities have all established successful online programs aimed at adults on the strength of their brick-and-mortar brands” (Gardner, 2019). Clearly, increasing numbers of prestigious schools want to start online programs for the wrong reason—to generate more income. It is devastating to learn that universities consider profits above students’ learning. The appropriate approach should be analyzing the nature of courses and choosing the most suitable pedagogy—online, face-to-face, or a blend of both course types.

As a former student of Health Education for Teachers, I honestly do not have much memory of the class. Other than for the purposes of this research, I have never gone back to check the information provided in the class. My answers for the survey and
interview would be similar to those of the other students I surveyed and interviewed. If I had not met Professor Roberts in person for the study, I might say the same thing as those students: this course is not worth the Teachers College tuition because there are no human interactions. When I look back at my years at Teachers College, the most memorable moments involved people. Those moments are priceless.

One of the most difficult classes I ever took at Teachers College was Psychological Anthropology, Professor Charles Harrington’s class. I do not remember why I took the class, but I have a vivid memory of Professor Harrington’s red sofa. This is because I would often sit on it during his office hours, as Professor Harrington would listen to my interpretation of the class readings and give me some feedback. Sometimes he would nod without saying a word. On that red sofa, I reaffirmed my understanding of the readings. More importantly, I overcame my fear of the materials. Professor Harrington has retired. However, whenever I hear that he is doing fine or playing golf with his child, I feel so happy for him. Professor Harrington might have retired from his job, but he will never retire from my memory.

Professor Harrington’s red sofa, Professor’s Leichter’s greeting, and Professor Roberts’s comforting words about my sick cat are moments that make the education experience meaningful and memorable. I have not found answers to questions such as the following: How can a professor’s illuminating presence break through the computer screen to students? How can students feel they have been cared for in the online setting? I am not inclined to conclude that online courses do not provide meaningful and memorable learning experiences. But I am inclined to conclude that educators need to be more creative in designing online courses. Instead of seeking to create an online
community that can barely exist, energy might be better spent on integrating the existing community into students’ configurations of education. Then, students might have the chance to have human interactions and create meaningful and memorable learning experiences.
REFERENCES


Appendix A

Fall 2016 Math 127 Calculus for Life and Social Sciences Course

Math 127 Online Syllabus

Description:

Upon successful completion of this course the student should be able to:

1. Take first and second derivatives of polynomials, exponential functions, and logarithmic functions.
2. Be able to draw first and second derivative graphs of polynomials, exponential functions, and logarithmic functions.
3. Find maxima, minima, and inflection points of polynomials, exponential functions, and logarithmic functions.
4. Estimate area under a curve.
5. Calculate exact area under a curve
6. Use the Fundamental Theorems of Calculus
7. Integrate functions using substitution and integration by parts
8. Think critically
9. Analyze mathematical word problems
10. Problem solve applied calculus problems

Coverage:

Chapter 1 – Functions and Change 1.1 What Is A Function? 1.3 Rates of Change 1.8 New Functions from Old 1.10 Periodic Functions

Chapter 2 – Rate of Change: The Derivative

2.1 Instantaneous Rate of Change
2.2 The Derivative Function
2.3 Interpretations of the Derivative
2.4 The Second Derivative

*limits and continuity pg 127

Chapter 3 – Short-Cuts To Differentiation

3.1 Derivative Formulas for Powers and Polynomials
3.2 Exponential and Logarithmic Functions
3.3 The Chain Rule
3.4 The Product and Quotient Rules
3.5 Derivatives of Periodic Functions

Chapter 4 – Using the Derivative 4.1 Local Maxima and Minima

4.2 Inflection Points
4.3 Global Maxima and Minima

*Applications from 4.4/4.7/4.8
Chapter 5 – Accumulated Change: the Definite Integral
  5.1 Accumulated Change
  5.2 The Definite Integral
  5.3 The Definite Integral as Area
  5.4 Interpretations of the Definite Integral
  5.5 The Fundamental Theorem of Calculus

Chapter 6 – Antiderivatives
  6.1 Constructing Anti-derivatives Analytically
  6.2 Anti-Derivatives and the Indefinite Integral
  6.3 Using the Fundamental Theorem to Find Definite Integrals
  6.4 Integration by Substitution
  6.5 Integration by parts

A calculator will be needed to complete homework and exams. A calculator with graphing capabilities is required.

Grading:
Midterms 1-6: 60% (10% each) Homework: 15% Final exam: 20% Participation in Discussion: 5%

Course grades will be assigned based on the following scheme:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>87-89</td>
<td>A-</td>
</tr>
<tr>
<td>83-86</td>
<td>B+</td>
</tr>
<tr>
<td>79-82</td>
<td>B</td>
</tr>
<tr>
<td>75-78</td>
<td>B-</td>
</tr>
<tr>
<td>71-74</td>
<td>C+</td>
</tr>
<tr>
<td>67-70</td>
<td>C</td>
</tr>
<tr>
<td>63-66</td>
<td>C-</td>
</tr>
<tr>
<td>59-62</td>
<td>D+</td>
</tr>
<tr>
<td>55-58</td>
<td>D</td>
</tr>
<tr>
<td>below 55</td>
<td>F</td>
</tr>
</tbody>
</table>
Appendix B

Spring 2017 FINA 3010 Financial Management Course

UNIVERSITY OF MASSACHUSETTS LOWELL
MANNING SCHOOL OF BUSINESS

FINA 3010 Financial Management (3 credit hours)
Online Course – Spring Term 2017 (January 17 – April 1)

Instructor: Steven Freund
Office: Pasteur 316
Phone: (978) 934-2818
E-mail: steven_freund@uml.edu (Please send course-related e-mail through the Blackboard course website)

Exams: February 9 – 11 (Thursday through Saturday)
March 9 – 11 (Thursday through Saturday)
Final exam: March 30 – April 1 (Thursday through Saturday)
Chat: Section 061 Wednesdays 7:00 – 8:00 pm (optional)
Section 062 Wednesdays 8:00 – 9:00 pm (optional)

Required Textbook and Calculator:

Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Concise Edition, 7th or 8 Edition, South-Western/Thomson (Cengage Learning). The abridged edition of the Brigham and Houston text covers all the chapters covered in this course. You can also use the unabridged edition of the textbook. If you have a budget constraint, select an earlier edition of the text (the exact edition is not that critical!), but access to the textbook is crucial for success in the course.

A business or scientific calculator with a power function ($y^x$ key).

Catalog Course Description:

Principles of capital management, including working and fixed capital, sources of funds, financial statements, financial planning and capital structure.

Prerequisites:

ECON 2010 Economics I (Microeconomics)
ACCT 2010 Accounting/Financial
Course Overview and Course Objectives:

This course is both an introduction to the general principles of finance and the application of these principles to the study of the finance functions of business organizations. The course assumes that this is your first exposure to finance; therefore, it covers two major tools of financial analysis used in all sub-areas of finance such as investments, corporate finance, and the study of financial institutions such as banks. Specifically the tools are time value of money calculations to handle cash flows that come at different points in time and statistical methods to handle the uncertainty of future cash flows.

Since uncertain future cash flows are a part of any financial decision, this part of the course will be useful to you even if you do not plan to work in any financial sectors in the business world. For example, you may have an occasion to obtain a mortgage, finance a major purchase such as an automobile, buy insurance, or plan your retirement. Although the course does not focus on any of these personal financial decisions, the tools of analysis are essentially the same.

The application of these basic principles to the business enterprises is the core area of focus in the course. For this, you will learn the different forms that business enterprises take, such as the modern corporation, and the methods that these organizations use to obtain financing, such as stocks and bonds. Although the main viewpoint will be from the side of the corporation issuing these securities, to understand fully the concepts, you also need to view stocks and bonds from the supplier of the funds, the investors, and the intermediaries that market the securities such as banks and stock exchanges.

Investors monitor the financial health of corporations through the analysis of financial statements; consequently, we cover this topic early in the course. We follow this with detailed sections on interest rates, risk and return calculations, and stock and bond valuation. In the second half of the course, the focus is on a major decision made by firms, the decision to acquire assets used in running the business and the financial analysis firms make to project their financial situation into the future. Together, these tools help firms make optimal financial decisions.

Course Format:

We will follow the assigned textbook very closely, covering twelve chapters in the Brigham and Houston (B&H) text. In this “accelerated” course, we will cover material from the first five chapters of the B&H text in the first three weeks, followed by an exam in week four. We repeat this pattern for the next four weeks, covering five more chapters followed by a second exam. Then in week nine we add two more chapters, followed by a comprehensive final exam in week ten. For Each non-exam week, a new learning module becomes accessible on Blackboard Learn. In the course outline below, the topics of the learning module are listed, along with the appropriate textbook reading and assignment due dates. See the Agenda document in each week’s learning module for a summary of the material covered as well as instructions for the homework assignments. For the most part, lecture notes are used to clarify the more difficult or controversial concepts of the
text, or bring in additional material not present in the text. In other words, you really should read both the lecture notes and the reading assignment. Every week we have an optional chat session, which will serve as the office hours for the course. See the “Welcome Letter” in the “Start Here” folder for more course information and suggestions for success in this course. Homework assignments consist of multiple-choice questions that resemble the exam questions. You must submit your answers through Blackboard before midnight on the due date indicated below. You can submit answers as soon as the assignment submission link is available, but you may only submit a single time. Late or omitted assignments result in a grade of zero with no exceptions. I strongly suggest that you attempt the assignment well before the due date, because late assignments will not earn credit even for technical glitches, failed computer equipment, or even legitimate medical reasons. The reason for this policy is the release of solutions soon after the due date. Blackboard is unable to accept the assignment after the due date, until the assignment grades appears and the submission link is reset.

You should always attempt homework, well before the due date for two reasons: Without a submission, your grade is a zero! Another reason you should always submit assignments on time is that students with submitted assignments are able to see the answers to the questions the day after the due date. Since you must still submit an assignment to see the solutions, you might as well do it before the due date and get some credit. Homework is intended to be worked out individually and not as a group project. Assignments that are carbon copies of other homework earn a grade of zero for all parties involved (target and source), is a violation of the academic integrity policy (see below), and therefore could lead to further disciplinary action. Using answers from online sources including alleged tutors at sites such as Chegg is also a violation of the academic integrity policy.

The exams and comprehensive final exams are similar to the homework, but they are longer, timed (generally 2 hours), and available during a three-day window as indicated in the course calendar. If you are unable to take the exams on the day indicated, please get in touch and I will make the exam available on an earlier day. These are also covered by the academic integrity policy.

Course Evaluation:

Exam #1 25%
Exam #2 25%
Final Exam (comprehensive) 35%
Homework Assignments 15%

Final course letter grades correspond to numerical grades (after rounding) as follows:
93 and above: A
90 through 92 A–
87 through 89 B+
83 through 86 B
80 through 82 B–
77 through 79 C+
73 through 76 C
70 through 72 C–
67 through 69 D+
60 through 66 D
59 or below F

**Academic Integrity:**

Allegations of academic misconduct are handled within the department and college by the Process of Notification and Adjudication described in the Undergraduate Catalog. [https://www.uml.edu/Catalog/Undergraduate/Policies/Academic-Policies/Academic-Integrity.aspx](https://www.uml.edu/Catalog/Undergraduate/Policies/Academic-Policies/Academic-Integrity.aspx). **This policy covers all homework as well as the three exams, all of which must reflect only your individual effort. They cannot be done by anyone else or as a group project. Any evidence that indicates that you participated in such activity will be subject to severe disciplinary sanctions, applied equally to the source as well as the recipient of any dishonest help.**

**About Your Instructor:**

I received a B.S. in Management Engineering from Rensselaer Polytechnic Institute, an M.B.A. from the University of Connecticut, and a Ph.D. in Finance from New York University. I have over thirty years of teaching experience in a variety of finance courses. My main research work is in option pricing, stock markets, and corporate finance.
### Manning School of Business Learning Goals

1. Our students shall have oral and written skills in communicating business-related information
2. Our students shall have quantitative and qualitative functional area knowledge and skills
3. Our students shall have team membership skills
4. Our students will be ethical decision-makers
5. Our students will be aware of global cultural differences affecting business practices

### Intended Essential Learning Outcomes (ELOs) for the University

As of Fall 2015 all students are required to meet the following seven ELOs through various identified courses:

- Diversity and Cultural Awareness (DCA)
- Information Literacy (IL)
- Social Responsibility and Ethics (SRE)
o Written and Oral Communication (emphasizing Writing in the Discipline)
  o (WOC)
o Critical Thinking and Problem Solving (CTPS)
o Applied and Integrative Learning (AIL)
o Quantitative Literacy (QL)

This course will satisfy the Essential Learning Outcome: Quantitative Literacy (QL)

Definition: Competency and comfort in working with numerical data.

EXPECTATIONS FOR STUDENT LEARNING

Students must demonstrate knowledge of and/or skill in four out of the six criteria:

1. Explaining information presented in mathematical forms (e.g. equations, graphs, diagrams, tables, words).
2. Representation: Ability to convert relevant information into various mathematical forms (e.g. equations, graphs, diagrams, tables, words).
3. Calculation: Ability to solve problems using effective calculations.
4. Application/Analysis: Ability to make judgments and draw appropriate conclusions based on quantitative analysis of data, while recognizing the limits of this data and analysis.
5. Assumptions: Ability to identify and make important assumptions that underlie quantitative analysis.
6. Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).

Problem sets and tests can be used to assess students’ ability to:

[Criteria 1, 2, 3]
• Accurately explain data provided in charts, tables graphs
• Accurately construct equations from written material
• Solve mathematical problems

[Criteria 1, 2, 4, 6]
Students may be asked to make an oral presentation utilizing graphs, diagrams, tables, etc. to discuss trends in the financial markets
Appendix C

Summer 2015 PHL 101: Introduction to Philosophy Course

PHL 101: Introduction to Philosophy Online

University of Massachusetts Dartmouth Dr. Tim Nulty
Summer 2015 3-week online course tnulty@umassd.edu
Anthony Weston, A Rulebook for Arguments
* The first edition of Fifty Readings Plus is acceptable, but note that chapter numbers will be different.

Course Description

This course explores topics in all of the major areas of philosophy: logic, metaphysics, epistemology, social & political philosophy, and ethics. This course serves as a preparation for more advanced studies in philosophy. In addition, the course provides the opportunity to discuss critically and rationally some of the most fundamental questions of human existence: does a god exist; can we really know anything with certainty; what is the nature of the mind; what is this self that I think I am; do we have free will; what is the best kind of society/government? These questions, and the tentative answers to them, are about you and your life.

Course Objectives

There are two main objectives of this course. First, students are expected to develop their critical thinking skills. This means that students should be able to identify arguments and offer intelligent, well articulated criticisms. Students should also be able to make sound arguments of their own; this involves understanding some basic rules of logic. The method of philosophy is rational argumentation; one cannot claim to understand philosophy if one does not know how to argue. Second, students should gain competence with the issues and concepts in the major areas of philosophy. They should also be able to explain how these abstract philosophical problems are relevant to their own lives.

Course Expectations

The minimum expectation is that you will be online at least every other day, and that you will participate by replying to discussion board questions. By ‘participate,’ I mean that you should ask intelligent questions about the reading, respond to other students’ questions and my posted questions, and offer relevant examples, etc.

Philosophy is a difficult subject area because of its conceptual complexity, but also because few people have had prior exposure to philosophical literature. How does one prepare for philosophy class? First, read the assignment at least twice, making note of
areas you don’t understand, or areas that you find interesting or helpful. You should then try to summarize the reading in your own words by writing a paragraph or two in your notebook. One good test of whether you understand the text is whether or not you can explain what you’ve read in your own words. Some helpful questions include: what is the author’s main point? How does the author argue for his or her claims? What problems are there with the author’s arguments?

If you do not understand some portion of the text, it is your responsibility to do whatever is necessary to acquire that understanding. You are responsible for your education.

**Graded Work**

There will be three take-home essay exams; each will be worth 25% of your grade. Responses to posted discussion forum questions will be worth 25% of your grade. Submitted work will be graded based on the level of detail, sophistication, and thoroughness of each answer.

**My Teaching Philosophy**

You and I have a contractual agreement. You agree to complete all of the requirements and attend all of the classes. I agree to educate you about philosophical issues and to evaluate your performance for credit.

Imagine that you hire a personal trainer to get you in shape. You pay a good amount of money for a personal trainer. How would you feel if you showed up at the gym and the trainer handed you a bunch of junk food and told you to watch your favorite movies? Maybe you would be happy since you get a great deal of pleasure from eating junk food and watching movies, and you don’t really like strenuous exercise. But, you would also feel ripped off. You didn’t hire the trainer to make your life pleasurable; you hired the trainer to help you reach a goal.

The point (one which was made by Plato 2500 years ago) is that what is good for us isn’t always the same as what is pleasurable. Regarding this class, philosophy involves both a body of knowledge and a special kind of skill—the ability to think critically and make good arguments. Learning this skill requires a lot of hard work. Part of my job is to coach you to develop that skill. Much as a good coach will constantly push an athlete to improve, I will push you to think more clearly about your beliefs. You pay a great deal of money to be in this class; I will not waste your money just for the sake of making the class easy. While it may not be the most pleasurable or easiest approach, you should want your professors to expect a lot from you. You should expect a lot from your professors.

**Plagiarism and Academic Misconduct**

Any form of plagiarism or academic misconduct will result in failure of the course and notification of the university. Claims of ignorance regarding the citation of sources are insufficient justification for academic misconduct. It is your responsibility to know the
university’s policies on academic misconduct; you are also responsible for asking questions if you are not sure if you need to cite a source or not.

Reading Assignments

Week One
Introduction; how to do well in this course Basic Logic and the structure of arguments Basic Logic and writing a philosophy paper Fallacies; “What is Philosophy” pp. 1-28 “The Existence of God” readings 3 & 4 “The Existence of God” readings 5, 6, & 7 “The Problem of Evil” readings 8, 9 & 10 “Faith and Reason” readings 11 & 12

EXAM #1

Week Two
“Theories of Knowledge” readings 13, 14, 15, 16, 17 & 18 “The Mind-Body Problem” readings 20 & 21 “Consciousness” readings 22 & 23

EXAM #2

Week Three
“Free Will and Determinism” readings 27, 28, 29, 30, 31 & 32 “Ethics” readings 34, 35, 36, 37, 38 & 39

EXAM #3
Appendix D

HBSS 4116 HEALTH EDUCATION FOR TEACHERS

Professor: Katherine Roberts, Ed.D., M.P.H., MCHES, CPH
Phone: (212) 678-6607
Email: kjr20@tc.columbia.edu

Teaching Assistant: Mary-Andree Arduin-Guerrier, M.A.
Email: mma2207@tc.columbia.edu

Course Description

This course reviews the critical health issues that affect the well-being of youths today, as well as introduces students to theory and research on behavior change with an emphasis on the role of teachers and schools in shaping children's health. Students will learn the risk and protective factors that can affect children. In addition, students will acquire pedagogical knowledge and skills to maximize children’s health and minimize pathology using evidence-based prevention and intervention techniques. Readings, PowerPoint lectures, discussions, and assignments will emphasize practical aspects of health education, including promotion of positive health-related knowledge, attitudes, and behaviors in school children. We will also consider ways to identify, prevent, or intervene on behalf of children at risk or presenting with social-emotional or physical health problems.

The course will provide training in various aspects of child health that are mandated by New York State law (and most other states). These areas of training include:

- **Child Abuse Identification**
- **School Violence Intervention and Prevention**
- **Training in Harassment, Bullying, Cyberbullying, and Discrimination in Schools: Prevention and intervention (DASA training)***

* Students who are applying for an initial or professional certificate in New York State are required to have a minimum of three hours of face-to-face training in DASA (Dignity for All Students). The online course does not meet this in-person requirement, and therefore an additional three hours must be completed only if you are applying for a NYS initial or professional certificate. There will be a three-hour workshop specifically for HBSS 4116 online students offered this semester: **Friday, October 20: 10am - 1pm**. If you are unable to attend this workshop, there will be additional workshops held during the summer semester. In addition, the Office of Teacher Education holds six-hour workshops multiple times throughout the year.
Learning Objectives

• Identify the primary physical and mental health problems in the nation today, particularly among school-aged children and adolescents.
• Describe the concepts of risk and resilience as applied to children’s health.
• Identify major signs, symptoms, and solutions for various health risks and problems, including but not limited to child abuse and maltreatment, violence, substance abuse, mental health and suicide.
• Identify reporting laws related to child abuse and maltreatment.
• Describe New York State’s Safe Schools Against Violence in Education (SAVE)
• Describe New York State's Dignity for All Students Act (DASA)
• Demonstrate skills for educating students about health

Module Dates

Session 1: Overview of Health Education September 6 - 20
Session 2: Risk and Resiliency September 21 - 27
Session 3: Child Abuse and Maltreatment September 28 - October 4
Session 4: Discrimination and Harassment October 5 - 11
Session 5: Violence Prevention October 12 - 18
Session 6: Mental Health and Suicide October 19 - 25
Session 7: Nutrition and Physical Activity October 26 - November 1
Session 8: Alcohol, Tobacco, and Other Drugs November 2 - 8
Session 9: Personal Safety November 9 - 29

Course Requirements

There will be eight Powerpoint lectures, seven brief question and answer quizzes, four written assignments, three discussions, one group assignment, and one student assessment.

2 Assignments at 10 points each = 20 points
7 Quizzes at 5 points each = 35 points
6 Discussion Posts at 5 points each = 30 points
Group Project (Safety Campaign) = 15 points
Total points = 100

Two and Three Credit: There will be an additional session (Sexual Activity) with a brief question and answer quiz, one written assignment and one discussion. For those students taking the course for three credits, the nutrition and physical activity will be more in-depth and will be worth an extra 10 points.
1 additional quiz = 5 points
1 additional discussion = 5 points
Total points for two credits = 110 points
1 additional assignment = 10 points
Total points for three credits = 120 points

Other Important Information

- At the start of each session, there will be an announcement under the General section providing instructions including the requirements of that session. This course does NOT require that you are online at any specific time; however, assignments and discussions are due by the end of each session date.

- You must submit your assignment or discussion by 11:59pm on the day it is due unless you email the professor and ask for an extension. Each day an assignment or discussion is late .5 point will be deducted.

- All discussions assignments have a rubric that will be used to grade. Here are instructions on how to view the rubrics: discussion (Links to an external site.) and assignment (Links to an external site.).

- Check spelling and grammar on all assignments.

- The grades for the quizzes are automatically posted. The instructor will post grades for all discussion and will post grades and comments for each of the assignments

- Answers to each quiz will be available at the end of that session (e.g., your answers to Quiz 1 will be available after Session 1 has closed – after September 20th). To check your answers either go to the Grade and click on the quiz there or go back into Session 1 Quiz click on the quiz you would like to review.

Required Readings


Other required and recommended readings will be listed in each of the sessions (i.e., published articles and Internet website materials.
Appendix E

Survey Questions for Past Students

Q1 Can you describe the period in which you were born?

○ (born before 1979) (1)

○ (born between 1980 and 1993) (2)

○ (born after 1994) (3)

Q2 How comfortable are you with the following?
<table>
<thead>
<tr>
<th>Activity</th>
<th>Extremely comfortable (1)</th>
<th>Somewhat comfortable (2)</th>
<th>Neither comfortable nor uncomfortable (3)</th>
<th>Somewhat uncomfortable (4)</th>
<th>Extremely uncomfortable (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting to new apps (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Discovering new apps for something you want to achieve (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Fixing your computer when it crashes (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Coding programs (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Assembling your computer (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Using a smartphone to take pictures (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Investigating new functions on a smartphone (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Downloading new apps, for example, Adobe Flash, from the Internet (8)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q3 Prior to taking Health Education for Teachers, had you previously taken any online courses?

- Yes (1)
- No (2)

Q4 How many online courses had you taken prior to Health Education for Teachers?

- 0 (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5-9 (6)
- 10-20 (7)
- 20+ (8)

Q5 What is your overall impression of online courses?

________________________________________________________________

Q6 During the semester, which assignment facilitated your further thinking on health education? Can you describe it in detail? Why?

________________________________________________________________

Q7 Have any articles or videos from this class inspired you to find more information on a particular topic? If so, which one? Please explain.

________________________________________________________________
Q8 Are you currently teaching at the K-12 level?

- Yes (1)
- No (2)

Q9 If you are currently teaching at the K-12 level, please describe the school at which you are teaching. Where is it located? Is it a private, public, a charter school, or a religious school?

________________________________________________________________

Q 10 Which grade/s are you currently teaching? (you can click more than one)

- 1st (1)
- 2nd (2)
- 3rd (3)
- 4th (4)
- 5th (5)
- 6th (6)
- 7th (7)
- 8th (8)
- 9th (9)
- 10th (10)
- 11th (11)
- 12th (12)

Q11 Have you ever encountered any students who display signs of abuse (family abuse, bullying or drug use)? What are the signs? How did you detect them? What did you do after you encountered such cases?

________________________________________________________________
Q12 How do you educate your students on the issue of cyber bullying? Did you use the apps introduced by the class?

________________________________________________________________

Q13 Have you ever helped a friend or a student with stress or anger management or conflict management issues? If yes, how have you dealt with the issue?

________________________________________________________________

Q14 Please describe your Health Education for Teachers class experience in one sentence.

________________________________________________________________

Q15 If you had a chance, would you want to take face-to-face version? Why? Why not? Please explain.

________________________________________________________________
Appendix F

Survey Questions for Recent Students

Q1 Some researchers have suggested that people born in different time periods perceive technology differently. Which period were you born?

☐ (born before 1979) (1)

☐ (born between 1980 and 1993) (2)

☐ (born after 1994) (3)
Q2 How comfortable are you with the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Extremely comfortable (1)</th>
<th>Somewhat comfortable (2)</th>
<th>Neither comfortable nor uncomfortable (3)</th>
<th>Somewhat uncomfortable (4)</th>
<th>Extremely uncomfortable (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting to new apps (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Discovering new apps for something you want to achieve (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Fixing your computer when it crashes (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Coding programs (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Assembling your computer (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Using a smartphone to take pictures (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Investigating new functions on a smartphone (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Downloading new apps, for example, Adobe Flash, from the Internet (8)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q3 Prior to taking Health Education for Teachers, had you previously taken any online courses?

- Yes (1)
- No (2)

Q4 How many online courses had you taken prior to Health Education for Teachers?

- 0 (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5-9 (6)
- 10-20 (7)
- 20+ (8)

Q5 What is your overall impression of online courses?

__________________________________________________

Q6 What is your first impression of Canvas setting?

- Extremely satisfied (1)
- Somewhat satisfied (2)
- Neither satisfied nor dissatisfied (3)
- Somewhat dissatisfied (4)
- Extremely dissatisfied (5)
Q7 Please describe your navigating experience on Canvas.

- Extremely comfortable (1)
- Somewhat comfortable (2)
- Neither comfortable nor uncomfortable (3)
- Somewhat uncomfortable (4)
- Extremely uncomfortable (5)

Q8 How does Canvas compare to the other online course settings you have experienced?

________________________________________________________________

Q9 How does this class fit into your overall schedule?

________________________________________________________________

Q10 During the semester, which assignment facilitates your further thinking on health education? Can you describe it in detail? Why?

________________________________________________________________

Q11 Have any articles or videos from this class inspired you to find more information on a particular topic? If so, please describe.

________________________________________________________________

Q12 For the group project, did your group try to meet together? Did your group meet? Why or why not?

________________________________________________________________

Q13 For the online discussions, how did you choose which post to reply to?

________________________________________________________________
Q14 Approximately, what percentage of the discussion post did you read?

- Less than 25 percent (1)
- Between 25 and 49 percent (2)
- Between 50 and 74 percent (3)
- More than 75 percent (4)

Q15 How do you feel about the discussion post feedback you received from your peers?
________________________________________________________________

Q16 Have ever you been to professor Roberts' office hours? If you have, please describe your experience.
________________________________________________________________

Q17 If you had a chance, would you want to take face-to-face version? Why? Why not? Please explain.
________________________________________________________________
Appendix G

Interview Questions

Student Interview Questions

1. What is your overall impression of online courses?
2. During the semester, which assignment facilitated your further thinking on health education? Can you describe it in detail? Why?
3. Have any articles or videos from this class inspired you to find more information on a particular topic? If so, which one? Please explain.
4. If you had a chance, would you want to take face-to-face version? Why? Why not? Please explain.

Faculty Interview Questions

1. How do you judge students’ learning progress?
2. Do you think assignments can be a good measurement?
3. Over the years, how many students have requested face-to-face appointments with you?
4. Do you feel that students’ learning abilities have improved over time?
5. Does change in online management programs affect students’ learning? For example, Teachers College changed theirs from Moodle to Canvas in 2017.
Appendix H

Glossary

**CoI:** The community of inquiry (CoI) framework developed by Garrison, Anderson, and Archer (1999). The CoI model assumes that learning occurs within a community through the interaction of social presence, cognitive presence, and teaching presence, with social presence being the most important element.

**Community of inquiry:** A group of people who jointly explore a topic through a rigorous, democratic, and reflective discussion established over time with the same group of learners. This is Lipman’s (1991, 2003) application.

**Configuration of education:** Cremin (1973) argued that educators comprise all the people and institutions that play a role in a person’s education. Education generally proceeds via many individuals and institutions—parents, peers, siblings, and friends as well as families, churches, libraries, museums, summer camps, schools, and colleges. The combination of these personal and institutional educators constitutes one’s configuration of education.

**Digital immigrants:** Those born before the 1980s and the widespread use of digital technology who need to learn and adopt digital technology.

**Digital natives:** Those born after the 1980s in an era of widely used digital technology. Having grown up in the digital age, they are more comfortable with digital technology than digital immigrants.

**Educative style:** Leichter (1973) introduced this term which describes how individuals mediate their various educative experiences, how they engage with diverse institutions, and how they accumulate educative experiences over time.

**Online driver model course:** A course conducted mostly online, though it may include some in-person activities such as exams, labs, or field investigations.

**Phatic communication:** Phatic communication serves a social function. It is not intended to gather more information from other parties but rather constitutes polite small talk. Phatic communication helps to establish social bonds among participants.