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Hospitality Management Instructor Attitudes Towards COVID-Driven Compulsory
Course-Virtualization: A Qualitative Descriptive Study

Submitted by
Nicholas Makris

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Business Administration

Grand Canyon University

Phoenix, Arizona

January 28, 2022

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GRAND CANYON UNIVERSITY

Hospitality Management Instructor Attitudes Towards COVID-Driven Compulsory

Course-Virtualization: A Qualitative Descriptive Study

by

Nicholas Makris

Successfully Defended and Approved by All Dissertation Committee Members

October 15, 2021

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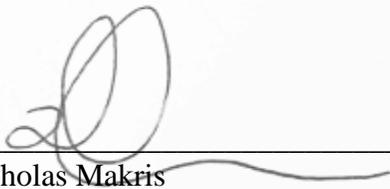
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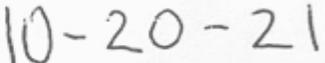
Hospitality Management Instructor Attitudes Towards COVID-Driven Compulsory

Course-Virtualization: A Qualitative Descriptive Study

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Nicholas Makris



October 20, 2021

Abstract

The purpose of this qualitative descriptive study was to explore how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on instruction of the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. The Theory of Technology Acceptance, the Extended Theory of Technology Acceptance, and the Unified Theory of the Use and Acceptance of Technology jointly constituted this study's theoretical foundations. Data collection was guided by three research questions, namely: (i) How do hospitality management instructors describe their attitudes towards the effects on teaching of the COVID-driven virtualization of instruction that occurred in Spring 2020? (ii) How do such instructors describe the setbacks created by said virtualization? (iii) How do such instructors describe the benefits of said virtualization? Data was acquired through 14 semi-structured interviews and two semi-structured focus groups. Thematic analysis of the data yielded eight themes: (i) Virtual instruction was relatively convenient in some respects; (ii) Student-on-student interaction was limited; (iii) Instructor-student interaction was limited; (iv) Complex material was hard to teach; (v) Students disengaged; (vi) Virtual courses came to resemble correspondence courses; (vii) Courses involving labs and lab-like components could not be taught properly; (viii) Virtual instruction had more downsides than upsides. Conclusion: In order for the virtualization of hospitality management courses to succeed, the technology being used must allow the emotional dynamics that govern in-person instruction to govern virtual instruction.

Keywords: Virtualization, compulsory course virtualization, virtual instruction, student engagement, hospitality management instruction, technology acceptance

Dedication

I would like to dedicate this dissertation to my wife Dina, to my sons Konstantinos and Vassilios, and my daughter Katerina.

Acknowledgments

I would like to thank my committee members for helping me through this difficult but rewarding process.

Table of Contents

List of Tables	xiii
Chapter 1: Introduction to the Study.....	1
Introduction.....	1
Background of the Study	7
Definition of Terms.....	14
Anticipated Limitations	20
Summary and Organization of the Remainder of the Study	23
Chapter 2: Literature Review.....	26
Introduction to the Chapter and Background to the Problem	26
Identification of the Problem Space.....	32
Theoretical Foundations.....	38
Review of the Literature	43
The Impact of COVID 19 on Higher Education: General Considerations	44
Voluntary Course-virtualization: A History	49
Instructor Attitudes Towards Hybrid and Virtual Courses.....	51
Similar Studies: Their Methodologies and Research Designs.....	73
Problem Statement	75
Summary	77
Chapter 3: Methodology	80
Introduction.....	80
Purpose of the Study	81
Research Questions.....	83
Rationale for a Qualitative Methodology	85

Rationale for Research Design.....	86
Population and Sample Selection.....	91
Qualitative Sample Size.....	93
Recruiting and Sampling Strategy	94
Sources of Data.....	94
Individual Interviews	96
Focus Group Interview	98
Trustworthiness.....	100
Credibility	107
Transferability.....	108
Dependability.....	109
Confirmability.....	110
Data Collection and Management.....	111
Interviews.....	112
Interview Process.....	112
Focus Group Interviews.....	113
Data Analysis Procedures	114
Data Familiarization	115
Code Development and Coding.....	116
Theme Development.....	116
Ethical Considerations	118
Assumptions, and Delimitations	119
Assumptions.....	119
Delimitations.....	120
Summary	121

Chapter 4: Data Analysis and Results.....	125
Introduction.....	125
Preparation of Raw Data for Analysis and Descriptive Data	128
Preparation of Raw Data for Analysis	128
Descriptive Data	129
Data Analysis Procedures	132
Reflexivity Protocol.....	134
Data Analysis Steps	139
Results.....	156
Presenting the Results.....	158
Limitations.....	184
Summary.....	187
Chapter 5: Summary, Conclusions, and Recommendations.....	190
Introduction and Summary of Study.....	190
Summary of Findings and Conclusion.....	192
Overall Organization.....	192
Summary of Findings by Theme	193
Summary of Findings by Research Question	210
Reflection on the Dissertation Process	213
Implications.....	220
Theoretical Implications	221
Practical Implications	229
Future Implications	231
Strengths and Weaknesses of the Study	232
Recommendations.....	234

Recommendations for Future Research	234
Recommendations for Future Practice.....	235
Holistic Reflection on the Problem Space	236
References.....	238
Appendix A. Ten Strategic Points	285
Appendix B. Site Authorization.....	287
Appendix C. IRB Approval Letter.....	288
Appendix D. Informed Consent.....	290
Appendix E. Copy of Instruments and Permission Letters to Use the Instruments.....	294
Appendix F. Manually Generated Codebook for Field Tests.....	296
Appendix G. Autogenerated (NVivo) Codebook for Field Tests	304
Appendix H. Field Test Transcripts.....	308
Appendix I. Individual Interview Guide	309
Appendix J. Individual Interview Questions	310
Appendix K. Alignment of Individual Interview Questions with Research Questions and Theoretical Models	311
Appendix L. Focus Group Interview Guide	312
Appendix M. Focus Group Interview Questions	314
Appendix N. Alignment of Focus Group Interview Questions with Research Questions and Theoretical Models.....	315
Appendix O. Field Test Rubric.....	316
Appendix P. Feasibility and Benefits Checklist	317
Appendix Q. Copy of the Invitation to Participate (Study Advertisement).....	320
Appendix R. Screening Questions	321
Appendix S. Expert Panel.....	322
Appendix T. Demographic Questionnaire	293

Appendix U. Results of Demographic Questionnaire.....294

Appendix V. Final Codebook299

List of Tables

Table 1. <i>Dissertation Timeline</i>	24
Table 2. <i>Semi-Structured Interview Data</i>	131
Table 3. <i>Semi-Structured Focus Group Data</i>	132
Table 4. <i>Excerpt from Reflexivity Journal</i>	136
Table 5. <i>Excerpt from First Cycle Codebook</i>	142
Table 6. <i>Excerpt from Second Cycle Codebook</i>	143
Table 7. <i>Excerpt from Third Cycle Codebook</i>	146
Table 8. <i>List of Themes</i>	149
Table 9. <i>Themes by Research Question</i>	150
Table 10. <i>Excerpt from Fourth Cycle Codebook</i>	152
Table 11. <i>Excerpt from Final Codebook</i>	155
Table 12. <i>Codes and Categories Supporting Theme 1</i>	160
Table 13. <i>Codes and Categories Supporting Theme 2</i>	162
Table 14. <i>Codes and Categories Supporting Theme 3.</i>	167
Table 15. <i>Codes and Categories Supporting Theme 4</i>	170
Table 16. <i>Codes and Categories Supporting Theme 5</i>	172
Table 17. <i>Codes and Categories Supporting Theme 6</i>	175
Table 18. <i>Codes Supporting Theme 7</i>	179
Table 19. <i>Codes Supporting Theme 8</i>	183

Chapter 1: Introduction to the Study

Introduction

The purpose of this qualitative, descriptive study was to explore how 12-15 hospitality management instructors at a college of management in the Northeastern United States described their attitudes towards the effects on the quality of instruction of the Coronavirus Disease 2019 (COVID 19) driven compulsory virtualization of their courses that occurred in the Spring of 2020. At the institution in question, COVID-driven virtualization began on March 17, 2020, and the courses that went virtual have remained virtual. When courses went virtual, each of the 14 instructors participating in this study were teaching in the Department of Food and Beverage Management (DFBM). The majors offered by DFBM are Restaurant Food Service Management (RFSM), Culinary Arts and Food Service Management (CAFSM), and Baking and Pastry Arts and Food Service Management (BPFSM). All three majors combine standard business classes (e.g., finance, marketing, and economics) with labs in which students prepare and oversee the handling of food. Prior to COVID 19, all courses at this college were taught in person. On March 17, 2020, every course, including the labs, had to be virtualized within a period of five days. This study described instructor attitudes towards the effects on the quality of instruction of the COVID-driven compulsory virtualization of their courses.

Because the current study is concerned with instructor-attitudes towards the effects on instruction-quality of COVID-driven course-virtualization, it was important that each of the study-participants have been the instructor, from course-inception to course-completion, of at least one course that started out as an in-person course but then underwent COVID-driven virtualization. For this reason, all study participants were

teaching at least one in-person hospitality management course that underwent COVID-driven virtualization and who saw that course through to its completion. Hospitality management instructors who responded to the compulsory virtualization of their courses by ceasing to teach them fall outside the scope of the present study, as did all other hospitality management instructors who had not personally taught, from start to finish, a course that began as an in-person course but underwent COVID-driven virtualization and therefore ended up as a virtual course. The target population included people of various different academic ranks, ranging from adjunct professor to full professor. The commonly shared characteristic of study-participants was that they had taught, from course-inception to course-completion, at least one hospitality management course at the institution in question that underwent compulsory COVID-driven virtualization. Consequently, the term “instructor” will be used to refer to study-participants, and the broader and more ambiguous term “professor” will not be used, even though each study-participant is in fact a professor of one rank or another.

Prior to COVID 19, some colleges had already adopted a hybrid (part in-person, part online) approach to course-instruction (Zhou et al., 2020). Also, some institutions of higher education that were previously entirely non-digital adopted a largely digital format, and several strictly digital universities came into existence (Themelis & Sime, 2020). Moreover, prior to COVID 19, the responses of educators to the integration of technology into education were largely positive (Bui, Luong, Nguyen, Nguyen & Ngo, 2020). But unlike pre-COVID cases of technology-absorption into the educational process, the Spring 2020 COVID-driven course-virtualization undergone by institutions of higher education in the United States was compulsory and rushed (Basilaia &

Kvavadze, 2020). Consequently, courses that instructors did not want to be taught online had to be taught online, and the conversion to an online format had to happen within a very narrow time-window (Ali, 2020; Özgen & Reyhan, 2020). Therefore, it cannot be assumed that faculty attitudes towards these changes were identical with faculty attitudes towards non-compulsory, pre-COVID cases of course-virtualization (Ali, 2020; Bui et al., 2020; Özgen & Reyhan, 2020).

There is a paucity of research concerning faculty attitudes towards pandemic-driven, compulsory course-virtualization, and the results of the few existing studies conflict with one another (Ali, 2020; Bui et al., 2020). Tosepu, Gunawan, Effendy, Lestari, Bahar and Asfian (2020) did a study of a single elementary school class in Indonesia, finding that both students and teachers responded positively to the changes. Aliyyah et al., (2020) studied a single college class in Saudi Arabia, finding that 86% of the faculty and 78% of the students responded positively. Bokde, Kharbikar, Roy, Joshi and Ga (2020) studied a single college class in Bhutan, finding that 68% of faculty and 81% of students responded negatively. Tiwari (2020) asserts that, in a single study conducted in Indonesia, secondary school teachers responded positively to COVID-driven, compulsory course virtualization and that their students had similarly positive reactions, adding the disclaimer that these results might not generalize to other contexts, such as higher education. Auma and Achieng (2021) did a study of a single elementary school class in Ghana, finding that both students and teachers responded negatively to the changes, with only 11% of students and 15% of teachers regarding post-COVID instruction as even minimally acceptable. Zayapragassarazan (2020) studied student and faculty attitudes towards in secondary school students in India, finding that 45% of

students and 39% of teachers responded negatively. Each of these studies was questionnaire-based and quantitative-correlational; none involved on direct observation or interviews with the participants. Moreover, the classes studied in these cases concerned strictly academic subjects and involved no lab or vocational component.

Several researchers have identified a gap in the literature requiring further research along the lines being conducted in this study. Krishnamurthy (2020) notes that hospitality management curricula often involve both purely academic and hands-on components and that it is not known what hospitality management faculty attitudes towards are of the compulsory course-virtualization of instruction that occurred throughout the world in the Spring of 2020. Krishnamurthy (2020) further asks that an in-depth qualitative descriptive study be done of a college of hospitality management, citing the paucity of research done concerning such colleges. According to Auma & Achieng (2021), there exists a gap in the literature concerning COVID-driven compulsory course-virtualization in higher education. Bui et al. (2020) say that existing research fails to address instructor attitudes towards technology acceptance in the wake of COVID 19 concern primary and secondary schools, there being a shortage of studies concerning such attitudes towards at institutions of higher education. Bui et al. (2020) note that their findings concerning COVID-driven, compulsory course-virtualization in elementary school in Viet Nam do not necessarily generalize to higher education, or to education in the West, or to curricula, such as hospitality management, that have both academic as well as lab components. Bui et al. (2020) demand that this gap be addressed, recommending that qualitative descriptive approach be given precedence over a quantitative correlational approach, owing to the high degree of variation between

different kinds of curricula. Zayapragassarazan (2020) notes that each existing study of course-virtualization was confined to a single class and asks that future research concern entire departments or colleges, as opposed to individual courses. Donthu and Gustaffson (2020) note that there exists extremely limited research concerning the consequences of pandemic-driven course-virtualization for courses involving a lab component, asking that future scholars address this gap by studying curricula that are not strictly academic and have a lab component. Sahu, Lai and Mishra (2020) and Burgess and Sievertsen (2020) observe that existing work on COVID-driven course is based on surveys, as opposed to qualitative descriptive studies, urging future scholars to address this gap by conducting in-depth descriptive studies of schools and colleges that underwent COVID-driven emergency course-virtualization. The purpose of this qualitative descriptive study was to address this gap by exploring how hospitality management instructors at a college of management in the Northeastern United States described their attitudes towards the effects on instruction of the COVID-driven compulsory virtualization undergone by their courses in April 2020.

According to Savage (2020), most instruction will soon be virtual. In Savage's view, instruction was in the process of being virtualized prior to COVID 19 and COVID 19 merely accelerated this process. According to Johnson, Veletsianos, and Seaman (2020), COVID 19 greatly expanded the number of educators who believe the virtualization of education to be inevitable. According to Sahu et al. (2020), education was in the process of being virtualized prior to COVID 19, but COVID 19 accelerated that process, especially in connection with engineering courses. According to Basilaia and Kvavadze (2020), COVID 19 accelerated the rate at which auto-repair and other

virtualization-resistant disciplines were being virtualized. According to Tosepu et al. (2020), COVID 19 convinced many educators that the inevitable virtualization of education would occur within the next two decades. Savage (2020) writes that insurance-related education will undergo compulsory virtualization within the next five years and that there is a need for in-depth studies concerning instructor attitudes towards course-virtualization, specifically towards instructor attitudes towards its effects on pedagogical efficacy. Sintema (2020) writes that all forms of instruction will undergo compulsory virtualization and that scholars should therefore provide in-depth studies of existing cases of compulsory virtualization. Sintema further notes the paucity of such studies and say that this represents a scholarly gap that should be addressed (Sintema, 2020). According to Ambati et al. (2020), hospitality management courses will inevitably undergo compulsory virtualization, and scholars should help hospitality management instructors prepare for this inevitability by studying existing cases of such courses undergoing compulsory virtualization. This qualitative descriptive study addressed this gap by exploring how 12-15 hospitality management instructors at a college of management in the Northeastern United States described their attitudes towards the effects on hospitality management education of the COVID-driven compulsory virtualization of instruction that occurred in Spring 2020.

There is a vast literature proving the benefits of technology for education at all levels, and there is also a voluminous literature concerning student and instructor attitudes towards the use of technology in education (Shanth & Jayapaul, 2020). Moreover, there is considerable literature concerning faculty descriptions of their attitudes towards voluntary course-virtualization and technology-adoption (Wei & Chou,

2020). However, there is extremely little literature concerning faculty attitudes towards compulsory technology adoption, such as is required by the COVID 19 pandemic (Donthu & Gustaffson, 2020). Further, there existed no studies, whether quantitative or qualitative, concerning instructor attitudes towards compulsory technology adoption in a program of hospitality management (Sandars et al., 2020). There is a documented need for an in-depth qualitative descriptive study of a situation where a hospitality management department underwent compulsory course-virtualization (Demuyakor, 2020). In conclusion, it was not known how hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven, compulsory course-virtualization, and the purpose of this study was to address this gap in the literature (Ali, 2020; Demuyakor, 2020; Donthu & Gustaffson, 2020; Zayapragassarazan, 2020). This chapter presents the background to the problem being studied, defines technical terms, identifies the limitations of the present study, and concludes by summarizing the remainder of the study.

Background of the Study

Virtual instruction has existed for over twenty years, but none of the virtual instruction offered prior to COVID 19 involved compulsory course-virtualization (Dung, 2020). When a course is voluntarily virtualized, that is because the institution offering the course made a judgement to the effect that it would be financially and pedagogically feasible to virtualize it (Burgess & Sievertsen, 2020). In such a case, the host-institution has made a determination that (i) its faculty are able and willing to teach that course virtually, (ii) its students are able and willing to take that course virtually, and (iii) it has the financial, legal, technical, and logistical resources necessary to offer a virtual version

of that course (Burgess & Sievertsen, 2020). When a course is virtualized under duress, the institution made no such judgment and likely made a judgment to the effect that virtualization would be pedagogically or financially unfeasible (Burgess & Sievertsen, 2020). Consequently, the difference between voluntary and compulsory virtualization lies not just in the circumstances precipitating virtualization but also in facts relating to stakeholder-attitudes towards course-virtualization and to the practical feasibility thereof. For this reason, the results of research concerning non-compulsory course-virtualization do not necessarily hold with respect to compulsory virtualization.

A related fact is that many of the courses that underwent compulsory virtualization in response to COVID 19 were taught at institutions that already offered virtual versions of those very same courses (Schaffir, Strafford, Worly, & Traugott, 2020). Moreover, the instructors who were teaching those courses non-virtually had often declined to teach them virtually (Schaffir et al., 2020). This suggests that the instructors had reservations of some kind or another about teaching those courses virtually. Moreover, the students enrolled in the in-person versions of such courses did so because they did not want to take the virtual versions of those courses, and it can reasonably be assumed that many such students were likely inconvenienced by the fact that they were being required to take those courses virtually (Schaffir et al., 2020). This means that the instructors teaching such courses had to deal with students who were disgruntled with the fact that the course was being taught virtually, and such instructors are in circumstances that are very different from those of instructors who are teaching online classes that did not undergo compulsory virtualization (Schaffir et al., 2020).

Consequently, there are significant differences between situations where a course is taught virtually only because it was forced to undergo virtualization and those where virtualization was entirely voluntary (Burgess & Sievertsen, 2020; Sandu, 2020). Because of these differences, results relating to non-compulsory course-virtualization cannot be expected to hold with respect to cases of compulsory virtualization (Sandu, 2020). A corollary is that the research concerning non-compulsory course-virtualization must be regarded as distinct from, albeit complementary to, research concerning compulsory course-virtualization (Burgess & Sievertsen, 2020). In this context, therefore, there are two relevant pre-existing bodies of research: (i) research on non-compulsory course-virtualization, and (ii) research on compulsory course-virtualization (Iyengar, Mabrouk, Jain, Venkatesan, & Vaishya, 2020).

Prior to COVID 19, there existed little research on compulsory course-virtualization, and the research relating to the present study was published no earlier than May 2020 (Clark, Nong, Zhu, & Zhu, 2020; Sandu, 2020). Non-compulsory technology-adoption in education involves supplementing pre-existing curricula rather than restructuring or displacing them (Clark et al., 2020). Such technology allows students to email or upload assignments, rather than manually submitting hard copies, and it also allows for the automation of frequent online quizzes, which help ensure that students are continually engaged with the course material and which also document their performance (Ali, 2020; Clark et al., 2020; Kim, 2020). Non-compulsory educational technology also includes discussion-boards and other course-specific cyber-venues, which often contain helpful supplementary material (Nyachwaya, 2020; Ranga, 2020). In STEM (Science, Technology, Engineering, and Mathematics) disciplines, programs such as Stat Crunch

and Wolfram are used to help explain difficult concepts and techniques and to help students with difficult problems (Gunawan, Suranti, and Fathoroni & Nyachwaya, 2020; Ranga, 2020). Programs such as Grammarly provide students with automated writing-assistance and also check assignments for plagiarism (Yahaya, Isyaku, Lawal, Ismail, Kumar & Barik, 2020). Also, services such as Chegg and Varsity Tutors provide students with high quality individualized tutoring (Khan & Jawaid, 2020; Seedat-Khan et al., 2021). Further, non-compulsory educational technology allows for entire examinations to be taken online, and programs such as Examity make it virtually impossible for students taking online exams to cheat (Mojica, 2020). Finally, educational technology has led to advances in the teaching of people with special physical and cognitive needs (Andajani & Wijastuti, 2020).

There is a dark side to educational technology. Moubayed, Injadat, Shami and Lutfiyya. (2020) note that educational technology has led to the wholesale automation of classes that were previously non-automated, leading to decreased engagement on the part of both faculty and students. Moreover, Ogrutan and Aciu (2020) observe that there are websites, such as Chegg and StuDocu, that contain completed homework assignments and tests from past classes, making it possible for students to copy assignments instead of doing them themselves. A consequence of this, according to Ogrutan and Aciu, is that instructors disengage from their own courses. Relatedly, many scholars believe overdependence on automation to have marginalized the role of instructors. Instead of teaching classes, instructors often find themselves doing little more than proctoring prefabricated classes (Schaffir et al., 2020).

According to Reinhold, Hoch, Werner, Richter-Gebert and Reiss (2020), the scholarly consensus is that technology has done more to help than to hurt education. It has made it easier for students and instructors to communicate with one another and for instructors to supplement their courses with videos, PowerPoints, and interactive teaching aids. It has given students access to powerful teaching apps such as Wolfram and Stat Crunch and to the expertise of online tutors (Reinhold et al., 2020). According to Reinhold et al. (2020), educational technology is helpful precisely because it automates those aspects of the educational process that should be automated, allowing instructors and students to focus on content-delivery and content-absorption, respectively. According to Reinhold et al. (2020) and Bedenlier, Bond, Buntins, Zawacki-Richter and Kerres (2020), this holds both of in-person courses that had a virtual component and also of courses that were entirely virtual.

According to Bokde et al. (2020) and Liu, Zhang and Wu (2020), pre-COVID studies of technology-acceptance in education were concerned with situations where the technology in question was being adopted in a non-rushed, non-compulsory, entirely voluntary manner, and the findings generated by these studies therefore do not generalize to COVID-driven, compulsory cases of course virtualization. Moreover, as previously noted, existing studies of COVID-driven cases of course-virtualization yield mixed and therefore ambiguous results, and some of those studies are strikingly inconsistent with those of pre-COVID studies of course virtualization (Aliyyah et al. 2020; Auma & Achieng, 2020; Bui et al., 2020; Hodges et al., 2020; Krishnamurthy, 2020; Tiwari, 2020). Aliyyah et al. (2020) note that only 23% of students in an economics class at a prominent university in India found post-COVID virtual instruction to be as good as pre-

COVID non-virtual instruction. Zayapragassarazan (2020) found that, according to faculty at a secondary school in Pakistan, post-COVID course-virtualization decreased student-engagement and student-learning.

According to Bui et al. (2020), there exists a paucity of research concerning instructor attitudes towards COVID-driven compulsory course-virtualization. Bui et al. (2020) note that their findings concerning COVID-driven, compulsory course-virtualization do not necessarily generalize to higher education, or to education in the West, or to curricula, such as hospitality management, that have both academic as well as lab components. Bui et al. (2020) and Sintema (2020) demand that this gap be addressed, recommending that a qualitative descriptive approach be given precedence over a quantitative correlational approach, owing to the high degree of variation between different kinds of curricula. Zayapragassarazan (2020) studied student and instructor attitudes towards the effects on instruction of COVID-driven virtualization in secondary school students in India, noting that his results conflict with those of both Tiwari (2020) and Rachmadtullah, Samsudin, Syaodih, Nurtanto and Tambunan (2020). Zayapragassarazan further notes that each study was confined to a single class and asks that future research study an entire college, recommending a qualitative descriptive approach, owing to the distinctiveness of educational curricula.

Bui et al. (2020) and Khan (2020) observe that existing studies of COVID-driven forced classroom virtualization are concerned with cases of strictly academic courses being virtualized. Bui et al. (2020), Ray and Srivasta (2020), de Freitas and Stedefeldt (2020), and Cohen and Kupferschmidt (2020) note that this represents a serious gap in the literature, since the greatest challenge posed by COVID 19 to education involves the

virtualizing of classes that have a lab component. The reasoning behind this assertion, writes Sandu (2020), is that lab-based instruction has not yet been virtualized as successfully as strictly academic instruction. According to Ray and Srivastava (2020), Sandu (2020), and Shore, Schneck and Mishkind (2020), there do not exist any in depth qualitative descriptive studies of attempts to virtualize classes with a lab component, this being a gap that scholars must address. According to Velázquez, Gupta, Gupte, Carson and Venter (2020), COVID 19 forced educators to test the limits of virtualization, and it is urgent that the results of this situation be documented, especially in connection with college-level courses having a lab component. According to de Freitas and Stedefeldt (2020), it is unknown whether restaurant management and other hospitality-related classes were able to be successfully virtualized in response to COVID 19, and scholars should conduct qualitative, descriptive studies of such cases while the memory of the virtualization-process is still fresh in the minds of students and faculty. Cohen and Kupferschmidt (2020) identify a strong need for scholars to conduct qualitative descriptive research concerning the attitudes of college-level instructors as to the effects on the quality of instruction of the virtualization of their courses that occurred because of COVID 19. In conclusion, there is a documented need to conduct a qualitative descriptive study of attitudes on the part of college-level instructors of hospitality management towards COVID-driven course-virtualization.

The present work addressed this gap by conducting a qualitative descriptive study of a college of hospitality management in the Northeastern United States that had to undergo compulsory virtualization in response to COVID 19. This study focused on one department within that college, namely the Department of Food and Beverage

Management (DFBM). When COVID 19 struck, twelve classes were taught in DFBM. Each class had between 15 and 25 students. This study was an in-depth qualitative descriptive study of faculty attitudes towards the effects on teaching of the pandemic-driven compulsory course-virtualization of a lab-heavy college curriculum. The two data sources were interviews with hospitality management instructors whose courses were because of COVID 19 and focus groups consisting of interviewees.

Definition of Terms

Automation: The replacement of human workers with machines (Bainbridge, 1983). One form of automation is digitization, and course-virtualization is one form of digitization (Sheridan, 2002). This study concerned course-virtualization and therefore concerns automation.

Beverage Appreciation: A course offered at culinary schools in which students learn how to determine the quality and chemical compositions of different beverages strictly on the basis of taste (Donadini, Fumi, & Lambri, 2012). Beverage Appreciation is one of the courses that had to undergo virtualization at the college being studied. Courses that involve sensory modalities other than sight and hearing are difficult to virtualize, and this was a case in point (Nam, Kim, & Carnie, 2018). Beverage Appreciation is one of the courses at the institution in question that underwent COVID-driven, compulsory virtualization in Spring 2020 at the institution in question.

College of Hospitality Management: A business school that focuses on the hospitality industry (Barrows & Bosselman, 1999). The principles and techniques involved in the management of hospitality-related businesses, such as restaurants and hotels, are sufficiently distinctive that many employers, such as large hotel chains,

require their managers to have a degree in hospitality management. Hospitality-related businesses tend to have a heavy in-person component and are therefore difficult to virtualize. Much the same is true of hospitality-instruction, since it has correspondingly large in-person component (Dev, 2020). One of the objectives of this study was to explore attitudes towards one attempt to deal with such difficulties.

Compulsory: Done involuntarily and under conditions of duress. The course-virtualization examined in this study was compulsory in the sense that the college in question would have been subject to severe civil and criminal sanctions had it continued to teach non-virtually (Guillén et al., 2020).

Course-lab. See ‘Lab.’

Course-Virtualization: The conversion of a class from an in-person format to an entirely online format (Zdravev, Boev & Dzidrov 2020). Prior to COVID 19, course-virtualization occurred before the course in question was offered. COVID-driven virtualization was compulsory and happened mid-semester. This violated both student and faculty expectations of those courses (Sales, Cuevas-Cerveró & Gómez-Hernández, 2020). One of the objectives of this study was to examine instructor attitudes towards this bait-and-switch.

COVID 19: Pandemic beginning in early 2020 which forced many schools, businesses, places of worship, and government offices to conduct business online or shut down (Hollander & Carr, 2020). COVID 19 was profoundly disruptive of existing educational practices, and one of the objectives of this study was to study attitudes towards these disruptions on the part of faculty of hospitality management (Gursoy &

Chi, 2020). This particular curriculum was chosen because it has an in-person component and was therefore especially adversely affected by compulsory virtualization.

COVID-Driven: Done in response to the COVID 19 pandemic; refers to emergency measures relating to the shutting down of brick-and-mortar educational and commercial establishments and to the concomitant virtualization of the functions fulfilled thereby (Brynjolfsson et al., 2020). ‘COVID-driven’ means ‘compelled to happen by COVID 19.’ All COVID-driven technology acceptance is compulsory, but not *vice versa*; and the consequent distinctiveness of COVID-driven course-virtualization is responsible for the gap addressed by this study (Brynjolfsson et al., 2020).

Digitization: Digital automation; the replacement of human workers with computers (Sheridan, 2002). Digitization is a distinctive form of automation, and it is increasingly important in our society. Prior to COVID 19, digitization was almost always voluntary, and it never occurred on a mass-scale (Velázquez et al., 2020). COVID-driven course-virtualization is one of the first instances of compulsory mass-digitization, and its psychological effects on instructors have not yet been adequately studied (Pacchiarotti, 2020). Hence the need for studies such as the present one.

Extended Acceptance Technology Model: See Technology Acceptance Model 2.

Food Service Management: The operating of an establishment, such as a restaurant or hotel, that serves food and beverages (Hall et al., 2020). FSM is a branch of Hospitality Management. FSM-instruction is a particularly important part of each of the majors offered in the department examined in this study. FSM-related courses are lab-heavy and were especially hard hit by COVID-driven virtualization (Hall et al., 2020).

Lab. A course-component that requires the student to engage in experimental or otherwise non-academic operations (Works, Fukuto, Lares, Negru, & Lillig, 2020). ‘Lab’ is short for laboratory, and until recently this term was used only in connection with science classes. But now the scope of the term has been broadened to include any experience-based, as opposed to strictly academic, course-component (Craig, 2020). Lab-related instruction was severely disrupted by COVID 19 (Works et al., 2020).

Hands-On: Done in-person and physically, as opposed to remotely and virtually. Course-labs are necessarily hands-on (MacDonald, Lonnemann, Petersen, Rivett, & Osmotherly, 2020).

Hospitality Industry: The economic sector consisting of recreational establishments, such as clubs, hotels, restaurants, and casinos (Dogru, Mody, Suess, McGinley, & Line, 2020).

Hospitality Management: The application of business management techniques to hospitality businesses (Guzzo, Abbot, & Madera, 2020).

Hospitality Marketing: The use of marketing techniques to promote hospitality businesses, such as restaurants and casinos (Modica, Altinay, Farmaki, Gursoy & Zenga, 2020). Hospitality Marketing is an integral part of any Hospitality Management curriculum. Hospitality Marketing was one of the courses that underwent compulsory virtualization at the college being studied and is currently being taught in a virtual form (Kamruzzaman, 2020). Hospitality Marketing is a lab-based course.

Hybrid: A ‘hybrid’ class is one that is mainly taught in person but has a significant online component. Almost all college-level courses are hybrids. However,

many are still predominantly in-person, whereas others are predominantly or strictly virtual (Sellnow-Richmond, Strawser & Sellnow, 2020).

Hybridization: The process of converting a predominantly in-person class to one that is equally balanced between in-person and online components. Hybridization is partial virtualization (Sellnow-Richmond et al., 2020). COVID 19 demanded wholesale course-virtualization, and the present study sometimes touched on the differences between hybridization and wholesale virtualization (Johnson et al., 2020).

Lockdown: The government-mandated cessation of brick-and-mortar services in response to the COVID 19 pandemic. In some regions and contexts, violation of the lockdown is merely a civil matter, while it is a criminal offense in others. The lockdown required all institutions of higher education to self-virtualize, and this study was concerned with one department of one such institution (Barkur & Vibha, 2020).

Hospitality Management Major: College major that focuses on the business aspects of the hospitality industry (Dev, 2020). Courses relating to Food Service Management and Restaurant Management are integral to this major. Because such courses are difficult to virtualize, the Hospitality Management Major was especially severely affected by COVID-driven compulsory course-virtualization (Dev, 2020; Mohammad, 2020). This study was concerned with the experiences of instructors in this major.

Technology Acceptance Model (TAM): Theory according to which a person's degree of acceptance of new technology depends on the extent to which that person sees that technology as useful and easy to use (Rafique, Almagrabi, Shamim, Anwar & Bashir 2020). TAM is an outgrowth of the Theory of Reasoned Action, according to which one

tends to act in ways that one judges to be conducive to one's own interests (Lat et al., 2020). Though applicable to all forms of technology, TAM was originally introduced in 1989 to explain acceptance of computer-technology (Davis, Bagozzi & Warshaw, 1989). It has since been subjected to several extensions and modifications (Davis, 2020). The current study was concerned with course-virtualization and by extension with the various cases of technology accepted therein, and TAM is therefore appropriate for this study.

Technology Acceptance Model 2 (TAM2): Introduced by Davis & Venkatesh (1996) to address deficiencies with TAM, TAM2 is an extension of TAM according to which six factors, additional to ease of use and perceived usefulness, determine a given person's degree of acceptance of a given form of technology, namely: (i) Subjective norms (a given person is more likely to accept new technology if he believes that using it will consolidate his relations with people who have power over him); (ii) voluntariness (he is more likely to use it if he is not being forced to do so); (iii) image (he is more likely to use it if he believes that doing so increases his prestige); (iv) job relevance (he is more likely to use it if he regards the function that it discharges as job-critical); (v) output quality (he is more likely to use it if it yields high quality results); and (vi) result demonstrability (he is more likely to use it if it generates easily and quickly verified results) (Schmidhuber, Maresch & Ginner, 2020). TAM2 is appropriate for this study, as it concerned technology acceptance.

Unified Theory of the Use and Acceptance of Technology (UTUAT):

Introduced by Davis & Venkatesh (2000), UTUAT consolidates TAM and TAM2 into a single model that according to which four factors determine technology acceptance, namely: (i) Performance Expectancy (what that person expects to gain in the way of job-

promotions or other forms of professional advancement from the use of the technology in question); (ii) Effort Expectancy (how much that person that his using that technology will make his life easier); (iii) Social Influence (degree to which that person believes that people of influence desire him to use that technology); and (iv) Facilitating Conditions (the degree to which that person believes his use of that technology to be supported by organizational and technical infrastructure) (Ambati et al., 2020). UTUAT is appropriate for this study, as it concerns technology acceptance.

Virtual by Necessity vs. Virtual by Choice. A course is ‘virtual by necessity’ if it was originally in-person but, once underway, was forced by some external circumstance to undergo virtualization. A course is ‘virtual by choice’ if it was virtual from its inception, with students enrolling in it knowing that it was virtual and the instructor agreeing to teach it knowing that it was going to be virtual. The expressions ‘virtual by necessity’ and ‘virtual by choice’ were first used with these meanings by Basilaia and Kvavadze (2020).

Virtualization-Resistant. Term coined by Basilaia and Kvavadze (2020) to describe disciplines whose subject matter makes them hard to virtualize. The scholarly consensus is that courses have a low degree of virtualization-resistance when they are strictly academic in nature and a high degree of virtualization when they have a lab-component or involve the development of physical skills (Tosepu et al., 2020).

Anticipated Limitations

A limitation on the part of a study is a possible weakness in that study, and a limitation is therefore anything that might threaten accuracy or generalizability (Creswell & Báez, 2020). Common limitations include inaccurate data, data-sets that are too

restricted to support generalizations, incorrect interpretations of data, interpretations of data that cannot be generalized to other contexts, and research designs that cannot be replicated or generalized to other subject-matters. Moreover, anything that might lead to one of these limitations is itself a limitation (Abramson, 2015). For example, limitations of time and money are sometimes dispositive of data-inaccuracies, insufficient data-samples, and incorrect data-models. Finally, limitations may be inherent in a given research design, and these limitations are often corollaries of their strengths. For example, quantitative studies tend to have a high degree of generalizability, but for that very reason they also tend to be relatively devoid of empirical data. By contrast, qualitative descriptive studies tend to be rich in empirical data, but they tend to be correspondingly less rich in data-interpretation and therefore less likely than other research designs to yield viable general theories.

The following limitations were operative in the context of this study:

1. The present study was focused on generating data, not on interpreting it. This study was qualitative descriptive, and its concern was therefore to generate a rich body of accurate data. Because interpretations of data tend to obscure the data itself, this study tended to refrain from putting forth such interpretations and it therefore refrained from speculating as to the causal mechanisms and general principles responsible for the data in question (Patton, 2014). However, the absence of interpretation is a by-product of the wealth of observational data generated by this study and is therefore justified (Creswell & Báez, 2020).
2. The sample size was not necessarily sufficiently large, and this study may have therefore failed to generate important data concerning hospitality and management instructor attitudes towards compulsory course-virtualization. The sample was the appropriate size for a qualitative descriptive study, but this does not guarantee that it was sufficiently large to generate an adequate dataset. Moreover, the sample size could not have been appreciably increased without limiting the researcher's ability to generate high-quality data. Consequently, the sample size may be insufficiently large, it was as large as the research design and the other operative constraints allowed it to be. Moreover, the dataset generated by this study was rich enough to be significant, even though it was necessarily complete.

3. The present researcher had limited time at his disposal. Consequently, he might not have had time to generate the requisite data and he might also have lacked the time needed to interpret that data. Nonetheless, the research questions driving this study proved capable of being answered within the time-window available to the present researcher.
4. Participants were themselves hospitality management instructors who personally underwent compulsory course-virtualization and themselves had to implement the various technological and procedural changes involved. For this reason, they likely had strong feelings about its effects on the effectiveness of their teaching, and these strong feelings may have given rise to biases. To hedge against participant-biases, the researcher used questions designed by experts and practiced bracketing.
5. Prior to completing this study, the researcher was relatively inexperienced at conducting interviews, and this might have adversely affected the quality of interview-generated data. To minimize the adverse effects of his inexperience, the researcher complied with interview-procedures that are based on the existing literature. The researcher presented these procedures in detail so as to allow readers to replicate this study.
6. The researcher is himself an instructor, and he might therefore have had a tendency to interpret data in a biased manner. The researcher acknowledged his possible biases when interpreting data and practiced bracketing to counteract their effects (Morse, 2015).

Participants all worked for a single college of hospitality management, and their viewpoints were not necessarily shared by instructors of hospitality management at other institutions. Hospitality management programs differ from one another in respect of their curricula, their management, and their financial and technological resources.

Consequently, the viewpoints of faculty members in one such program may be materially different from those of their counterparts at other such programs. Moreover, even after controlling for such differences, it is statistically unlikely that the sample studied was completely representative of the population of interest in every conceivable respect.

However, the sample studied was large enough to be representative of the target population in many significant respects. Moreover, its composition is representative of

that of the target population, and this study's findings were therefore likely to support generalizations.

Summary and Organization of the Remainder of the Study

Site Authorization for this study was granted (see Appendix B). The proposal was completed and submitted to the researcher's Dissertation Committee on October 9, 2020. The Dissertation Committee approved the proposal on October 14, 2020. It was immediately sent to AQR for review. AQR responded with suggested revisions on November 6, 2020. All revisions suggested by AQR were completed by early February 2021, at which point the proposal was sent to AQR for final review. AQR granted full and unconditional approval in March 2021, at which point IRB approval was sought and immediately obtained (Appendix C). Data collection and analysis jointly lasted three months, and another two months were required to write chapters 4 and 5, including updating the proposal language. Consequently, a draft of the completed dissertation will be submitted in late June of 2021, and the final version will be submitted in early July of 2021, with the dissertation defense likely taking place in early August of 2021 (see Table 1).

- October 9, 2020: Proposal submitted to Committee
- October 14, 2020: Proposal accepted by Committee.
- October 14, 2020: Proposal sent to AQR.
- March 1, 2021: Proposal accepted by AQR.
- March 1, 2021:: IRB-approval to commence study requested.
- April 1, 2021: IRB-approval to commence granted.
- April 1, 2021: Data-collection commences.
- May 1, 2021: Data-collection ends; data-analysis commences.

- May 15, 2021: Data-analysis ends; writing of Chapters 4 and 5 commences.
- July 1, 2021: Dissertation submitted.
- August 1, 2021: Dissertation Defended.

Table 1.

Dissertation Timeline

Alignment Item	Alignment Item Description
Problem Space Need:	It is not known how hospitality management instructors describe their attitudes towards the effects on teaching of the COVID-driven, compulsory virtualization of instruction.
Problem Statement:	It is not known how hospitality management instructors describe their attitudes towards the effects on teaching of the Spring 2020 COVID-driven virtualization of instruction.
Purpose of the Study:	The purpose of this qualitative, descriptive study is to explore how 12-15 hospitality management instructors at a college of business management in the Northeastern United States describe their attitudes towards the effects on teaching of the COVID-driven compulsory virtualization of instruction.
Phenomenon:	The attitudes of hospitality management instructors towards the effects on teaching COVID-driven compulsory virtualization of instruction that began in Spring 2020.
Research Questions:	(i) How do hospitality management instructors describe their attitudes towards the effects on teaching of the COVID-driven virtualization of instruction that occurred in Spring 2020? (ii) How do such instructors describe the setbacks created by said virtualization? (iii) How do such instructors describe the benefits of said virtualization?
Methodology/Research Design:	Qualitative descriptive.

In Chapter 2, the problem space will be identified. The theoretical will foundations of this study will then be identified. This will be followed by a literature review, which in turn will be followed by the problem statement. In Chapter 3, the purpose of the study will be stated, and the research questions will then be posed. Then the rationale for the methodology will be discussed, and the rationale for the research design will then be stated. Then the target-population will be identified. The method of choosing representative samples from that population will then be described, and the statistical justification for the sample size will be provided. Included in this will be a

description of the sources of the data. This will be followed by discussions as to the credibility, dependability, transferability, and confirmability of the results of this study. Following this will be a discussion of the data collection and management methods to be used, along with explications as to how confidentiality and accuracy of results will be preserved. Chapter 3 will conclude with a discussion of the ethical issues involved in this study. Chapter 4 will present the data generated by this study and present a preliminary analysis of that data. Chapter 5 will put forth a completed, detailed analysis of that data and identify the practical and theoretical implications of that analysis.

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Chapter 2: Literature Review

Introduction to the Chapter and Background to the Problem

Prior to COVID 19, course-virtualization was merely a convenience, but now it is a matter of practical and legal necessity (Hasan & Bao, 2020). When courses are voluntarily virtualized, the results are overwhelmingly positive (Iyer, Aziz & Ojcius, 2020). However, when they are virtualized under duress, as under COVID 19, the results are ambiguous (Kalpokaite & Radivojevic, 2020). Some studies indicate that COVID-driven compulsory virtualization has yielded positive results; others have indicated that those results, though far from ideal, were tolerable under the circumstances; and other studies have indicated that in some contexts COVID-driven, compulsory virtualization has been a failure (Almanthari, Maulina, & Bruce, 2020). Existing studies of forced course-virtualization, in addition to being scarce, have mostly been quantitative-correlational, with the result that there is little understanding as to when forced course-virtualization has been a success and when it has been a failure (Hodges et al., 2020). Scholars have asked that future scholars address this gap in our knowledge by conducting in-depth descriptive studies of cases of forced virtualization (Chang & Fang, 2020). Scholars have hypothesized that forced virtualization has been a failure in cases where courses had a lab-component and therefore involves hard-to-virtualize physical procedures (Dietrich et al., 2020). Owing to the absence of studies that are on point, it is not known whether this hypothesis is correct, and scholars have asked future scholars to address this gap (Jacob, Abigeal, & Lydia, 2020).

The present work was an in-depth exploratory qualitative descriptive study of a college of hospitality management whose curriculum underwent compulsory

virtualization in response to COVID 19. The curriculum in question was partly lab-based. The college in question, though obviously not representative of all educational institutions, represents a cross-section of the problems that many institutions of higher learning underwent, and continue to undergo, because of COVID 19 (Mossa-Basha et al., 2020). Like many institutions of higher learning, the target-institution offers many strictly academic classes, while also offering many lab-based courses. As with most institutions of higher learning, COVID 19 required that these classes be virtualized within a few days (Ray & Srivastava, 2020; Rose, 2020). This study was the first in-depth qualitative descriptive study of any college having to undergo COVID-driven compulsory virtualization, and it was therefore the first to address the previously mentioned scholarly gap. Being an in-depth qualitative descriptive study, the present work yielded detailed and specific information as to the difficulties undergone by faculty in a context involving forced course-virtualization and yielded information as to how course-virtualizations should be carried out in the future if they are to improve the experiences of faculty and improve the quality of their teaching.

Course-virtualization has a long history. Virtual teaching at the college level began in 1993, and the first completely virtual college curricula were launched in 1998 (Lino, Rocha, & Sizo, 2016; Proserpio & Gioia, 2007; Sahu et al., 2020; Shore et al., 2020). Since then, several learning management systems, such as Blackboard have come into existence, leading to the virtualization of many aspects of most college classes (Yaskin & Everhart, 2002; Bradford, Porciello, Balkon & Backus, 2007; Martin, 2008; Aldiab et al., 2020). It is now the norm for syllabi and other course materials to be posted to a virtual bulletin board, and for assignments to be posted virtually and handed in

virtually (Room, 2020; Ximenes, 2020). It is also increasingly the norm for instructors to post recordings of class lectures to virtual boards and sometimes to post recordings of lectures in lieu of in-person classes. Further, students of finance, economics, statistics, and mathematics are now often required to complete much of their work using applications such as Stat Crunch and Wolfram Alpha (Pratidhina, Dwandaru, & Kuswanto, 2020). Liberal arts often contain virtual discussion boards, where students post are required to post their responses to course-materials (Xiong-Skiba et al., 2020). Moreover, there exist online tutoring agencies, such as Varsity Tutors and Wyzant that provide college students with real-time help with their classes (Hrastinski, 2020). Such tutoring sessions happen in virtual ‘vestibules’ complete with live audio and video chat, along with ‘whiteboards’ that are equipped with calculators and other useful features (Burke, 2020). These tutoring agencies are staffed by graduates of elite institutions, many of them doctorates. Finally, there now exist many accredited institutions of higher learning that are exclusively or predominantly online (Ezell, 2020).

Students and faculty have responded largely positively to these developments (Sandhaus, Kushnir & Ashkenazy, 2020). Virtual technology helps faculty keep records, hand out assignments, collect completed assignments, aid students, organize and preserve records, and automate the computing of grades (Al-Sharhan, Al-Hunaiyyan, Alhajri & Al-Huwail, 2020). Virtual technology helps students to complete assignments, communicate with instructors and other students, find course-relevant information, and find qualified online tutors. However, prior to COVID 19, course-virtualization was entirely voluntarily (Rabiman, Nurtanto & Kholifah, 2020). Colleges only virtualized those classes that they believed they could successfully virtualize and only within a

timeframe of their own choosing (Ashrafi, Zareravasan, Rabiee Savoji & Amani 2020). COVID 19 required colleges to virtualize courses that they did not want to virtualize and to do so immediately (Murphy, 2020). Consequently, instructors were often forced to use untested virtualization-related software in connection with labs and other hard-to-virtualize courses, and forced virtualization therefore disrupted the progress of such courses at a structural level (Dai & Xia, 2020). Courses not having a lab component also appear to have suffered, with faculty often reporting difficulty adapting to the new technology reporting difficulty maintaining their previous levels of course-engagement (Aboagye et al., 2020).

However, since there has not been a single in-depth qualitative descriptive study of even a single educational institution undergoing forced virtualization, it is not known with any specificity what misgivings instructors had about the post-COVID arrangement (Furqan, Fatima, and Awan, 2020; Igbokwe, Okeke-James, Anyanwu, & Eli-Chukwu, 2020). It is not known whether faculty and student grievances concerning the virtualization of lab courses coincide with such grievances concerning the virtualization of strictly academic courses (Barber & Dolenc, 2020). It is not known which aspects of the new technology instructors found difficult to master. Nor is it known in exactly which respects students found the new arrangement to be alienating (Almarzooq, Lopes, & Kochar, 2020). Finally, it is not known whether faculty responses were uniformly negative or, on the contrary, whether some faculty found the new arrangement to be an improvement on the Pre-COVID arrangement (Byrnes, Civantos, Go, McWilliams, & Rajasekaran, 2020). According to Son, Hedge, Smith, Wang, & Sasangohar (2020), institutions of higher learning differ from one another in respect of their curricula, their

faculty, and their student bodies, and any two colleges are likely to have responded differently to forced virtualization. At the same time, write Son et al. (2020), there currently exist no in-depth qualitative descriptive studies of forced virtualization in higher education; and such studies, according to Son et al., are indispensable to our understanding how classes are best virtualized. By providing an in-depth qualitative descriptive study of an entire college, this study provided detailed and specific knowledge concerning an actual case of college-wide course-virtualization, and such information is likely to assist with course-virtualization at other institutions (Cronin, Carlile, Dameff, Coyne, & Castillo, 2020).

When surveying the literature, the search engines most relied upon were EBSCO Hospitality and Tourism, Gale Culinary OneFile, Gale Hospitality and Tourism OneFile, Business Source Complete, and Google Scholar. These were accessed via the Ocean State Library System. When using Business Source Complete library, the search term initially used was “e-learning.” This yielded over 500,000 results. The researcher therefore restricted the search to 2020, and this yielded over 5,000 results, most of them irrelevant. When the search term was changed to “e-learning COVID 19”, thirteen results were generated. After scanning these articles, the present researcher further restricted the search to peer-reviewed articles, which yielded ten articles, each of which was incorporated into the study. The present researcher then changed the search term to “COVID 19.” (The date was not restricted, since “COVID 19” automatically yielded results only from 2020.) Since this generated over 56,000 results, the search was restricted to “COVID 19 education”, which yielded 77 results. The researcher reviewed the titles of these articles, looking for relevance, and he then restricted the search to peer-

reviewed articles. This reduced the number to seven articles, each of which was included in the ten articles generated by a previous search. The researcher then searched for “e-learning COVID-19.” This search yielded nine results, one of which was not included in a previous search and, being relevant, was incorporated into the present study.

After reading the articles generated by the GCU-library search, the present researcher turned to Google Scholar. The search term first used was “virtualization education”, with the results being restricted only to peer-reviewed articles published in 2020. (The term “COVID” was deliberately omitted from the search.) This generated some extremely useful studies that were not yet available in the GCU library and that were subsequently incorporated into the present study. The next search term used was “virtualization education COVID”, with the search restricted to peer-reviewed articles published in 2020. This yielded dozens of relevant articles not available through the GCU system, and each of which was incorporated into the study. Variants of this search with hyphens inserted yielded a handful of relevant articles not previously found, and these were integrated into the study.

The researcher then turned to EBSCO Hospitality and Tourism, Gale Culinary OneFile, Gale Hospitality and Tourism OneFile. On the basis of variants of the just-described searches, the present researcher was able to access the full texts approximately sixty relevant and recent studies that are prohibitively expensive to access on Google Scholar and are not yet available in the GCU system. The present researcher subsequently did searches internal to the National Center for Education Statistics (NCES), the United States Department of Education (DOE), and the Centers for Disease Control and Prevention (CDC). The search term used for the CDC-search was simply “education.”

This yielded several useful studies concerning the impact of COVID 19 on education, some of which were incorporated into the study. The term used for the DOE search was “COVID 19”, and this yielded several useful articles. Finally, the term used for the NCES search was “COVID 19”, which yielded useful data.

In this chapter, the problem space will be identified. This will involve identifying the research gap that the present work will address. Then the theoretical foundations of this study will be identified. This will involve describing the theoretical models that will be used and relating them to this study. These models are the Technology Acceptance Model (TAM), the Extended Technology Acceptance Model (TAM2), and the Unified Theory of the Use and Acceptance of Technology (UTUAT). This will be followed by a literature review. This review will involve a discussion of the history of course-virtualization, including its perceived successes and failures, as well as the special challenges perceived by scholars to be involved in the COVID-driven, compulsory course-virtualization initiated in Spring 2020 and still in progress. The problem statement will then be stated, followed by a chapter summary.

Identification of the Problem Space

It is not known how instructors of hospitality management describe their attitudes towards the effects on teaching and learning of the COVID-driven, compulsory virtualization of instruction that occurred in Spring 2020. There exists abundant research concerning instructor attitudes towards virtual courses, but there exist few in-depth studies concerning instructor attitudes concerning courses that were originally in-person but underwent forced virtualization. Prior to COVID 19, virtualization was always voluntary (Burgess & Sievertsen, 2020). Instructors teaching such courses agreed to teach

them knowing that they were virtual, and students who enrolled in them did so knowing that they were virtual (Burgess & Sievertsen, 2020). The institutions offering such courses did so because they knew that they had faculty able and willing to teach them and students able and willing to enroll in them (Burgess & Sievertsen, 2020;). Many of the courses that underwent COVID-driven forced virtualization were taught at institutions that also offered those same courses in virtual form, and the instructors of such classes oftentimes chose to teach them in person because they had serious reservations about teaching them virtually (Schaffir et al., 2020). Moreover, when courses that underwent COVID-driven forced virtualization were ones that were not previously offered virtually, it was often because their subject-matter made it difficult to virtualize them. Courses that are virtualized under duress are ones that faculty want to teach in-person, and this desire of this is likely to have a legitimate and objective basis in at least some cases. By contrast, courses that are virtual but did not undergo mandatory virtualization are ones that faculty wanted to teach virtually and probably at least sometimes had cogent reasons for wanting to teach virtually (Sandu, 2020; Schaffir et al., 2020). Consequently, the difference between courses that are virtual by necessity and those that are virtual by choice lies not only in the circumstances precipitating virtualization but also in factors that are independent of those circumstances, and pre-COVID studies concerning virtual instruction therefore do not address the gap addressed by this study (Sandu, 2020).

In April 2020, COVID 19 required educational institutions across the world to undergo sudden, compulsory virtualization. This had a profoundly disruptive effect on many different forms of education (Hall et al., 2020; Huang et al., 2020; Reimers & Schleicher, 2020). Many colleges found themselves having to virtualize courses that they

never had any invention of virtualizing and were therefore unprepared to virtualize (Holme, 2020; Terä et al., 2020; Watermeyer, Crick, Knight, & Goodall, 2020). Many of these classes involved a lab-component, and many instructors claimed it to be difficult to find adequate virtual substitutes for lab-work (Watermeyer et al., 2020). Students had equally negative reactions to course-virtualization. Many students sued their respective universities demanding tuition-refunds. Online student evaluations indicate that most students believed emergency-virtualization to have adversely affected the quality of instruction (Chiolero, 2020; Misirlis, Zwaan, & Weber, 2020; Tanveer et al., 2020).

Within a few months of the inception of the lockdown, the scholarly community had published studies concerning the effects of such virtualization (Pragholapati, 2020). Many of these studies focused on the many purely technological barriers to virtualization (Ali, 2020; Almaiah, Al-Khasawneh, & Althunibat, 2020; Radha, Mahalakshmi, Sathis Kumar, & Saravanakumar, 2020). Other studies focused on poverty-based lack of access to the requisite technology (Kapasias et al., 2020). A third class of studies focused on the emotional effects of the lockdown, and some studies in this category focused on students, albeit without correlating their emotional condition with their academic performance or with their attitudes as to how virtualization had affected the nature or quality of the instruction they were receiving (Hasan & Bao, 2020). A fourth class of studies concerned the effects of virtualization on student performance (Burgess & Sievertsen, 2020). Studies falling into the last category indicate that these effects varied from country to country and even from school to school within a given country, but little or no information is provided as to how these variations correlate with any other factor,

including attitudes on the part of either students or faculty (Zhang, Wang, Yang & Wang, 2020) .

A fifth class of studies concerned student and faculty attitudes towards virtualization. Abbasi et al., (2020) published a quantitative correlational study of student responses to virtualization at a Pakistani dental school, finding that 77% of the students had a negative reaction. Ali (2020) published a questionnaire-based study concerning student and faculty attitudes towards virtualization in a single course at a university in Saudi Arabia, finding that 86% had a positive reaction to virtualization, believing it to have improved the quality of instruction. Dai and Xia (2020) published a quantitative study of American nursing students, finding that over 61% responded negatively to virtualization; and Owusu-Fordjour, Koomson and Hanson (2020) published a quantitative study of Ghanaian secondary school students, finding that over 91% responded *negatively* to virtualization. Tosepu et al. (2020) conducted a questionnaire-based study of a single secondary school class in Indonesia, finding student responses to be largely positive. Zayapragassarazan (2020) conducted a questionnaire-based study of student and faculty perceptions in secondary school students in India, finding both student and faculty attitudes towards virtualization to be moderately negative but providing little information as to the situational basis of this fact.

These studies suffer from several defects. First, the results of these studies conflict with one another, and these conflicts are not easily adjudicated owing to the paucity of observational specifics in those studies (Ali, 2020; Aliyah, 2020; Krishnamurthy, 2020; Tiwari, 2020). Also, many disciplines, including management and hospitality, are not covered by such studies (Bui et al., 2020; Zayapragassarazan, 2020). Further, these

studies did not compare situations where the course being virtualized had a lab component with situations where the course in question had no lab-component (Auma & Achieng, 2020; Bambakidis & Tomei, 2020; Moszkowicz, Duboc, Dubertret, Roux, & Bretagnol, 2020). Another concern is that the existing studies focus on single classes, as opposed to entire institutions (Lam, 2020). Finally, these studies were questionnaire-based, quantitative-correlational studies, as opposed to qualitative descriptive studies, and were therefore not based on direct observation or on interviews or other direct sources of empirical data (Zhou et al., 2020). One consequence is a paucity of data relating to student and faculty attitudes towards virtualization, another consequence being a paucity of information as to the situational basis of such perceptions and attitudes that have been documented (Yahaya et al., 2020; Wei & Chou, 2020; Zhou et al., 2020).

Scholars have noted the absence of qualitative descriptive studies concerning student and faculty attitudes towards course-virtualization. Bui et al. (2020) cites a shortage of studies concerning such perceptions at institutions of higher education. Bui et al. (2020) note that their findings concerning COVID-driven, compulsory course-virtualization in a Vietnamese secondary school do not necessarily generalize to higher education, or to education in the West, or to curricula, such as hospitality management, that have both academic as well as lab components. Bui et al. (2020) demand that this gap be addressed, recommending that a qualitative descriptive approach be given precedence over a quantitative correlational approach, owing to the high degree of variation between different kinds of curricula. Citing the paucity of data concerning student and faculty attitudes towards course-virtualization, Zayapragassarazan (2020) suggests that a qualitative descriptive approach is appropriate for future research, owing to the high

degree of variation between educational curricula. According to Li et al. (2020), only qualitative descriptive studies can provide the detailed observational data needed to understand what distinguishes successful from unsuccessful attempts to course-virtualization. Hoq (2020) notes the absence of qualitative descriptive studies of courses involving hand-on components and asks that scholars address this gap. Also noting the absence such of qualitative descriptive studies, Krishnamurthy (2020) makes the additional observation that hospitality management curricula often involve both purely academic and hands-on components, asking that an in-depth qualitative descriptive study of such a curriculum be conducted, as it would generate otherwise hard to obtain data relating to the difficulties involved in the virtualization of lab courses compared with those involved in the virtualization of strictly academic courses.

According to Auma and Achieng (2020), there exists a paucity of qualitative descriptive studies concerning COVID-driven compulsory course-virtualization in higher education, stating that this represents a gap in the scholarly literature that should be addressed. Sapkota and Narayangarh (2020) ask that there be future qualitative descriptive studies of course-virtualization in higher education, especially in majors, such as hospitality management, that have both lab and purely academic components. In conclusion, it is not known how instructors of hospitality management describe their attitudes towards the effects of the COVID-driven, compulsory virtualization of their courses in the Spring of 2020, and addressing this gap will provide helpful information relating to course-virtualization in higher education.

Theoretical Foundations

The main theory undergirding this study is the Technology Acceptance Model (TAM), according to which a given person's degree of acceptance of new technology depends on the extent to which he regards that technology as being both useful and easy to use (Davis, 1986; Davis et al., 1989; Venkatesh & Davis, 1996). Davis (1986) and Davis et al. (1989) are the seminal source of TAM. TAM is an extension of the Theory of Reasoned Action (TRA), according to which a given person's willingness to perform a given act is a function of his perception of the probable consequences of that act (Davis, 1986; Davis et al., 1989; Wu & Chen, 2020). According to TAM, a given person's willingness to use a given form of technology is a function of the probable consequences of his doing so, which include both the outcomes of his doing so as well as the inconvenience and other costs incurred in the process of using it (Davis, 1986; Davis & Venkatesh, 1996). Since its inception in 1989, TAM has proven useful in explaining the adoption of a wide variety of different technologies in the areas of medicine, engineering, architecture, education, information-technology, publishing, musical composition, videography, and graphic art (Al-Emran et al., 2018).

At the college being studied, COVID 19 required faculty to use unfamiliar technology or to use familiar technology in unfamiliar ways. Some of the classes undergoing this compulsory virtualization were strictly academic courses, while others involved lab components. These lab components involved preparing and handling food, loading and unloading freight from trucks, arranging furniture, and fixing machinery. All twelve of the classes undergoing virtualization required both instructors and their students to become proficient in the use of technologies which they had never used in the

context of those courses and with which many were entirely unfamiliar. These technologies included Zoom, Blackboard Collaborative, Pro-Sim, Beefeater Restaurants Microworld (BRM), Cesim, Simr, Examity, as well as Audio-Video (AV) hardware and software.

Adopting and operationalizing these new technologies involved a number of challenges for both faculty. In many cases, these technologies were extremely complex and could not be fully mastered within a reasonable time frame. In other cases, the technologies simply did not perform the desired function. This was especially the case with Pro-Sim, BRM, Cesim, Simr, which are supposed to replicate physical operations relating to cooking and food-handling. Moreover, assignments requiring physical operations had to be converted into assignments involving simulations of such operations, and this was often difficult or impossible. Instructors had to film acts involving food preparation, and they often had difficulty doing so and also had difficulty coordinating the contents of such footage with spoken and written content. Instructors also had difficulty dealing with issues relating to student-absenteeism and failure to turn in assignments, since they did not know whether the student in question had a legitimate technology-related excuse or was simply guilty of delinquency. Some instructors successfully adjusted to the new arrangement; others partially adjusted; and some failed to adjust and had to cancel their classes as a result.

Faculty attitudes towards course-virtualization are largely a function of their attitudes towards the technology involved, and TAM, TAM2, and UTUAT are therefore indicated for this study (Schaffir et al., 2020). According to TAM, a person's attitude towards new technology is a function of how useful he believes it to be and how easy it is

for him to use (Davis, 1986; Davis & Venkatesh, 1996; Wu and Chen, 2020). According to TAM2, six additional factors affect technology acceptance, namely: (i) Subjective norms (he is more likely to use that technology if he believes that doing so will solidify his relations with people who have power over him); (ii) voluntariness (he is more likely to adopt it if he is not being forced to do so); (iii) image (he is more likely to use it if he believes that doing so will enhance his social stature); (iv) job relevance (he is more likely to adopt it if he believes that it serves a function that helps him do his job); (v) output quality (he is more likely to use it if he is happy not just with what it does but how well it does it); and (vi) result demonstrability (he is more likely to use it if it has easily verified results) (Abdullah & Ward, 2016; Venkatesh & Davis, 2000).

Taken together, TAM and TAM2 identify ten factors that are supposedly responsible for technology acceptance, and many scholars felt that they did not constitute a unified theory (Benbasat & Barki, 2007; Venkatesh & Davis, 2000). In response to such criticisms, Venkatesh & Davis produced UTUAT. UTUAT is not intended to identify determinants of technology acceptance additional to those identified by TAM and TAM2. Rather, UTUAT is intended to identify the principles underlying the ten factors identified by TAM and TAM2 (Venkatesh & Davis, 2000). According to UTUAT, technology acceptance depends on four factors, namely: (i) Performance Expectancy (what that person expects to gain in the way of job-promotions or other forms of professional advanced from the use of the technology in question); (ii) Effort Expectancy (how much that person that his using that technology will make his life easier); (iii) Social Influence (degree to which that person believes that people of influence desire him to use that technology); and (iv) Facilitating Conditions (the degree to which that person believes his use of that technology to be supported by organizational and technical infrastructure)

(Venkatesh, 1999; Venkatesh & Davis, 2000). According to proponents of UTUAT, the four factors identified by UTUAT jointly constitute the framework implicit in TAM and TAM2, and for this reason UTUAT will not have to be subject to *ad hoc* extensions (Venkatesh & Davis, 2000; Fearnley & Amora, 2020).

Put forth by Davis (1986) and Davis et al. (1989), TAM is an outgrowth of the Theory of Reasoned Action (TRA), according to which a person's likelihood of performing a given act is a function of what he believes the probable outcome of his doing so to be. A corollary of TRA is that a person is likely to use a given technological device if he believes that doing so will benefit him and unlikely to do so otherwise (Venkatesh & Davis, 1996; Venkatesh & Davis, 2000). Since benefits are a function of outcomes and ease of use, TAM is a corollary of TRA. TAM is the most widely used and best tested model for understanding situations involving the adoption of new technology, such as the situation investigated by this study.

TAM2 was developed by Venkatesh and Davis (2000) to address some of the perceived deficits in TAM (Venkatesh & Davis, 2000). Ease of use and perceived benefits of technology will always correlate with a tendency to adopt that technology, but that tendency can be outweighed or amplified by other factors. For example, there are studies showing that people who were forced by their supervisors to upgrade from Windows 8 to Windows 10 adjusted to this new technology more slowly than people who chose to make that upgrade on their own (Roberts, Dowell, & Nie, 2019; Weck, Helander, & Meristö, 2020). Also, studies have shown that people will sometimes choose unwieldy technology over easy-to-use technology if they believe there to be a positive social stigma associated with the former. For example, market-research has shown that

some people choose to use the TI-89 scientific calculator over the easier to use and equally functional TI-84 scientific calculator because, in their organizational circles, use of the TI-84 is seen as an admission that one isn't smart enough to use the TI-89 (Birt., Scott, Cavers, Campbell, & Walter, 2019; Weck et al., 2020). A different study showed that many consumers choose hard-to-drive stick-shift cars over easy-to-drive automatic cars precisely because, in their view, others see it as manly and rugged to drive a stick-shift (Cho & Cheong, 2020). TAM is the most widely used and best tested model for understanding situations involving the compulsory adoption of new technology, such as the situation being studied in this work.

UTUAT was developed to deal with some deficits of TAM and TAM2 (Ladan, Wharrad, & Windle, 2020; Venkatesh & Davis, 2000). For example, studies have shown that, even when the conditions described by TAM and TAM2 are operative, other conditions may either counteract them or amplify them (Ladan et al., 2020; Venkatesh & Davis, 1996; Venkatesh & Davis, 2000). For example, studies have shown that people are relatively willing to use unwieldy technology as long as they are confident that the organizations requiring them to use will provide them with any necessary assistance, and that they are unwilling to use relatively wiely technology when they are confident of this (Ladan et al., 2020). The college being studied demanded that its instructors and students adopt new technologies but did not help with the many difficulties they encountered in the process of doing so, and those students expressed considerable bitterness about this in their end-of-semester course-evaluations. For this reason and others of a similar nature, the UTUAT is likely to be needed to model the data generated by the present investigation.

This study was concerned with technology acceptance. It is not known how instructors of hospitality management describe their attitudes towards the effects on teaching of COVID-driven, compulsory course-virtualization (Bui et al., 2020; Nyachwaya, 2020; Zayapragassarazan, 2020). Course-virtualization is a process of replacing in-person teaching with teaching that is done by way of information technologies, and attitudes towards course-virtualization are mediated by attitudes towards the technologies involved. TAM and its two extensions, TAM2 and UTUAT, jointly constitute the most test and robust framework for understanding situations involving the acceptance of new technologies, and they are therefore appropriate theoretical models in the context of this study.

Review of the Literature

The current study was concerned with instructor attitudes towards COVID-driven, compulsory course-virtualization. The following different literatures bear on this topic:

- The literature that directly concerns COVID-driven compulsory course-virtualization;
- The literature concerning compulsory, non-COVID-driven virtualization;
- The literature concerning voluntary course-virtualization; and
- The literature concerning the Technology Acceptance Model and its two most significant extensions, namely, the Extended Technology Acceptance Model (TAM2) and the Unified Theory of the Use and Acceptance of Technology.

The present section will begin with some points of a general nature about COVID 19 and its impact to higher education. This will be followed by discussions of instructor attitudes towards hybrid courses, courses that virtual by choice, and courses that are virtual by necessity. Because pre-COVID virtual courses were virtual by choice, our discussion of faculty attitudes towards courses that are virtual by necessity will concern

instructor attitudes towards COVID-driven virtualization and its effects on instruction. This will be followed by a discussion of a general nature concerning TAM, TAM2, and UTUAT, followed by a discussion of the literature concerning the bearing of TAM, TAM2, and UTUAT on the problem space. Included in the discussion of these theoretical models will be a discussion of an alternative to TAM, put forth by Scherer (2002), known as the Matching Person to Technology Model (MPT). This will be followed by a discussion of the literature concerning the alleged benefits to education of COVID-driven compulsory education, along with their alleged effects on instructor attitudes. This will be followed by a discussion of literatures that advance speculative but relevant claims about the future of course-virtualization and about the impact of technology-change and economic change on instructor attitudes. This section will conclude with a discussion of the methodologies and research designs of other qualitative descriptive studies concerning problem spaces adjacent to the one being studied.

The Impact of COVID 19 on Higher Education: General Considerations

COVID 19 came into existence in late 2019 but had little impact until March 2020 (Clark et al., 2020). By March 2020, COVID 19 had become widespread, and the public was alarmed. In response to the public's concerns, State and Federal authorities required non-essential in-person businesses to virtualize (Aboagye et al., 2020). Those that could not comply suspended operations, oftentimes going out of business as a result. With few exceptions, brick-and-mortar schools and universities chose to virtualize instruction rather than suspend operations. There already existed virtual universities, and there had been cases of specific courses at brick-and-mortar universities undergoing compulsory

virtualization. But this was the first case in history of compulsory mass course-virtualization. This process is still ongoing (Cronin et al., 2020).

Prior to COVID 19, higher education was largely non-virtual (Basilaia & Kvavadze, 2020). Most institutions of higher education are brick-and-mortar, and most classes at such institutions are in-person. Many such classes have a virtual component, but the virtual component is usually subordinate to the in-person component. Moreover, even though brick-and-mortar classes offer some completely virtual courses, such courses tend to be lower division classes that satisfy general education requirements. Courses that are specific to a given major tend to be in-person and therefore to require the student's physical presence (Bokde et al., 2020).

COVID 19 changed this virtually overnight. Brick-and-mortar colleges and universities were required to virtualize all of their courses mid-semester in a matter of days and without any preparation (Chick et al., 2020). Instructors and their students found this extremely disruptive. Many instructors had difficulty virtualizing their courses. Sometimes this was a consequence of the course-material, and sometimes it was a consequence of the instructor's lack of familiarity with the requisite technology. Teaching technical courses, such as mathematics or economics, involves a mastery of rather sophisticated applications, and many instructors had difficulty mastering these applications within the narrow time-window available to them (Mulenga & Marbán, 2020). Courses having an in-person component proved especially difficult to virtualize. Sometimes these difficulties were circumvented, but sometimes they proved intractable and the courses in question had to be canceled (Reimers & Schleicher, 2020).

When classes had to be cancelled, students were understandably aggrieved. Class cancellations delayed graduation-dates for many students. As a result, post-graduation employment was often delayed, and job-offers were often withdrawn. More importantly, compulsory course-virtualization often led to a degradation in course-quality (Blankenberger & Williams, 2020). Sometimes this was a consequence of the instructor's inability to master the requisite technology, but sometimes it was a consequence of the non-existence of such technology (Hasan & Bao, 2020). Moreover, even when virtualization was successfully carried out, many students found that the absence of in-person instruction left them feeling alienated and disoriented (Zhang et al., 2020). In end-of-semester course-evaluations, students across the country reported feeling that they had been defrauded, since they had paid for in-person instruction but received virtual instruction instead (Blankenberger & Williams, 2020; Halilić & Tinjić, 2020).

Responses to virtualization were not entirely negative, however. Some instructors reported experiencing little or no difficulty virtualizing their courses or teaching effectively within a virtual format, and some students claim that virtualization did little to disrupt their courses or to undermine the quality of instruction (Hasan & Bao, 2020; Basilaia & Kvavadze, 2020). But the vast majority of students and instructors report feeling that virtualization seriously disrupted their courses and that post-virtualization course-instruction was inferior in quality to pre-virtualization instruction (Bui et al., 2020; Torda, 2020; Zhang et al., 2020). Moreover, instructors report a loss of engagement on the part of students and an overall reduction in the quality of student-participation (Harris et al., 2020; Sahu et al., 2020). Students reported a similar loss of engagement on the part of their instructors. According to student course-evaluations, instructors were less

willing to meet with students individually and were less helpful during one-on-one meetings than they had been prior to course-virtualization (Hall et al., 2020; Shenoy et al., 2020).

There is some evidence that after courses had been virtualized and achieved a steady state, student and instructor attitudes became more positive on average (Hoq, 2020). There is also evidence of an extremely wide range of attitudes towards virtual instruction, and practically every aspect of the situation requires explanation (Peirce, Weber, & Klein, 2020). Although students and instructors clearly found many aspects of virtualization to be disruptive, it is not clear exactly which aspect of it they found disruptive (Hoq, 2020; Peirce et al., 2020). Virtualization affected different disciplines differently, but it is not known exactly what those differences are or what student or instructor attitudes towards them are (Wilson, 2020). Moreover, different classes self-virtualized differently, even when they were teaching the very same discipline (Sahar, Kiik, Wiarsi., & Rachmawati, 2020). No two calculus classes or financial accounting classes self-virtualized in quite the same way (Sahar et al., 2020). Consequently, when students or instructors report having feelings of a certain kind concerning virtualization and its aftermath, it is not known what the exact targets of those feelings are (Bui et al., 2020; Hoq, 2020). There exists a paucity of in-depth descriptive studies concerning course-virtualization, and there is a consequent paucity of information concerning the specific changes involved in course-virtualization and concerning instructor attitudes towards those changes (Bui et al., 2020). Existing studies of such cases of virtualization are questionnaire-based, not observation-based. In many cases, the researcher did not even identify the subject that was being taught or the exact manner in which instruction

was virtualized. Such studies reported numerical averages of student and instructor ratings of their feelings concerning cases of course-virtualization that they had experienced. Such studies provided only extremely general information as to what the courses in question were like before, during, and after virtualization; they provided only very general information as to the exact manner in which they were virtualized; and they provided little or no information as to how specific individuals felt about specific aspects of the situation. This paucity of specific information concerning student and instructor attitudes towards COVID-driven course-virtualization represents a gap in the literature, and the purpose of this study was to address this gap.

The mass course-virtualization undergone in response to COVID 19 is unique in many respects. Although it is not the first case of mass-virtualization, it is the first case of compulsory mass course-virtualization, and it is also the first case of mass course-virtualization to which student and instructor responses have been predominantly negative (Bui et al., 2020). As of 2019, many college-level courses were completely virtual, and student and instructor attitudes towards such classes were positive, after controlling for subject matter and other variables. Moreover, as of 2019, most college level courses had a hybrid structure, and student and instructor attitudes towards the virtual components of their courses were relatively positive, after controlling for all relevant variables (Sintema, 2020). Moreover, research concerning COVID-driven cases of course-virtualization fails to compare them with pre-COVID cases of course-virtualization. In order to put this study into context, we will now discuss the literature concerning the history of voluntary course-virtualization. We will then discuss the literature concerning pre-COVID compulsory course-virtualization. This will be followed

by a discussion of the literature concerning COVID-driven course-virtualization. We will then discuss TAM, TAM2, and UTUAT. We will focus on their relevance to course-virtualization, especially of the COVID-driven variety. Finally, we will summarize and synthesize our discussion of these literatures, thereby laying the foundation for this study.

Voluntary Course-virtualization: A History.

Virtual instruction is a form of distance-learning (Overby, 2008; Cohen & Kupferschmidt, 2020). Distance-learning came into existence in the early 1800's with the invention in the United States of the correspondence course (Cohen & Kupferschmidt, 2020). Correspondence courses were initially offered by established universities to accommodate students who were already enrolled on an in-person basis but were temporarily unable to be physically present. In the early 1900s, some instructors began using college radio stations to deliver lectures and other course-materials to correspondence-students (Cohen & Kupferschmidt, 2020; Overby, 2008). In the 1950s, the FCC began to reserve television frequencies for educational purposes, and instructors of both in-person and correspondence courses sometimes used these dedicated frequencies to broadcast course-materials. Television-centered courses, known as 'telecourses', were created and used both by accredited institutions and freelance educators. Telecourses proved ineffective and unpopular, however, and never acquired a position of importance in educational curricula (Crosby, Smith, Gage, & Blanchette, 2021). Nevertheless, telecourses represented an important step on the road to course-virtualization, since they made it possible to watch lectures being delivered, as opposed to merely listening to them or reading them (LaRose et al., 1998).

Online instruction began in 1982 with the opening of the School of Management and Strategic Studies (SMSS) at the Western Behavioral Sciences Institute. SMSS used a closed-circuit internet-network to teach courses to business executives. The term 'intranet' is sometimes used to refer to closed-circuit internet-networks (Muttappallymyalil et al., 2016). The intranet used by SMSS involved the first Learning Management System (LMS). An LMS is an organized, web-based way for students and instructors to organize and exchange course-related. In 1992, George Washington University followed SMSS's example, launching a digitally taught master's program in technological entrepreneurship.

In 1993, the World Wide Web, the first online browser, was launched, giving the general public a user-friendly way to navigate cyberspace. The University of Phoenix, the first fully online university, was launched in 1998. Soon thereafter several other online institutions of higher learning were launched, while others converted to a predominantly digital format. Meanwhile, brick-and-mortar universities began hybridizing many of the classes. In 2000, 8% of university students were enrolled at an online school, and that figure had risen to 20% by 2008.

During this same time, university classes began to be taught through the use of LMS's. The most widely used LMS is Blackboard. LMS's such as Blackboard allow instructors to administer tests online, disseminate and store digital course-materials, and store and compute grades. One useful feature of Blackboard is that it automatically grades multiple-choice tests, sparing instructor's countless hours of manual grading. Blackboard is now bundled with useful teaching related applications, such as Stat Crunch, which helps students master difficult technical material. Another important

feature of Blackboard and other LMS's is that they are often bundled with applications that help students with difficult problems in mathematics, statistics, and other technical disciplines (Muttappallymyalil et al., 2016). Also, homework assignments administered through such LMS's are often self-correcting and provide students with automated hints as to how to complete difficult problems. Though used primarily to assist with the teaching of in-person courses, Blackboard is as useful and necessary in connection with completely virtual classes as it is in connection with in-person classes (Muttappallymyalil et al., 2016).

Instructor Attitudes Towards Hybrid and Virtual Courses.

Voluntary course virtualization never occurs mid-semester, and the literature concerning student and instructor attitudes towards the process of course-virtualization is still in its infancy (Basilaia & Kvavadze, 2020). However, there exist many studies concerning student and instructor attitudes towards both hybrid and virtual courses. We will now discuss instructor attitudes towards hybrid and virtual courses. In this context, “student” always refers to college-level students, and “instructor” refers to college-level instructors.

Instructor Attitudes Towards Hybrid Courses. For the most part, instructors responded positively to hybrid courses. According to Alawamleh et al., (2020), instructors feel that virtual technology facilitates communication between student and instructor and enhance the in-person aspects of the learning experience. According to Muttappallymyalil et al. (2020), instructors Blackboard and other similar applications help them organize their classes and communicate with students. According to Almoeather (2020), LMS's and other virtual technologies facilitate communication

between instructor and student, thereby reducing instructor workloads. According to Arslan-Ari et al. (2020), applications such as Wolfram Alpha and StatCrunch lessen the extent to which instructors need to spend time assisting students with petty technical matters. According to Robinson (2020), such applications are especially helpful for instructors who are teaching remedial classes. According to Říhová et al. (2020), such applications are also useful for instructors who are teaching advanced classes in the areas of finance, physics, and mathematics.

Faculty attitudes to the integration of virtual technology into education have not been uniformly positive. According to Basogain, Gurba, Hug, Morze, Noskova, & Smyrnova-Trybulska (2020), some instructors believe that the use of LMS's provides university administrators with a way of micromanaging their courses, thereby limiting their pedagogical freedom. According to Sangwin & Kinnear (2021), students report that LMS-based classes have a prefabricated quality, giving credibility to such suspicions. According to Ali (2020), students feel that the instructor 'takes a backseat' to the LMS being used and that the instructor is reduced to the role of a mere proctor, and Safari et al. (2020) reports that instructors often share these sentiments. Ali (2020) notes that, according to many students, LMS-based classes have an impersonal quality and that their instructors seem to be emotionally disengaged. In the same article, Ali alleges that instructors themselves report that they tend to be less emotionally connected to their virtual than to their in-person courses. According to Abbasi et al. (2020), many students feel that LMS-based classes reward rote learning and penalize creativity, and Friedman further notes that many instructors feel the same way. Eaton et al. (2020) asserts that,

according to some students and instructors, such systems depersonalize instruction and dispose instructors to disengage from students.

According to Al-Sharhan et al. (2020), most instructors do not feel that LMS-systems limit their ability to teach or that such systems require them to follow a pre-existing course-template. Jenkins holds that, according to most instructors, such limitations, when present, are imposed on instructors not by the LMS being used but by university-policy. According to Gimeno-Sanz, Morgana, & Van de Vyver (2020), most students feel that in-person instruction is enhanced by Blackboard and other virtual technologies, with most instructors feeling the same way. Kushwaha et al. (2020) allege that, according to most instructors, virtual technology, when coupled with in-person instruction, has a synergistic effect that enhances student-receptiveness and facilitates instruction. According to Emmamoge, Bilkisu, Yahya, & Ahmed (2020), while virtual technology sometimes locks instructors into predefined course-templates, thereby restricting their ability to instruct, its primary effect is to optimize student-instructor communications, this being how most instructors feel about the matter. According to Brinkley-Etzkorn (2020), although some instructors have concerns relating to the role now had by virtual technology in their classes, those relate not to whether such technology should be used but only to the specific manner in which it is currently being used. According to Fathema and Akanda (2020), the scholarly consensus is that instructors of hybrid courses believe virtual technology to facilitate in-person instruction.

Instructor Attitudes Towards Courses that are Virtual by Choice. In this section, all references to “virtual instruction” are to instruction that is virtual by choice, and references to “instructors” are to college and university instructors. There are two

mutually opposed bodies of literature concerning instructor attitudes towards such instruction (Kardes, 2020). According to the one body of literature, such instructors believe virtual teaching to equal or surpass in-person teaching in effectiveness (Kardes, 2020; Wach & Gawel, 2020). According to the other body of literature, such instructors have a low opinion of the effectiveness of online instruction (Ali, 2020). According to both literatures, instructors of courses that are virtual by choice typically find virtual instruction to be convenient and easy, but they disagree as to whether those engaged in it believe it to be pedagogically effective (Rose, 2020).

According to Dung (2020), instructors who choose to teach virtual courses do so knowing that they are comfortable with a completely online format. A consequence of this fact, says Dung, is that instructors of such courses tend to enjoy the experience and also tend to judge it to be pedagogically effective. Room (2020) also posits the existence of a phenomenon of positive selection, whereby the instructors who choose to teach online courses do so because they know that they are comfortable doing so. Moreover, Room asserts that such instructors tend to have a high opinion of virtual instruction. Chettri, Debnath, and Devi, (2020) assert that virtual instructors tend to regard virtual instruction as more effective than in-person instruction. Rose (2020) holds that, although online instruction is sometimes more effective than in-person instruction, online instructors overestimate the advantages of virtual instruction over online instruction, and they conclude from this that the high opinion that virtual instructors have of virtual instruction is less rooted in empirical fact than in their own preconceptions. Chettri et al. (2020) also hold that virtual instructors believe virtual instruction to be effective, but they believe this position to be based on and warranted by their experiences teaching online.

According to Rose (2020), many instructors believe that courses with extremely large class-sizes are more effectively taught online than in-person. This is consistent with studies conducted by Room (2020) and Yang (2020) comparing large, lower-level in-person classes at public universities in the United States to virtual versions of those same classes at the same universities. According to those studies, students who take the virtual versions of those courses tend to end up with a marginally better command of the subject-matter than students taking the in-person versions. Room and Yang note that their studies only concern lower-level classes that fulfill general education requirements and do not concern advanced courses.

According to other scholars, virtual instruction tends to lead to low levels of instructor-engagement (Schaffir et al., 2020). According to Schaffir et al. (2020), virtual courses often involve little or no real-time instruction. According to Mojica (2020), the absence in virtual courses of real-time interaction between instructors and students tends to cause the instructors to disengage emotionally. This is supported by a study conducted by Modica et al. (2020), who found instructor-engagement to be higher in courses involving live (Zoom-based) lectures than in courses not having a live teaching-component.

Jones and Comfort (2020) hold that instructors of online courses have extremely little discretion in regard to how they teach their courses, alleging this to lead to low levels of course-engagement on the part of instructors. This is supported by studies showing that instructor engagement tends to be higher in virtual courses where the instructor is responsible for course-structure than in virtual courses where he is required to work within a pre-existing course-structure (Schaffir et al., 2020; Tanis, 2020).

According to some scholars, instructors of online courses often feel that they are simply proctoring courses that are being taught automatically (Schaffir et al., 2020). Schaffir et al. (2020) believe that instructors who regard themselves as mere proctors are less engaged than instructors who do not have this belief.

Many studies show that students are more likely to cheat in virtual courses than in in-person classes (Ogrutan & Aciu, 2020). According to Ambati et al. (2020), virtual instructors are aware of this fact, and this discourages them from emotionally investing themselves in such classes. According to Ali et al. (2020), student engagement in virtual courses where cheating is rampant is low, even among students who are not themselves cheating, and this in turn leads to low levels of instructor-engagement. This is consistent with a study conducted by Khan et al. (2020) showing that student-engagement tends to covary with instructor-engagement in both virtual and in-person classes.

Instructors tend to find it more convenient to teach online than in-person (Li et al., 2020). According to Li et al. (2020), this holds both of instructors who believe virtual instruction to be effective and of instructors who do not believe this. According to Lee, Hwang and Moon (2020), instructors who regard it as effective believe that it eliminates inconveniences that hinder teaching, and instructors who regard it as ineffective believe that it spares them the inconvenience of actually having to teach. According to Lee et al. (2020), instructors have a tendency to take overly binary views concerning virtualization, believing it either to be a great advance in education or a great setback, when the reality is that it is simply an instrument that can be deployed with varying degrees of effectiveness, depending on a multiplicity of variables, including the subject-matter and instructor and students involved. Instructors who regard virtual instruction as effective

tend to believe that it is ineffective only when misused (Bui et al., 2020). Instructors who regard virtual instruction as ineffective tend to believe that it is effective only in highly special or restricted contexts (Bui et al., 2020).

In conclusion, virtual instruction appears to have proven effectiveness in some contexts and to lack proven effectiveness in others. Existing studies suggest that lower-level virtual classes with large enrollments are as pedagogically effective as their non-virtual counterparts. Some virtual instructors and researchers believe that virtual instruction is either ineffective or effective only in special contexts, such as remedial instruction (Press et al., 2020). Other instructors and researchers believe that virtual instruction is ineffective only when human error is involved (Tsai, 2020).

Instructor Attitudes Towards Courses that are Virtual by Necessity. All references to “instructors” in this section are to college and university instructors unless there is an explicit indication to the contrary. COVID 19 began in 2019, and the lockdown began in April 2020. The phenomenon of COVID-driven compulsory education is only a few months old, and the scholarly literature concerning it is even younger. Consequently, this literature is in some respects quite immature. In particular, there is a paucity of in-depth qualitative descriptive studies of cases of COVID-driven compulsory virtualization. A consequence is a shortage of detailed information concerning instructor attitudes towards the effects on teaching of compulsory virtualization, especially in connection with hospitality management courses.

Many studies have been done concerning the effects on education of compulsory virtualization. But the vast majority of these studies have been questionnaire based and consequently devoid of specific empirical information concerning the attitudes being

reported. A consequence is that these studies fail to make it clear whether the attitudes being described are directed towards the fact that virtualization was undergone under duress or towards the fact that it was undergone at all. Many of the questionnaire-based studies of compulsory virtualization in higher education concern a single course and do not even identify the subject that is taught. Another concern is that the results of these studies conflict with one another. Almanthari et al. (2020) did a quantitative, questionnaire-based study of a Saudi business school, finding that 86% of the faculty responded positively to compulsory virtualization. Almanthari et al. do not identify any of the specific courses that underwent virtualization; they do not identify the technology used in the virtualization or those courses or say how it was implemented; nor do the authors say how the instructors involved believed that technology to have benefitted instruction. Shore et al. (2020) studied a single nursing college in Nepal, finding that 68% of faculty responded negatively to course-virtualization. Shore et al. do not identify the specific courses involved, or the technology used, or the manner in which it was used, or the specific respect in which faculty members believed virtualization to have diminished the quality of instruction.

There have been several studies concerning attitudes towards compulsory course-virtualization on the part of medical and dental students, and there have been many studies concerning the difficulties involved in the virtualization of medical and dental instruction (Howson, 2020). However, there have been few studies concerning attitudes towards compulsory course-virtualization on the part of medical and dental faculty. Studies written by medical and dental faculty concerning compulsory course-virtualization frequently refer to student-grievances concerning instruction and to the

inadequacy of existing attempts to teach medicine and dentistry virtually, suggesting that medical and dental faculty attitudes towards compulsory virtualization are negative, but we otherwise have very little information concerning these attitudes (Bennardo, Buffone, Fortunato, & Giudice, 2020).

There have been multiple studies of elementary, secondary, and high schools of the effects on student and faculty perceptions towards COVID-driven compulsory course-virtualization. Auma and Achieng (2021) conducted a questionnaire-based, quantitative study of an elementary school in Ghana that underwent COVID-driven compulsory virtualization, finding that the vast majority of students and faculty responded negatively to virtualization, with only 11% responding positively. Auma and Achieng do not identify the subject-matters of the courses that underwent virtualization; nor do they identify the technology employed or discuss how it was employed. According to a questionnaire-based quantitative study conducted by Tosepu et al. (2020) of a secondary school in Indonesia, students and faculty responded positively to COVID-driven course-virtualization. Bui et al. (2020) conducted a questionnaire-based quantitative study of an elementary school in Viet Nam, finding that most instructors and students responded positively. Like Auma & Achieng (2021), Bui et al. do not discuss the subject-matters of the classes that underwent virtualization and say little about how virtualization was undergone or what students and instructors liked and disliked about either the virtualization process or its aftermath.

Similar studies were conducted by Zayapragassarazan (2020), Donthu & Gustaffson (2020), Sahu et al (2020), and Burgess & Sievertsen (2020). Each of these studies is questionnaire-based and quantitative correlational, and each suffer from the

same paucity of empirical specifics as the previously mentioned studies. Moreover, each of these authors recommends that future scholarship in the area focus on in-depth qualitative descriptive research, so as to generate the observational specifics necessary to interpret the results of existing quantitative correlational studies. Moreover, each notes the paucity of research concerning higher education, specifically hospitality management and other curricula that have both academic and lab components.

According to Savage (2020), most instruction will soon be virtual. In Savage's view, instruction was in the process of being virtualized prior to COVID 19 and COVID 19 merely accelerated this process. According to Johnson, Veletsianos and Seaman (2020), COVID 19 greatly expanded the number of educators who believe the virtualization of education to be inevitable. According to Ambati, Narukonda, Bojja and Bishop (2020), education was in the process of being virtualized prior to COVID, but COVID 19 accelerated that process, especially in connection with engineering courses. According to Basilaia and Kvavadze (2020), accelerated the rate at which auto-repair and other "virtualization-resistant" disciplines were being virtualized. According to Tosepu et al. (2020), COVID 19 convinced many educators that the virtualization of education would occur within two decades. Savage (2020) writes that insurance-related education will undergo compulsory virtualization within the next five years and that there is a need for in-depth studies concerning instructor attitudes towards such virtualization. Sintema (2020) writes that all forms of instruction will undergo compulsory virtualization and that scholars should therefore provide in-depth studies of existing cases of compulsory virtualization. Sintema (2020) notes the paucity of such studies and say that this represents a scholarly gap that should be addressed. According to Ambati et al. (2020),

hospitality management courses will inevitably undergo compulsory virtualization, and scholars should help hospitality management instructors prepare for this inevitability by studying existing cases of such courses undergoing compulsory virtualization. This qualitative descriptive study addressed this gap by exploring how 25 hospitality management instructors at a college of management in the Northeastern United States described their attitudes towards the effects on instruction of the Spring 2020 COVID-driven compulsory virtualization of their courses.

There is a vast literature proving the benefits of technology for education at all levels, and there is also voluminous literature concerning student and faculty misgivings about the use of technology in education (Bokde et al., 2020; Shanth & Jayapaul, 2020). Moreover, there is considerable literature concerning faculty descriptions of their attitudes towards voluntary course-virtualization and technology-adoption (Wei and Chou, 2020). However, there is extremely little scholarly literature concerning faculty attitudes towards compulsory technology adoption, such as is required by the COVID 19 pandemic (Donthu & Gustaffson, 2020). Further, there exist few if any studies, whether quantitative or qualitative, concerning faculty attitudes towards compulsory technology adoption in a program of hospitality management (Sandars et al., 2020). There is a documented need for an in-depth qualitative descriptive study of a situation where an entire hospitality management curriculum underwent compulsory course-virtualization (Demuyakor, 2020). Consequently, it is not known how hospitality management instructors describe their attitudes towards the effects on teaching of the Spring 2020 COVID-driven, compulsory virtualization of their courses, and the purpose of this study

was to address this gap in the literature (Ali, 2020; Demuyakor, 2020; Donthu & Gustaffson, 2020; Zayapragassarazan, 2020).

TAM, TAM2, and UTUAT: General Considerations. Course-virtualization is mediated by technology-implementation, and attitudes towards course-virtualization are therefore mediated by attitudes of acceptance or rejection towards technology-implementation (Dhawan, 2020; Mulenga & Marbán, 2020; Shenoy et al., 2020). Consequently, the Technology Acceptance Model (TAM) is appropriate for this study, and so are its two most significant extensions, the Extended Technology Model (TAM2) and the Unified Theory of the Use and Acceptance of Technology (UTUAT). TAM2 and UTUAT are not alternatives to TAM but are rather refinements of it (Buabeng-Andoh & Baah, 2020). TAM is an application of the Theory of Reasoned Action (TRA) to contexts involving acceptance of new technology (Davis & Venkatesh, 1996; Venkatesh & Bala, 2008). According to TRA, people tend to engage in courses of action that they believe will benefit them and will not be excessively difficult to carry out. According to TAM, people tend to accept new technology when they believe that it will benefit them and not be excessively difficult to use. The essence of TAM is therefore that technology is accepted when characterized by perceived usefulness and ease of use (Venkatesh & Bala, 2008).

TAM was introduced in 1989 to explain why information technology (IT) was being underused at the workplace. In 1989, IT had just been introduced to the American workplace. If properly used, this new technology stood to expedite work and lighten employee workloads, and yet employees were choosing to forego the use of it in favor of the manual procedures that they were in the habit of using. Puzzled by this, Davis,

Bagozzi and Warshaw investigated the matter, finding that employees used IT-technology when, and only when, they found it easy to use and were convinced that using it would benefit them (Davis et al., 1989; Davis & Venkatesh, 1996). They generalized this finding by positing that people are technology-positive when the technology in question is easy to use and they believe that using it will benefit them (Davis & Venkatesh, 1996; Venkatesh & Bala. 2008).

Researchers soon discovered that, although perceived usefulness and ease of use are always among the determinants of technology acceptance, they are not always the only such determinants (Venkatesh & Bala. 2008). People will use technology that is difficult to use and that they do not regard as useful if they believe that using it will ingratiate them with people whom they value, such as employers or loved ones. For example, a given employee may choose to use hard to use calculator X over easy to use calculator Y if he believes that his boss will promote him for using calculator X. Also, concern for status and image is often a deciding factor. For example, people often purchase expensive, high-maintenance and hard-to-operate sports cars, when they have the option of purchasing inexpensive, low-maintenance economy cars. They do this because it is a sign of high status to have a car of the first kind, but it is not a sign of high status to have a car of the second kind (Weck et al., 2020).

Voluntariness proved to be another important parameter. Researchers discovered that when people feel pressured or coerced into using a given form of technology, they may eschew it in favor of a less useful and more unwieldy alternative (Dzwigol, 2020). This frequently happens in connection with upgrades to operating systems, such as Windows, and important computer applications, such as Microsoft Word (Dzwigol,

2020). People resent the loss of control they feel when a person or situation is compelling them to use an upgraded version of a program, even if the upgrade is more effective and wieldy than its predecessor. This study was concerned with compulsory course virtualization and therefore with compulsory technology acceptance, and the voluntariness parameter was therefore relevant to this study. Other previously overlooked parameters also proved to be significant, such as job relevance, result demonstrability, and output quality. People will use relatively unwieldy and useless technology if there are job-specific reasons for doing so (job relevance), or doing so increases the likelihood of an acceptable result (result demonstrability), or doing so yields a higher quality end-result (output quality) (Venkatesh & Bala, 2008; Rafique et al., 2020; Zheng & Li, 2020).

TAM was extended to include the just-mentioned parameters, the result being TAM2. TAM2 represents a modification of TAM rather than an alternative to it. TAM2 is to the effect technology-acceptance is governed by six variables: (i) Subjective norms (a given person is more likely to accept new technology if he believes that using it will consolidate his relations with people who have power over him); (ii) voluntariness (he is more likely to use it if he is not being forced to do so); (iii) image (he is more likely to use it if he believes that doing so increases his prestige); (iv) job relevance (he is more likely to use it if he regards the function that it discharges as job-critical); (v) output quality (he is more likely to use if it yields high quality results); and (vi) result demonstrability (he is more likely to use it if it generates easily and quickly verified results) (Schmidhuber et al., 2020)

TAM2 is an extension of TAM. Consequently, TAM and TAM2 are to be taken jointly, not separately. TAM-TAM2 (i.e. TAM and TAM2, taken jointly) proved to have

predictive and explanatory value in contexts where TAM did not (Benbasat & Barki, 2007). In particular, it seemed to be more effective than TAM at modeling data relating to situations where technology acceptance was governed by concern for image or was being accepted under compulsion. According to critics of TAM-TAM2, however, the ten factors posited by TAM-TAM2 have no obvious connection to one another, and TAM-TAM2 therefore fails to constitute a unified theory (Benbasat & Barki, 2007).

Such criticisms led proponents of TAM-TAM2 to look for a small set of principles from which these ten factors could be deduced. Their efforts led to UTUAT, according to which technology acceptance is governed by four principles, namely: (1) performance expectancy, (2) effort expectancy, (3) social influence, and (4) facilitating conditions. Performance expectancy incorporates (i) and (vi). Effort expectancy coincides with (ii). Social influence incorporates (iii) and (vi). Finally, facilitation conditions consolidates (iii) and (v) (Benbasat & Barki, 2007; Fearnley & Amora, 2020).

UTUAT is not intended to generate predictions or explanations that empirically differ from those generated by TAM-TAM2. Rather, UTUAT is meant to be a rearticulation of TAM-TAM2 that explicates the principles underlying TAM2 (Fearnley & Amora, 2020). Such a rearticulation of TAM-TAM2, it was believed, would be less likely than TAM-TAM2 to need to be subjected to *ad hoc* extensions in order to accommodate recalcitrant data (Benbasat & Barki, 2007; Fearnley & Amora, 2020).

There is considerable debate as to whether UTUAT does in fact identify the principles underlying TAM-TAM2. According to some scholars, UTUAT and TAM-TAM2 sometimes yields different predictions, and UTUAT is therefore incompatible with TAM-TAM2. According to some critics of UTUAT, TAM-TAM2 is more

perspicuous and intuitive than UTUAT, and UTUAT therefore represents a step backwards from TAM-TAM2 (Khechine, Raymond, & Augier, 2020). At the same time, many scholars claim that UTUAT is accurate and also identifies the principles underlying the factors posited by TAM-TAM2 (Dwivedi et al., 2020). In the context of this, it was an open empirical question whether or not UTUAT and TAM-TAM2 generate conflicting explanations and predictions and also whether UTUAT accurately explicates the principles implicit in TAM-TAM2. In this work, TAM-TAM2 and UTUAT will be treated as explanatory aids, whose legitimacy will be decided by their ability to model the data generated by this study.

TAM, TAM2, and UTUAT in relation to the Problem Space. In this subsection, “TAM” is short for “TAM and/or one or more of its extensions.” Any given case of compulsory course-virtualization is a case of compulsory technology acceptance. TAM is the appropriate theoretical foundation for studies of both voluntary and compulsory acceptance, and TAM is therefore the appropriate foundation for this study (Awa & Uhoka, 2020). Moreover, TAM is the theoretical foundation of existing studies concerning COVID-driven compulsory course-virtualization. Most such studies concern student attitudes, not instructor attitudes (Abidi et al., 2020).

Some researchers question the legitimacy of TAM. According to Scherer, Siddiq, & Tondeur (2019), TAM is trivial and therefore lacks explanatory power. According to Benbasat and Barki (2007) and Van Raaij & Schepers (2008), TAM2 is not a legitimate extension of TAM, but is rather a separate theory that is meant to give TAM the appearance of being able to account for data that in fact falsifies it. In their view, the two theories cannot be consolidated into a single coherent theory. Lai & Li (2005) allege that

UTUAT is an artificial attempt to fuse distinct theories, and they further hold that, although UTUAT has a high-degree of data-consistency, its lack of internal cohesiveness renders it useless as a diagnostic or explanatory aid. According to Goodhue, Lewis, and Thompson (2007), these criticisms of TAM are of little operational significance for actual research, and for all practical intents and purposes there is no viable alternative to TAM. According to Schmidhuber et al. (2020), the only decisive reason to reject TAM would be a body of data that falsified it, and the just-mentioned criticisms are to be given little weight since they do not speak to TAM's degree of consistency with the data.

According to Scherer et al. (2019), differences in attitudes towards technology are sometimes grounded in facts about personal preferences that cannot be understood in terms of ease of use, perceived utility, or any of the factors posited by TAM and its variants. In Scherer's view, preferences for technology reflect a high degree of congruence between person and technology, and the presence of such congruence is not always predicted by the presence of the factors posited by TAM. Scherer's position is known as the Matching Person and Technology Model (MPT) (Scherer et al., 2019). MPT is based on extensive studies of people with special needs, and many authorities believe it to be a legitimate alternative to TAM. According to Scherer et al. (2019), some people simply prefer in-person instruction to virtual instruction, and MPT is consistent with that fact, whereas TAM is not. According to Scherer et al. (2019), there are no viable alternatives to TAM, and it must therefore be accepted, despite any problems that it might have.

Existing Studies Relating to the Problem Space. TAM, or one of its variants, is the theoretical foundation of most studies concerning attitudes towards compulsory

virtualization. The vast majority of such studies are questionnaire-based and quantitative. Consequently, there is a paucity of in-depth descriptive studies of situations involving COVID-driven compulsory course-virtualization, and there is an even greater paucity of such studies concerning faculty attitudes towards COVID-driven compulsory course-virtualization.

Moreover, the results of these studies conflict with one another, as previously described. These conflicts are not likely due to error on the part of the researchers involved. They are more likely a consequence of the fact that how virtualization is undergone and what its effects are depend on several variables (Holme, 2020). These variables include the level of the students, the nature of the subject-matter, the financial resources of the host-institution, and how willing and able the instructor is to use the technology in question in a pedagogically effective manner. Unless these variables are controlled for, discrepancies in the corresponding studies cannot be interpreted, and they are not being controlled for in the present context, rendering the previously mentioned conflicts uninterpretable (Holme, 2020).

The results of different quantitative studies cannot be compared unless it is known that the same variables are being measured in each case. According to Holme (2020), quantitative comparisons presuppose qualitative parity. In this context, detailed empirical observation is necessary to determine exactly what the operative variables are, and qualitative, descriptive research must therefore be conducted before meaningful quantitative-correlational research can be conducted (Holme, 2020). According to Demuyakor (2020), the most striking fact about existing literature on instructor attitudes regarding COVID-driven compulsory course-virtualization is that, even though this

phenomenon should initially have been studied in a qualitative, descriptive manner, it was first studied in a quantitative correlational manner. The result, Demuyakor says, is an abundance of quantitative-correlational studies whose results cannot be interpreted.

COVID 19 led to mass compulsory technology-acceptance. Entire societies were forced to virtualize operations, including course-instruction, that they had previously performed non-virtually. According to TAM2, people have a low degree of acceptance of technology that they feel they are being forced to use. According to Ambati (2020), a corollary is that negative attitudes towards the technology involved in COVID-driven virtualization may reflect the fact that this technology was adopted under duress more than they reflect attitudes towards that technology itself. Bui et al. (2020) assert that in-depth qualitative studies are needed to verify whether this corollary in fact holds, and they note the paucity of such studies. According to Ambati et al. (2020), the exact basis for such attitudes varies from context to context, there being no way to know what the operative factor is in a given except on the basis of an in-depth descriptive study.

Existing research indicates that courses having a lab component were more unlikely than courses not having such a component to be successfully virtualized (Lundie & Law, 2020). This study concerned a department of hospitality, and each of the courses of study offered by that department has a heavy lab component. It stands to reason that many of those courses were not virtualized successfully. But there is no way to know, except on the basis of in-depth empirical research, exactly how virtualization was carried out or how successfully it was carried out. Moreover, there is no way to know, except on the basis of such research, how the course-instructors felt about the way in which their

courses were virtualized or, in particular, how they believed virtualization to have affected the quality of instruction (Modica et al., 2020).

According to Modica et al. (2020), instructors tend to have a positive attitude towards their courses when they believe them to benefit their students, and they otherwise tend to have a neutral or negative attitude towards them. According to Lundie and Law (2020), the social and economic disruptions occasioned by COVID 19 caused many instructors to reconsider the worthwhileness of their courses for their students, and this was compounded by the difficulties involved in teaching those courses in virtual form. The hospitality industry was especially hard hit by COVID 19, and it is unclear whether it will ever recover. Moreover, hospitality management instruction is typically described as being especially hard to virtualized (Bui et al., 2020). These points would suggest that hospitality management instructors whose courses underwent compulsory virtualization believe virtualization to have adversely affected the quality of instruction in those courses. However, there is no direct evidence in favor of this contention, since there are no studies that are directly on point.

Compulsory Course-Virtualization: A Blessing in Disguise? According to many authors, COVID-driven compulsory virtualization was a blessing in disguise (Setiwawn, 2020; Wolff, 2020; Zdravev et al., 2020). The reasoning behind this position is that COVID 19, though obviously a tragedy, forced educational institutions to take full advantage of education-enhancing virtual technologies that they had previously been at liberty to ignore. According to advocates of this view, any hostility on the part of students or faculty to course-virtualization only reflects the fact that they were not ready for it, and they will come to regard course-virtualization as an improvement on in-person instruction

once the requisite technological changes have been implemented and assimilated. According to Alzahrani et al. (2020), this position only holds with respect to certain subjects. In their view, strictly academic subjects can and should be virtualized, but subjects having a lab component cannot be virtualized and attempts to virtualize them will yield mere mimics of their in-person prototypes. According to Alzahrani et al. (2020), hostility on the part of students and instructors towards courses that underwent forced virtualization is sometimes a consequence of the fact that, because of their subject-matter, those courses should not have been virtualized. According to Gratzner and Goldbloom (2020), this position involves assumptions about what technology can and cannot do, and those assumptions are often false with respect to existing technology, and in other cases they are likely false with respect to technology that will soon be invented.

According to Rose (2020), these claims can be decided only on the basis of in-depth descriptive studies of instances of course-virtualization and therefore cannot be adjudicated until such studies are performed. This study generated empirical data that bears on these claims, as it was concerned with a situation in which courses that were regarded as completely virtualization-proof were in fact virtualized. Whether they were successfully virtualized is an empirical question that can only be answered on the basis of the kind of in-depth descriptive research involved in this study.

Is Virtual Instruction for Everyone? According to research from the last twenty years, some students simply prefer to learn in-person, and some instructors simply prefer to teach in-person. Zhang et al. (2020) studied a group of 100 accounting students who had the option of taking their courses in-person or virtually and found that, after controlling for ability-level and other relevant variables, approximately half chose to take

the course in-person and half chose to take it virtually. Zhang et al. conclude that some people prefer in-person instruction, and they conjecture that some instructors prefer to teach in-person, even when doing so is not significantly more convenient than teaching virtually. Napolitano and Aiezza (2017) conducted a similar study of 150 economics students at different universities and found, after controlling for relevant variables, that approximately half opted for in-person instruction and approximately half opted for virtual instruction. Like Zhang et al, Napolitano and Aiezza conclude that some students simply prefer in-person to virtual instruction, and they conjecture that the same holds of instructors. Each of the instructors involved in this study had taught both in-person and online, and each of these instructors had voluntarily taught virtual courses and also, because of COVID 19, done so involuntarily. Consequently, the data generated by this study bore on these conjectures, even though that data, taken alone, was not necessarily to determine whether or not those conjectures are true.

Sahar et al. (2020) did a case study of a single economics department each of whose members was required to offer both online and in-person courses, reporting that some of the instructors preferred online instruction and others preferred in-person instruction. Sahar et al. note that instructors who preferred in-person instruction believed it to be more effective than online instruction and instructors who preferred online instruction had the opposite belief. Sahar et al. conjecture that, in general, instructors who prefer to teach virtually believe it to be more effective than in-person teaching and that instructors who prefer to teach in-person have the opposite belief. The data generated by this bore on this conjecture, even though it was not necessarily sufficient to decide whether or not it that conjecture true.

According to Rose (2020), the idea that some people simply prefer in-person to online instruction is rooted in contemporary technological limitations and in a failure to implement such technology as is currently available. Rose says that studies that have generated findings to the contrary involve a failure to control for the relevant variables and, moreover, that it is virtually impossible to control for these variables. Rose further claims that once instructors have had a chance to acclimate themselves to new teaching-related technology, their once deeply rooted resistances to the use of such technology vanish.

Similar Studies: Their Methodologies and Research Designs

There exist few qualitative descriptive studies concerning instructor attitudes towards COVID-driven compulsory course-virtualization. Moreover, there exist no studies concerning such attitudes on the part of hospitality management instructors. Nor do there exist qualitative descriptive studies of student attitudes towards COVID-driven compulsory course-virtualization. Consequently, there do not exist any studies on which this study could be directly modelled. However, there do exist in-depth qualitative descriptive studies concerning pre-COVID technology acceptance in education and also concerning technology-acceptance in areas other than education. The present researcher studied the methods used in some of these studies, and this study was partly modelled on them. TAM is the theoretical foundation of each of these studies, and thematic analysis is the method of analysis used in each case. Moreover, each case involved a shift, albeit a voluntary one, from in-person instruction (either giving it or receiving it) to virtual instruction.

Nyachwaya (2020) conducted a descriptive study in 2019 of 10 psychiatry residents whose residency involve extensive virtual instruction. Bui et al. (2020) conducted a qualitative descriptive study of five students of fraud examination who had originally taken their courses in-person but had all shifted to strictly virtual instruction. Sintema (2020) conducted a qualitative descriptive study of 15 accounting instructors who had originally taught all of their courses in-person but shifted to strictly virtual instruction. Ambati et al. (2020) conducted an in-depth descriptive study of 10 doctoral students whose pre-candidacy coursework was done in person but whose doctoral dissertations were being supervised remotely.

Each study had the same basic structure. Participants were recruited through purposive sampling. Data was initially obtained through screening questions. A demographic questionnaire was also used in each case. The primary sources of data were interviews and direct observation of Skype-sessions with instructors and of Skype- or Zoom-based class-sessions. Thematic analysis was used to analyze the data, and triangulation was used to construct credible generalizations of the resulting analyses. Data-audits were used throughout the process of data-gathering, and the results of analysis were presented to experts and revised in light of their feedback. In each case, additional data was generated to develop meaningful responses to this feedback, with the modified analyses being presented once more to the experts. Results were not submitted for publication until the experts' feedback had been addressed to their satisfaction. The results of those studies do not bear directly on this study. However, those studies, like the present study, were qualitative descriptive studies of instruction-virtualization. Moreover, these studies had the same research design, despite the differences between them in

subject-matter. The present study's subject matter is highly similar to their subject-matters, in that each study is concerned with a shift from in-person to virtual instruction. Taken together, these facts support the present researcher's decision to model the present study's research design on theirs.

Problem Statement

It is not known how hospitality management student and faculty describe their attitudes towards the effects on instruction of the COVID-driven compulsory course-virtualization that occurred in Spring 2020 (Bui et al., 2020; Nyachwaya, 2020; Zayapragassarazan, 2020). Historically, both students and faculty have responded positively to course-virtualization. However, there are significant differences between COVID-driven cases of course-virtualization and pre-COVID cases of course-virtualization (Owusu-Fordjour et al., 2020; Özgen & Reyhan, 2020). Pre-COVID course-virtualization was undertaken voluntarily, and the host-institutions did so at their own pace and in a manner of their own choosing (Owusu-Fordjour et al., 2020; Özgen & Reyhan, 2020). Moreover, pre-COVID course-virtualization did not happen mid-course; the course in question was virtualized before being offered, and those who enrolled in it knew that they were enrolling in a virtual course (Rabiman et al., 2020; Sahar et al., 2020; Ray & Srivastava, 2020). By contrast, COVID-driven cases of virtualization involved virtualizing courses that were initially in-person, and students enrolled in these courses on the assumption that they were non-virtual (Rabiman et al., 2020; Sahar et al., 2020). Consequently, course-virtualization involved a 'bait-and-switch' that violated both student- and instructor-expectations. Moreover, that bait-and-switch was carried out abruptly and clumsily, since the instructors had not intended to virtualize these classes

and were therefore unprepared to do so, let alone within the narrow time-window available to them (Rabiman et al., 2020; Sahar et al., 2020; Ray & Srivastava, 2020).

Also, whereas pre-COVID cases of course-virtualization tended to involve strictly academic courses, COVID-driven course-virtualization involved all classes, including those having a hands-on component, such as cooking classes (Chettri et al, 2020; Katz et al., 2020; Krishnamurthy, 2020; Ray & Srivastava, 2020; Rose, 2020; Sapkota & Narayangarh, 2020; Zayapragassarazan, 2020; Zhang et al., 2020). This exacerbated the situation, since current technology is extremely limited in its ability to virtualize classes having a hands-on component (Chen and Li, 2020; Ray & Srivastava, 2020; Rose, 2020). Consequently, there are several respects in which ‘ordinary’, non-compulsory, pre-COVID course-virtualization differs from compulsory, COVID-driven course-virtualization. Therefore, the results of studies of student and faculty attitudes towards course-virtualization cannot be assumed to transfer over to COVID-driven cases of course-virtualization (Adnan & Anwar, 2020; Pierce et al., 2020; Sutton, 2020). It is therefore not known how hospitality and management instructors describe their attitudes regarding the effects on teaching of the COVID-driven virtualization of their courses. Furthermore, there has not been a single descriptive study of management and hospitality student and faculty attitudes towards course-virtualization (Bui et al., 2020; Krishnamurthy, 2020). Consequently, it is not known how hospitality management instructors describe their attitudes towards the effects on teaching of the Spring 2020 COVID-driven compulsory virtualization of their courses (Aliyyah et al., 2020; Bui et al., 2020; Krishnamurthy, 2020; Tiwari et. al., 2020; Zayapragassarazan, 2020).

The population of interest consists of hospitality management instructors whose courses have undergone COVID-driven compulsory virtualization. One of the defining facts about the case of compulsory course-virtualization being studied is that much of it involved trying to virtualize courses, such as cooking classes, that had never before been virtualized (Bui et al., 2020). Another defining fact is that an entire curriculum was being virtualized, as opposed to just a single class or selected components of a single class. A recurring question in the literature on virtual technology is: What can be virtualized and what cannot be virtualized? (Bui et al., 2020) The present in-depth case study provides data that bears directly on this question.

Summary

In this chapter, the problem space was identified, the literature was reviewed, and the problem was identified. The problem space is defined by the fact that it is unknown how hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven compulsory course-virtualization, and the problem statement is that it is unknown how hospitality management instructors describe their attitudes towards the effects on instruction of the COVID-driven, compulsory virtualization of their courses that occurred in Spring 2020. The particular situation being studied is distinctive in that it involves the wholesale virtualization of an entire curriculum having both academic and lab-based components; and the present descriptive study; and there exist some questionnaire-based quantitative studies of COVID-driven, compulsory cases of course-virtualization. However, there exist no descriptive studies of COVID-driven, compulsory cases of course-virtualization (Aliyyah et al., 2020; Auma & Achieng, 2020; Bui et al., 2020; Zayapragassarazan, 2020).

The results of studies of voluntary cases of course-virtualization cannot be generalized to cases of compulsory course-virtualization owing to the many factors present in situations of the latter kind but absent from those of the former kind (Demuyakor, 2020). Those factors include (i) the fact that compulsory course-virtualization, unlike cases of voluntary course-virtualization, involves the student's being enrolled in an in-person class which is converted into a virtual class, in violation of his expectations when enrolling; (ii) the fact that involuntary course-virtualization involves the sudden adoption of technology, on the part of students and instructors alike, that is likely to be inadequate for course-purposes and is also likely to be difficult to master, especially on such short notice; and (iii) that whereas voluntary course-virtualization only involves courses that it is known how to virtualize, involuntary course-virtualization often involves courses that it was never anyone's intention to virtualize and that, relative to the state of technology today, may not be capable of being virtualized. Such courses include hospitality management classes (Özgen & Reyhan, 2020; Zhou et al., 2020).

Existing studies of student and faculty attitudes towards COVID-driven, compulsory virtualization suffer from several defects. They are questionnaire-based and are therefore not based on direct-observation, and they consequently lack the kind of detailed, empirical information necessary to explain questionnaire-results or to generalize those results to other situations (Krishnamurthy, 2020; Tiwari, 2020). The results of questionnaire-based studies can be generalized only when the operative variables are fixed and well-defined, and the operative variables are not fixed or well-defined in existing studies of COVID-driven course-virtualization (Creswell & Báez, 2020). The

disciplines being taught vary widely; the grade-levels vary widely; the technology used varies widely; and so is the way said technology is being implemented. Consequently, there is no obvious way to generalize the results of a given such study to other situations (Abga & Okonkwo, 1999). Also, there do not currently exist universally accepted protocols for virtualizing courses, and two classes that were effectively identical prior to being virtualized may for that reason be very different from each other after being virtualized (Demuyakor, 2020). Before generalizations can be made, variables must be precisely defined; and in this context, variables are best defined through empirical observation and therefore through a qualitative descriptive study (Creswell & Báez, 2020). Also, until it is known what the operative variables are, it is not known what the relevant questions are, and the use of questionnaires therefore presupposes antecedent, observation-based knowledge of those variables (Abga & Okonkwo, 1999).

Chapter 3: Methodology

Introduction

The purpose of this qualitative descriptive study was to explore how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on instruction of the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. Prior to COVID 19, course-virtualization was undertaken cautiously, and courses remained in-person unless existing technology made it a certainty that they could be adequately virtualized (Adnan and Anwar, 2020; Hoq, 2020; Pierce et al., 2020; Sutton, 2020). The current pandemic has forced educational institutions to virtualize courses that they previously regarded as incapable of being virtualized; and although this has caused some difficulties, it is also likely to lead to innovations in both technology and also in educational practices (Clark et al., 2020; Gilbey, Malatskey, Dickman, Glikman, Albeck, Shinwell & Younis, 2020; Jena, 2020). By providing a detailed, in-depth, description of a situation where an entire, largely lab-based curriculum underwent virtualization, this study will provide future researchers and educators with a detailed understanding of the virtualization-process.

This chapter states the purpose statement and the research questions generated by the research gap, and it states the methods and instruments that were used to answer the research questions. The structure of this chapter is as follows. First, the purpose statement is articulated. Then the research questions are stated. This is followed by an explanation of why this study used a qualitative descriptive methodology. Following this is an explanation of the research design. The population of the study is then identified. The

remainder of the chapter concerns the procedures used in the present study relating to sample selection, data collection and analysis. Issues relating to the trustworthiness, credibility and ethical integrity of the current study are addressed.

Purpose of the Study

The purpose of this qualitative descriptive study was to explore how 25 instructors of hospitality management at a college of management in the Northeastern United States describe their attitudes towards the effects on the quality of instruction of the COVID-driven compulsory virtualization of their courses that occurred in the Spring of 2020. The phenomenon was hospitality management instructor attitudes regarding the effects on instruction-quality of the COVID-driven virtualization of their courses that occurred in Spring 2020. The geographic location for this study was a brick-and-mortar college of hospitality management located in Rhode Island. Prior to March 2020, this college had operated on a primarily brick and mortar basis since its inception in 1914. In April 2020, Federal and State authorities required this college to virtualize many of its classes. The ensuing course-virtualization was involuntary and compulsory. The target population of the present study was hospitality management instructors in the United States whose courses underwent COVID-driven compulsory virtualization in Spring 2020.

The present study was guided by the Technology Acceptance Model, developed by Davis (1986), the Extended Technology Model (TAM2), developed by Venkatesh (1999), and the Unified Theory of the Use and Acceptance of Technology (UTUAT), developed by Venkatesh & Davis (2000). TAM2 and UTUAT are considered to be extensions of TAM (Tiwari, 2020). Virtualization is mediated by the adoption of new

technology, and for this reason TAM, TAM2, and UTUAT constitute the theoretical foundation of most studies concerning virtualization, including course-virtualization (Works et al., 2020). In the context of this study, TAM, TAM2, and UTUAT were not functioning as explanatory or predictive instruments. Relatedly, TAM, TAM2, and UTUAT were not directly implemented and participants were therefore not generating data in response to those frameworks. Rather, TAM, TAM2, and UTUAT were functioning as heuristic guides for the design of the research questions and the data collection instruments.

A pool of hospitality and management instructors at the college in question were sent out e-invitations (Appendix Q). Screening questions (Appendix R) were attached to the e-invitation. The purposed of the screening questions was to screen out instructors not satisfying the inclusion-conditions. Instructors who were not screened out and who expressed a desire to participate in the study would then complete and return informed consent forms (Appendix D). In these forms, they agreed to be interviewed, to allow the present researcher to attend and observe their courses, and also to participate in focus group interviews. Moreover, details relating to the study were then conveyed in the Informed Consent Forms. Upon signing and returning the Informed Consent Form, participants were sent a demographic questionnaire (Appendix P). A given participant was interviewed shortly after submitting his completed demographic questionnaire. Because of COVID 19, interviews will take place via Zoom. All interviewees were asked the same questions (Appendix O). Each of the interview questions relates to one of the three research questions, as detailed in the Interview Guide (Appendix M).

Research Questions

The present study provided an in-depth understanding of attitudes on the part of hospitality management instructors concerning the effects on instruction-quality of the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. The three research questions for the present study were aimed at exploring how hospitality management instructors describe their attitudes regarding the effects on instruction-quality of the COVID-driven virtualization of their courses that occurred in Spring 2020. The research questions for the present study were:

- RQ1.** How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?
- RQ2.** How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?
- RQ3.** How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

The researcher used purposive sampling to answer RQ1-RQ3. Purposive sampling involves selecting screening for participants who have certain characteristics (Yin, 2017). In the present study, purposive sampling was used to screen for participants who had taught hospitality management courses at the institution in question that underwent COVID-driven compulsory virtualization. Purposive sampling was accomplished through the use of screening questions (Appendix N). Participants were selected on the basis of their answers to these questions. The learner collected data from these participants concerning their attitudes regarding the effects on instruction-quality of the COVID-driven virtualization of their courses that occurred in Spring 2020.

Data was obtained through semi-structured interviews. In a semi-structured interview, the main questions are predetermined, but additional questions may be asked depending on the interviewee's responses (Rubin & Rubin, 2011). In an unstructured interview, the interviewer does not have a list of predetermined questions, and all questions are spontaneous (Zhang & Wildemuth, 2009). In a structured interview, all of the questions are predetermined. Unless the researcher asks predetermined questions, interviews will likely be unproductive (Zhang & Wildemuth, 2009). At the same time, the researcher may sometimes have to ask unscripted follow-up questions in order to understand interviewee-responses (Wright, Lichtenfels, & Pursell, 1989). Consequently, semi-structured interviews were more appropriate for the present study than unstructured or structured interviews.

All interviewees were asked the same questions (Appendix O). Interviews were transcribed and thematically analyzed. Thematic analysis involves coding and theming (Neumann, 2006). Coding involves associating recurring concepts with codes, and theming involves identifying themes that emerge out of the coding process (Neumann, 2006). Thematic analysis will also involve triangulation. Triangulation is the use of multiple sources of data to acquire insight into a given body of data (Patton, 2014). Triangulation will the researcher conduct coding and theming in an intelligent as opposed to mechanical fashion (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). Interview responses were discussed with the interviewees themselves in two focus groups, each consisting of seven of the 14 participants. In the focus groups, interviewees clarified the statements they made in the individual interviews and volunteered additional information that they felt to be relevant. The focus groups followed a strict protocol

(Appendix L), with the researcher asking the same questions in each (Appendix M). Each focus group question was aligned with at least one of the three research questions and was also aligned with one of the three theoretical foundations of this study (Appendix N).

Rationale for a Qualitative Methodology

This study used a qualitative methodology. A qualitative methodology allows the researcher to investigate the way that attitudes are formed on the basis of experience (Shank, 2006; Lambert & Lambert, 2012). The purpose of this qualitative descriptive study was to explore how hospitality management instructors describe their attitudes towards the COVID-driven compulsory virtualization of their courses. A qualitative methodology is appropriate for the exploration of attitudes, and such a methodology will therefore allow the researcher to conduct the research needed to answer the research questions (Merriam & Tisdell, 2015). Therefore, a qualitative methodology is appropriate for the present study.

The present study focused on how hospitality and management instructors describe their attitudes towards the COVID-driven compulsory virtualization of their courses. Data was collected from individual interviews. Interviews were used to learn how hospitality management instructors describe their attitudes towards the COVID-driven compulsory virtualization of their courses, and focus groups were used to clarify and add to the data generated by the interviews. Data collected from the interviews and focus groups was subjected to thematic analysis. Thematic analysis is the standard method for analyzing interview-generated information concerning attitudes (Bogdan & Bicklen). Thematic analysis involves coding data and thereby identifying recurring themes in the dataset in question. In this study, the dataset consisted of transcripts of

interviews and focus groups. These were subject to thematic analysis, and the resulting analyses were used to answer the research questions. The present study concerned how hospitality and management instructors described their attitudes towards the COVID-driven compulsory virtualization of their courses, and a qualitative methodological approach was therefore appropriate.

Rationale for Research Design

The present study used a qualitative methodology and a descriptive design. The researcher was concerned with how hospitality management instructors described their attitudes regarding the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. The target population for this study was hospitality management instructors in the United States.

The present study was concerned with a social phenomenon, namely, hospitality and management instructor attitudes towards the COVID-driven compulsory virtualization of their courses. A qualitative methodology and descriptive research design are appropriate for studies, such as the present one, whose purpose is to generate a deep and comprehensive understanding of a social phenomenon (Nowell, Norris, White & Moules, 2017). Moreover, interviews are an appropriate primary data-source for studies of this kind and focus groups are an appropriate secondary data-source, and the design of this study was therefore consistent with its subject matter (Braun & Clarke, 2006).

The targeted sample size for this study was 12-15 for the interviews. In addition, there were two focus groups, each containing seven members. The researcher contacted approximately 100 hospitality management instructors in order to offset any possible attrition. Each of the participants belonged to one of the focus groups. Each participant in

the study was required to have taught, from start to finish, at least one course in Spring 2020 at the institution in question at least that began as an in-person course and then underwent COVID-driven compulsory virtualization. Individuals satisfying this condition were invited to participate based on their responses in the screening questions.

Participants were interviewed about their attitudes towards the Spring 2020 compulsory virtualization of their courses, and in-depth body of data concerning these attitudes were generated on the basis of these interviews. The unit of observation was exploring how hospitality management instructors described their attitudes towards the Spring 2020 compulsory virtualization of their courses. According to qualitative research experts, the unit of observation is the unit being measured in data collection (Silverman, 2016).

Qualitative research is concerned with generating in-depth descriptions of phenomena and their characteristics (Rubin & Rubin, 2011). The present study provided an in-depth description of how hospitality management instructors describe their attitudes towards the Spring 2020 compulsory virtualization of their courses. The two principal sources of data for the present study were interviews and focus groups. Screening questionnaires were used to ensure that participants satisfy eligibility-requirements, and demographic questionnaires were completed by participants in order to help interpret interview-data. Participants were purposively selected on the basis of their satisfying the eligibility criteria for this study. Purposive sampling allows researchers to select for participants who have the relevant characteristics and experiences (Palinkas et al., 2015). For this reason, purposive sampling was the method used in this study.

Screening questions (Appendix R) screened in participants who satisfied the inclusion-criteria and screened out those who do not. Candidates who have been screened

and have completed informed consent will complete a demographic questionnaire (Appendix T). The primary data sources were interviews and focus groups. These two sources generated the data that was used to answer the research questions. The interviews provided the raw data (Rubin & Rubin, 2011). This data was analyzed using thematic analysis (Patton, 2014). Written summaries of the results of thematic analysis were then presented to participants, who provided feedback about them in focus groups. Participants were interviewed for at least one hour. All interviews were based on the same questions (Appendix J) to minimize randomness and subjectivity (Rubin & Rubin, 2011). Each question related to one of the three research questions, as detailed in Appendix K, and was anchored to one or more of the three theoretical models (TAM, TAM2, UTUAT). All individual interviews followed a single protocol (Appendix I), and both focus groups followed a single protocol (Appendix L).

There were two focus group interviews. Each interviewee participated in one focus group interview. Focus group interviews are routinely used in qualitative research. Whereas individual interviews are used primarily for generating data, focus group interviews are used primarily for exploring data already generated through individual interviews or other means. In focus group interviews, the researcher is able to facilitate discussion without micromanaging it (Merriam & Tisdell, 2015; Stalmeijer, McNaughton &, Van Mook, 2014). Moreover, statements made by group members often elicit information-rich responses from other group members concerning the phenomenon being studied, and this tendency to volunteer relevant information is reinforced by a sense of mutual trust and solidarity that tends to develop among group-members (Merriam & Tisdell, 2015; Stalmeijer et al., 2014).

The present study used a qualitative methodology, and a descriptive research design was therefore appropriate. A descriptive design is more likely than others to allow for an in-depth and robust description of hospitality and management instructors describe their attitudes regarding the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. Consequently, a descriptive design was judged to be the appropriate one for this study. According to Patton (2014) and Cresswell & Poth (2016), there are five qualitative research designs:

1. **Ethnography:** This involves the researcher immersing himself in the culture or environment of the individuals being studied and thereby identifying with them.
2. **Narrative:** This involves assembling the data generated into a single continuous and coherent story or narrative.
3. **Descriptive:** This involves in-depth observation of the target-participants, usually with the assistance of interviews or other similar methods, as a way of obtaining the perspectives the participants and on that basis understanding the significance of the phenomenon being studied.
4. **Grounded Theory:** This involves attempting to construct a theory that models data that has been collected.
5. **Case Study:** This involves trying to understand a general phenomenon by focusing on a specific instance of that phenomenon and generating an in-depth body of empirical data concerning it, usually with the intention of generating testable generalizations concerning the phenomenon as a whole.

An ethnography approach was not appropriate for this study, since the information in question can be obtained through interviews and focus groups (Baskerville & Myers, 2015; Cresswell & Poth, 2016). A narrative approach was not appropriate since the purpose of this study is not to construct a narrative but is rather to obtain information about participant-attitudes (Rubin & Rubin, 2011; Cresswell & Poth, 2016). A descriptive approach *was* appropriate since this study aims to acquire in-depth information about the phenomenon in question without having to reconcile that data to a pre-existing theory

(Cresswell & Poth, 2016). A grounded theory approach involves attempting to explain data by generating an explanatory model (Emerson, 2016). The objective of this study was to generate data, not to produce explanations, and a grounded theory approach was therefore inappropriate. A case study might have been appropriate, since case studies, like the present study, aim to generate an in-depth observation-based understanding of the forces driving the phenomenon in question (Cresswell & Poth, 2016). However, case-studies tend to be theory-driven, since their aim is typically to develop testable generalizations (Rubin & Rubin, 2011). Because they are theory-driven, they permit the researcher less flexibility in the way of acquiring an in-depth body of observational data (Sandelowski, 2000). Whereas a case study is implicitly wedded to psychoanalytic theory or Keynesian theory, a descriptive study has no such theoretical entanglements and is therefore better suited for studies, such as the present one, that deal with contexts concerning which there is not as yet sufficient observational data to warrant even tentative acceptance of a particular theoretical view (Cresswell & Poth, 2016; Sandelowski, 2000). The present study was concerned with a social phenomenon, namely, hospitality and management instructor attitudes towards the COVID-driven compulsory virtualization of their courses. A qualitative methodology and descriptive research design are appropriate for studies, such as the present one, whose purpose is to generate a deep and comprehensive understanding of a social phenomenon (Patton, 2014; Nowell et al., 2017). Moreover, interviews are an appropriate primary data-source for studies of this kind, and focus groups are an appropriate secondary data-source, and the design of this study is therefore consistent with its subject matter (Braun & Clarke, 2006).

According to some researchers, descriptive qualitative research lacks rigor and credibility (Sandelowski, 2000). Other researchers hold that descriptive qualitative research is necessary when the researcher is attempting to describe a phenomenon in depth and to that end is attempting to generate a large quantity of observational data. Qualitative descriptive research tends to be less theoretically committed than other forms of research and is correspondingly less likely to generate theoretical insight (Sandelowski, 2010). For that very reason, however, qualitative descriptive research is uniquely able to generate unbiased and accurate descriptions of phenomena (Sandelowski, 2000; Sandelowski, 2010; Nassaji, 2015). Moreover, because descriptive qualitative research is theoretically uncommitted, it gives researchers greater latitude than they would otherwise have in designing and carrying out their studies (Braun & Clarke, 2006; Kim et al., 2017; Neergaard & Leitch, 2015; Nowell et al., 2017). Such latitude is necessary in the context of the present study, since the phenomenon being studied is largely unknown, making it impossible to know in advance exactly how this study is to be designed and conducted.

Population and Sample Selection

The population of interest for this study was hospitality management instructors whose courses have undergone COVID-driven compulsory virtualization. The target population for this study was hospitality management instructors at a college of management in the Northeastern United States whose courses underwent COVID-driven compulsory virtualization during or after the Spring 2020 Semester. At the college in question, there are approximately 300 hospitality management instructors during the time-period in question who taught a course that underwent COVID-driven compulsory

virtualization, and the target population for this study was therefore approximately 300. The sample frame for this study was 60, and the minimum sample size was 20. The minimum achieved sample size was 10, and the desired sample size was 12-15. The number of actual participants in the study was 14. These 14 individuals were hospitality management instructors from a college of hospitality management in the Northeastern United States whose courses underwent COVID-driven compulsory virtualization at any point in time beginning in Spring 2020.

The researcher used purposive sampling to exclude candidates who did not satisfy the study's eligibility-criteria. Purposive sampling involves deliberately choosing participants on the basis of their meeting predetermined eligibility-requirements (Yin, 2017). Purposive sampling is appropriate in contexts where there is no other way of ensuring that the subjects being studied have the characteristics with which the study in question is concerned (Barratt, Ferris, & Lenton, 2015; Etikan, Musa &, Alkassim, 2016; Yin, 2015). The present study was concerned with attitudes towards course-virtualization on the part of faculty at a specific college, and purposive sampling was the only way of ensuring that the individuals studied belonged the target population.

The eligibility criteria for this study were strictly defined. Each participant was required to have been an instructor at the institution in question at least one of whose courses underwent COVID-driven virtualization in Spring 2020. Satisfaction of this criterion was the sole inclusion for this study and non-satisfaction of this criterion was the sole exclusion-criterion for the study. Moreover, anyone who did not sign the consent form (Appendix D) was ineligible for the study. The researcher sent out an invitation

letter (Appendix Q) to possible study-participants, and that letter stated the inclusion-criteria and exclusion-criteria for this study.

Qualitative Sample Size

The sample population for this study was 14 hospitality and management instructors in a college of management in the Northeastern United States. The appropriate sample size for a given study is a function of the quality of the data generated, and it is not always possible to know in advance exactly how large one's sample should be (Patton, 2014). According to Fusch and Ness (2017), a sample is sufficiently large when it yields high quality data and insufficiently large when it fails to yield such data. According to Polit and Beck (2014), whether a given sample is sufficiently large is sometimes a function of the researcher's ability to ask questions that succeed in eliciting high-quality information, and a skillful researcher may therefore make due with a sample that would be too small for a less skillful research. Morse (2015) advocates a similar position, saying that the appropriate sample size depends on the subject-matter. According to Morse, the subject-matter determines the number and nature of the categories involved in the study, and these categories partly determine how large the sample must be to achieve saturation (Morse, 2015). In studies of this kind, a sample of 12-15 is generally considered sufficiently large (Sandelowski, 1995; Boddy, 2016; Gill, 2020; Guest, Namey, & Chen, 2020). The present researcher therefore chose to start with 15, and this number was reduced to 14 after one of the prospective participants dropped out of the study. Had this number proved inadequate to achieve saturation, the sample would have been increased (Sandelowski, 1995; Boddy, 2016; Gill, 2020; Guest et al., 2020).

Recruiting and Sampling Strategy

The researcher contacted potential participants by email (Appendix Q). The invitation email described the purpose of the study, state the eligibility-criteria for participants and provided details concerning participant. The email also contained screening questions (Appendix N). Those who agreed to participate and were eligible will be sent consent forms (Appendix D). When those were signed and returned, respondents received the demographic questionnaire (Appendix P). The interviews were conducted via Zoom.

Participants were recruited from a department at a college of management that has multiple branches across the nation. Had the previously described recruiting strategy failed to suffice to generate 12-15 participants, a similar recruiting strategy would have been used at the university's South Carolina campus. If more participants had still been needed, the process would have been repeated again at the university's Colorado campus. The South Carolina and Colorado campuses both have hospitality management departments that underwent COVID-driven compulsory virtualization in Spring 2020. Data collection commenced once sampling yielded the necessary number of participants.

Site authorization was obtained from the dean of the college (Appendix B). This study involved the hospitality management department, and it therefore involved the college as a whole by implication. Consequently, permission was needed from the college dean. The dean provided signed, written permission (Appendix B).

Sources of Data

The purpose of this qualitative descriptive study was to explore how hospitality management instructors at a college of management in the Northeastern United States

described their attitudes towards the effects on teaching of the Spring 2020 COVID-driven compulsory virtualization of their courses. The two data sources for this study were semi-structured interviews and two focus group interviews.

Before data collection begins, a screening questionnaire (Appendix R) was sent to possible participants. The inclusion criterion for the study was that the person in question be a hospitality management instructor at the institution in question who had taught at least one course that underwent COVID-driven, compulsory virtualization in Spring 2020. The respondent was eligible for the study if, and only if, he answered “yes” to Question 1, Question 2, and Question 3. If the respondent answered “no” to Question 1 or to Question 2 or to Question 3, he was not eligible for the study. Participants did not have to answer “yes” to Question 4 or to Question 5. However, respondents who answered “yes” to both Question 4 and Question 5 were given preference over respondents who answer “no” to one or both of those questions. Affirmative answers to Questions 4 and 5 indicated that the respondent taught virtual courses in the Summer and Fall of 2020, respectively, indicating that the respondent had more study-relevant experience, other factors being equal, than did someone who responded negatively to either of those questions.

Potential participants who were screened in were then asked to sign and return a consent form (Appendix D). This form indicated that participants had the right to cease to participate at any time, and it also indicated that involvement in the study would involve doing one audio-recorded interview of approximately 45-60 minutes and participating in one focus-group session lasting approximately 60-90 minutes. This form also provided

other relevant information, such as each participant's right to withdraw at any point in the study without penalty.

After consent forms were signed and returned, participants filled out a demographic questionnaire in which they provided information about the classes of theirs that underwent COVID-driven virtualization, specifically, how many such classes there had been and what their subject matters were. This information helped the researcher conduct individual interviews and focus group interviews more effectively, as it provided him with background information on the basis of which he was able to ask informed follow-up questions in response to interviewee responses. After demographic questionnaires were completed and reviewed by the researcher, the data collection process began.

The first step in the data collection process was one-on-one interviews with participants. An expert panel reviewed the interview questions and focus group interview questions and suggested improvements. This helped ensure that questions were unbiased, easy to understand, and aligned with the design, methodology, and purpose of the study. The questions used in the one-on-one and focus group interviews were semi-structured and open-ended. Semi-structured interviews give the interviewer to explore responses by asking probing follow-up questions. Semi-structured interviews were selected over structured and unstructured because they elicit responses that are on point while allowing the participant to provide in-depth responses (Harrell & Bradley, 2009).

Individual Interviews

Once eligible study participants had been selected, data collection began. The first step in this process was to conduct in-depth semi-structured interviews of the 14 study-

participants. Interviews are an essential part of qualitative research because interviewees may have knowledge and insight concerning the matter being investigated (Berg, 2007; Yin, 2014). Use of semi-structured questions permitted the researcher to ask follow-up questions in response to potentially significant statements on the part of interviewees, thereby deepening the present researcher's understanding of the phenomenon. Interview questions concerned participant attitudes concerning the effects on teaching of the Spring 2020 COVID-driven virtualization of their courses, and each interview question is aligned with TAM, TAM2, or UTUAT (Appendix K).

Interview questions were created by the present researcher. Each interview question aligned with either TAM, TAM2, or UTUAT. Moreover, each interview question is aligned with one of the research questions. Interview questions were pilot tested with a doctoral level faculty member and then vetted by a three-member panel of independent experts on virtual hospitality management instruction. Each panel member was apprised of the relevant facts concerning this study, including the research questions, data sources, theoretical models, purpose, methodology, and design. The panel members reviewed the interview questions with the intention of evaluating their relevance to the research questions and overall structure of the study, and they judged the questions to meet the necessary standards.

Each one-on-one interview was conducted via Zoom, with interviews ranging in length from 43 to 73 minutes and the average length being 51 minutes, with transcripts of the individual interviews totaling 155 pages in length (Table 1). Each interview was audio recorded and transcribed for review by the researcher, and the transcriptions were member checked to ensure to ensure accuracy and trustworthiness. Each interview

opened with the researcher stating the purpose of the study and confirming the participant's desire to participate in it. The research questions addressed by the present study were (1) How do hospitality management instructors describe their attitudes towards the effects on instruction of the COVID-driven virtualization of their courses that occurred in Spring 2020, (2) In what respects do hospitality management instructors believe COVID-driven course-virtualization to have diminished the quality of instruction, (3) In what ways do hospitality management instructors believe COVID-driven course-virtualization to have improved the quality of instruction?

Focus Group Interview

Once one-on-one interviews were completed, the next step in the data collection process was to conduct two focus group interviews. Each focus group consisted of seven previously interviewed study-participants. Each focus group interview were conducted via Zoom and lasted approximately 80 minutes. Each interview was audio recorded and transcribed for review by the researcher. The transcriptions were member checked to ensure to ensure accuracy and trustworthiness. The two focus groups last 73 and 77 minutes, respectively, with the transcripts totaling 40 pages.

The purpose of the focus group interviews was to gather additional information concerning the participants' respective perspectives. According to experts, focus group interviews are useful for exploring data derived from individual interviews. Study participants often feel more free to express their viewpoints in focus group interviews than in individual interviews. When properly conducted, focus groups create an atmosphere in which participants feel free to express views that they would have reservations about expressing in the context of a one-on-one interview. Moreover, the exchange of ideas that occurs in focus groups enables to clarify and develop their views.

Consequently, use of focus group interviews will enable the researcher to deepen his understanding of hospitality management instructor attitudes towards the COVID-driven virtualization of their Spring 2020 courses.

Focus group interview questions concerned participant attitudes concerning the effects on teaching of the Spring 2020 COVID-driven virtualization of their courses, and each focus group interview question was aligned with TAM, TAM, or UTUAT (Appendix). The purpose of the focus group interview questions was to explore the answers given by participants to the individual interview questions. Focus group interview questions were created by the present researcher. Interview questions were pilot tested with a doctoral level faculty member and then and then vetted by the aforementioned three-member panel of independent experts on virtual hospitality management instruction. Each panel member had been apprised of the relevant facts concerning this study, including the research questions, data sources, theoretical models, purpose, methodology, and design. The panel members reviewed the interview questions with the intention of evaluating their relevance to the research questions and overall structure of the study, and they judged the questions to meet the necessary standards.

A mock interview with six hospitality management instructors was conducted. The purpose of this was to verify that the existing focus group interview questions and focus group interview protocol would be conducive to productive focus group interviews. Another purpose was to acclimate the researcher to the process of conducting a focus group interview. The mock interview indicated that the focus group interview questions and protocol were feasible, and it also provided the researcher with the experience needed to ensure that the actual focus group interviews would proceed smoothly.

According to experts on qualitative descriptive researcher, the ideal number of participants in a focus group is between six and eight (Patton, 2014). Consequently, a single focus group comprising all 14 study participants would not have been feasible. One alternative would have been to conduct a single focus group interview that did not include all of the study participants. However, such an arrangement would have denied some of the study participants the opportunity to clarify their views in a focus group interview. Consequently, the researcher elected to conduct two focus group interviews, with each study participant participating in a single focus group interview.

The purpose of the focus groups was to give study participants an opportunity to clarify their responses in the one-on-one interviews. According to experts on qualitative descriptive research, the ideal number of questions for a focus group interview of 1-2 hours is between six and eight (Patton, 2014). Consequently, the questions asked in the focus group interviews were the ten questions from the one-on-one interviews that the researcher has judged to be the most significant. The previously mentioned three-member expert panel approved this list of ten questions.

Trustworthiness

Qualitative and quantitative studies are evaluated with respect to different standards. For quantitative studies, the operative standards are validity and reliability (Leung, 2015). For qualitative studies, the operative standard is trustworthiness (Lincoln & Guba, 1985). The trustworthiness of a study depends on the data being collected and analyzed in a well-defined and transparent manner (Cope, 2014). According to Lincoln and Guba (1985), Cresswell (1994), a study is trustworthy if it has the following

characteristics: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability. The present study had each of these characteristics.

An expert panel reviewed each of the interview questions. Each panel-member is a PhD and an expert on course-virtualization and online-instruction. Each panel member judged the questions to be appropriate. At the same time, each panel-member also suggested that additional questions be asked, so as to maximize the depth and completeness of the resulting dataset. Each panel member-member had specific suggestions as to what kinds of additional questions should be asked, and each of the suggested additional questions aligned with the research questions as well as with TAM, TAM2, and UTUAT. Consequently, the researcher added the suggested questions to those that will be asked in the course of the interview.

Three field tests were conducted in order to guarantee the trustworthiness of the interview protocol. Each field test was conducted with someone who was not a participant in the study but satisfied all of the eligibility criteria for the study. The researcher modified the interview questions on the basis of the three field tests. The modified interview questions were presented to a three-member panel of experts who approved them.

The researcher minimized bias on his part by employing both member-checking and bracketing. The researcher is himself an associate instructor whose courses underwent compulsory virtualization in Spring 2020, and he consequently was under an obligation to be aware of, and also take precautions against, possible bias on his own part. The researcher therefore used reflexivity in order to keep possible biases on his part in check. Reflexivity is conscious and deliberately mindfulness of one's own emotional and

cognitive reactions to circumstances, and such mindfulness is appropriate in the context of this study. Consequently, the researcher conducted interviews with an attitude of openness and refrained from prejudging statements made by interviewees. The researcher deliberately remained objective during the process of data-collection. In order to maintain objectivity, the researcher the researcher only used verbatim transcripts when coding and theming.

Moreover, thematic analysis involved data-triangulation, this being the use of multiple sources of data to acquire insight into a given body of data (Patton, 2014). By helping the researcher conduct coding and theming in an intelligent as opposed to mechanical fashion, data-triangulation enhanced this study's degree of trustworthiness (Carter et al., 2014). Additionally, two focus groups were used to verify and enrich the results of data-analysis. Data acquired from focus group interviews was compared with the themes that emerged from coding and was be used to validate these themes and modify them when necessary.

The theoretical models governing the study were TAM, TAM2, and UTUAT, and both individual and focus group interview questions, while not being strictly predetermined by these models, had to be aligned with them. Moreover, individual and focus group interview questions also had to align with the research questions governing the study. The present researcher constructed both the individual interview questions (Appendix J) and the focus group interview questions (Appendix M) with the intention of satisfying these requirements. Once constructed, both sets of interview questions were submitted to an expert panel (Appendix S) consisting of recognized leaders in the areas of hospitality management instruction as well as in the areas of both in-person and virtual

instruction. Each panel member unambiguously approved each of the questions, and his or her comments are provided in Appendix S. The comments were sent in writing via email to the present researcher for record-keeping and verification purposes. The emails were digitally signed and were sent from institutional email accounts.

Once the interview questions had been designed and vetted, three field tests were conducted. Each of the interviewees was a hospitality management instructor who completed at least one hospitality management course that began as an in-person course but was virtualized because of COVID 19, and these courses had lab components in the case of two of the interviewees. The interviewees are instructors at a college of hospitality management other than the one with which this study is concerned, but they otherwise satisfy the requirements that study participants will have to satisfy. Consequently, the field tests, while being on point, did not reduce the possible number of study participants.

The average length of the field tests interviews was 58.7 minutes (Appendix O). The longest interview lasted 66 minutes, and the shortest lasted just over 50 minutes (Appendix O). The field tests were conducted via Zoom and were auto-transcribed with NVivo Software. The field tests are presented in Appendix H. Apart from the present researcher's highlights, the transcripts in Appendix H have not been altered, except to delete the names of the interviewees. No punctuation has been added or deleted; no spellings have been altered; no material has been infilled or deleted. On several occasions, the transcription is incorrect. (For example, in the second line of the first field test, the present researcher's name is transcribed as "Mako", instead of "Makris.")

However, the present researcher, wishing not to adulterate data, made no alterations to the transcriptions.

The present researcher first manually coded and themed the field tests (Appendix F) and then auto-coded the field tests using NVivo's autocoding function. Autocoding generated very different results from manual coding. The autogenerated codes tended to represent expressions that were frequently repeated but were either insignificant or only concerned purely formal aspects of the situation being studied. For example, according to the software-generated codebook, "business slash" was one of the most frequently occurring codes, even though that expression never occurred and has no meaning. Other frequently occurring codes were "11 week course", "11 week term", "16 week course", and "16 week term", which are concerned only with purely formal aspects of the situation in question but are otherwise devoid of significance. According to the manually generated codebook, the most significant codes were "independent learner", "raw information", "more apt to ask questions in person", "degree of interactiveness", and other similarly pregnant expressions.

The manually generated codes were readily interpreted and themed. Manual coding generated the following 16 themes:

1. Virtual Classes Structurally Different from In-person Classes.
2. Virtualization Only Effective for Students who Self-teach.
3. Virtualization Ineffective for Lab Courses.
4. Virtualization Leads to Student Disengagement from Instructor.
5. Virtualization Leads to Instructor Disengagement.
6. Virtual Classes Tend to become Automated.
7. Virtualization to be Endured as Opposed to Benefited From.

8. Student Panic and Disappointment.
9. Decline in Student Performance as a Result of Virtualization.
10. Technological Problems with Virtualization Subordinate to Emotional Problems.
11. Virtualization Leads to Student Disengagement from Other Students.
12. Virtualization Leads to Instructor Disengagement.
13. Emotional Disengagement Tracks Intellectual Disengagement.
14. Virtualization Beneficial in Some Respects.
15. Virtualization Largely Ineffective.
16. Hybrid Courses are Optimal.

In Appendix F, the manually generated codes are listed and each is associated with the corresponding theme. Several codes correspond to multiple themes. For example, “angry” corresponds to Themes 7 and 8, and “brutal” corresponds to Themes 1, 7, and 8. In such cases, the present researcher chose to list the single most salient theme. This was done to avoid excessive and potentially confusing verbiage. The autogenerated codes (Appendix G) could not be meaningfully themed, since they reflected expression-frequency, as opposed to expression-relevance. Relatedly, the manually generated codebook contained pregnant expressions that were only used once (e.g. “hand holding”, “left out in the cold”, “disaster” “unfair”, “couldn’t afford it”), which the autogenerated codebook simply did not recognize. (See Appendix G).

The two codebooks had a significant degree of overlap, owing to the fact that the frequency with which certain expressions were used sometimes reflected their relevance to the situation under investigation. Examples of such expressions are “lab component” and “student expressions.” However, the autogenerated codebook simply fails to reflect patterns and themes that pervaded the interviews. Consequently, although the present

researcher will construct two codebooks for each interview, one manually generated and the other software-generated, more weight will be given to those that are manually generated. For this reason, the data presented in Appendix O corresponds to the manually generated codebook.

The numbers of codes generated by the field tests were, respectively, 109, 102, and 97, and the total number of unique codes generated in the field tests was 129 (Appendix O). The same expressions, with the same intended significances, tended to occur in all three field tests. For example, “independent learner” occurred frequently in all three field tests with the same intended meaning. Some expressions were only used in one field test but were meaning-similar to expressions that occurred in all three field tests. An example is “thrust into this”, which was used to make the point that course-virtualization was compulsory. This expression only occurred in one of the field tests, even though the other two interviewees used similar expressions (e.g. “compulsory”, “forced”, “imposed”) to make the same point.

The purpose of the field tests was not to generate data but was rather to determine the feasibility of the instruments that will be used to generate data for this study. In particular, the purpose of the field tests was to determine whether the interview questions created by the researcher would elicit answers that were sufficiently rich in information relevant to the study. A related objective was to ensure that the interviews would comply with GCU guidelines in terms of length. The present study is qualitative descriptive. According to GCU guidelines, in qualitative descriptive studies, individual interviews should be at least 45 minutes long and the transcripts should be between eight and twelve pages singled spaced (Appendix R). Each of the field test interviews satisfies each of

these conditions (Appendix H). Most importantly, the interviewees had no difficulty understanding the interview questions, and those questions elicited detailed and thoughtful responses of direct relevance to this study (Appendix H). Consequently, the field tests proved the mettle of the data-gathering instruments that were used in this study.

Credibility

Credibility is to qualitative studies what internal validity is to quantitative studies (Amankwaa, 2016). According to Amankwaa (2016), a study has credibility when the study's findings have a demonstrable basis in objective fact. The researcher wrote a one page of each interview transcript and provide a preliminary interpretation of the data contained in it. Because qualitative research is not an exact science, the researcher's interpretation did not necessarily correspond perfectly with the interviewee's intended meaning. Such a mismatch undermines a study's credibility, and precautions must be taken to avoid this (Amankwaa, 2016). According to Sandelowski (2010), triangulation and are the two most important ways of ensuring credibility. Triangulation is the use of one data-source to validate another data-source, and triangulation is possible in studies, such as the present, that use more than one data-source (Amankwaa, 2016; Carter et al., 2014). The researcher used focus groups as way of increasing validity and of strengthening the researcher's interpretation of interview-data. The researcher also used triangulation to offset possible threats to credibility. Triangulation involved the researcher's presenting analysis-summaries to participants and taking note of their feedback in focus-groups.

According to some experts, researchers conducting qualitative descriptive studies should refrain from interpreting the data they generate (Sandelowski, 2010). According to this viewpoint, the purpose of qualitative descriptive research is simply to generate information, not to interpret it. Sandelowski (2010) believes this viewpoint to misconstrue the nature of qualitative descriptive research. According to Sandelowski, the value of qualitative descriptive research lies not in its presenting uninterpreted data but rather in its serving as a “vehicle for presenting and treating research methods as living entities that resist simple classification” (Sandelowski, 2010). Sandelowski argues that qualitative descriptive studies inevitably contain a certain degree of interpretation as well as a certain element of bias on the researcher’s part. However, Sandelowski argues, bias does not undermine qualitative descriptive research so long as the triangulation is used to marginalize its effects on the researcher’s findings. The purpose of the present study is to generate a rich and accurate body of data concerning hospitality management instructor towards the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. In keeping with Sandelowski (2010), the researcher used triangulation to mitigate the possible effects of bias, while being cognizant that the complete elimination of bias would not necessarily be achievable.

Transferability

Transferability is to qualitative studies what internal validity is to quantitative studies (Amankwaa, 2016). A study is transferable when it can be adapted to multiple different contexts (Amankwaa, 2016). Researchers ensure credibility by providing accurate and thorough descriptions of the methods, procedures, and findings of their studies (Amankwaa, 2016). This ensures that their studies can be replicated in different

contexts. When a study is transferable, the results generated in one context can be used to evaluate the results of a similar study generated in connection with a different context. According to Amankwaa (2016), journaling and thick description increase transferability. To ensure transferability, the researcher provided thick descriptions of the methods, procedures, and findings of this study. Future researchers and readers will be able to replicate this study on the basis of these descriptions. Furthermore, all instruments used in this study are identified and described in the appendix, giving future researchers the information requisite for them to replicate and evaluate this study's eligibility criteria, the demographic questionnaires, interview-protocols, and member-checking protocols.

Dependability

Dependability is to qualitative studies what reliability is to quantitative studies (Lincoln & Guba, 1985). According to Moon et al. (2016, p.17), "Dependability refers to the consistency and reliability of the research findings and the degree to which research procedures are documented, allowing someone outside the research to follow, audit, and critique the research process." Dependability is jeopardized by bias, personal values, and human error on the researcher's part, all of which adversely affect the researcher's interpretations of data (Moon et al., 2016; Sandelowski, 2016). According to Korstjens and Moser (2018), keeping audit trails can be an effective way for researchers to guard against such threats to dependability. The researcher guarded against the possible adverse effects of personal bias by providing an audit trail.

The researcher also engaged in a process known as "bracketing." This involves the researcher's keeping a journal in which he documents ideas concerning his biases and previous ideas and in which he also provides summaries of data collected through

interviews and focus-group sessions (Ahern, 1999). Participants were allowed to review the researcher's analyses so as to ensure that his biases did not adversely influence them. Future readers and researchers will have access to the documentation generated by the researcher's bracketing and journaling, and on that basis they will be able to assess this study's degree of validity. Finally, a coding check was conducted, so as to determine the degree of agreement among codes.

Confirmability

A study is confirmable when its findings can be objectively verified (Lincoln & Guba, 1985; Sandelowski, 1986; Amankwaa, 2016). The researcher increased confirmability by having a panel of experts review the instrumentation used to verify that bias on the researcher's part did not affect data collection or data-interpretation. Confirmability is increased by minimizing the role played by subjectivity in generating findings (Lincoln & Guba, 1985). According to Lincoln and Guba (1985) and Amankwaa (2016), this is accomplished by using detailed interview-protocols. In order to increase dependability, the learner asked all interviewees the same questions (Appendix O). These questions relate to the research questions, as detailed in the Interview Guide (Appendix I). The focus groups were guided by the same questions, and these were the same for each group. By taking this measure, the researcher minimized the role played by random and therefore potentially subjective or irrelevant questions in the interview and member-checking processes. Finally, the researcher was careful to acknowledge any experiences of his that might have skewed his findings and to do the same with any expectations of his concerning the study. In this way, the researcher helped minimize the distorting effects of personal bias on data collection and interpretation.

Data Collection and Management

The present study was qualitative descriptive, and data collection was carried out in a manner that consistent with this research design. Accordingly, data collection involved the following steps.

1. Site authorization: Formal approval for the study was obtained, with wet signature, from the dean of the college in question (Appendix B). The original hard copy, with the signatures of all authorized personnel, will be kept on file. Authorization included a written declaration, signed by all authorized personnel, permitting the present researcher to audio record all participants.
2. Screening questions. Screening Questions (Appendix N) were sent out via the college administration. This allowed the present researcher to retain survey anonymity.
3. IRB approval. The Internal Review Board (IRB) reviewed all relevant items, including (1) and (2), before the study proceeded. This is contained in Appendix B.
4. Participant Informed Consent (Appendix D). The researcher completed the informed consent process with each participant before data collection began. The researcher sent the informed consent form to each person whose questionnaire-responses indicated eligibility and willingness. Those who were interested will certify interest and eligibility by signing and returning the form to the researcher. Each consent form clearly stated that the individual question could withdraw from the study at any time without any negative consequences, and each form clearly delineated what would be expected of the participant. Interviews were conducted via Zoom at a time agreeable to the interviewee and focus groups were conducted via Zoom at a time agreeable to all of the participants. Only those who signed both consent forms were included in the study.
5. Demographic questionnaire. After signing the Informed Consent forms, participants were sent demographic questionnaires (Appendix T). In these questionnaires, participants provided information about their experience as hospitality management instructors (Appendix U). In particular, they will say how long they have been teaching, and they will also identify the courses of theirs that underwent COVID-driven virtualization. This information helped the researcher to ask informed follow-up questions in response to participant interview-responses, enabling the researcher to deepen his understanding of hospitality management instructor attitudes towards the effects on instruction of COVID-driven course-virtualization.
6. Interviews. Each participant was interviewed once for at least one hour via Zoom. All interviewees were asked the same questions (Appendix O). Interviews were

audio-recorded with the knowledge and consent of the interviewees as detailed in the Consent Form (Appendix D). Interviews were recorded using Zoom and transcribed using Trint.

7. Summary notes. Interviews were transcribed, and the transcripts were coded and themed. Included in the transcripts are all any notes that the researcher has made about interviews. Summaries of the results of thematic analysis were member checked for accuracy.
8. Focus group interviews. There were two focus group interviews. Focus group interviews were conducted via Zoom. Each person who was interviewed participated in one of the two focus group interviews, and no one (apart from the present researcher) who was not interviewed participated in a focus group interview.

Interviews

Each of the participants were interviewed for approximately one hour. There were 14 participants. Purposive sampling was used to ensure that participants satisfy inclusion-criteria. These criteria maximized the likelihood that participant-interviews would yield data relevant to the research questions (Rubin & Rubin, 2011). Interviews were conducted via Zoom. All interviewees were asked the same questions (Appendix O). This minimized the randomness and subjectivity, thereby marginalizing the role of researcher bias (Rubin & Rubin, 2011). Interviews followed the interview protocol and will audio-recorded, as indicated in the consent forms (Appendix D).

Interview Process

All interviews were conducted via Zoom because of issues relating to COVID 19. Before a given interview takes place, the researcher provided the interviewee with information relating to the time and relating to the Zoom platform. Each interview consisted of a brief introduction, followed by the interview proper, followed by a brief wrap-up. This format is recommended by (Rubin & Rubin, 2011). These phases are now further described:

1. During the introduction, the researcher explained the purpose of the study, and he also briefly referenced some salient points made by the interviewee in the questionnaire.
2. In the question-and-answer phase, the researcher asked questions (Appendix J). The same questions formed the basis of each interview. These questions had already been evaluated and approved by a panel of experts. These questions embody consideration for the answers provided by the interviewee in the previously completed questionnaire. Demographic data relating to the interviewees had already have been collected through the demographic questionnaires.
3. After asking the questions required by the interview guide, the researcher let the interviewee know that the interview was coming to an end. The interviewee was given the opportunity to express any viewpoints, questions, or concerns that he might have. The researcher did his best to address these points.
4. A transcript was made using Trint. The data contained therein interview-transcripts was subjected to thematic analysis. Thematic analysis began as soon as the first transcript has been generated and it continued until the last interview transcript had been thematically analyzed.
5. The researcher replaced the names of participants with alpha-numeric codes, and data was deidentified. Physical data will be secured in a safe in a secure location that is accessible to no one other than the present researcher. After three years, this material will be shredded.

Focus Group Interviews

After thematic analysis of the interview-transcripts was completed, there were two focus group interviews. Each focus group interview lasted approximately 75 minutes. Focus groups interviews met via Zoom in order to comply with COVID-related restrictions. Each focus group interview consisted of 7 participants. Focus group interviews were audio recorded and transcribed.

Focus group process. The focus-groups met via Zoom in order to comply with COVID-related restrictions. Prior to each focus-group session, the researcher provided every participant with the time and Zoom-related information.

Data Analysis Procedures

The research questions for this study were:

RQ1. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?

RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?

RQ3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

Prospective participants completed a screening questionnaire (Appendix R). The screening questionnaire is attached to the e-invitation to participate in the study (Appendix Q). Those who were selected to participate will fill out questionnaires that ask questions derived from RQ1-RQ3. These anticipated the questions asked during the interviews but were less in-depth. The purpose of these preliminary questions was to provide the researcher with information that would guide the interviews. The interviews were transcribed and subjected to thematic analysis, which is an analytical technique that is often used in qualitative research. Thematic analysis is particularly helpful to researchers who lack detailed information concerning the object of investigation (Braun & Clarke, 2006; Braun, Clarke, Hayfield, and Terry, 2019; Castleberry & Nolen, 2018; Roberts, Dowell & Nie, 2019). Moreover, thematic analysis enhances the degree of trustworthiness of the study in question (Braun & Clarke, 2006).

Thematic analysis involves both inductive and deductive components. Inductive analysis proceeds from specific data to generalities, and deductive analysis uses the resulting generalities to interpret or reinterpret specific data (Braun et al., 2019; Willgens,

Cooper, Jadotte, Lilyea, Langtiw, and Obenchain-Leeson, 2016). In the present study, inductive analysis was used to identify patterns and themes and deductive analysis was used to interpret specific data in light of those patterns and themes (Bogdan & Biklen, 1998). The research questions guided the manner in which specific data were interpreted in light of the themes and patterns generated by inductive analysis. In particular, inductively generated theoretical constructs guided the manner in which deductive analysis were used to cluster and label codes and themes (Braun & Clarke, 2006; Braun et al., 2019; Nowell et al., 2017). Deductive analysis occurred throughout the study and the results that it generated were subject to constant revision.

In this study, the interview questions were adjusted so as to align with R1-R3. There were 14 participants in the study, and data was derived from interviews with them. This data was subject to thematic analysis, and the results of this analysis were evaluated and validated in focus groups. Thematic analysis involves six steps: data familiarization, code development and coding, theme development, theme revision, theme finalization and definition development, and report generation (Braun et al., 2019). These steps will now be explained.

Data Familiarization

During this phase, the researcher acquaints himself with the material in the transcripts and audio-recordings. The researcher will go through each transcript and recording multiple times. After familiarizing himself with their contents, he will highlight texts for coding that bear directly on the research questions (Braun et al., 2019).

Code Development and Coding

Coding is the assigning of numerical codes to phrases that consistently recur in a dataset (Elliott, 2018; Roberts et al., 2019). By associating concepts with numbers, coding expresses regularly occurring themes into easy-to-recognize numerical regularities. This helps the researcher to detect patterns in the data (Roberts et al., 2019). These patterns suggest categories that are used to detect themes that run throughout the data. There is no one right way to code, and the appropriate way to code can only be known on the basis of familiarity with the dataset in question (Elliott, 2018; Roberts et al., 2019).

Coding can be conducted either manually or using software (Saldaña, 2015). Accordingly, the present researcher will code manually. The researcher adopted three-phase coding-process described by Neumann (2006). The first phase involves what Neumann refers to as “open coding.” According to Neumann (2006), open coding involves the coder scanning for common terms and themes. The second phase involves what Neumann (2006) refers to as “axial coding.” Axial coding involves the coder examining data in detail and assigning labels to themes generated by open coding. The third phase involves what Neumann (2006) refers to as “selective coding.” Selective coding involves the coder selectively looking for clear illustrations of themes.

Theme Development

On the basis the categories discovered through the coding process, the researcher look for recurring themes in the data (Braun et al., 2019). Discovering such themes involves aggregating or clustering codes whose referents have similar or related meanings (Braun et al., 2019). Some code-clusters are disjoint from one another, while others overlap. Overlapping codes correspond to themes, and these themes will be

assigned labels (Roberts et al., 2019). Associating these themes with concise and easy to remember labels helped the researcher discern the relations holding among them. These interrelations constitute the story underlying the data, and these labels enable that story to be told in a lucid and comprehensible manner (Roberts et al., 2019).

Theme Revision. During this phase, the researcher looks for inconsistencies between the data and the themes and revises the latter in light of these inconsistencies (Roberts et al., 2019). These revisions involved deleting or adding themes and redrawing boundary-lines between themes (Braun et al., 2019; Roberts et al., 2019). These revisions were made with the objective of answering RQ1-RQ3.

Theme Finalization and Definition Development. Theme names must be descriptive of the corresponding themes, and they must be concise and easy to remember (Braun et al., 2019). Each theme should be focused, well-defined, and explanatory. Moreover, later themes should be built on earlier ones without simply repeating them (Roberts et al., 2019). Each theme should address at least one research question, and each research question should be addressed by one or more themes. Subthemes may be required to answer the research questions and will therefore be developed if necessary (Braun et al., 2019; Roberts et al., 2019).

Report Generation. In this phase, data extracts are chosen to illustrate themes (Braun et al., 2019; Roberts et al., 2019). This process coincides with theme-finalization. Extracts were so chosen as to illustrate the significance of a given theme crisply and so as to provide a vivid indication of the relevance of that theme to the research questions (Braun et al., 2019). Excerpts were accompanied by explanatory narratives, and the totality of these narratives clearly delineated the factors responsible for the data generated

in this study. In Chapter 4, findings will be presented. In Chapter 5, these findings will be evaluated, and the significance of this study will be discussed.

Ethical Considerations

According to the Belmont report, an ethical study embodies respect for persons, beneficence, and justice. Informed consent will be obtained from all participants (Appendix C). In the informed consent form, it was clearly stated that the interview will be and also what were the objective of the present study. On the consent form, the nature and scope of this study were clearly stated. As was expressly stated on the consent form, the present study explored how hospitality management instructors describe their attitudes towards the compulsory virtualization of their courses in Spring 2020, and the questions that participants were asked related these attitudes.

This qualitative descriptive study sometimes elicited information of a sensitive nature from its participants. The present study concerns attitudes on the part of instructors at a college concerning their courses, and these attitudes sometimes implicated their students, colleagues, and superiors. No information about a given participant will be shared with any of the other participants. The participants' names have been replaced with alpha-numerical codes to guarantee anonymity. Data relating to the study will be secured for a period of three years and then destroyed. Participants were assured of their right to opt out of the study without penalty at every juncture. According to the Belmont report, researchers have an ethical responsibility to respect the rights of study-participants. In particular, participants may not in any way be pressured or coerced and their confidentiality may not in any way be violated (Chase, 2017). IRB permission as well as permission from the organization was obtained prior to the study. The researcher

has a responsibility to respect the rights, values, and wishes of the participants, and the just-described measures will help ensure that this responsibility is fulfilled.

Assumptions, and Delimitations

An assumption is a proposition that functions as a self-evident truth in the context of a study (Braun & Clarke, 2019). A delimitation is a boundary condition that is set by the researcher (Braun & Clarke, 2019). The present study was based on multiple assumptions and was subject to several delimitations.

Assumptions

The assumptions being made included the following:

- Participants provided truthful information in questionnaires. This is a methodological assumption, and it had to be made because the researcher did not have the power to verify it.
- Participants expressed their actual views, as opposed to those that they believed it incumbent on them to express. This assumption is methodological in nature, and it had to be made since the researcher had only limited control over participant levels of truthfulness.
- Participants who were instructors did not feel that they are under pressure from the college to express certain views concerning course-virtualization. This assumption was reasonable for two reasons. First, the participants were not under the power of the researcher. Second, participants had no professional incentives to weigh in on the matter in any given way.
- The situation at the college being studied was sufficiently like those at other institutions that the results of the present can in at least some respects be generalized. This assumption is consistent with existing information concerning the structures and curricula of existing hospitality management colleges in the United States.
- In respect of their access to and mastery of virtualization-related technology, instructors at the college in question were sufficiently similar to instructors at other colleges that their attitudes towards compulsory course-virtualization were in at least some respects similar to those of instructors at other colleges. This assumption is consistent with existing information concerning the credentials required to be a hospitality management instructor at an institution of higher education in the United States.
- The financial, technological, and logistical constraints governing course-virtualization at the college in question were sufficiently similar those operative at other institutions of higher learning that the situation at the present college is in at

least some important respects similar to the situations at other institutions of higher learning. This assumption is consistent with the peer-reviewed literature.

- The instructors who were chosen to be participants were to a reasonable degree of approximation representative in their attitudes of the instructors who did not participate. This assumption is consistent with established principles of statistics and with the empirical data concerning the composition of the faculty in question and other hospitality management faculties.

Delimitations

1. The present researcher had no choice but to dedicate only a certain amount of time to each participant. This was a consequence of limitations of time and finances on the researcher's part and also of a wish to avoid disrupting the functioning of the institution in question. This was counterbalanced by the fact that researcher devoted a sufficient amount of time to each participant.
2. The number of participants was 14 and was therefore relatively small. This was a consequence of two facts. First, the researcher would have had difficulty giving due attention to each given participant if the number were much higher than it actually was. Second, the present researcher did not want to disrupt the functioning the college in question, limiting the number of possible participants. Nonetheless, the researcher did not need to address a sample of more than 14. Moreover, a sample grossly in excess of this number would have been incompatible with a qualitative descriptive research design (Creswell & Báez, 2020).
3. This study was descriptive in nature. Consequently, interpretations and explanations of the data were kept to a minimum. However, the qualitative descriptive research design allowed for the flexibility needed to generate the necessary observational data, whereas other research designs would not have done this.
4. The small sample size limited transferability. Nonetheless, the researcher provided a detailed description the procedures involved in this study, thereby mitigating issues relating to transferability.
5. The restriction to a single college in a single geographical area limited transferability. However, the researcher provided clear descriptions of the instrumentation and procedures involved, thereby mitigating issues relating to transferability.
6. TAM, TAM2, and UTUAT are not the only models that are used to address issues relating to technology acceptance. However, TAM, TAM2, and UTUAT were the theoretical foundation of this study, and this consequently limited the scope of this study's findings.

Summary

Prior to this study, it was not known how hospitality management described their attitudes towards the effects on instruction quality of the COVID-driven compulsory course-virtualization that began in April 2020 (Aliyyah et al., Rachmadtullah, Samsudin, Syaodih, Nurtanto, & Tambunan, 2020; Auma & Achieng, 2020; Bui et al., 2020; Zayapragassarazan, 2020). Virtual courses have existed for over twenty years, but prior to COVID 19, course-virtualization was voluntary (Basilaia & Kvavadze, 2020; Li et al., 2020). Consequently, the only courses that were taught virtually were those that the stakeholders wanted to be taught virtually, and virtualization was effectuated in a manner, and over a time-period, of the relevant institution's choosing. COVID 19 effectively forced brick-and-mortar institutions of higher education to virtualize their curricula in a matter of days (Ali, 2020; Özgen, & Reyhan, 2020). Despite this fact, there exist few descriptive studies of COVID-driven virtualization, and there exist no studies, apart from this one, concerning curricula of management and hospitality (Bui et al., 2020; Zayapragassarazan, 2020). This is important because such curricula are hybrid, involving both strictly academic components and physical components relating to the restaurants and other hospitality-related businesses (Auma & Achieng, 2020; Krishnamurthy, 2020). Many of the technologies that are necessary for such virtualization have never before been implemented in the context of education, and many scholars argue that some of the in-person components of hospitality management curricula are incapable of being entirely virtualized. This qualitative descriptive case study generated a rich body of information concerning course-virtualization (Bui et al., 2020). Scholars have noted the potential significance of such information and have also noted its absence, asking that in-depth

descriptive studies be done of compulsory course-virtualization of entire management and hospitality curricula (Donthu & Gustaffson, 2020; Parisi et al., 2020).

Moreover, non-compulsory, pre-COVID cases of virtualization never occurred mid-semester; and students of such courses never enrolled in them believing that they were going to be in-person (Zhou et al., 2020). At the same time, students who enrolled in courses that underwent COVID-driven virtualization all did so believing that those courses were going to be in-person; and the virtualization of these courses therefore violated students' preexisting expectations (Ali, 2020). Course-instructors were equally caught off guard, as they were forced to restructure their courses around the use of technologies that they often found difficult to master and that were sometimes ill-suited to the purposes of the course in question (Demuyakor, 2020). Moreover, these two sets of reactions likely compounded each other, with instructors having to deal not just with COVID-based disruptions but also with negative student responses to these disruptions (Donthu & Gustaffson, 2020). Because pre-COVID studies of course-virtualization did not involve such disruptions, the results of such studies cannot be assumed to hold with respect to COVID-driven cases of course-virtualization (Donthu & Gustaffson, 2020). This fact validates the perception had by many scholars that the absence of in-depth descriptive case studies of COVID-driven, compulsory virtualization of hospitality management curricula constitutes an important gap in the literature, and it was the purpose of the present study to address this gap in the literature.

COVID-driven compulsory course-virtualization was technology-mediated, and attitudes on the part of students and instructors towards such virtualization are mediated by their level of acceptance in this context of the operative technologies (Bui et al.,

2020). Consequently, the Technology Acceptance Model (TAM), the Extended Technology Acceptance Model (TAM2), and the Unified Theory of the Use and Acceptance of Technology (UTUAT) were selected to be the theoretical foundation for this study. TAM, TAM2, and UTUAT functioned not as explanatory or predictive instruments but rather as heuristic guides for the design of the research questions and data gathering instruments. A qualitative descriptive research design was selected because such it is uniquely capable of generating the large volume of high-grade data concerning compulsory course-virtualization that is a prerequisite to studies of an explanatory-causal nature and also to studies of a quantitative nature (Braun & Clarke, 2006; Nowell et al., 2017). The appropriate research design for a study of this nature must give the researcher the flexibility to generate a rich body of observational data (Kim et al., 2017). A qualitative descriptive design would give the researcher the necessary flexibility and was therefore appropriate for this study (Braun & Clarke, 2006; Kim et al., 2017; Neergaard & Leitch, 2015; Nowell et al., 2017).

The population of interest was hospitality management instructors in the United States whose courses had undergone compulsory virtualization; the target population was hospitality management instructors at a college of management and hospitality in the Northeastern United States; and the purposively chosen sample of this population was 14 hospitality management instructors at this institution. Had it been necessary, these numbers would have been adjusted upwards until data saturation was reached. The primary data sources were interviews and focus groups. Thematic analysis was used to analyze the resulting data. Thematic analysis was carried out by means of a six-step process consisting, in the following order, of data-familiarization, coding, theme

development, theme revision, theme finalization and definition development, and report generation (Braun & Clarke, 2006; Fusch, 2015; Braun et al., 2019). Chapter 4 will present the results of data collection and preliminary analyses of the data. Chapter 5 will present definitive and detailed analyses of the data, along with the implications of this study for future research and for the teaching of hospitality management.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this qualitative, descriptive study is to explore how 12-15 hospitality management instructors at a college of business management in the Northeastern United States describe their attitudes towards the effects on teaching of the COVID-driven compulsory virtualization of instruction. The following research questions guided this study:

RQ1. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?

RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?

RQ3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

A descriptive design was chosen for this study since this would allow the researcher to generate raw data in depth without being encumbered by a theoretical bias (Lochmiller, 2021; Wentzel, 2021). A qualitative method was selected, since this would allow the researcher to inquire into the attitudes and sentiments of the participants involved (Chew, Ang, & Shorey, 2021). Furthermore, a qualitative methodology permitted the researcher to acquire an in-depth knowledge of the situation being studied (Shank, 2006; Lambert & Lambert, 2012).

The purpose of this study was not to explain but rather to describe, in that its purpose was not to establish the truth some thesis but was rather to acquire information concerning hospitality management instructor attitudes towards the COVID-driven

compulsory virtualization of their courses in Spring 2020 (Blum, Baumert, & Schmitt, 2021; Crosby et al., 2021). Using their own words, this study's participants provided detailed descriptions of their attitudes towards the effects on the quality and nature of instruction of the COVID-driven compulsory virtualization of their courses in Spring 2020. The researcher conducted fourteen semi-structured individual interviews, as well as two semi-structured focus groups, each comprising seven of the original 14 interviewees. The researcher transcribed the interviews and focus groups and then coded them manually. The researcher then derived themes from the manually generated codes (Lochmiller, 2021; Ramlo, 2021).

The process of deriving codes and themes from the interviews and focus groups is described in detail in the next section. Table 1 provides the data for the 14 interviews, and Table 3 provides the data for the two focus groups. Table 4 presents an excerpt from the researcher's reflexivity journal. Tables 5-7 present excerpts from the codebooks involved in generating the final codebook. Table 8 lists the eight themes. Table 9 shows how each theme aligns with each of the research questions. Table 10 presents an excerpt from the fourth cycle codebook, which includes the themes. Table 11 presents an excerpt from the final codebook. Tables 12-19 display the codes and themes corresponding to Themes 1-8, respectively. Each table is accompanied by a discussion in which it is detailed, with quotations, what participants said in connection with the theme under discussion and how that theme was derived from their own statements.

The Technology Acceptance Model (TAM), the Extended Technology Model (TAM2), and the Unified Theory of the Use and Acceptance of Technology (UTUAT) jointly constituted the theoretical framework for this study (Venkatesh & Davis, 2000).

The theoretical framework provided the basis for the interview and focus group questions and consequently had an effect on the data generated thereby (Thomson Burdine, Thorne, and Sandhu., 2021). That data was analyzed by being coded and themed. Coding is the process of identifying semantically pregnant expressions or conceits occurring in a given text and then organizing them into broader categories, and theming is the process of deriving meanings or underlying principles from the categories that result from coding (Braun & Clarke, 2006; Belotto, 2018; Lochmiller, 2021). Coding can be either deductive or inductive (Saldaña, 2015). Deductive coding involves using preset codes, whereas inductive coding derives codes *de novo* from the text being analyzed (Fereday & Muir-Cochrane, 2006). In this study, inductive coding was used. The use of inductive coding permitted the researcher to understand participant responses on their own terms (Heyns & Roostenburg, 2021; Saldaña, 2015). Thematic analysis of the fourteen interview and two focus groups generated eight themes, which jointly represent a comprehensive understanding of the participants' attitudes towards the compulsory virtualization of their courses that occurred in Spring 2020.

The present chapter states the findings of the present qualitative descriptive study, and it also describes the process of coding and theming that generated these findings. The present chapter concludes with a summary of its main points and an introduction to Chapter 5, which describes the phenomenon on the basis of this study's findings and which also discusses the implications of those findings.

Preparation of Raw Data for Analysis and Descriptive Data

Preparation of Raw Data for Analysis

After completing data collection, the researcher prepared the raw data for analysis. The data sources were 14 individual semi-structured interviews and two semi-structured focus groups. Each of the interviews and each of the two focus groups was conducted and recorded using Zoom. Data preparation involved several steps. First, the recordings were downloaded. Then the recordings were transcribed using Trint. The transcripts were downloaded as Word documents. The researcher initially read through the transcripts without altering them in any way. After the research felt that he had a reasonably good grasp of their contents, he read through them while listening to the recordings of them. On this basis, he corrected the many errors in the transcripts generated by Trint.

The audios were of high quality and there were extremely few places where the words of the interviewees were unintelligible. Consequently, it was not necessary to provide the interviewees with the transcripts to verify accuracy. After correcting the transcriptions, ensuring that they were accurate down the last word, the researcher read through each one or two more times. Having done that, the researcher removed all personal information from the transcriptions. This involved eliminating all references to the institution in question, and it also involved replacing the names of the interviewees with alphanumeric codes (P1-14). There were 14 study participants; each participant underwent exactly one individual interview, and each participated in exactly one focus group. The names of the participants were replaced with P1-P14, respectively.

The general population was hospitality management instructors at a college of management in the Northeastern United States. The target population was hospitality management instructors at that college who, in the Spring of 2020, had taught, from start to finish, at least one hospitality management course that began as an in-person course and underwent Covid-driven compulsory virtualization. Eligibility was determined on the basis of a screening questionnaire (Appendix T), and each study participant completed a demographic questionnaire (Appendix U). Appendix U presents the results of the demographic questionnaire. The final sample consisted of 14 individualized interviews with individuals who satisfied the eligibility criteria for the study as well as two focus groups each consisting of seven of those 14 participants.

Descriptive Data

Descriptive statistics were used to state the dimensions of the data collected through the interviews and focus groups. In particular, descriptive statistics were used to summarize the lengths of the respective interviews and focus groups, the number of transcript pages generated by the interviews and focus groups. Descriptive statistics were also used to identify the codes and themes generated by each interview and focus group, and to identify the number of occurrences of each such code. According to Fischer and Marshall (2009), descriptive statistics help summarize the most basic, quantifiable properties of the data used in a given study. Such properties include the number and length of the interviews or focus groups involved and the identifies and frequencies of the codes thereby generated. Descriptive statistics can help frame analytical discussions of the data being described, this being the role descriptive statistics are playing in the current study (George & Mallery, 2016).

With respect to the individual semi-structured interviews, these 14 participants were hospitality management instructors who, in the Spring of 2020, had taught, from start to finish, at least one hospitality management course that underwent Covid-driven compulsory virtualization. Each of the 14 participants was included in one of the two focus groups, and each of the focus groups comprised included seven of the participants. Of the 14 study participants, 11 were male and 3 were female. The age-range was 37-68. The length of time as a hospitality management instructor ranged from 5 to 26 years. Of the 14 participants, seven had taught lab courses that had to be virtualized because of COVID 19 during the time-period in question, and approximately half of the courses taught by the participants during the period in question fell into this category. See Appendix W.

Individual interviews took place during the period from May 11, 2021 to May 17, 2021. Interviews were conducted via Zoom. Each interview was semi-structured. The same 10 questions were asked during each interview (Appendix P). Follow-up questions were frequently asked; these were usually requests for elaboration or clarification. The interviews ranged in length from 40 minutes to 72 minutes, with the average being 58 minutes. The interviews generated 8-19 pages of transcript, with the average being 13. Each interview was transcribed using Trint on the same day that it was conducted. Interview-transcripts were then manually reviewed and corrected by the researcher, also on the same day that they were conducted. See Table 2.

Table 2.

Semi-Structured Interview Data

Participant	Date	Duration	Pages of Transcript (# of Pages Single Spaced)	# of Note Pages	# of Occurrences of a Code
P1	05/11/2021	51.23	13	1	45
P2	05/11/2021	57.34	15	2	49
P3	05/12/2021	48.12	14	1	65
P4	05/12/2021	42.31	8	1	45
P5	05/13/2021	45.45	9	2	76
P6	05/14/2021	67.29	17	2	43
P7	05/14/2021	48.22	10	2	65
P8	05/15/2021	40.29	8	1	35
P9	05/15/2021	72.34	19	1	54
P10	05/16/2021	48.57	10	1	35
P11	05/16/2021	43.32	8	1	52
P12	05/17/2021	51.54	11	0	43
P13	05/17/2021	58.23	14	1	64
P14	05/17/2021	63.45	16	1	65
Average	N/A	51	11	17	676
Total	N/A	755	155	1.2	48.3

The two focus groups were conducted on May 18, 2021 and May 19, 2021. Focus group sessions were conducted via Zoom. Each of the study participants was in exactly one of the focus groups, and the focus groups had seven and seven members, respectively, excluding the present researcher. The same six questions were asked in each focus group. Focus group attendees frequently commented on one another's statements, and the present researcher often asked participants to elaborate or clarify their views. By design, the focus groups occurred after the individual interviews, and participants frequently referred to and commented upon the interviews, sometimes elaborating on statements they had made and sometimes expressing viewpoints they had wished to state during the interviews but had not had an opportunity to state. The last question asked during each of the two focus groups ("Is there anything you feel that we should have

covered or that you would like to add?") elicited a wealth of new and relevant information. The two focus groups lasted 73 and 77 minutes, respectively, and respectively generated 19 and 21 pages of transcript. See Table 3.

Table 3.

Semi-Structured Focus Group Data

	Participants	Date	Duration	# of Pages (Single Spaced)	# of Note Pages	# of Occurrences of a Code
Focus Group 1	P1, P2, P3, P4, P5, P6, P7	May 18, 2021	73.09	19	2	19
Focus Group 2	P8, P9, P10, P11, P12, P13, P14	May 19, 2021	77.21	21	2	21
Totals	N/A	N/A	150	40	3	40
Averages	N/A	N/A	75	20	2	20

Analysis of the data collected generated a total of 212 codes. 182 codes were common to all three research questions. RQ1 generated 154 codes. RQ2 generated 143 codes, of which 38 were unique. RQ3 generated a total 46 codes, of which 20 were unique. Appendix V presents the Final Codebook.

Data Analysis Procedures

Data analysis was conducted in a manner that was consistent with the qualitative descriptive design of the study. Data analysis involved several steps, which included data preparation, descriptive statistics, and thematic analysis. The data sources were 14 semi-structured individual interviews and two semi-structured focus groups. Thematic analysis and descriptive statistics generated answers to the research questions and addressed the problem statement, leading to a rich and detailed description of the phenomenon.

Descriptive statistics were used to describe the most basic quantitative characteristics of the data, these being the number of interviews and focus groups, the

durations of each interview and each focus group, and the number of transcript pages and codes generated by each interview and each focus group. Descriptive statistics describe the most fundamental quantitative features of the data generated by a study and therefore constitute an integral part of the data analysis process (George and Mallery, 2016).

The questions in the 14 semi-structured individual interviews and two semi-structured focus groups were open ended, and thematic analysis was the method used to analyze the data generated by these open-ended questions. Thematic analysis involves identifying recurring patterns or themes in qualitative data (Braun & Clarke, 2006; Lochmiller, 2021). Thematic analysis involves organizing data and then analyzing it into themes, which are embodied in a final report (Braun & Clarke, 2006; Lochmiller, 2021).

Prior to collecting data, the researcher conducted three field tests. The transcripts of these three field tests are in Appendix H. The researcher also coded and themed these transcripts twice, once manually (Appendix F) and using NVivo software (Appendix G). Manual coding and theming yielded demonstrably better results than automated coding and theming, and the researcher therefore chose to code and theme the interviews and focus groups manually. Appendix V presents the final codebook. These questions were designed by the researcher, with each question being aligned with at least one of the three theoretical foundations underlying the present study and also with a least one of the three research questions. Appendices K and M indicate how the interview and focus group questions, respectively, were aligned with the research questions and theoretical models. The purpose of field tests was to determine whether the participants would understand the interview questions and whether those questions would generate a sufficiently large body of relevant data. The field tests indicated that the questions would satisfy both

requirements. The field tests also indicated that the questions would not have to be modified in any way, as they were in their present form sufficiently intelligible and sufficiently generative of relevant data. The field tests helped the researcher become accustomed to the process of asking the interview questions and asking appropriate follow up questions.

Reflexivity Protocol

Reflexivity is the process whereby qualitative researchers use self-awareness to eliminate bias from their research (Althubaiti, 2016). When unchecked, biases may skew the methods used to collect data and may undermine the process of interpreting that data (Pousti, Urquhart, & Linger, 2021). Reflexivity can limit the corrupting effects of bias on the creation of the instruments used to collect data and on the analysis of the data is collected (Lockyear & Weaver, 2021). Reflexivity involves bracketing (Partridge, 2021). Bracketing is the act of suspending pre-existing beliefs in order to conduct research in an unbiased manner (Partridge, 2021). Bracketing helps researchers involved in qualitative researcher to suspend their biases and preconceptions concerning the topic of investigation, thereby neutralizing possible threats to study-validity (Palaganas, Sanchez, Molintas & Caricativo, 2017). Bracketing is especially necessary when the researcher has a pre-existing relationship with the phenomenon, since researchers in such a situation are unusually likely to have preconceptions concerning the phenomenon (Tufford & Newman, 2010).

The present researcher was himself an instructor at a business school whose Spring 2020 courses underwent compulsory Covid-driven virtualization. Consequently, the researcher had to take special measures to bracket any possible biases on his part

(Jacobson & Mustafa, 2020). To this end, the researcher developed a reflexivity protocol, the purpose of which was to help him identify and bracket his preconceptions before they could adversely affect his research. Several steps were involved in developing and implementing the reflexivity protocol used by the researcher.

Step 1: Field Tests. First, after designing the research questions, the researcher submitted them to an expert panel. The expert panel approved the questions, their view being that no modifications were necessary. After the expert panel approved the interview and focus group questions, the researcher conducted three field tests. During the field tests, the researcher confined himself to asking the approved questions and sometimes asking for clarification. This helped minimize the likelihood that the researcher's own biases might creep into the discussion and possibly influence the interviewee's answers (Dodgson, 2019).

Step 2: Reflexivity Journal. The researcher used a reflexivity journal to ensure that bias would not affect the manner in which he conducted the field test interviews or in which he analyzed the results. Prior to conducting the field tests, the researcher wrote down his hypotheses as to what he believed the interviewee's. After each interview, the researcher wrote down how the actual interview compared with his predictions. The researcher also noted anything that he found striking or noteworthy concerning the interviewees' statements or conduct. For example, if a given interviewee was visibly ill at ease, or was clearly relaxed, the researcher noted that fact. The researcher also wrote down any striking similarities or dissimilarities between the interviewees in respect of their responses, body language, and overall demeanor. The researcher used a similar

reflexivity journal when conducting the actual interviews and field tests. Table 4 contains an excerpt from the researcher’s reflexivity journal.

Table 4.

Excerpt from Reflexivity Journal

Participant	Participant Profile	Researcher Expectations	Participant Demeanor	Participant Responses	General Impression
P1	41, Media Industry, no labs	Will be pro-virtualization	Chipper, energetic	“was a hassle in some ways”, “grad classed turned out great”, “great guest speakers”	Not as pro-virtualization as I thought. Interview went smoothly. Participant’s view more ambiguous/nuanced than expected.
P2	51, Medical Food Service, HR in HM, one lab (Med Food Ser)	Anti-virtualization, because of lab	Proper, very different from P1, reserved, did not volunteer extra info	“virtualization is happening, whether we like it or not”, “mixed bag”, “sea of black boxes”	Anti-virtualization but not because of lab.
P3	37 Tourism, travel, two labs	anti-virtualization because of labs	Upbeat, great anecdotes, lots of extra info	“hybrid the way to go”, “sidestepped virtualization with snail male”	Seems to like challenges with labs, had issues with virtualization but not lab related, saw labs as opportunity to solve technical problems, main issue was keeping students “on board”. Similar to P1 (kind of), upbeat, youthful. More developed views about technology. General technological bent.

Step 3: Using the Reflexivity Journal to Help with Bracketing. According to Dörfler and Stierand (2020), bracketing involves the researcher identifying his preconceptions prior to the interview in question, promptly recording salient differences between the interview and the researcher’s preconceptions, writing down what went well and what went poorly, and having a brief but well-defined action plan for the next

interview. The researcher designed his reflexivity journal in accordance with these requirements, with Column 3 (“Researcher Expectations”) representing the researcher’s preconceptions, Columns 4-6 (“Participant Responses”, “Participant Demeanor”, and “General Impressions”, respectively) representing promptly recorded salient facts about the interview, and Columns 7-9 (“What I did right”, “What I did wrong”, and “For next time”, respectively) representing the researcher’s action plan for the next interview.

The reflexivity journal helped the researcher to become conscious of his own views concerning the phenomenon, which helped him recognize and neutralize their possible effects on his conduct during the interviews and during the process of analyzing the data collected from the field test interviews (Mruck & Mey, 2019). The researcher used the same method of bracketing when conducting the actual interviews and focus groups. According to Tufford and Newman, (2010), bracketing helps the researcher curb the injurious effects that his own biases might have on his study, and an effective reflexivity protocol is an essential part of an effective data analysis strategy. The just-described reflexivity protocol helped to minimize the adverse effects that the researcher’s own biases might have had on the study, thereby enhancing the study’s validity and credibility (Jacobson & Mustafa, 2019).

The researcher himself taught classes that underwent Covid-driven compulsory virtualization, and he therefore had biases and preconceptions as to the results that the present study was likely to generate. Two such biases deserve mention. First, prior to conducting the interviews, the researcher believed that the results of the present study would be much more mixed than they turned out to be. The researcher’s expectation was that the study participants would have a wide range of attitudes concerning the effects on

instruction-quality of compulsory virtualization. However, the data showed that their attitudes were strikingly similar, with all of them believing virtualization to have adversely affected instruction-quality. Second, the researcher believed that, when participants felt negatively about these effects, the primary reason would be the difficulties involved in virtualizing courses with a lab component. However, all of the participants, including those who taught labs, believed a decline in student-engagement to be the primary factor responsible for the perceived decline in instruction-quality.

The researcher engaged in intuitive bracketing, as opposed to formal and systematic bracketing, and he is therefore not in a position to say with any precision exactly how these biases affected the manner in which he collected or interpreted data. However, the reflexivity protocol helped the researcher become aware of the gulf between his preconceptions and the corresponding realities, and this awareness helped focus his efforts to generate and interpret data in a relatively impartial manner. In particular, this awareness helped reinforce a lesson he had learned when conducting the field tests, namely, that he should do everything in his power to disclose as little as possible to interviewees as to what he believed the 'right' answers to the interview questions to be. For this reason, the researcher only asked follow-up questions when he believed doing so to be necessary to elicit information necessary to clarify the interviewee's answer to the just-asked interview question. Moreover, when interpreting the data generated by the interviews and focus groups, the researcher constantly reminded himself of the enormity of the gulf between what he expected the interviewees' answers to be and what they turned out to be, and the researcher was in this way able to achieve at least a certain degree of interpretive impartiality.

Data Analysis Steps

The data consisted of transcripts of the fourteen semi-structured individual interviews and two semi-structured focus groups. The interviews and focus groups were transcribed using Trint, which automatically synchs audios and transcripts, so that the word being uttered at a given time is highlighted in the transcript. The researcher read the transcripts several times, sometimes using the just-described feature, which helped the researcher absorb what was being said and identify relevant codes.

Thematic Analysis of the Transcripts. Thematic analysis was the method used to analyze the data. Thematic analysis is a systematic way of identifying recurring themes in interview transcripts and other texts (Braun & Clarke, 2006). Thematic analysis involves the researcher looking for recurring words, phrases, or conceits and then identifying the underlying meanings or themes that are implicit in them (Cresswell & Báez, 2020). Thematic analysis can be conducted in a variety of different ways, but the method most commonly used involves a six step involving, in the following order: (a) familiarizing oneself with the data, (b) coding the data, (c) finding themes, (d) reviewing and revising themes, (e) finalizing themes, and (f) embodying one's findings in a report (Braun & Clarke, 2006). Thematic analysis can be either deductive or inductive (Saldaña, 2015; Cresswell & Báez, 2020). In this study, the researcher followed these six steps when analyzing the data. Thematic analysis ended when themes had been generated that adequately addressed the research questions.

Step 1: Familiarizing Oneself with the Data. First, the audio recordings of the interviews and focus groups were uploaded to Trint, which transcribed them. Trint-generated transcripts are synched to the transcribed audios, so that, as one listens to the

audio, the corresponding text is highlighted. Before downloading the transcripts from Trint, the researcher read through them several times, while listening to the synchronized audios. Trint-generated transcriptions are replete with errors, and the researcher had to go through the transcripts several times in order to identify and correct the errata. After the researcher had sufficiently purged the transcripts of errata as to render them intelligible, he read through them several more times while listening to the synchronized audio. On this basis, the researcher became sufficiently familiar with the transcripts that he felt himself ready to begin the coding process. According to Braun and Clarke (2013), the purpose of the familiarization phase of thematic analysis is to equip the researcher with a sufficiently deep understanding of the text that he is capable of looking for and identifying codes. Multiple readings of the transcripts helped the researcher become sufficiently familiar with the data that he could competently begin the coding process.

Step 2. Coding the Data. Coding a text involves identifying and flagging recurring words, phrases, or conceits that are potentially significant (Saldaña, 2015; Cresswell & Báez, 2020; Salamzadeh, 2020). The purpose of coding is to initiate the process of organizing the text in such a way that the researcher can identify the themes underlying it (Parameswaran, Ozawa-Kirk, & Latendresse, 2020). Coding can be either deductive or inductive (Saldaña, 2015; Creswell & Báez, 2020). In deductive coding, the researcher assigns preset codes to the text (Bingham & Witkowsky, 2021). In inductive, coding the researcher derives codes from the text (Bingham & Witkowsky, 2021). Inductive coding is appropriate in contexts, such as the present one, where the phenomenon is insufficiently well-understood for the researcher to know in advance what codes the texts in question will generate (Bingham & Witkowsky, 2021). For this reason, the researcher elected to code inductively.

After the researcher read through the transcripts several times, correcting errors in them and familiarizing himself with their contents, he began the coding process. First, the researcher downloaded the transcripts as Word documents. There were 14 individual interview transcripts and two focus group transcripts. The researcher chose not to consolidate these 16 documents into a single document. Rather, he chose to code each interview and focus group individually. According to Bingham and Witkowsky (2021), the documents involved in a single study should sometimes be coded separately, since consolidating multiple documents and analyzing them as a single document may suppress valuable information relating to the co-occurrence of codes and themes. For the reasons given in Chapter 3, coding was conducted manually.

The coding process involved several cycles. During the first cycle, the researcher simply highlighted all seemingly significant expressions, using the same color (yellow). During this cycle, the researcher did not use different colors because his concern was simply to flag important items without yet making any judgments as to what they meant or as to how they should be grouped (Belotto, 2018). During this cycle, the researcher merely flagged actual words and phrases, treating distinct but meaning-similar terms as distinct codes. For example, to describe the fact that switching to virtual instruction led to low student engagement, participants used a variety of different terms and phrases, e.g. “students tuned out”, “checked out”, “disengaged”, “sea of black boxes”, “didn’t seem to be paying attention”, “got the feeling they weren’t 100% there.” During the first coding cycle, the researcher simply flagged these terms, without co-categorizing them or otherwise making any judgments as to their likely significance. During this cycle, the

researcher did not make margin notes and confined himself to highlighting terms that were likely to be significant. See Table 5.

Table 5.

Excerpt from First Cycle Codebook

Raw Codes
No drive
No Commute
No traffic
Group exercises unfeasible
Low student morale
Low student energy
A sea of black boxes
Had to stick with program
A lot of black boxes
Couldn't engage students
Limited engagement vectors
No wiggle room
ProSim didn't work
No way to do field trips online
Student disengaged if I didn't stick the plan
I was less of an instructor and more of a prison guard
I was there to make sure they did the work

Table 5 only contains one column because, during the first coding cycle, codes were highlighted but not associated with categories or even with cognates of themselves. Table 4 represents what Neumann (2006) refers to as “open coding”, open coding being coding that does not involve any judgments concerning the codes in question.

During the second coding cycle, the researcher went through the codes and consolidated distinct terms that were cognates of each other or were clearly meaning-similar. For example, “students disengaged” and “student disengagement” were consolidated into a single code, namely “student disengagement.” During this cycle, the

researcher confined himself to consolidating cognates and synonyms into a single code, while refraining from making judgments as to whether non-synonymous and non-cognate expressions should be co-categorized. During this cycle and the previous one, the researcher engaged in what Neumann (2006) refers to as “open coding.” Open coding involves the coder looking for semantic expressions without labelling them or otherwise judging their significances (Neumann, 2006). Table 6 presents an excerpt from the second cycle codebook.

Table 6.

Excerpt from Second Cycle Codebook

Raw Codes	Modified Codes
No drive	No commute
No commute	No commute
No traffic	No commute
Group exercises unfeasible	Group exercises unfeasible
Low student morale	Low student morale
Low student energy	Low student energy
A sea of black boxes	Sea of black boxes
Had to stick with program	Had to stick with program
A lot of black boxes	Sea of black boxes
Couldn't engage students	Couldn't engage students
Limited engagement vectors	Limited engagement vectors
No wiggle room	No wiggle room
ProSim didn't work	ProSim didn't work
No way to do field trips online	No way to do field trips online
Student disengaged if I didn't stick the plan	Student disengaged if I didn't stick the plan
I was less of an instructor and more of a prison guard	More guard than instructor
I was there to make sure they did the work	More proctor than instructor

Table 6 consists of two columns because it presents both raw codes as well the results of consolidating the raw codes into slightly more comprehensive codes. In most cases, the items in both columns match, since the code-consolidation was at this point restricted to near synonyms.

During the third cycle, the researcher consolidated different codes into categories. For example, “students tuned out”, “checked out”, “disengaged”, “sea of black boxes”, “didn’t seem to be paying attention”, “got the feeling they weren’t 100% there” were all consolidated into the category of “student disengagement.” During this cycle, the researcher engaged in what Neumann (2006) refers to as “axial coding.” Axial coding involves the coder assigning labels to the codes generated by open coding (Neumann, 2006). During this cycle, the researcher was guided by the research questions. The researcher would consolidate two codes into a single category if he believed that doing so would help to answer one of the research questions (Adu, 2019). If the researcher did not see how doing so would help to answer one of the research questions, he would not consolidate multiple codes into a single category. This is consistent with Belotto (2018), according to whom codes should not be consolidated except when it is a “veritable datum” that they belong together.

Many researchers suggest using color coding techniques to code (Merriam & Tisdell, 2016). Color coding simply involves highlight different occurrences of the same words, phrase, or conceit with the same color. The present researcher did not use color coding. The reason was simply that there were too many codes for that to be viable. According to Milonopoulos (2021), color coding may not be feasible in situations where the number of codes is substantially larger than the number of available colors, as was the case in the present study. According to Deterding and Waters (2021), color coding is inappropriate in situations where a given term might have multiple meanings. In the current study, many key terms were ambiguous, one example being “disengagement”, which sometimes referred to student disengagement from other students, student

disengagement from the instructor, instructor disengagement from the student, and student disengagement from the course. The researcher therefore chose to use a system devised by Cloutier & Ravasi (2021), whereby one color (yellow) was used to highlight codes, while the code in question was identified using margin notes.

When the researcher completed this coding cycle, most of the codes had been absorbed into categories, and the few that remained were clearly irrelevant to the research questions. For example, among the remaining codes were “beverage industry”, “French fries”, and “sixteen week”, which were clearly not significant in this context. However, almost all of the codes did prove to be relevant and were duly absorbed into categories which, in their turn, bore directly the research questions. In this respect, the researcher’s experience is consistent with Belotto (2018), according to whom manual coding often has the effect that most of the codes generated are relevant to the research questions and do not have to be discarded. Table 7 presents an excerpt from the third cycle codebook.

Table 7.

Excerpt from Third Cycle Codebook

Raw Codes	Modified Codes	Categories
No drive	No commute	Saved time
No commute	No commute	Saved time
No traffic	No commute	Saved time
Group exercises unfeasible	Group exercises unfeasible	Hard to do group exercises
Low student morale	Low student morale	Student alienation from course
Low student energy	Low student energy	Student alienation from course
A sea of black boxes	Sea of black boxes	Student alienation from course
Had to stick with program	Had to stick with program	Teaching undermined by need for discipline
A lot of black boxes	Sea of black boxes	Student alienation from course
Couldn't engage students	Couldn't engage students	Insufficient control over students
Limited engagement vectors	Limited engagement vectors	Insufficient control over students
No wiggle room	No wiggle room	Instructor as proctor
ProSim didn't work	ProSim didn't work	Hard to virtualize labs
No way to do field trips online	No way to do field trips online	Hard to virtualize lab-like components
Student disengaged if I didn't stick the plan	Student disengaged if I didn't stick the plan	Instructor as disciplinarian
I was less of an instructor and more of a prison guard	More guard than instructor	Instructor as disciplinarian
I was there to make sure they did the work	More proctor than instructor	Teaching undermined by need for discipline

Table 7 has three columns because, in addition to containing the raw and modified codes, it also associates the modified codes with categories. Table 7 represents what Neumann (2006) refers to as “axial coding”, axial coding because the process of consolidating codes into categories which, in their turn, serve as precursors to themes.

The researcher coded each interview and focus group separately. He did not initially consolidate all sixteen transcripts (14 interview transcripts and two focus group

transcripts) into a single transcript until after he had coded and themed each one individually. According to Coates, Jordan and Clarke (2021), in studies involving thematic analysis of multiple interview transcripts, it may be advisable to code and theme each transcript individually, since the interviewees may have developed their own private lexicons. Coates et al. (2021) further explain that this is especially likely if the study participants are high level professionals, as was the case in the present study. Consequently, the researcher chose to code and theme each transcript individually. In order to ensure validity, the researcher thereafter consolidated all 16 transcripts into a single transcript and re-coded and re-themed, and in doing so generated the same codes and themes (Nili, Tate & Barros, 2017; Coates et al., 2021).

Step 3: Finding Themes. The next step was to find themes on the basis of the categories generated by the coding process. Theme-identification involved grouping categories together on the basis of an underlying shared significances (Adu, 2019). For example, the categories “saved time”, “made it easier to convene class participants”, and “made it easier to bring in guest speakers” were all consolidated under the Theme 1 (“there were some limited, functional respects in which virtualization was more convenient than in-person instruction”), since this theme is what binds them together (Adu, 2019; Neumann, 2006).

The purpose of thematic analysis is to answer the research questions (Merriam & Tisdell, 2015). Thematic analysis may generate themes that do not address the research questions (Maguire & Delahunt, 2017). According to Maguire and Delahunt (2017), this is likely to happen if the research questions are excessively vague or broad or are simply irrelevant to the phenomenon. According to Winters, Kaylor and Jeglic (2017), themes

may fail to address research questions if the interview questions are not sufficiently aligned with the research questions. In this study, each of the eight themes generated by thematic analysis directly addressed at least one of the research questions. The interview and focus group questions were approved by an expert panel (Appendix S), and the research questions were aligned with the purpose statement, these being possible reasons why none of the themes were irrelevant (Maguire & Delahunt, 2017; Winters et al., 2017).

The process of generating themes was complex and itself involved several steps. The researcher had to go through the process of theming several times before producing a set of themes that were neither too specific nor too general and that also did not contain unnecessary redundancies. For example, during the first round of theming, the researcher tried to group categories under theme “virtual instruction adversely affected instruction.” But he soon found this theme to be much too general, as it comprised a number of sub-themes (e.g. “complex material was hard to teach”, “labs were hard to virtualize”, and “student-on-student interaction was curtailed”) that deserved to be treated as themes in their own right.

Contrariwise, the researcher often found a given theme to be overly specific. For example, during one of the earlier rounds of theming, the researcher listed “virtualization made it easier to bring in guest speakers” as a theme, but soon found this to be too specific to be a theme, choosing to subsume it under the more general heading of “virtualization was convenient in some respects.” According to Adu (2019), themes are similar to experimental hypotheses, in that they are attempts to model data and must be revised or even jettisoned if they prove unable to model the data in question. This is

consistent with the researcher's experience, as he often found himself having to modify or even eliminate themes. After several rounds of consolidating categories into themes, the researcher settled on a list of eight themes. These are presented in Table 8.

Table 8.

List of Themes

Theme	Theme Description
Theme 1 (T1)	One of the respects in which virtualization improved the quality of instruction was that there were some narrowly functional respects in which virtual instruction was more convenient than in-person instruction.
Theme 2 (T2)	One of the respects in which virtualization diminished the quality of instruction was that student-on-student interaction was limited.
Theme 3 (T3)	One of the respects in which virtualization diminished the quality of instruction was that instructor-student interaction was limited.
Theme 4 (T4)	One of the respects in which virtualization diminished the quality of instruction was that it caused students to disengage.
Theme 5 (T4)	One of the respects in which virtualization diminished the quality of instruction was that complex material became prohibitively difficult to teach.
Theme 6 (T6)	One of the respects in which virtualization diminished the quality of instruction was that courses involving labs, and lab-like components (such as field trips), could not be taught properly.
Theme 7 (T7)	One of the ways in which virtualization diminished the quality of instruction is that virtual courses came to bear more resemblance to "correspondence courses" than to traditional college courses.
Theme 8 (T8)	The overall effect of virtualization is that there were more cons than there were pros to teaching virtually.

The purpose of the themes is to answer the research questions (Cresswell & Poth, 2016). Consequently, the themes resulting from data analysis must be aligned with both the research questions (Braun & Clarke, 2006). Table 9 shows how the themes align with the research questions.

Table 9.

Themes by Research Question

RQ1. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?	RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?	RQ3. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?
T1. One of the respects in which virtualization improved the quality of instruction was that there were some narrowly functional respects in which virtual instruction was more convenient than in-person instruction.	T2. One of the respects in which virtualization diminished the quality of instruction was that student-on-student interaction was limited.	
	T3. One of the respects in which virtualization diminished the quality of instruction was that instructor-student interaction was limited.	
	T4. One of the respects in which virtualization diminished the quality of instruction was that it caused students to disengage.	
	T5. One of the respects in which virtualization diminished the quality of instruction was that complex material became prohibitively difficult to teach.	
	T6. Instructors claimed that, for all intents and purposes, virtual courses came to bear more resemblance to “correspondence courses” than to traditional college courses.	
	T7. One of the respects in which virtualization diminished the quality of instruction was that courses involving labs, and lab-like components (such as field trips), could not be taught properly.	
		T8. The overall effect of virtualization is that there were more cons than there were pros to teaching virtually.

The themes were arrived at, in effect, by adding a fourth column to the Third Cycle Codebook and then populating that column with items that organized and explained the items in column 3. Table 10 presents an excerpt from the Fourth Cycle Codebook.

Table 10.

Excerpt from Fourth Cycle Codebook

Raw Codes	Modified Codes	Categories	Theme
No drive	No commute	Saved time	Theme 1 (Virtual instruction convenient in some respects)
No commute	No commute	Saved time	Theme 1
No traffic	No commute	Saved time	Theme 1
Group exercises unfeasible	Group exercises unfeasible	Hard to do group exercises	Theme 2 (Student-on-student interaction was limited)
Low student morale	Low student morale	Student alienation from course	Theme 3 (Students disengaged)
Low student energy	Low student energy	Student alienation from course	Theme 3
A sea of black boxes	Sea of black boxes	Student alienation from course	Theme 3
Had to stick with program	Had to stick with program	Teaching undermined by need for discipline	Theme 6 (Virtual courses came to bear more resemblance to “correspondence courses” than to traditional college courses)
A lot of black boxes	Sea of black boxes	Student alienation from course	Theme 3
Couldn’t engage students	Couldn’t engage students	Insufficient control over students	Theme 2 (Instructor-student interaction was limited)
Limited engagement vectors	Limited engagement vectors	Insufficient control over students	Theme 2
No wiggle room	No wiggle room	Instructor as proctor	Theme 6
ProSim didn’t work	ProSim didn’t work	Hard to virtualize labs	Theme 7 (Courses involving labs, and lab-like components (such as field trips), could not be taught properly)
No way to do field trips online	No way to do field trips online	Hard to virtualize lab-like components	Theme 7
Student disengaged if I didn’t stick the plan	Student disengaged if I didn’t stick the plan	Instructor as disciplinarian	Theme 6
I was less of an instructor and more of a prison guard	More guard than instructor	Instructor as disciplinarian	Theme 6
I was there to make sure they did the work	More proctor than instructor	Teaching undermined by need for discipline	Theme 6

Table 10 contains four columns, because in addition to containing the raw codes, modified codes, and categories, it also contains the themes corresponding to those categories. Table 10 represents the results of what Neumann (2006) refers to as “selective coding”, selective coding being the process of looking for themes on the basis of the results of open and axial coding.

The researcher settled on these themes because he could not omit any of these themes without failing to explain the codes and categories and he could not add any themes that explained anything not already explained by the existing themes. According to Bingham and Witkowsky (2021), a list of themes is inadequate when it fails to accommodate all of the existing codes and redundant the codes can be explained on the basis of fewer themes. The researcher settled on the aforementioned eight themes when he found the codes were not adequately explained by fewer themes and would not be better explained by additional themes.

After the researcher finalized his list of themes, he subjected the manner in which he articulated them several times, trying to balance accuracy with brevity (Braun & Clarke, 2006).

Step 4. Reviewing and Revising Themes. Before proceeding, the researcher consolidated all 16 transcripts and coded and themed that document *de novo* in order to establish the validity of coding and theming that had already been conducted. The results agreed perfectly, setting aside a few purely phraseological differences, confirming the validity of the first round of thematic analysis.

The researcher then went through the interviews and transcripts once again, this time looking for additional codes that might be relevant to the themes that might

previously have been overlooked. According to Braun and Clarke (2006), after settling on a final list of themes, researchers should review the data from which they derived those themes, looking additional data that might bear, either positively or negatively, on those themes, as this practice helps ensure validity. Having reviewed the data in light of the themes generated from that data, the researcher found no data that disconfirmed them.

Step 5. Finalizing Themes. Having completed thematic analysis and validated his results, the researcher proceeded to prepare a final code book. This involved only a few steps, each of them purely procedural. The first was simply to arrange the Fourth Cycle Code book by theme, so that the rows relating to Theme 1 occurred first and preceded the rows relating to Theme 2, and so on. The purpose of this was to place all of the codes and categories relating to a given theme in a single easily surveyed region. The next and final step was to place raw codes that had been assigned the same modified code into the same cell, thereby providing a visual representation of the code-groupings that led gave rise to the categories. Table 11 presents an excerpt from the Final Codebook, the complete version of which is in Appendix V.

Table 11.

Excerpt from Final Codebook

Raw Codes	Modified Codes	Categories	Theme
Policing necessary	Policing necessary	Instructor as disciplinarian	Theme 7 (For all intents and purposes, virtual courses became “correspondence courses”)
Need to micromanage courses	Policing necessary	Discipline had to be embedded into class-structure	Theme 7
More of a babysitter than a real professor	More proctor than instructor	Instructor as proctor	Theme 7
Too much structure	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Classes were policed to death	Policing necessary	Teaching undermined by need for discipline	Theme 7
Everything had to be nailed down before class	Policing necessary	Discipline had to be embedded into class-structure	Theme 7
Going through a drill	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Had to stick with program	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Mail order class	More proctor than instructor	Discipline had to be embedded into class-structure	Theme 7
Felt like I was proctoring more than teaching	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Correspondence course	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
No wiggle room	More proctor than instructor	Instructor as proctor	Theme 7
Had to stay strictly on topic all the time	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Was drilling students through exercises	More proctor than instructor	Teaching undermined by need for discipline	Theme 7
Student disengaged if I didn’t stick the plan	Policing necessary	Instructor as disciplinarian	Theme 7
I was less of an instructor and more of a prison guard	More proctor than instructor	Instructor as disciplinarian	Theme 7
I was there to make sure they did the work	More proctor than instructor	Teaching undermined by need for discipline	Theme 7

Step 6: Report Generation. The final step was to embody the researcher's findings in a systematic report. The purpose of this study was to describe how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on instruction-quality of the Spring 2020 Covid-driven compulsory virtualization of their courses. This study was guided by three research questions and these research questions generated eight themes. As Table 8 indicates, RQ1 generated T1, RQ2 generated T2-T7, and RQ3 generated T8. Each of the themes generated related to at least one of the research questions. Thematic analysis may generate themes that do not address the research questions (Maguire & Delahunt, 2017). According to Maguire and Delahunt (2017), this is likely to happen if the research questions are excessively vague or broad or are simply irrelevant to the phenomenon. According to Winters et al. (2017), themes may fail to address research questions if the interview questions are not sufficiently aligned with the research questions. In this study, each of the eight themes generated by thematic analysis directly addressed at least one of the research questions. The interview and focus group questions were approved by an expert panel (Appendix S), and the research questions were aligned with the purpose statement, these being possible reasons why none of the themes were irrelevant (Maguire & Delahunt, 2017; Winters et al., 2017).

Results

The purpose of this study was to explore how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on instruction of the COVID-driven compulsory virtualization undergone by their courses in the Spring of 2020. Analysis of the data generated by the

present study yields insight into the phenomenon that it is the purpose of the present study to investigate. The present section describes the data generated by the present study as it relates to each of the research questions. Two sources of data were involved in the present study: (i) fourteen individual interviews and (ii) two focus groups. The data generated by each of these two-data sources addressed each of the research questions guiding the present study, these being:

RQ1. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?

RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?

RQ3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

This study describes how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on instruction of the COVID-driven compulsory virtualization undergone by their courses in the Spring of 2020. 14 individuals participated in the present. Each of the 14 was individually interviewed, and each participated in one of the two focus groups. Each participant signed and submitted an informed consent form and completed a demographic questionnaire. The data in the demographic questionnaires was not used for coding purposes, but it was considered when evaluating the significance of the results of the study, as will be discussed in Chapter 5. The tables in the next section will help explain how the codes were derived from the themes and how the themes relate to the research questions.

Presenting the Results

The present section describes how the themes arose from the codes generated by the interviews and focus groups. A total of eight themes arose from the codes generated by the 14 individual interviews and two focus groups. Coding involves flagging semantically pregnant words or phrases, and theming involves identifying messages (or “themes”) recurring throughout those codes (Braun et al., 2019). The codes generated by the present study tend to be identical with quotations from study participants, and these often strongly anticipated the corresponding themes, owing to the high degree of overlap between the wording of the codes and the corresponding themes. This partly mitigated the element of inference necessarily involved in theming (Willgens, 2016). This section presents the themes by research question. In the case of each theme, a table is provided that identifies the codes and categories that generated the theme in question.

Research Question 1. How do hospitality management instructors believe that

COVID-driven course-virtualization increased the quality of instruction? RQ1 generated only one theme, namely Theme 1.

Theme 1 (RQ1): One of the respects in which virtualization improved the quality of instruction was that there were some narrowly functional respects in which virtual instruction was more convenient than in-person instruction. Several interviewees stated that, because classes were virtual, they were far more able than they would otherwise be to “bring in guest speakers from around the world.” This very point was mentioned by three interviewees. Two of these interviewees observed that, because courses were virtual, their students were no longer “confined to a single geographical area”, which one of them described as “probably convenient for the students.” Four

interviewees mentioned that, because classes were conducted virtually, students did not have to drive to campus and “worry about parking.” Two of the instructors who made this point qualified it by saying that it represented a convenience for the students, leaving it open whether they too benefited from the convenience of not having to physically commute to work and also leaving it open whether it was in some way or other convenient for them that their students did not have to deal with the inconvenience of physically commuting to class. According to one instructor, teaching via Zoom is like “teaching in your pajamas”, which he described as being convenient but which, so he also said, made him feel “disengaged and unable to teach effectively.”

Out of all the eight themes, Theme 1 was the only one that was common to less than half of the interviews. Indeed, it was the only one that was not common to at least ten of the fourteen interviews. The codes underlying Theme 1 were usually contained in interviewee-responses to Question 8 (*Overall, how did course virtualization affect the quality of instruction and why?*). When answering this question, twelve of the fourteen said that virtualization was “markedly worse”, with the remaining two claiming that it was “just different” and “neither better nor worse”, but some interviewees qualified their answers by identifying what they believed to be benefits of virtual instruction, it being in these qualifications that many of the codes underlying Theme 1 were generated. Although Theme 1 was found only in a minority of the interviews and was absent from the focus groups, the researcher judged it to be sufficiently distinctive as to be worth including in the final list of themes. Table 12 presents the codes and categories supporting Theme 1.

Table 2.

Codes and Categories Supporting Theme 1

Source	Codes	Categories
P1	No commute	Saved time
	Could teach from living room	Saved time
P2	Could teach from my apartment	Saved time
	Made it easy to work with guest speakers	Made it easier to convene class-participants
P3	Convenient for students	Saved time
P4	No drive	Saved time
	Nice not having to drive	Saved time
P5	N/A	N/A
P6	N/A	N/A
P7	No traffic	Saved time
P8	Simplified daily planning	Saved time
	Could Zoom with people around the world	Made it easier to convene class-participants
P9	N/A	N/A
P10	Access to guest-speakers all around the world	Made it easier to convene class-participants
P11	N/A	N/A
P12	Working students appreciated the convenience	Saved time
P13	N/A	N/A
P14	Virtual field trips easy to conduct	Functional improvement
FG 1	Easy to bring in guest speakers	Made it easier to convene class-participants
	Simplified scheduling	Saved time
FG 2	Could sleep in late	Saved time
	Made life easier in some ways	Saved time

Research Question 2. How do hospitality management instructors believe that

COVID-driven course-virtualization diminished the quality of instruction?

RQ2 generated Themes 2-7.

Theme 2 (RQ2): *One of the respects in which virtualization diminished the quality of instruction was that student-on-student interaction was limited.* A theme that arose in every individual interview was that, after courses were virtualized, student-on-student interactions in class were extremely limited. They were “limited to the point of uselessness”, making it “impossible to conduct in-class exercises involving more than

one student.” Several interviewees observed that Zoom allows for “breakaway groups”, but these same interviewees also described Zoom breakaway groups as “clumsy” and “unwieldy” and “unable to take the place” of the student-on-student interactions that occur in in-person courses. One interviewee claimed that, prior to compulsory virtualization, she “had no idea how important” student-on-student interactions were “to the integrity of the class” and to “student morale in general”, and, so this interviewee alleged, “this element of the learning experience was simply gone” now that courses were being taught virtually. Two other interviewees claimed that the lack of student-on-student interactivenss was responsible for “student disengagement from the course.” In their view, students do not enjoy class unless “they can feel the presence of other students” and, when this condition is not met, “withdraw into isolation.” Strikingly, all of the interviewees regarded the limitations on student-on-student interaction as a pure negative, its effect being to undermine morale and weaken student interest in the material being taught. For example, none claimed that the students were better able to focus on the course-material, now that, owing to limited degree of student-on-student interactivenss, they were less likely be to be distracted by other students. Each interviewee noted the decreased level of student-on-student interactivenss and then described it as “sapping the class’s energy” or as otherwise undermining the class. (See Appendix Y.) Table 13 presents the codes and categories supporting Theme 2.

Table 3.

Codes and Categories Supporting Theme 2

Source	Code	Categories
P1	Zoom breakaway groups useless	Hard to do group exercises
	Group exercises unfeasible	Hard to do group exercises
P2	Low student morale	Student alienation from course
P3	Low student energy	Students alienated from course
	Students need students	Students alienated from course
P4	Hard to spark class discussions	Course undermined by student-disengagement
P5	Students unresponsive to other students' points	Students alienated from course
	Hard to conduct group exercises	Hard to do group exercises
P6	Students withdrew into isolation	Students alienated from course
	Class discussions halting	Course undermined by student-disengagement
P7	Students indifferent to the presence of other students	Students alienated from course
P8	Zoom breakaway groups unwieldy	Hard to do group exercises
P9	Students disengaged from other students	Students alienated from course
	Class discussions lacked vitality	Course undermined by student-disengagement
P10	Students seemed isolated	Students alienated from course
P11	Lack of mutual engagement among students	Students alienated from course
	No real class discussions	Course undermined by student-disengagement
P12	Students had little enthusiasm for the class	Students alienated from course
	Mutual indifference on the part of students	Students alienated from course
P13	Students seemed unaware of other students	Students alienated from course
	Engagement with course suffered because of mutual disengagement	Course undermined by student-disengagement
P14	Students indifferent to other students	Students alienated from course
	Students unresponsive to one another	Students alienated from course
FG 1	No way to conduct group exercises	Hard to do group exercises
	Students don't engage instructor when they don't engage one another	Course undermined by student-disengagement
FG 2	Students didn't engage one another	Students alienated from course
	Class discussions lacked vitality	Course undermined by student-disengagement
	Students stared blankly at instructor	Students alienated from course
	Lots of black screens	Students alienated from course
	Students not engaged with one another	Students alienated from course

Theme 3 (RQ2): One of the respects in which virtualization diminished the quality of instruction was that student-on-student interaction was limited. A majority of the instructors stated that, in a virtual course-setting, there were “fewer ways to engage with students.” In the words of one interviewee, the “vectors available to me as instructor for engaging with students were greatly constricted.” Other interviewees expressed similar sentiments, one of them saying that, “although I spent most of the class talking, I did not get the feeling that the students were listening, and there wasn’t much I could do about it.” According to one interviewee, “if I felt that a student wasn’t paying attention, or was having trouble with the material, I could, yes, I could technically call him out; but it felt artificial, felt punitive”, later adding that, whereas “that sort of thing, calling students out I mean, worked well in-person, it didn’t, it didn’t go over well over Zoom.”

When the present researcher asked these interviewees to explain why they found it difficult to engage students over Zoom, they responded by saying that, whereas students tend to regard in-person classes as “demanding their participation”, they seemed to have the opposite view of Zoom-based classes. They “regarded [them] as a kind of T.V. show”, said one interviewee, and “they just kind of sat there.” According to another interviewee, “students would answer direct questions”, but “that’s all they would do”, adding that “their responses were “clipped” and “to the point.” That same interviewee later added that, whereas student-comments made in in-person classes tended to “trigger commentary” from other students, “nothing of the sort happened” during Zoom-based classes. “I would ask a student a question,” one interviewee explained, “and the student would answer, or at least try, but nothing would happen—that was it.” One interviewee joked that teaching via Zoom was like “being a stand-up comedian in a night club, except

that the audience isn't laughing." When asked to elaborate, he said that "teaching successfully involves giving and taking; and I was giving, but the students weren't giving back", adding that "they just sat there, impassively, expecting me to do all the work."

One interviewee described how, when he taught in-person, he could informally meet with students before and after class and "chat them up", thereby "getting a feel for how they were doing." This, he claimed, helped him establish an "empathic rapport" with his students, which, so he claimed, promoted student engagement and "made students who were in trouble" (i.e., who were having difficulty with the course material) "feel comfortable coming to me and asking for help." This interviewee noted that, whereas the failure rate among his in-person students was approximately 5%, the failure rate among his virtual students was approximately 25%. "They simply checked out", he said, "and I didn't have any kind of bond with them, so there wasn't...much I could do", adding that "if I sent them an email, or tried to reach out, it just...came off as, it just didn't work, it was very artificial." Other interviewees expressed similar sentiments, one of saying that "students who didn't need my help, who taught themselves, basically, were fine, but everyone else, no, no, they were not fine", adding that "there simply wasn't very much I could do.

Many interviewees asserted that, in order to deal with the "problem of engaging students", it was necessary to "be very careful about how the class was structured." In the words of one interviewee, "it was less about what happened in class, which was pretty much just me talking and showing PowerPoints, and more about what happened before class." Asked to elaborate, this interviewee said that "I was not so much an instructor as I was a proctor", and "my job was really just to prepare a video that these students would

watch”, adding that “the students saw class as a show, as a, as a kind of YouTube video”, not as “something they were really a part of”, adding that “there wasn’t really anything I could do about it.” In the words of another interviewee, “I just couldn’t reach them”, adding later that “I could talk to them, yes, and I could compel them to participate, but I couldn’t engage them, not the way I could before.”

Four of the interviewees attempted to explain the phenomenon of low student engagement. Interestingly, all four provided the same explanation. “The problem wasn’t technical”, one said. “It wasn’t that Zoom prevented us from reaching out to students.” The problem, he said, “was with the students themselves”, adding “their attitude had changed.” Whereas students in in-person classes “felt an obligation” to participate and “be fully present”, students in Zoom-classes “seemed to think that showing up was enough.” In the words of another interviewee, “they saw themselves as consumers, [and] they just didn’t feel the need, the obligation, to contribute.” Another interviewee said “for [the students], there wasn’t really a need to pitch in”, adding that “that part of them, the part that made them want to talk [in in-person classes] was gone”, further adding that “they wanted me to teach, but that was it”, adding that “the reasons [for this] weren’t technical, so much...as they just didn’t feel a need to contribute”, further adding that “there wasn’t anything I could do about it.” Other interviewees claimed that judicious use of YouTube videos, PowerPoints, and video-related applications substantially increased student engagement. “Being good with tech helped”, one interviewee said. “I have a technical background,” he continued, “I really pulled out all the stops.” This seemed to help, he said, but “it was definitely a lot of work,” adding that “the results were... middling at best.” Another interviewee made similar remarks. “I got my PhD

online”, she said, “so I know something about this”, i.e., about how to teach online in an effective manner. “I really went the distance on this one,” she said, “and I like to think I did a pretty good job.” When the present researcher asked her whether she had succeeded in re-engaging her students, she said: “up to a point, yes”, adding that “students engage with virtual classes differently” from the way in which they engage in-person classes. “It isn’t better or worse,” she added, “but it’s something we [instructors] have to learn about and explore.” Table 14 presents the codes and categories supporting Theme 3.

Table 4.

Codes and Categories Supporting Theme 3.

Source	Code	Category
P1	Couldn't engage students	Insufficient control over students
	Wasn't just a technological issue	Students alienated from course
P2	Couldn't reel students in	Insufficient control over students
	This wasn't a technology issue	Students alienated from course
P3	Had to go out of my way to make sure students were listening	Degradation of course-quality due to weak student-instructor bond
P4	No way to talk to students without interrogating them	Degradation of course-quality due to lack of instructor awareness and control
P5	No empathic rapport through Zoom	Students alienated from course
	Didn't know if students were paying attention	Insufficient instructor-awareness of students
P6	Limited vectors through which to engage students	Insufficient control over students
P7	Zoom not good for maintaining student-instructor bond	Students and instructor mutually alienated
P8	Couldn't tell if students were getting it	Insufficient instructor-awareness of students
P9	A sea of black screens	Students alienated from course
	Had to target individual students in order to promote engagement	Insufficient control over students
P10	Hard to determine student-engagement level	Insufficient instructor-awareness of students
	Could compel students to show up but not to pay attention	Insufficient instructor-control over students
P11	Students didn't always have their cameras on	Students alienated from course
	Had to become disciplinarian in order to keep students focused	Degradation of course-quality due to lack of instructor awareness and control
P12	High student absenteeism	Students alienated from course
	Couldn't stimulate student-engagement without calling out individual students	Degradation of course-quality due to lack of instructor awareness and control
P13	Didn't know if students were really listening to me	Insufficient instructor-awareness of students
	Decline in student performance because of problems connecting with students	Degradation of course-quality due to lack of instructor awareness and control
P14	Students were hard to reach	Students alienated from course
	High student failure rate because of difficulties engaging students	Degradation of course-quality due to lack of instructor awareness and control
FG 1	Had to target individual students to promote student-engagement	Degradation of course-quality due to lack of instructor awareness and control
	No way to take students aside	Insufficient instructor-control over students
	Hard to exert firm but gentle guidance on errant students	Insufficient instructor-control over students
FG 2	Courses either became chaotic or overly structured	Degradation of course-quality due to lack of instructor awareness and control
	Low student engagement was the biggest problem with virtualization	Students alienated from course
	Technology severed an unspoken bond between instructor and student	Students alienated from course

Theme 4 (RQ2): One of the respects in which virtualization diminished the quality of instruction was that it caused students to disengage. Every interviewee, without exception, complained of “low student engagement.” Low student-engagement assumed two forms: failure to be “psychologically present”, i.e., failure to pay attention and focus on the class, and outright absenteeism. Interviewees regarded the former problem as more serious than the latter. “Attendance can be mandated”, said one interviewee, “but you can’t force [students] to pay attention.” Other interviewees expressed similar sentiments. “I tried to determine whether the material was sinking in”, explained one interviewee. “Yes, I could give them quizzes and tests, and that told me something”, he added. “But I just wasn’t connecting with the class, and the material wasn’t really sinking in.” When asked why that was so, he explained that “students simply detached from the class”, adding that “they just did the bare minimum.” Other interviewees expressed similar views, one of them also using the term “bare minimum.” In her words, “the class wasn’t a complete disaster”, since “[the students] were doing the bare minimum”, but “the students weren’t 100% there”, her meaning, as the context clearly indicated, being that, although they were physically present, they were disengaged.

As earlier mentioned, several interviewees complained about “having to see a sea of black boxes” when they conducted Zoom-classes, referring to the fact that, when a student does not turn on his camera, there is a black box where his image should be. “The black box problems”, as one interviewee put it, “was extremely off-putting”, explaining that “it represented a fundamental shift in attitude on the part of the students.” When asked to elaborate, he said that “a black box meant that the student simply did not value

the class,” adding that “even the students who did have their cameras on were usually checked out.” In that particular interviewee’s opinion, the “black box students” were simply doing in an overt way what “all of the students were doing to some degree or other”, meaning that student-disengagement was rampant.

Several interviewees claimed to “resent” having to ask students to turn on their cameras. “I do not want to be a cop”, said one such interviewee, “but that’s what I had to be, because otherwise the students just checked out.” Several interviewees said that, when teaching virtually, their focus was more on “policing” the class than it was on “actually instructing.” In the view of some of these interviewees, this had the consequence that, unless classes were “micromanaged”, they “fell apart.” Some made the further claim that, for this reason, classes had to be “drained of spontaneity” in order to function, resulting in a “correspondence class-like atmosphere”, as one interviewee put it. Other interviewees expressed a similar view, saying that “there was no natural give and take [between the instructor and the student]”, with the result that, as one interviewee put it, “I like a proctor”, as opposed to a “real professor.”

Six interviewees stated that “the very best students adjusted well” to virtual instruction. “A students are A students, no matter what”, one interviewee said. “But the rest of the students, the other 90%”, he added, “they just did the bare minimum.” Other interviewees expressed similar sentiments. “They did what they had to do”, said one interviewee, “but that’s all they did”, later adding that “they weren’t 100% there.” Table 15 presents the codes and categories supporting Theme 4.

Table 5.

Codes and Categories Supporting Theme 4

Source	Code	Categories
P1	Half the screens were black	Students alienated from course
P2	Students tuned out	Students alienated from course
	The issue was emotional, not technological	Students alienated from course
P3	Students did bare minimum	Course undermined by student-disengagement
P4	Students weren't 100% there	Students alienated from course
P5	Material didn't seem to be sinking in	Course undermined by student-disengagement
P6	Students disengaged	Students alienated from course
P7	Course was crippled by low student engagement	Course undermined by student-disengagement
P8	Hard to teach complicated material because students weren't paying attention	Course undermined by student-disengagement
P9	Student attention-levels intermittent	Students alienated from course
P10	Can't force students to pay attention	Insufficient control over students
P11	Sea of black boxes	Students alienated from course
P12	Students were checked out	Students alienated from course
	The issue was existential, not technological	Students alienated from course
P13	Black box problem	Students alienated from course
	The issue wasn't technology	Students alienated from course
P14	Student disengagement rampant	Students alienated from course
	Students saw instructor as entertainer	Students alienated from course
FG 1	The virtual format severed the instructor-student bond	Students alienated from course
	Students resented instructor attempts to engage them	Degradation of course-quality due to lack of instructor awareness and control
FG 2	Students saw class as an imposition	Students alienated from course
	Students resented instructor attempts to engage them	Degradation of course-quality due to lack of instructor awareness and control

Theme 5 (RQ2): One of the respects in which virtualization diminished the quality of instruction was that complex material became prohibitively difficult to teach.

According to eleven interviewees, “advanced classes” could not be virtually taught in an effective manner. Statements to this effect were scattered throughout each of those eleven

the interviews, but they were most frequently made in response to Question 4 (“Of all of your courses, which was the most affected by virtualization and why?”) and Question 8 (“Overall, how did course virtualization effect quality of instruction and why?”).

Ten of these eleven interviewees said that, when a given class was “introductory” or “lower level”, it could be virtually taught in an effective manner. Statements to this effect were most frequently made in response to Question 6 (“all of your courses, which was the least affected by virtualization and why?”). When asked to elaborate this point, interviewees said that virtual classes were ineffective except when “highly structured” and that, when highly structured, they assumed a form similar to “correspondence classes”, which, so they alleged, denied them the requisite degree of “pedagogical flexibility” necessary to teach material of a “nuanced” or “sophisticated” nature. None of the interviewees claimed that lower division classes were *best* taught virtually—only that they could be taught virtually “in an acceptable manner.” Table 16 presents the codes and categories supporting Theme 5.

Table 6.

Codes and Categories Supporting Theme 5

Source	Code	Categories
P1	Had to keep it simple Students had limited attention spans	Degradation of course-quality due to low student engagement Students alienated from course
P2	Couldn't explain complex ideas without losing my audience	Degradation of course-quality due to low student engagement
P3	Advanced material was hard to teach	Degradation of course-quality due to low student engagement
P4	Had to stick to the tried and true	Degradation of course-quality due to low student engagement
P5	Couldn't go into detail without students disengaging	Degradation of course-quality due to low student engagement
P6	Student attention span too short for me to convey ideas of any complexity	Degradation of course-quality due to low student engagement
P7	Explanations lost on students due to short attention span	Degradation of course-quality due to low student engagement
P8	Rapport with students too fragile to support high level instruction	Degradation of course-quality due to weak student-instructor bond
P9	Couldn't tell if students were paying attention	Insufficient instructor-awareness of students
P10	Had to pitch them high and slow	Degradation of course-quality due to low student engagement
P11	Had to dumb down course material	Degradation of course-quality due to weak student-instructor bond
P12	Ideas didn't sink in unless I turned them into sound-bytes	Degradation of course-quality due to weak student-instructor bond
P13	Rapport with students too fragile to support real instruction	Degradation of course-quality due to weak student-instructor bond
P14	Had to dumb it way down	Degradation of course-quality due to low student engagement
FG 1	Virtual ok for remedial classes Intricate ideas got lost in the shuffle	Degradation of course-quality due to low student engagement
FG 2	Virtual teaching graphics-driven, not idea-driven High-level instruction not graphics-driven	Degradation of course-quality due to low student engagement

Theme 6 (RQ2): One of the respects in which virtualization diminished the quality of instruction was that courses involving labs, and lab-like components (such as field trips), could not be taught properly. Seven of the fourteen interviewees taught lab courses, and another three taught classes that had “lab-like components”, such as field

trips to venues that were relevant to the course-material. Eight out of the ten stated that these classes could not be effectively taught in a virtual manner.

“Several workarounds were tried”, said one interviewee, “but there was no way to replicate the lab.” Some of the interviewees claimed that they had tried to replicate the labs using applications, such as ProSim, whose purpose is to simulate in-person operations, such as assembling machinery and cooking food, and they were unanimous in describing these attempts as “failures.” Referring to an event planning course of his that underwent compulsory virtualization, one interviewee said that “the course material being what it was, there was no real chance that a program could do what we needed it to do.” The other interviewees who taught lab courses made similar statements, one of them claiming that “the class was structured around the lab component, and there were no [viable] workarounds.”

Similar statements were made by interviewees who taught classes that did not technically have labs but that, prior to be virtualized, required students to make in-person visits to places of business. Referring to a sales course of hers that had undergone compulsory virtualization, one interviewee said that “the whole point of the class was to teach students what it was like to interface with real business owners”, adding that, COVID 19 made that impossible, “it defeated the purpose of the class.” This interviewee further added that virtualization “effectively required me to replace the original class with a whole new class”, the reason being that the original class “just couldn’t be taught virtually.”

Of the ten interviewees who taught classes having lab or lab-like components, two asserted that, although virtualization altered those courses, “they did not change them for

the worse.” This interview explained that she taught an advanced graduate course that had only five students. The course required graduate students to meet in-person with business leaders relating to their areas of specialization. After the course was virtualized, students could fulfill this requirement simply by having Zoom meetings with these business leaders. According to the interviewee, these virtual meetings went well, and the class was not in any way derailed. The interviewee qualified this by saying that “these were very advanced students” who “needed very little help.” The other interviewee taught a capstone course that, prior to being virtualized, required the class as a whole to meet in-person with several business leaders and “shadow” them at their workplace for approximately two hours. Because of virtualization, these meetings took place virtually, which, according to the interviewee, “in no way diminished [their] quality”, with the result that the “course as a whole went pretty smoothly.” Table 17 presents the codes and categories supporting Theme 6.

Table 17

Codes and Categories Supporting Theme 6

Source	Code	Categories
P1	ProSim didn't work	Hard to virtualize labs
P2	No way to virtually replicate the experience of handling food	Hard to virtualize labs
P3	Tourism lab was a non-starter	Hard to virtualize labs
P4	N/A	
P5	N/A	
P6	Simulation software inadequate	Hard to virtualize labs
P7	No way to do field trips online	Hard to virtualize lab-like components
P8	Lab didn't fly	Hard to virtualize labs
P9	N/A	
P10	No virtual way to do lab	Hard to virtualize labs
P11	The lab situation killed it	Hard to virtualize labs
P12	Class wasn't the same without the field trip	Lab courses unfeasible
P13	Class had to be restructured because of the lab	Lab courses unfeasible
P14	No viable workarounds for lab	Lab courses unfeasible
FG1	Labs were a bust	Lab courses unfeasible
	Labs didn't work	Lab courses unfeasible
	The issue was technology	Better technology can fix problems with lab courses
	The issue was deeper than technology	Problems with lab courses a consequence of emotional disengagement
FG2	ProSim inadequate	Lab courses unfeasible
	ProSim doesn't work	Lab courses unfeasible
	Use of multiple technologies could serve as a workaround	Better technology can fix problems with lab courses
	Not clear if better technology would solve the problem	Problems with lab courses a consequence of emotional disengagement

Theme 7 (RQ2): One of the ways in which virtualization diminished the quality

of instruction is that virtual courses came to bear more resemblance to

“correspondence courses” than to traditional college courses. A theme common to a majority of the interviews, as well as both of the focus groups, was that virtual courses effectively became little more than “correspondence courses.” This specific term was used by three of the interviewees. Other interviewees used different locutions to make

much the same point. For example, one interviewee stated that, although “there was technically a synchronous [teaching] component to the class...but it might as well have been automated.” When asked to elaborate, the interviewee said that, because students were so disengaged and non-interactive, she “might as well have simply recorded the lectures.” Other interviewees made much the same point. “The whole thing...was basically automated”, said one interviewee. “The assignments were posted on Blackboard, and the students submitted them to Blackboard”, adding that “yes, I lectured, but the students weren’t really listening.” When asked to amplify on this point, the interviewee added that “the students seemed to treat my lectures as movies, as videos”, adding that “they would answer questions if I called on them, but interactions were never spontaneous.” Another interviewee described classes as having a “scripted” quality and that “my role was marginal, almost token”, adding that “I felt that I was not exactly teaching...it was more that I was playing a part and had to stay on message.”

Without being prompted, five interviewees independently volunteered the same explanation as to why, in their view, virtual classes had a correspondence course-like quality. “The issue isn’t technology,” one of these interviewees said:

The issue was low student-engagement. The class had to be hyper-structured or the students would simply zone out if they even bothered to attend. Everything about the class had to be strictly defined in advance. There couldn’t be any spontaneity, because students took any kind of unpredictability as an indication that what they were hearing wasn’t “going to be on the test.” So class-sessions became so structured that my role was basically just to read a script. And the

students knew it. They knew that I could just as well have recorded the lecture and posted it on YouTube.

Another interviewee expressed a similar view:

Lower-level classes work pretty well virtually, maybe even better [than when conducted in-person]. The professor has no wiggle room, because he's expected to crank through a lot of stock, a lot of standard issue points. So what you have [in a lower level class] is the students teaching themselves out of a textbook, and the professor is more of a cop than anything else. So that kind of class isn't too hard to automate. But when it's an upper division... class and it's virtual, students don't make that leap. They still treat the lectures as videos. They're just one more bit of course material, there's nothing special about them. So there is only so much the professor can do in lecture, only so far he can go in the way of explaining difficult concepts. So he has to keep the lectures simple, which is fine when the material is itself, but not when it isn't, and that's why you cannot really cover anything too advanced in a virtual setting.

Other interviewees expressed similar opinions. "The issue isn't Zoom," one interviewee said:

Zoom is fine. The issue isn't the technology. It's internal to the students. When you're in a room with somebody, that's a powerful thing. Something in you responds. When you're talking to somebody through a computer monitor, it's not the same. You're just somebody in a video, and the students check out on some level. To keep the students, to keep their attention, the class has to be very tightly organized, and you, your lectures, they become vestigial. They're not really

lectures anymore. They're more like supplementary reading. I mean, that's not what they actually are, but it's, I think, it's how the students see them.

The general consensus was that, for whatever reason, virtual classes had to be so tightly organized that the instructor only had minimal latitude when lecture. "I had to stick with a script", one interviewee said. "I couldn't drill down and explore a point made by a student", adding that "I just had to get through a checklist of points, and that was it." The result, this interviewee said, was that "my lectures weren't really lectures any more, because I was just reading a script." Another interviewee said "technically, I didn't even have to be there," going on to say:

I could have had a T.A. [Teaching Assistant] teach the class. My expertise was irrelevant, because the students weren't asking questions, except for procedural ones about test-dates and that sort of thing. When I teach in-person, the students are really there, and they ask tough questions, and that's when I shine as a professor. But that whole dynamic, when I was [teaching virtually], that was gone. I was just a prop in a mail order class.

Finally, those who described virtual courses as being *de facto* "correspondence courses" believed the reason to lie not in technology but in student-disengagement. "In order to engage students," one interviewee said, "we had to lock everything about the class down", adding that "and the class became so routinized that it wasn't a real class anymore." Table 18 presents the codes and categories supporting Theme 7.

Table 7.

Codes Supporting Theme 7

Source	Code	Categories
P1	Policing necessary	Instructor as disciplinarian
P2	Need to micromanage courses	Discipline had to be embedded into class-structure
P3	More of a babysitter than a real professor	Instructor as proctor
P4	Too much structure	Teaching undermined by need for discipline
P5	Classes were policed to death	Teaching undermined by need for discipline
P6	Everything had to be nailed down before class	Discipline had to be embedded into class-structure
P7	Like a correspondence class	Teaching undermined by need for discipline
P8	Couldn't improvise without losing students	Teaching undermined by need for discipline
P9	Going through a drill	Discipline had to be embedded into class-structure
P10	Had to stick with program	Teaching undermined by need for discipline
P11	Mail order class	Teaching undermined by need for discipline
	Felt like I was proctoring more than teaching	Instructor as proctor
P12	Correspondence course	Teaching undermined by need for discipline
P13	No wiggle room	Teaching undermined by need for discipline
P14	Had to stay strictly on topic all the time	Instructor as disciplinarian
	Was drilling students through exercises	Instructor as disciplinarian
FG1	Student disengaged if I didn't stick the plan	Teaching undermined by need for discipline
	I was less of an instructor and more of a prison guard	Instructor as proctor
FG2	I was there to make sure they did the work	Instructor as proctor
	I wasn't really functioning as a teacher	Instructor as proctor

Research Question 3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization? RQ3 generated only one theme, namely Theme 8.

Theme 8 (RQ3) The overall effect of virtualization is that there were more cons than there were pros to teaching virtually. A theme common to all of the interviews, and

to both of the focus groups, was that the cons of virtualization outweighed the pros.

According to one interviewee, the effect on the quality of instruction of virtualization was “100% negative”, adding that “the real problem” was “student disengagement.”

According to another interviewee, “the advantages of virtualization were largely non-existent, but the disadvantages were very real,” adding that the main disadvantage was that “students don’t take virtual classes seriously.” According to another interviewee, the “gains from virtualization...are trivial”, but “the losses, what we gave up in the way of quality of instruction, were huge.” All but one of the remaining interviewees expressed similar views. That one described virtual instruction as being “different but not necessarily worse”, adding that “virtual can probably work, but it doesn’t do a good job with courses that were originally taught in-person. In general, interviewees held that virtualization did more to hurt than to help the quality of instruction, and they were generally in agreement as to what the pros and cons of virtualization were. We will now state what they believe those pros and cons to be.

The Pros. Seven of the interviewees granted that there were “narrowly defined” respect in which virtual instruction was superior in-person. Five of the seven described virtual instruction as being “highly convenient.” One interviewee said that she “appreciated not having to worry about parking, and I’m pretty sure the students felt the same way.” Another interviewee said that he was sometimes “happy about not having to commute.”

Four interviewees pointed out that, when conducting class virtually, they were able to conference with guest speakers “from around the world”, which would obviously be impossible in a strictly in-person class. Two interviewees pointed out that they could

have students from “around the country”, which would not be possible in a strictly in-person course.

Three of the interviewees said that virtualization “forced” them to master new methods of teaching and that it also forced their students to master new methods of learning. These three interviewees all claimed that both they and their students benefited from the “challenges involved in virtualization”, most of which related to the “mastery of new and complex technologies.” Strikingly, these instructors did not say that this resulted in improved teaching on their part or in improved learning on their students’ part, only that the “challenge” of “having to master new and complex technologies” was a “valuable cognitive exercise”, both for them and their students.

Finally, one instructor said that “virtual instruction is the way of the future,” adding that “this...experience simply accelerated what was already happening”:

Whatever we might think of virtual instruction, it is the way of the future. Not because it’s a good way to teach necessarily--I personally don’t think it is—but because that’s the direction we’re heading in as a society. This was going to happen no matter what. Because of COVID, it happened in 2020. Without COVID, it would have happened five years later. But it was going to happen. I mean, it’s already been happening and has been for a while. This whole experience simply accelerated what was already happening.

Another instructor expressed similar sentiments:

This is happening. It isn’t that we need to virtualize courses. We don’t, clearly. It actually degrades instruction in some respects. But virtualization is the dog, and instruction is the tail. That’s where it’s all going, whether we like it or not, and this just

fast-tracked it a bit. And I'm glad, frankly, because if I hadn't had to do it, I would have just kept putting it off.

To summarize, the "pros" are:

- (a) It is logistically convenient (e.g. no commute is involved),
- (b) There are no geographical restrictions on where instructors, guest-speakers, and students have to be,
- (c) It is cognitively demanding, and
- (d) It is inevitable and should therefore be embraced sooner rather than later.

(a) and (b) are unambiguously positive. By contrast, (c) and (d) are ambiguously positive at best.

The Cons. The "cons" were identical with Themes 2-7. All but one of the interviewees agreed that the cons involved in virtualization outweighed the pros. Moreover, the one exception was the previously mentioned interviewee who said that "virtual instruction is different, not necessarily worse." Moreover, that individual represents a dubious exception, given that he himself explicitly affirmed each of T2-T7 and, moreover, did not "feel that virtual has any clear advantages over in-person." Table 19 presents the codes and categories supporting Theme 8.

Table 8.

Codes Supporting Theme 8

Source	Code	Categories
P1	It just wasn't the same.	Virtual instruction structurally different (from in-person)
P2	100% worse	Virtual instruction unqualifiedly inferior (to in-person)
P3	Had its moments but worse overall	Virtual instruction qualifiedly inferior
P4	Was good in some ways but wasn't as good	Virtual instruction qualifiedly inferior
P5	Unquestionably inferior	Virtual instruction unqualifiedly inferior
P6	Worse on several levels	Virtual instruction unqualifiedly inferior
P7	Neither better nor worse, just different	Virtual instruction structurally different
P8	Not the real deal	Virtual instruction inferior because structurally different
P9	The technology wasn't the problem	Virtual instruction inferior because structurally different
P10	Lacked soul	Emotional alienation the issue
P11	Isn't really teaching	Virtual instruction inferior because structurally different
P12	Something important was missing	Emotional alienation the issue
P13	Teaching has to be in-person	Emotional alienation the issue
P14	Not a technology issue	Virtual instruction inferior because structurally different
FG1	Student disengagement main problem	Emotional alienation the issue
	Labs not feasible	Technological shortcomings the issue
	Convenient in some respects	Virtual instruction has non-trivial advantages over in-person
	Instruction very one-dimensional when not in-person	Emotional alienation the issue
	More downside than upside	Virtual instruction qualifiedly inferior
	Better simulation technology may mitigate lab issue	Virtual instruction inferior but not structurally different
	Better technology unlikely to boost student engagement	Emotional alienation the issue
FG2	Cons outweigh pros	Virtual instruction qualifiedly inferior
	Main problem low student engagement	Emotional alienation the issue
	Advantages negligible compared to disadvantages	Virtual instruction qualifiedly inferior
	Not a technology issue	Emotional alienation the issue
	Students shift into different gear when not in-person	Emotional alienation the issue

Limitations

The present study was subject to several limitations. A limitation on the part of a study is a weakness in it that it is not within the researcher's power to eliminate Bhakoo, Koehler, Le, Lerman, Mees-Buss, Mmbaga, & Welch, C. L. 2020). Unlike a garden-variety defect, which may result from incompetence or negligence, a limitation is inherent in the nature of the study itself or in the circumstances under which it is carried out (Bhakoo et al., 2020).

The first limitation related to the sample size. The larger a given sample, the more representative it is of the population from which it is selected (Rahman, 2020). The actual number of participants was 14. If the number of participants had been an order of magnitude larger, commensurately more information would have been generated (Lakens, 2021; Rahman, 2020). However, the researcher simply did not have had the time necessary to carry out a study of such proportions, and the study therefore had to be restricted to 12-15 participants. Because of the small sample size, it is unclear to what extent, or in what respects, the findings of the present study may be generalized (Lakens, 2021).

The second limitation concerned the composition of the study-sample. In general, the more homogeneous a given sample, the less that sample warrants generalizations (Maxwell, 2020). All of the participants were instructors in the same college in the same university. For this reason, it is unclear to what extent circumstance-specific factors influenced the views had by the study participants concerning the effects on the quality of instruction of compulsory virtualization (Alam, 2020; Maxwell, 2020). For example, study participants unanimously claimed to have had relatively little assistance dealing

with virtualization-related problems from the university's administration, and the researcher would be in a better position to determine how this affected their views concerning the effectiveness of virtual instruction if he had studied a plurality of different hospitality management faculties.

The third limitation related to the fact that, for the study participants, course-virtualization had only occurred recently. The interviews and focus groups involved in the present study were conducted in May 2021, and compulsory course-virtualization occurred in April 2020. For this reason, it cannot be determined to what extent the study's findings concerned the participants' attitudes towards the shock of compulsory virtualization and to what extent they concerned virtualization itself (Dzwigol, 2020). In an attempt to mitigate this problem, the researcher only selected participants who had taught virtual courses during the Summer and Fall semesters following the Spring of 2020. Under ideal circumstances, the researcher would have selected for participants for whom compulsory virtualization was not such a recent phenomenon, but this simply was not a possibility under the circumstances.

The fourth limitation related is that the present study is qualitative descriptive, as opposed to quantitative correlational. Qualitative descriptive studies are ideal for exploring psychological conditions, such as feelings and attitudes, but they are not ideal for establishing the causes of those conditions (Cresswell & Poth, 2016; Lambert & Lambert, 2012). By virtue of being qualitative descriptive, the present study was able to generate a rich body of data relating to hospitality management instructor attitudes towards the effects on the quality of instruction of compulsory course-virtualization, but it was for that very reason unable to determine with any precision what the causes of

those attitudes were (Lambert & Lambert, 2012). For example, several study participants strongly believed virtual instruction to be inherently incompatible with student-on-student interaction. However, the limited degree of student-on-student interaction in the classes taught by these instructors may have been a consequence not of the fact that they were virtual but of the specific technologies that were being used. In order to adjudicate this matter, it would be necessary, first, to figure out a way to quantify the level of student-on-student interactivensness in a given virtual class and, second, to determine whether changes in the technologies being used affected these levels. Such an investigation would require a quantitative correlational study (Tashakkor & Creswell, 2007).

The fifth and final limitation relates to the fact that the interview and focus group questions were theoretically committed. Three theories---namely, TAM, TAM2, and UTUAT---jointly constitute the theoretical foundations of the present study, and the interview and focus group questions were rooted in those theories. All three theories are versions of the Technology Acceptance Model (TAM), which is concerned with the circumstances under which people have an attitude of acceptance towards technology (Venkatesh & Davis, 2000). TAM, TAM2, and UTUAT were not functioning in this study as explanatory or predictive instruments, and they were not otherwise directly ‘used’ or implemented. Their role was to help guide the construction of the research questions and data-gathering instruments. Consequently, the interview and focus group questions embodied the assumption that how the interviewees felt about course-virtualization was a function of the specific technologies involved (Lee, Kozar & Larsen, 2003).

However, the interviewees' own words suggest that their feelings were a function not so much of the fact that these or those specific technologies but of the fact that *any* technology was being introduced into a situation that, in their opinion, should be technology-free. Each of the participants stated that Zoom was the primary technology used in his virtual courses, and each participant stated that he was happy with Zoom's functionality. At the same time, every single participant, with only one possible exception, said that virtualization diminished the quality of instruction. Moreover, when describing why they were unhappy with the effects of virtualization on the quality of instruction, participants only rarely cited issues relating to specific technologies. Their primary concerns related to student disengagement, which they regarded as a consequence of virtualization *per se*, not of the specific technologies involved therein. These facts suggest that technology-acceptance was not the only relevant issue. However, because the interview and focus group questions were rooted in TAM, TAM2, and UTUAT, the present researcher was limited in his ability to explore potentially revealing non-technology-related issues (Venkatesh & Davis, 2000).

Summary

In Chapter 4, we described the methods used to generate and analyze the data for this study, we also summarized that data. The data was generated by conducting 14 individual interviews and two focus groups. The interview and focus group questions were aligned with the three research questions, and the answers given to them generate a rich and relevant body of data. That data subjected to thematic analysis, which yielded answers to the research questions, thereby addressing the problem statement and providing a detailed description of the phenomenon. Thematic analysis involved multiple

steps. First, each individual interview and each of the two focus groups was coded, i.e., meaningful words and phrases were identified and then grouped into categories. Then each of the individual interviews and each of the two focus groups was themed, i.e., recurring concepts were identified. Finally, a final list of themes was generated, consisting of all of those themes were either common to all of the individual interviews or, if not common to all of them, were both common to many of them while clearly being of significance.

The research questions guiding the present study were:

RQ1. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?

RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?

RQ3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

The theoretical models underlying these research questions were TAM, TAM2, and UTUAT. The interview and focus group questions were based upon these research questions. Thematic analysis of the transcripts of these interviews and focus group questions yielded eight themes (Table 7). Using quotations from the interviews and focus groups, it was explained how each of the themes was derived from the interviews and focus groups.

This chapter concluded with a discussion of the present study's limitations. Five such limitations were identified, these being (i) that the sample size was relatively small, (ii) that the sample was relatively homogeneous, (iii) that some the data generated was at

least potentially ambiguous, in that it could be taken either to bear on instructor-attitudes towards virtual instruction or to bear on their attitudes towards the transition into virtual instruction, (iv) that the present study was limited in its ability to identify the causes of the attitudes expressed by the study participants, owing its being qualitative-descriptive as opposed to quantitative-correlational, and (v) that the interview and focus-group questions, by virtue of being rooted in the Technology Acceptance Model, might to some extent have prejudged the extent to which the phenomenon was to be understood in terms of technology-acceptance.

In conclusion, Chapter 4 summarized the data and the methods used to generate and analyze the data, while showing the relevance of those methods to the research questions and also identifying the study's limitations. Chapter 5 will discuss possible implications of the data in relation to the research questions, and it will also identify possible avenues for future research.

Chapter 5: Summary, Conclusions, and Recommendations

Introduction and Summary of Study

This qualitative descriptive study explored how hospitality management instructors described the effects on the quality of instruction of the COVID-driven compulsory virtualization of their courses that occurred in the Spring of 2020. This study was important because it is one of the first, if not the first, study concerning the effects on the quality of hospitality management instruction of compulsory virtualization. Moreover, it is one of the first, and also one of the most comprehensive, studies concerning the effects on the quality of higher education instruction of compulsory virtualization (Bui et al., 2020; Özgen & Reyhan, 2020). There is an urgent need for studies concerning the effects on instruction of virtualization (Ali, 2020; Bui et al., 2020; Serrano, 2021). One reason for this is that, because of COVID 19, virtually every institution of learning in the country has undergone at least partial virtualization (Jonas, 2021). Another reason is that, independently of COVID 19, there is a strong trend in education towards virtualization and hybridization (Bramsen & Hagemann, 2021). Moreover, there is a paucity of studies concerning the virtualization of courses, such as hospitality management courses, having heavy lab components, and the present study addresses that gap (Krishnamurthy, 2020). Finally, there is a veritable absence of studies concerning the effects on the quality of instruction of the virtualization of hospitality management courses, and the present study addresses that gap (Affouneh et al., 2021).

This study contributed to research on the various advantages and disadvantages of course-virtualization and, in particular, the virtualization of hospitality management courses. The present study explored the experiences and attitudes of instructors who had

taught the very same courses both in-person and virtually, and it therefore provided a clear and detailed picture of what was lost because of virtualization and also what was gained. The present study illustrates the difficulties involved in virtualization college-level courses. It provides a great deal of information as to what kinds of courses can and cannot be successfully virtualized, and it helps clarify what is gained as a result of virtualization and also what is lost. Moreover, the present study provides specific information as to the ways in which virtualization is likely to diminish student performance and also as to the ways in which it may enhance it. The findings of the present study are likely to serve as a useful starting point for investigators concerning with knowing how to optimize course virtualization and with knowing under what circumstances course-virtualization is appropriate.

The following sections summarize the present study's findings and show how those findings constitute answers to the research questions. Those findings are related to the study's theoretical foundations and also to the background of the problem. The forthcoming summary of this study's findings comprises a detailed description of the phenomenon. This description was generated on the basis of thematic analysis of transcripts of the fourteen individual interview and of the two focus groups. After summarizing the present study's findings, a reflection of the researcher's experience in conducting the present study will be given. This will be followed by recommendations concerning future research.

Summary of Findings and Conclusion

Overall Organization

The findings of the present study are presented in this section, and each finding is linked to at least one of the research questions. The phenomenon is hospitality management instructor attitudes regarding the effects on the quality of instruction of the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. To study this phenomenon, the researcher developed three research questions:

RQ1. How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction?

RQ2. How do hospitality management instructors believe that COVID-driven course-virtualization diminished the quality of instruction?

RQ3. How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization?

The researcher collected data for the present study by conducting 14 semi-structured individual interviews and two semi-structured focus groups. The interview and focus group questions were based on the three research questions. Study participants also completed a demographic questionnaire. The interviews and focus groups took place via Zoom and were recorded. An interview protocol guided the individual interviews, and a different interview protocol guided the focus groups. The interviews and focus groups were then transcribed.

After completing data collection, the present researcher coded and themed each of the 14 interviews and each of the two focus groups. A final list of eight themes was generated by selecting those themes from the individual interviews and focus groups that

were either common to all of the interviews or were integral to understanding a large subset of the interviews (Table 3). After coding and theming each individual interview and focus group, the researcher consolidated all sixteen transcripts into a single transcript and, in order to ensure validity, re-coded and re-themed, generating the same eight themes. All eight themes addressed RQ1; T2-T8 addressed RQ2; and T1 addressed the RQ3. In the next section, the eight themes will be stated and analyzed, and the relevance of each theme to the corresponding research question will be delineated.

Summary of Findings by Theme

Theme 1: There were some narrowly functional respects in which virtual instruction was more convenient than in-person instruction. Several participants stated that, because their courses were being taught virtually, they had “instant access to guest speakers from around the world.” One instructor described how, because her class was now conducted via Zoom, “field trips” that involved shadowing professionals at their place of business could be conducted more easily than before. She also reflected that, during these virtual field trips, student engagement was high. One instructor reflected that a small graduate level course of hers was “not adversely affected” by virtualization, which she attributed to the high level of the students, coupled with the smallness of the class size. The instructor stated that this particular course “did not suffer” as a result of virtualization, also mentioning that, because of the virtual format, both she and the students were spared many inconveniences, such as physically commuting to campus, that are associated with in-person instruction. One instructor observed that, thanks to virtualization, students did not have to be confined to a given geographical area, which was convenient for the students. Of the eight themes, Theme 1 was the only one

commonly only to a minority of the interviews, and it did not emerge in either of the focus groups.

Analysis: There are two salient facts in this contest. First, few of the interviewees believed virtualization to have benefited instruction at all. Second, those few cited only one such benefit, namely, that virtualization allowed instruction to take place remotely. None of the participants said that virtualization had any other benefits. None held that virtualization increased student-engagement or student-performance; none held that it facilitated the flow of information from instructor to student or *vice versa*.

This analysis is consistent with existing research concerning the benefits of virtualization. Cho and Hong (2021) studied an attempt to virtualize a course on plastic surgery, finding that, although faculty had mixed feelings on the matter, they believed virtualization to have distinct benefits, the primary ones being the ability to teach large numbers of students, the ability to have guest speakers from anywhere in the world, and freedom from having commute to and from class. Ghasem and Ghannam (2021) studied an attempt to teach an engineering class virtually and, like Cho et al. (2021), found that, although faculty had mixed feelings, they believed virtual instruction to have distinct advantages over in-person instruction, the main advantages being the ability to teach large numbers of people, the ability to reschedule classes at a moment's notice, and freedom from having to commute to and from class.

Theme 2: Student-on-student interaction was limited. This theme was common to all 14 of the individual interviews and to both of the focus groups. Study participants claimed to be “shocked” at how the absence of student-to-student communication “drained the life” out of the class. “In in-person classes, students would

always comment on comments made by other students”, one interviewee said, “but this didn’t happen [in virtual classes]”, later adding that “students simply weren’t engaged with their peers.” According to one interviewee, students “failed to engage” with other students even when doing group exercises. “Students in [Zoom] breakaway groups seemed indifferent to one another,” she stated. “They did what they had to do, but they were really just phoning it in.”

According to interviewees, this situation was less a reflection of functional limitations with Zoom than it was of a change in attitude on the part of the students. Students in virtual classes “acted like they were playing a video game”, one interviewee stated. “They were not there physically,” this person added, “and I guess in their minds that meant they weren’t really there mentally either.” Each of the other interviewees expressed similar sentiments. According to other participants, a contributing cause of the decrease in student-on-student interaction was the fact that the Zoom breakaway group feature was initially difficult to use. However, these same participants observed that students remained “mutually disengaged” even after they mastered the technicalities involved in Zoom breakaway groups. According to all participants, the absence of student-on-student interactions reinforced a “certain ennui” and “sense of detachment” that “pervaded the class.” None of the participants saw any benefit to diminished student-on-student interaction. For example, none claimed that it helped students pay attention.

Analysis: In this context, the salient fact is not so much the alleged decline in student-on-student interaction as it is the reason given by study-participants for that decline. According to study-participants, the underlying cause was a generalized sense of

“detachment” on the part of students from the class as a whole, their detachment from one another being a mere manifestation of this.

This analysis is consistent with recent work concerning the psychological effects on both faculty and students of virtual instruction. Chapman and Mathien (2021) studied college students who were forced by COVID 19 to switch abruptly from in-person to virtual instruction, finding that students disengaged both from one another and their courses. Riel (2021) conducted a study comparing students in virtual college class to students in in-person or hybrid college classes, finding the latter to be, on average, more engaged with one another and with their courses.

Theme 3: Instructor-student interaction was limited. This theme was common to all of the interviews and both of the focus groups. Participants described a “general sense of apathy” among their students, in particular, “a decreased level of responsiveness” to instructor questions and to the course generally. “Usually when I ask a student a question, they take it seriously”, one interviewee said:

If they know the answer, they can't wait to say it. If they don't, they're embarrassed. Either way, they aren't indifferent. But [in virtual courses] it wasn't like that. Students would answer direct questions. Sometimes they would ask procedural questions. But the spark was gone. They weren't 100% there.

Another interviewee said that, in in-person classes, he could “talk with students after class and see how they were doing”, adding that:

This might seem trivial. But that's when a lot of the real teaching took place. A student who was having trouble would talk to me after class. Or I would talk to him. Or usually he'd follow me to my office, even if I didn't have office hours,

and we'd talk it out there. A lot of these students needed help, and I gave it to them, and they usually ended up doing well. But in my virtual classes, these students, they just fell by the wayside.

None of the participants attributed the decreased level of student-interactiveness to technology. "Zoom is fine", said one participant. "There were no real technical issues", adding that

The real issue was...the students didn't take [class] seriously after it went [virtual]. They became spectators. I don't know what it was. It may have been...a sense of betrayal. They signed on for in-person and then it went virtual. I don't know. I don't think that's it, actually, because they're the same way when the class starts out virtual. But they just weren't into it, not like they usually are.

Several other participants expressed similar sentiments, saying that "technology wasn't the problem" and that "the real problem" was "a certain remoteness." In the words of one participant, "it's one thing to lecture in person, but it's a very different thing to lecture through a video monitor", adding that:

I think the students felt the same way. Because we were in this configuration, this virtual format, they just checked out. I mean, they usually did the work. But the interaction, the back and forth, that just wasn't there anymore.

Analysis: The salient fact is that, according to participants, the underlying cause of decreased student-instructor interactiveness was student-disengagement, as opposed to technological issues. None of the instructors claimed that technology was the problem, and only a few claimed that technology was the solution. Some participants stated that judicious use of new technologies helped to increase student-engagement levels, leading

to an increase in student-instructor interactiveness. “I explored a lot of technical workarounds”, one instructor said, “and this helped,” but moments later this person added that: “They were still basically apathetic, and I don’t know if more technology can really solve that problem.” Other participants expressed similar sentiments.

These findings support recent research. Joia and Lorenzo (2021) studied the effects on instruction-quality of the compulsory course-virtualization of secondary school curricula. They found that, according to the instructors involved, students grew increasingly detached from the instructors, one another, and the course-material as the semester progressed. Moreover, Joia and Lorenzo report, those instructors felt that Zoom stripped them of the abilities they had when teaching in-person to monitor and control student conduct and attention-levels. Joia and Lorenzo note that, according to those instructors, student engagement levels in those courses were low compared in-person classes, with the consequence that instructors felt themselves to have a commensurately greater need to control student engagement levels. Shay and Pohan (2021) studied a biology curriculum that underwent virtualization because of COVID 19. The instructors involved, observe Shay and Pohan, were frustrated by what they regarded as inappropriately low levels of student-engagement and, because of Zoom’s limited functionality, proportionately reduced levels in their ability to boost engagement levels.

Theme 4: Complex material was hard to teach. A theme that emerged from most of the individual interviews and was present in both of the focus groups was that complex material was hard to teach virtually. Some interviewees claimed that material was never effectively taught virtually; most claimed that introductory material could be effectively taught virtually. But most claimed to “have run into serious problems” when

teaching non-introductory material. “With math, or anything complicated, virtual doesn’t work, is my feeling”, said one interviewee. Several other interviewees expressed similar sentiments, referring to math-heavy courses of theirs, while others expressed similar sentiments in connection with non-technical but high-level courses. “If the material was at all nuanced,” one participant affirmed, “or if there was anything out of the ordinary about it, anything involving higher thought, frankly, then it just didn’t work [when taught virtually].”

Analysis: Interviewees did not explicitly provide explanations as to why they believed complex material to be so hard to teach virtually, but they made some suggestive remarks. According to one participant, “to teach complicated material, you really have to get in there, get into the student’s mind”, adding that “you couldn’t do that through Zoom, because the students were too detached.” Other interviewees also stated that, owing to the lack of student engagement, complex material either “did not sink in or [the instructor] did not know if it was sinking in.” Several instructors claimed that virtual instruction was effective with “self-starters” and that virtual instruction “amounted to the students’ teaching themselves.” Two of the participants taking this position alleged that this was the reason why complicated material could not be taught. “If students have to teach it to themselves”, one such participant said, “it usually isn’t going to be very complicated.” The conceit underlying such remarks was that, owing to the low level of student engagement in virtual courses, there was a kind of “cap”, as one instructor put it, on how complex the course material could be.

This is consistent with existing research. Anderson et al., (2021) studied science curricula that had been virtualized because of COVID 19, finding that student-

performance in lower-level courses was only moderately adversely affected but was highly adversely affected in upper level courses. Engelhardt, Johnson & Meder (2021) studied the effects on student-performance of course-virtualization in an economics department, finding that student-performance in non-introductory courses declined more than it did in introductory courses. Baldock, Fernandez, Franco, Provencher and McCoy (2021) studied the effects on instruction of COVID-driven virtualization of a chemistry curriculum, finding that instructors often simply omitted material that they judged to be too complex to teach virtually. Denning, Acar, Sharicz & Foust (2021) studied several virtual courses, finding that, according to the instructors involved, student-engagement tended to drop off when advanced material was introduced.

Theme 5: Students disengaged. A theme common to all of the interviews and both of the focus groups was that “students disengaged”, this exact phrase occurring multiple times through several different interviews. Indeed, this theme was perhaps the central theme of all of the interviews, with each participant affirming it, oftentimes explicitly repeatedly.

Analysis: Student disengagement was probably the most important of the eight themes. The participants themselves explained many other themes in terms of the phenomenon of student disengagement. For example, as previously noted, participants explained the decline in student-on-student and student-instructor interactiveness in terms of student disengagement, and it is also how they explained the problems they experienced when virtually teaching higher level material.

The participants did not provide explanations, apart from vague ones, as to why students allegedly disengaged. “They just didn’t seem to take [virtual classes] seriously”,

said one. According to another, students treated virtual classes as “being like a YouTube video.” Other participants made put forth similar observations. Many interviews said that the technological issues were *not* the problem. “Zoom was not the problem”, one said. “The problem was that students withdrew.” Other participants expressed similar sentiments.

This analysis is consistent with existing research. Luke (2021) conducted a study of a medical school that attempted to virtualize its curriculum, finding virtual classes to have higher failure rates than their in-person counterparts and suggesting that low levels of student-engagement were likely a partial cause of this outcome. Caton et al. (2021) conducted a study of a pre-med curriculum that underwent virtualization, finding student failure rates to be much higher than usual and attributing this to a multiplicity of factors, one of them being low levels of student engagement. According to Bailenson (2021), Zoom requires students to stare straight ahead and stare at a relatively unchanging visual tableaux for the length of the class in question, which, Bailenson claims, leads to neural exhaustion and therefore to reduced attention-levels.

Theme 6: Instructors claimed that, for all intents and purposes, virtual courses came to bear more resemblance to “correspondence courses” than to traditional college courses. Most of the participants claimed that their virtual courses were “little more than correspondence classes”, with several participants using that exact expression and others using similar expressions, such as “prefabricated class” and “mail-order course.” In the words, of one interviewee:

Technically, it was a virtual class. I mean, it had a synchronous component. So it wasn't just online, it was virtual. But really it was just...a correspondence class. I was more of a...chaperone than anything else. And that was...the hardest thing to accept.

Another interviewee expressed a similar view:

In [virtual courses] there was no...give and take [between the instructor and the students]. The students were emotionally absent. Sometimes they were physically absent. I would know that because they would turn their cameras off...To keep them on point, I had to turn the class into a...kind of military drill...The lecture was just another prop, ultimately.

In most of the interviews, and in each of the focus groups, there were frequent references to the “wooden” or “rigid” character of virtual courses, and such characterizations were often accompanied by statements to the effect that this was the result of the instructors having to “police” students in order to keep them engaged.

Analysis: According to the participants themselves, the allegedly correspondence course-like character of virtual courses was ultimately a consequence of the low level of student engagement. In most of the interviews, and in each of the focus groups, there were frequent references to the “wooden” or “rigid” character of virtual courses, and such characterizations were often accompanied by statements to the effect that this was the result of the instructors having to “police” students in order to keep them engaged.

Participants frequently referred to students “not paying attention” to their lectures and to feeling that virtualization had “marginalized” their role as instructors. According to participants, this was largely a consequence of student-disengagement. “In order to

engage students”, one participant said, “classes had to be very tightly structured”, adding that:

The class became so structured that I didn't have any leeway in terms of lecturing. I always had to stay on topic. I couldn't pursue random leads. It had to be very scripted, because students would tune out if it didn't all happen to plan...It wasn't a very authentic experience. Frankly, I didn't need to be there....A bot could have done it.

Other participants expressed similar views, to take but one example:

My main issue, speaking personally, was seeing all of those black boxes [students who had turned off their video monitors]. To deal with that, I had to run a tight ship. Everything had to be nailed down. What happened...is that I wasn't really lecturing. I was going...going through bulletin points.

In general, participants felt that classes had to be highly regulated to guarantee adequate levels of student engagement but that, when highly regulated, they were doing little more than proctoring prefabricated classes. These findings are consistent with existing research. According to Castro and Tumibay (2021), today's virtual classes are the successors of yesterday's correspondence courses and for this reason alone are bound to resemble them. According to Mahmood (2021), students in virtual classes instinctively regard virtual classes as non-participatory and therefore disengage from them, and this forces the instructor to conduct class without any assistance from the students, which causes the class to have a frozen, correspondence course-like character. According to Yu and Jee (2021), students tend to be excessively reserved in virtual courses, and the

resulting non-interactiveness drains the class of spontaneity, giving it a pre-fabricated quality similar to that of a correspondence course.

Theme 7: Courses involving labs, and lab-like components (such as field trips), could not be taught properly. Seven of the participants taught lab courses, and another five taught courses having lab-like components, such as field trips. According to ten of those twelve, it was not possible to teach their courses virtually. “I couldn’t teach my class [virtually]”, one said. “The lab made that impossible.” According to another, “I had to teach a totally different class because of virtualization”, adding that “there was no way I could convert [the original course] to a virtual format.” One stated that, because of his course’s lab component, it was “completely torpedoed” by virtualization. “I could handle the lecture part”, he stated, “but there is no way replicate anything hands on [in a virtual setting].”

Some of the interviewees attempt to used “simulation softwares”, such as ProSim, to replicate the labs. Instructors who did this typically found the results unsatisfying. “I admired the technology”, one interviewee said. “And maybe someday it will work, but we’re not there yet.” Other participants expressed similar sentiments, one of them saying that “although I was impressed by [ProSim] and could definitely see how it could be useful in some courses, I wasn’t teaching one of those courses, and it was more of a nuisance than anything else.”

Other instructors declined to use simulation softwares, either because they had trouble learning them or because they judged them to be unsatisfactory. According to one participant, “I just didn’t have the time—or the inclination—to spend six weeks learning a program that I knew was going to be useless anyway.” Instructors who declined to use

simulation software found themselves having to create *ad hoc* extra assignments having a “lab-like quality” that the students could carry out on their own. According to one interviewee, “this was not exactly a success”, adding that “there is no substitute for the real thing when it comes to labs.” Another participant observed that “even if there were a lab-software that worked, it wouldn’t do the trick”, adding that, under such circumstances, “the students would be learning how to use that program”, as opposed to learning whatever the lab was supposed to be teaching them.

Analysis: According to some participants, the alleged fact that lab courses cannot be effectively virtualized is largely a consequence of the current state of technology. “I think if simulation technology gets better”, one participant said, “labs could be virtualized.” Other interviewees disagreed. “Labs have to be in-person”, one participant said, adding that:

Labs aren’t just about skills. They are about acquiring those skills in a certain way. We’re teaching hospitality management. This is about using skills when other people are present. It is about learning how to run a service industry. You can’t virtualize that, and you shouldn’t even try, because the whole point of this industry is to deal with people.

Participants did not attribute the difficulties involved in virtualization lab courses as to low student engagement. According to one instructor who used ProSim, “students didn’t mind using [ProSim]”, adding that “the issue, at least for me, was that they weren’t learning what they were there to learn.” These difficulties are therefore consistent with, though not explained by, the Technology Acceptance Model, according to which technology is accepted when it is believed to solve the problems it is supposed to solve

and otherwise rejected. In this context, the relevant technology, namely the simulation softwares used by the instructors, were not generating the desired outcome and therefore met with a low degree of acceptance.

Granting that TAM is consistent with these findings, care must be taken to avoid the suggestion that TAM is functioning as a predictive or explanatory hypothesis in this context. In the context of the present study, TAM, along with TAM2 and UTUAT, served the function of providing a general framework for the crafting of meaningful research questions and for the evaluation of the data generated thereby. Consequently, TAM's role in this context was not so much that of an explanatory or predictive instrument as it was that of a general heuristic that helped to give the study a clear direction without prejudging the significance of the data generated thereby. Relatedly, the present study is not to be construed as a referendum on the merits of TAM, TAM2, and UTUAT, which in this context are functioning not as hypotheses that are judged according to how data-consistent they are but as guiding frameworks that are to be judged according to the quantity and quality of relevant data that they help to generate.

The present study, being qualitative descriptive, is intended not to predict or explain instructor attitudes but rather to generate data that helps clarify what those attitudes are. Because it is descriptive as opposed to explanatory in nature, the present study does not put forth a hypothesis as to the underlying causes of the data that it generated. Nor does it put forth any hypotheses as to the extent to which any of the theoretical models involved might explain or predict that data. TAM, TAM2, and UTUAT are in this context functioning as frameworks for guiding research, not for evaluating the outcomes of research. To be sure, TAM, TAM2, and UTUAT embody

views of a general nature concerning the determinants of technology-acceptance, and those views are in alignment with the data generated by this study. However, the fact that the data generated by this study is consistent with those frameworks should not be taken to suggest that those frameworks are explaining that data or that they are in this context functioning as explanatory or predictive hypotheses. Nor should that fact be taken to indicate that the present study confirms, or is an attempt to confirm, those frameworks.

The present qualitative descriptive study is an attempt to acquire information about how hospitality management instructors believed the compulsory, Covid-driven virtualization of their courses in Spring 2020 to have affected instruction-quality. As such, its purpose is to elicit participant-perspectives on this matter, not to force these various perspectives into a theoretical template. The present study generated a rich and internally diverse body of data relating to the instructor-attitudes towards the effects on instruction-quality of the Spring 2020 Covid-driven, compulsory virtualization of their courses. This study's theoretical foundations assisted in the construction of the research questions. The theoretical foundations assisted in the construction of the interview and focus group questions, which in turn helped to elicit a large body of data concerning participant attitudes towards the effects on instruction-quality of the Spring 2020 Covid-driven, compulsory virtualization of their courses. TAM, TAM2, and UTUAT therefore had an important, albeit indirect and partial, role in eliciting information concerning these attitudes, and the role of these theoretical frameworks was not to model this data, but to help generate it. Because the function in the present study of TAM, TAM2, and UTUAT was to provide partial, indirect assistance in the generation of relevant data, their role was not to be judged according to the degree to which they were consistent with or

explanatory of the data. Consequently, references to their degree of alignment with the data are not to be taken as pronouncements concerning their validity.

The previously described findings are also consistent with existing research. Jones, Shepler and Evans (2021) conducted a study of a chemical engineering curriculum that underwent partial virtualization, finding that courses with a lab component could not be successfully virtualized with existing technology. García-Alberti, Suárez, Chiyón and Mosquera Feijoo (2021) conducted a study of a civil engineering curriculum, finding that courses with lab components had to be significantly restructured or altogether cancelled. Hao, Zheng, Wang and Jiang (2021) conducted a study of a materials science curriculum, concluding that, although lab-based courses could not currently be adequately virtualized, technological innovation would likely change this within the next five years. Vaez and Potvin (2020) argue that existing technologies, if used with due care, are indeed adequate to virtualize at least some kinds of lab courses. According to Vaez and Potvin, lab-based courses that could be adequately virtualized with existing technology are often inadequately virtualized owing to technological illiteracy on the part of the instructor.

Theme 8. There were more cons than there were pros to teaching virtually. A theme that was common to all of the interviews and both of the focus groups was that virtualization was on balance a negative. One of the individual interview questions was “Overall, how did course virtualization affect the quality of instruction and why?”, to which all but two of the interviews said that the effect was negative. Two of the interviewees said that virtual instruction was “different but neither better nor worse.” All 14 participants claimed that virtualization led to student-disengagement and to a reduction in the overall quality of their courses. Several participants claimed that, in order

to deal with student disengagement, they had to spend a great deal of their time and effort “policing their students instead of teaching them,” in the words of one interviewee. Participants also cited difficulties virtualizing labs and lab-like course-components, sometimes expressing skepticism as to whether such components could or even should be virtualized. Some participants pointed out that virtualization made it easier for students to attend class and also made it easier to have distinguished guest-speakers, but the participants were unanimous in alleging virtualization to have, in the words of one interviewee, “degraded the bond between instructor and student that has to exist for real teaching to take place.” Some participants claimed that virtualization was “inevitable”, and some believed that virtual instruction would likely improve with time, but they were unanimous in hold that, in their experience, virtualization had done more to hurt than to enhance the quality of their teaching.

Analysis: There is considerable evidence that virtual instruction is often highly effective, and the question arises why the present study’s participants felt so differently. One possibility is that the kinds of courses that can be virtually taught in an effective manner do not include hospitality management courses. We will discuss various other possibilities later in this chapter when we discuss possible avenues for future research.

This analysis is consistent with existing research. Al Nabrawi (2021) studied a college in Saudi Arabia that underwent partial virtualization because of COVID 19. He found that, although instructors found virtual instruction to be convenient in some respects, they believed the gain in convenience to be more than offset by the decline in student performance and engagement. Hillmer et al. (2021) studied a medical curriculum that underwent partial virtualization because of COVID 19. They found that, although

virtual instruction was inexpensive and convenient, student performance declined, and instructors believed the quality of their instruction to have suffered. Allcoat et al., (2021) conducted a comparative study concerning the respective merits of virtual, hybrid, and fully in-person classes. The authors concluded that hybrid instruction was optimal. In their view, students in fully virtual courses suffered from an excessive sense of “detachment” and “unreality” afflicting students in fully, while students in fully in-person classes did not have the benefit of cutting-edge educational technologies. According to Allcoat et al. (2021), students in hybrid classes had high levels of course-engagement while receiving the benefits of educational technology.

Summary of Findings by Research Question

Research Question 1 (T1). How do hospitality management instructors believe that COVID-driven course-virtualization increased the quality of instruction? A few of the participants claimed that virtualization facilitated the process of convening classes and also of having otherwise inaccessible V.I.P’s as guest-speakers. However, none of the participants said that the quality of instruction *per se* improved as a result of virtualization. Some participants claimed that some of the courses underwent no reduction in quality as a result of virtualization, but none claimed that virtualization improved any of their courses and each claimed that virtualization diminished the quality of at least one of their courses, with most claiming it to have diminished the quality of all of them.

One participant stated that virtualization “is the way of the future” and that “we just have to get used to it.” This participant claimed that compulsory virtualization “fast-tracked something that was going to happen sooner or later” and that, for that reason, it

was ultimately a “blessing in disguise.” This participant was careful to qualify this by saying that “inevitable does not necessarily mean good.”

Several participants stated that, because of virtualization, they had to master new technologies and methods of teaching. However, these same participants did not say that virtualization improved the quality of their instruction, only that they found it rewarding on a personal level to find themselves “able to adapt to such adverse circumstances.”

When asked “Overall, how did course virtualization affect the quality of virtualization and why?”, one participant said that virtual instruction was “neither better nor worse [than in-person], just different.” However, this same participant also alleged that the quality of instruction in each of courses “suffered immensely” as a result of virtualization.

On balance, participants did not believe virtualization to have benefited instruction at all. Participants acknowledged that virtualization had ancillary benefits, such as and eliminating physical commutes and expanding cognitive horizons, but none claimed that virtual instruction was of higher quality than in-person instruction, with most explicitly affirming the contrary.

Research Question 2 (T2-T7). How do hospitality management instructors believe COVID-driven course-virtualization to have diminished the quality of instruction? Participants claimed that virtualization led to student-disengagement, with the consequence that classes assumed a “prefabricated” quality. Moreover, as previously stated, participants believed that, when conducted virtually, courses having lab components or lab-like components could not be taught effectively, though participants

disagreed as to the exact reasons for this, with some holding, and others denying, that better technology could solve the problem.

Research Question 3 (T8): How do hospitality management instructors describe their attitudes towards the effects on instruction of COVID-driven emergency course-virtualization? All eight themes are relevant to RQ1. Theme 1 is relevant in that it represents how participants believed virtualization to have positively affected instruction quality. Themes 2-7 are relevant in that they represent how participants believe virtualization to have diminished the quality of instruction. Theme 8 is relevant in that it represents what participants believed to be the net effect of virtualization on the quality. Their unanimous view was that virtualization had negatively affected the quality of instruction in their courses.

In their view, the main problem with virtualization is that it led to student-disengagement. They believed student disengagement to undermine their ability both to transmit information to students as well as their ability to provide the requisite degree of moral and emotional support to struggling students. In their view, guaranteeing the requisite levels of student-engagement led to their strictly regimenting their class-sessions, which, so they claimed, led to their feeling that they were merely “proctoring” what had effectively become “correspondence courses.”

Additionally, participants who had taught courses with lab components or lab-like components believed it impossible to teach such courses virtually. According to some such participants, this was a function of the current state of simulation software and might be rectified in the future. According to others, such courses are inherently incapable of being properly taught virtually and must be taught virtually.

On balance, participants believed virtualization to have adversely affected the quality of instruction, the primary reason being that it led to student-disengagement, a secondary reason being that courses with a lab-component could not be taught effectively.

Reflection on the Dissertation Process

It is important for a researcher to reflect on his work before finalizing it, as this will help clarify the nature of his work both to himself and to his readers (Anderson, Saunders, and Alexander, 2021). Moreover, it will give the researcher the chance to articulate potentially valuable reflections that might not otherwise have a place in his study (Feize, 2020). In the present section, the researcher will discuss the sampling process, the methodology and design, the theoretical framework, and the method of data-analysis. The researcher will also discuss his subjective reaction to the findings generated by this study.

Reflection on the Sampling Approach. The sampling process was relatively straightforward. The researcher needed 12-15 individuals satisfying the eligibility criteria for this study, and he determined that, at the institution in question, there were over 100 people satisfying these criteria. 15 individuals applied to be in the study, and each satisfied the eligibility criteria. One dropped out, and the remaining 14 completed the study. All 14 individuals were eager to participate in the study and did so enthusiastically, completing each of the steps involved in a timely fashion. The participants seemed highly engaged during the individual interviews and focus groups and expressed interest in the results this study. Before beginning the research-phase of the present study, the researcher anticipated, on the basis of both personal experience and scholarly research,

that hospitality management instructors whose courses had undergone COVID-driven compulsory virtualization would be eager to discuss their experiences, and this belief was confirmed by the high level of enthusiasm for the present study expressed by the participants involved.

Reflection on the Methodology and Design. The phenomenon investigated by the present study is hospitality management instructor attitudes towards the COVID-driven compulsory virtualization of their courses in Spring 2020. Owing to the absence of studies concerned with this phenomenon, coupled with the paucity of studies concerning COVID-driven course-virtualization in general, the focus of the present was not so much to interpret as to generate data relating to this phenomenon. For this reason, a qualitative descriptive design was selected for the present study (Cresswell & Poth, 2016). Unlike alternative designs, a qualitative descriptive design allows the researcher to generate and explore data without locking him into a pre-existing framework (Rubin & Rubin, 2011). This is especially useful in contexts, such as the present one, where there is a paucity of relevant pre-existing data (Braun & Clarke, 2006). It is also useful in contexts, such as the present ones, where the objective is to explore human emotions (Sandelowski, 2000).

A reservation that researchers have concerning qualitative descriptive research is that it does not lead to the identification of causal forces (Skarbek, 2020). Qualitative descriptive studies, it is said, are supposed to say what happened, not why it happened (Bateman and Teele, 2020; Skarbek, 2020). The present researcher found there to be a certain truth in this view, but he also found this alleged truth to be offset by the advantages of a qualitative descriptive approach. The fourteen individual interviews and two focus groups made it clear what the participants believed the pros and cons of virtual

hospitality management instruction to be, and they also made it clear what those participants believed to be the causal forces responsible for the changes in the nature and quality of instruction brought on by virtualization. The participants believed that virtualization led to student-disengagement, which in its turn, so they also believed, led to a decline in the quality of instruction. Participants disagreed with one another as to the exact causal mechanisms involved, and they also disagreed with one another as to the possible remedies for these problems, but they were unanimous in their beliefs as to what happened and as to the basic structure of the operative causal mechanisms.

The present study is concerned only with what the participants believed, not with whether those beliefs were correct. In particular, the present study is not concerned with the accuracy of their beliefs as to the causal basis of the various changes they describe having experienced. Although this might be seen as a deficiency on the present study's part, the researcher sees it as redounding to its credit. When interviewing the participants, the present researcher took great pains to leave out his preconceptions and to let the participants speak their mind, with the result that the present study generated a rich body of data concerning the participants' beliefs, including their beliefs as to what caused the changes in instruction-quality that they described. Consequently, the present study, though not itself addressing questions about causality, lays the empirical groundwork for future studies that do address such questions, and it would not have been difficult, if not impossible, for a single study to perform both functions (Savage, 2020).

The purpose of the present study was to elicit data concerning instructor attitudes towards the effects on instruction of the Spring 2020 Covid-driven compulsory virtualization of instruction. Although TAM, TAM2, and UTUAT were the study's

theoretical foundations, they were not directly implemented. Rather, their role was to guide the construction of the research questions and of the corresponding data-gathering instruments. Because TAM, TAM2, and UTUAT were not directly implemented, they were not among the present study's instruments for collecting data, and participants therefore did not generate data bearing directly on those instruments. Participants did express views concerning the efficacy of various technologies, and such views represented a large and significant portion of the data that was generated. Nonetheless, the present study did not establish, or attempt to establish, the degree to which participants embodied technology acceptance, for the simple reason that TAM, TAM2, and UTUAT were not directly implemented and were therefore not functioning as attempts to measure technology acceptance.

Reflections on the Theoretical Foundations. The purpose of a theoretical foundation is to guide the generation and interpretation of data (Cresswell & Poth, 2016). Any given theoretical foundation imposes constraints on the kind of data that the study in question will generate and, consequently, on the findings to which that study leads (Turner, Cardinal & Burton, 2017). Consequently, a given study's theoretical foundations, especially if ill-chosen, can prejudge the very questions it is supposed to answer (Collins and Stockton, 2018). At the same time, the absence of a theoretical framework can lead to a failure to generate principled findings (Collins & Stockton, 2018).

This study was concerned with hospitality management instructor attitudes towards the COVID-driven compulsory virtualization of course-instruction in Spring 2020. Because this phenomenon was technology driven, the Technology Acceptance

Model (TAM) was appropriate for it, this being why TAM, along with the Extended Technology Model (TAM2) and the Unified Theory of the Use and Acceptance of Technology (UTUAT) were its theoretical foundation (Venkatesh & Davis, 2000). TAM, TAM2, and UTUAT guided the selection of questions for the individual interview and focus groups and informed analysis of the data generated thereby. The essence of these three models is that technology is accepted when it conduces to the fulfillment of the objectives of the user and rejected otherwise. The three models differ from each other in respect of how broadly they conceive of what the user's objectives might be. One objective shared by all of the participants in this study was that the level of student-engagement in their virtual classes equal or exceed the level of student engagement in their in-person classes. This objective was not met, and the participants were therefore dissatisfied with the technology involved.

This is consistent with TAM, TAM2, and UTUAT (Venkatesh & Davis, 2000). However, because TAM, TAM2, and UTUAT were not functioning as predictive or explanatory instruments in the context of this study, they cannot be said to have predicted this finding; nor can they be said to explain. At the same time, they are consistent with this finding, and this datum is worth noting, provided it is not taken to indicate that TAM, TAM2, and UTUAT were functioning not as explanatory instruments in this study but rather as heuristic aids. Relatedly, when designing the questions, the researcher felt that these three models provided helpful guidance without inclining him to prejudge the phenomenon. Consequently, the researcher therefore believes that TAM, TAM2, and UTUAT were an appropriate theoretical foundation for this study.

Importantly, although TAM, TAM2, and UTUAT served as its theoretical foundations, the present study was not an attempt to evaluate them or to arrive at a judgment as to their ability to model data. In keeping with this, the present study did not in any direct way use these frameworks to analyze data. Rather, their role in this study was to help identify viable research questions and to be of assistance in crafting interview and focus group questions that would likely generate data relating to those research questions. Though significant, their role in the present study was partial and indirect, and they were therefore not directly ‘used’ or ‘applied.’ Consequently, even though the present study elicited information concerning participant attitudes towards technology, it was not an attempt to determine the degree to which participants embodied ‘technology acceptance’ or any of the other constructs associated with TAM, TAM2, and UTUAT. The role of these of these frameworks in this study was not to analyze data but rather to help with the construction of the research questions and of the corresponding data-gathering instruments.

Reflections on the Method of Data Analysis. Data for this study was collected through fourteen individual semi-structured interviews and two semi-structured focus groups. The transcripts of the interviews and focus groups were transcribed and then coded and themed. The theming was inductive, as opposed to deductive. Deductive theming involves applying a pre-existing set of categories to one’s data, whereas inductive theming involves allowing categories to emerge from the data (Braun et al., 2019). In this context, inductive theming was appropriate, since there was no way of knowing in advance what kinds of categories would be appropriate to the transcripts

(Willgens, 2016). At the same time, the process of coding and theming helped systematize the process of analyzing the data (Bogdan & Bicklen, 1998).

Prior to conducting research for this study, the researcher did three field tests. The researcher coded these field tests twice, once using automation, the other time manually. The results of manual coding and theming were clearly superior, and the researcher therefore coded and themed the interviews and focus groups manually. Manual coding and theming generated eight well defined themes, which clarified the large and rich data-set generated by the interviews and focus groups, and the researcher feels that his decision to code and theme manually was therefore appropriate.

Reflections on the Researcher's Subjective Reactions to the Findings of the Present Study. The researcher entered into this study with some preconceptions as to what its findings might be. In particular, the researcher believed that study-participants would have a wide range of views as to how virtualization affected instruction-quality, with some of them believing the effects to be positive and others believing them to be negative. Moreover, the researcher believed that, when study participants believed those effects to be negative, they would likely believe the difficulties involved in virtualizing lab courses to be the principal cause of the perceived decline in instruction-quality. Consequently, the researcher was quite surprised at the present study's principal finding, namely, that the participants' primary concern with virtualization is that it led to student-disengagement. The researcher simply would not have guessed that this would even be among the study's findings, let alone its main one.

Prior to conducting this study, the researcher was under the impression that virtual instruction would be satisfactory to all parties involved if the technology involved

permitted the transmission of the course-material. In other words, the researcher had a narrowly utilitarian conception of what was involved in successfully virtualization instruction (Rathkopf, 2017). The present study found that, although the participants were unanimous in believing the technology in question to allow them to convey course-material to their students, they were also unanimous in believing that technology to have failed of its purpose. In the view of the participants, successful instruction was not only about transmitting discursive information, but also about transmitting it to an emotionally receptive and engaged student, and the study's participants believed the technology involved in course-virtualization to have fallen short in the second respect.

Implications

This purpose of this study was to explore how hospitality management instructors at a college of management in the Northeastern United States describe their attitudes towards the effects on the quality of instruction of the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. To this end, 14 individual interviews and two focus groups were conducted. Thematic analysis of the resulting transcripts yielded several striking findings concerning the consequences for instruction-quality of course-virtualization. Some of these findings are practical in nature, as they relate to the kinds of course that can benefit from virtualization and as to the specific ways virtualization must be carried in order to reap these benefits. Some of these findings are theoretical, as they relate to the theoretical foundations of the present study, these being TAM, TAM2, and UTUAT. This is subject to the qualification that TAM, TAM2, and UTUAT were not functioning as predictive or explanatory instruments in the context of this study but were instead functioning as heuristics to help guide the construction of

research questions as well as the corresponding interview and focus group questions. Finally, some of the present study's findings have "future" implications, as they relate to the educational role that course-virtualization is likely to assume in the years to come. The practical, theoretical, and future implications of this study will be discussed in the next three sections.

Theoretical Implications

The Technology Acceptance Model (TAM), the Extended Technology Acceptance Model (TAM2), and the Unified Theory of the Use and Acceptance of Technology jointly constituted the theoretical foundations of the present study. According to TAM, a given person's degree of acceptance of technology depends on the extent to which he finds it easy to use and conducive to his objectives (Davis, 1986; Davis et al., 1989; Venkatesh & Davis, 1996). According to TAM2, a given person's degree of acceptance of technology depends on the two factors just mentioned along with four additional factors, namely: (i) whether he believes that using the technology in question will improve his socio-professional relations; (ii) whether he is using it voluntarily; (iii) whether he believes to enhance his prestige; (iv) whether he believes it to be job-relevant; (v) whether he believes it to improve output-quality; and (vi) whether he believes there to be clear evidence of its effectiveness (Venkatesh & Davis, 2000; Abdullah & Ward, 2016). UTUAT is a metatheory, according to which the six factors just mentioned can be consolidated into four factors, namely: (1) Performance Expectancy (what that person expects to gain in the way professional advancement through the use of the technology in question); (2) Effort Expectancy (what that person expects that technology to do in the way of minimizing his workload); (3) Social Influence (what that person expects his use

of that technology to do in the way of enhancing his prestige); and (4) Facilitating Conditions (how much that person is assisted in his use of that technology by his host-institution) (Venkatesh & Davis, 2000; Ladan et al., 2020). The present study is concerned with instructor attitudes towards the virtualization of their courses, virtualization being the use of technology to replace in-person instruction with live, remote instruction, and TAM, TAM2, and UTUAT are therefore appropriate theoretical foundations for this study.

In the context of this study, TAM, TAM2, and UTUAT were not functioning as predictive or explanatory instruments. Rather, their role was to help guide the construction of research questions and the corresponding interview and focus group questions. Consequently, TAM, TAM2, and UTUAT were not directly implemented. The present study neither attempted to examine the merits of these frameworks nor used them to analyze the data generated. Their role was to provide general guidance, not to generate hypotheses or model data. Much of the data is at least apparently consistent with TAM, TAM2, and UTUAT, as was discussed previously and is further discussed below. However, these models were not used to model the data that was generated, and references to the degree of alignment of TAM, TAM2, and UTUAT with the data are not meant to indicate otherwise.

The first research question concerns what the participants believed to be the consequences for instruction-quality of course-virtualization. The second research question concerns what the participants believed to be the positive consequences for instruction-quality of course-virtualization. The third research question concerns what the participants believed to be the positive consequences for instruction-quality of course-

virtualization. These research questions are appropriate for the present study, given that the phenomenon being investigated is hospitality management instructor attitudes towards the COVID-driven compulsory virtualization of their courses in Spring 2020. Each question is directly rooted in TAM, according to which technology acceptance is a function of the extent to which the user believes the technology in question to conduce to the fulfillment of his objectives, which, in this case, was course-instruction (Davis et al., 1989). Each question is also directly rooted in TAM2, according to which technology acceptance is a function of the extent to which the user believes the technology in question to conduce to the fulfilment of his professional objectives, which, in this case, was course-instruction (Venkatesh & Davis, 2000; Abdullah & Ward, 2016). Finally, each question was directly rooted in UTUAT, according to which acceptance of technology is a function of the extent to which the technology in question meets the user's expectations of it (Davis & Venkatesh, 2000).

The participants in this study felt that course-virtualization adversely affected the quality of instruction in their courses, and they believed the technologies involved to bear at least part of the reason for the alleged decline in instruction-quality. The participants did not believe those technologies to be inherently useless or devoid of merit. On the contrary, they claimed that Zoom and the other technologies involved were relatively useful, both in in-person classes and in virtual classes. However, they also believed that virtual classes demanded more of these technologies than they were able to deliver. Consequently, although they could not be said to have a low degree of acceptance towards those technologies in general, they could reasonably be described as having a

low degree of acceptance of those technologies in so far as their function was to replace in-person instruction with virtual instruction.

The participants believed Zoom to be useful and easy to use, and they believed much the same of the other technologies involved. However, they did not believe that these various applications could fulfill the teaching-related functions that the wholesale virtualization of their courses required them to fulfill. “I love Zoom,” said one participant. “But it’s one thing to use it for the occasional conference call, and it’s a very different thing to base a whole class on it.” The other participants felt much the same way about Zoom and the other technologies involved, their position being that, although they had many important uses, wholesale course-virtualization was not one of them.

According to participants, the main problem with virtualization was that it led to student disengagement. In their view, Zoom and the other technologies involved did not give instructors the same degree of ability to keep students engaged that being in the physical presence of students gave them. According to TAM, technology is accepted when the user believes it to fulfill the purposes that the user wants it to fulfill. In this context, the users wanted technology to give them a way to keeping students engaged, and they believed the technology in question to fail to do so. According to TAM2, technology is accepted when the user believes it to generate clear evidence that it is doing the job that it is supposed to do. In this context, the users wanted the technology to generate clear evidence that the students were absorbing the material, and they believed the technology in question to fail to do so. According to UTUAT, technology is accepted when it has a high degree of “performance expectancy”, i.e., when it does what the user hoped it would do when he adopted it. In this context, the users hoped that the technology

in question would support the level of student-engagement necessary for them to teach effectively, and they believed that technology to fail to do so.

Significantly, these findings should not be taken to show that TAM, TAM2, and UTUAT “explained” or “modeled” the data generated by this study. Their function in this context was not to explain but to provide a general framework that would conduce to the generation of data relevant to the phenomenon. Consequently, references to the degree of consistency of TAM, TAM2, and UTUAT with the data generated by the present study are not meant to imply that in the context of this study those frameworks are functioning as hypotheses or explanatory instruments. Relatedly, TAM, TAM2, and UTUAT, rather than being directly implemented, performed an indirect, albeit important, heuristic function, their role was to provide general guidance in the construction of the research questions and also to assist in the development of the corresponding interview and focus group questions.

A secondary issue for participants was that Zoom and the other technologies involved did not avail instructors of any viable way of conducting labs or field trips. According to TAM, users are unaccepting of technology that they believe to fail to serve their ends, and TAM is therefore consistent with the fact that the study-participants would have a low degree of acceptance for the technologies involved. According to TAM2, users are unaccepting of technology that fails to demonstrate high output-quality, and TAM2 is therefore consistent with the fact that the study-participants would have a low degree of acceptance for the technologies involved. According to UTUAT, users are unaccepting of technology that falls prohibitively short of their expectations, and UTUAT is therefore consistent with the fact that the study-participants would have a low degree of

acceptance for the technologies involved. In conclusion, the theoretical foundations of this study are consistent with its findings.

The participants' attitudes towards virtualization was consistent with TAM, TAM2, and UTUAT, granting that those frameworks were not functioning in this context as hypotheses or explanatory instruments. The essence of these three theories is that technology is accepted when it fulfills the objectives of the user (Venkatesh & Davis, 1996; Venkatesh & Davis, 2000; Ladan et al., 2020). These theories differ from one another in respect of how broadly they conceive of what the user's technology-related interests might be, but they agree that, whatever those objectives are, the user will accept the technology in question only to the extent that it conduces to them. In this case, the users, i.e., the participants, ultimately had but one objective, this being to teach their courses effectively, and they felt that the technology involved was failing in that respect. The participants believed that, in order to teach their students effectively, their students had to be engaged, and they believed that, because of the technology being used, student engagement was low. This concern was shared by all of the participants. Another concern was that the technology in question did not make it possible to properly teach courses with labs or lab-like components. This concern was common to all of the participants who taught courses with labs or lab-like components.

Only a few of the participants claimed that the technology in question was difficult to use. A few claimed to have technical difficulties with some of the features of that technology, notably with the Zoom 'breakaway group' feature, but for the most part the participants felt reasonably comfortable using the technology involved in the virtualization of their courses. This might initially seem inconsistent with TAM, TAM2,

and UTUAT, according to each of which technology-acceptance depends on ease of use. This appearance is misleading, however. This is because ‘ease of use’ is a contextual notion, as Venkatesh & Davis (2000) observe, in that how easy it is to use a given kind of technology depends on what one is trying to accomplish. For example, Excel can be easily used to add columns of digits, and it can also be used, albeit only with great difficulty, to simulate complex pharmacokinetic models (Meineke & Brockmüller, 2007). The participants had little difficulty using Zoom to conduct class, this being what they meant when they described it as “easy to use”, but they had extreme difficulty using Zoom to reconstruct an atmosphere that allowed for the emotional dynamics operative in an in-person class-setting. Consequently, even though the participants found Zoom easy to use vis-à-vis their objective of communicating lecture material, they found it difficult to use vis-à-vis their objective of fostering an environment in which students were engaged and participatory.

In general, TAM, TAM2, and UTUAT proved to be a useful framework for understanding the data generated by this study. The participants wanted the emotional dynamics in their virtual classes to be similar to those in their in-person classes, and they believed the technology they were using to fail in that respect. The participants wanted their virtual labs to resemble their non-virtual labs, and they believed the technology they were using to fail in that respect. There was no disagreement among the participants concerning either of these two points. Participants disagreed on what technology could do to remedy the problems they were having teaching their courses virtually. According to some of the participants, better technology could solve those problems. In their view, better technology would make for better course-simulations, and better course-

simulations would eliminate the problems they were having. According to the other participants, the problem was not with the specific technologies being used but with technology itself. In their view, the problem was that an attempt was being made to simulate something—namely, an emotional bond based on physical presence—that should not and could not be simulated. To this extent, participants disagreed sharply as to whether better technology might eliminate the problems they were experiencing. At the same time, they were unanimous in their belief that technology was failing to allow them to fulfill their pedagogical duties. This being so, TAM, TAM2, and UTUAT are consistent with the fact that participants had a low degree of acceptance of the technology they were being required to use, at least vis-à-vis their objective of trying to teach their courses adequately with that technology, and this prediction was correct.

Significantly, none of the three theoretical models could be said to *predict* the results of the present study. TAM, TAM2, and UTUAT merely say that technology-users have a high-degree of acceptance towards the technology in question *if* that technology fulfills certain conditions and a low degree of acceptance if those conditions are not fulfilled. For example, TAM does not say that this or that ZOOM-user is likely to have a high degree of acceptance of ZOOM, only that ZOOM-users will be accepting of ZOOM *if* they find it easy to use and conducive to the fulfillment of their interests. Since TAM leaves it open whether ZOOM fulfills those conditions, TAM does not by itself predict such degrees of acceptance. The same holds of TAM2 and UTUAT. In the context of the present study, TAM, TAM2, and UTUAT did not function as hypotheses or explanatory instruments. Rather, their role was to provide a framework that would help to frame relevant research questions and would also help to construct interview and focus group

questions that would likely elicit relevant data. Consequently, granting that these theoretical models are consistent with the data generated by the present study, none of these models could correctly be described as predicting those results.

In conclusion, TAM, TAM2, and UTUAT performed to expectation. The phenomenon being studied was the COVID-driven compulsory virtualization of the hospitality management courses at a college in the Northeastern United States. This phenomenon was technology-driven. For this reason, the researcher chose TAM, TAM2, and UTUAT to be the theoretical foundation of this study, and this decision was vindicated by the fact that, on this basis, the researcher was able to generate and interpret a large body of data bearing on the problem statement.

Practical Implications

Virtual instruction is increasingly becoming the norm, and educators have little choice but to identify and rectify whatever defects virtual instruction currently suffers from (Ahmady et al., 2020). The present study clearly identifies what 14 high-level educators believed to be serious problems with virtual instruction. In their view, the main problem with virtualization is that the technologies involved led to student disengagement, which in turn led to courses becoming *de facto* “correspondence courses.” Participants identified several contributor factors. In their view, virtualization-related technology made it difficult for students to interact with other students while in class; and, in particular, it made it difficult for students to carry out group exercise. According to participants, the same technological limitations that made it difficult for students to perform group exercises also made it difficult for instructors to “take students aside”, as one participant put it, and “talk with them semi-privately.” In general, so the

participants unanimously asserted, the technology involved in virtualization failed to allow for the interpersonal dynamics operative in an in-person classroom, which, so they further alleged, compromised the quality of instruction. Participants who had virtually courses with a lab or lab-like component complained that they could virtually teach such courses in an effective manner, citing the failure of existing simulation-technologies to serve their intended purpose.

One response to this would simply be to teach in-person, this being the preferred course of action for each this study's participants. However, it is not always an option to teach in-person, as COVID 19 showed (Morgan, 2020). Moreover, for reasons having nothing to do with COVID 19, virtual instruction is increasingly the norm, and institutions of higher education are increasingly likely to require instructors to teach virtually (Sintema, 2020). Consequently, the appropriate response to the present study's findings is to address the problems with virtualization-related technology identified by the participants. Doing this would involve conducting further studies to determine with greater precision the nature and scope of those problems, the next step being to develop and implement technology not suffering from those defects. In particular, it would be necessary to develop and implement technologies that could replicate the emotional dynamics of an in-person class, while also performing all of the requisite information-transmissive functions. It would also be necessary to develop and implement simulation software that could adequately replicate labs and lab like class exercises, such as field trips. Very few such softwares currently exist, and those that do are still in their infancy (Puzziferro and McGee). The development of new and better versions of such softwares is *de rigueur*, given the importance of lab-based courses to higher education, coupled

with the degree of likelihood that such courses will increasingly be virtualized (Ohn-Sabatello, 2020).

By itself, this study is in no way probative. The sample was small and relatively homogenous. Moreover, the hospitality management curriculum is highly distinctive. For these reasons, it cannot be known to what extent, or along what exact lines, this study's findings are to be generalized (Hays & McKibben, 2021). Consequently, this study's findings do not by themselves warrant any action relating either to technology or course-curricula. However, if future research corroborates the findings of this study, the measures described earlier in this section would be worth considering, and it is therefore incumbent on researchers to determine to what extent, and along what lines, the present study's findings generalize.

Future Implications

The present study's findings must be verified by additional research before any changes to course-curricula or to existing virtualization-related technology should be undertaken or even considered. However, assuming that this study's findings are reasonably accurate, serious efforts should be made to optimize the technology involved in course-virtualization and, in particular, to increase their ability to replicate the emotional and communication-related dynamics of in-person instruction and, in addition, to improve their ability to simulate labs and lab-like course-components.

Virtualization has too many potential advantages to be ignored. It eliminates commutes (Cho & Hong, 2021). Moreover, it makes instruction instantly available to anyone who has a computer and an internet connection (Ghasem & Ghannam, 2021). It is also extremely cost-effective, since it eliminates many of the overhead costs involved in

in-person instruction (Dung, 2020). Moreover, it is an established fact that virtual instruction is at least sometimes highly effective (Seedhouse, 2020). Finally, future generations of students and instructors are likely to feel increasingly at home in a virtual environment (Tsai, 2021). For these reasons, virtual instruction will likely continue to become normalized and widespread. As a result, in-person instruction will become less and less of an option, making it correspondingly more necessary to hone virtual instruction, which will necessarily involve purging it of defects in it similar to, if not identical with, those discussed by this study (Smolnikova et al., 2021).

Strengths and Weaknesses of the Study

This study had several strengths and several weaknesses. The weaknesses relate primarily to the smallness, the homogeneous character, and distinctiveness of the sample used (Hays & McKibben, 2021). Only 14 people participated in the study. Moreover, all 14 were instructors in the same college in the same university, and all were hospitality management instructors. For these reasons, this study's findings are unlikely to hold universally, and it cannot be known in the absence of future research to what extent, or along what exact lines those findings are to be generalized. Moreover, hospitality management is a highly distinctive curriculum (Goh & Wen, 2020). In some respects, the hospitality management curriculum is similar to typical academic curricula, such as accounting or political science, while in other respects bearing more resemblance to vocational curricula, such as auto-repair or computer programming, and this distinctiveness adds to the difficulties involved in generalizing this study's findings (Deale & Lee, 2021; Krishnamurthy, 2020). Researchers should address this gap by investigating how the present study's findings are to be generalized.

Another weakness of the study was that it was cross-sectional, as opposed to longitudinal. Because it was cross-sectional, it was not possible to see how participants' attitudes towards virtualization changed as they taught more and more virtual courses, as virtualization-related technologies changed, and as they become more familiar with such technologies (Schweigert, 2021). Researchers should address this gap by conducting longitudinal studies concerned with instructor attitudes towards the effects on the quality of instruction of the virtualization of their courses.

Although this study had weaknesses, it also had several strengths. First, it elicited a large quantity of high-quality information concerning attitudes towards virtualization on the part of several high-level and highly informed instructors. Moreover, this data was remarkably clear and unambiguous, and the findings that it generated were non-obvious and potentially practical. Participants made it clear that, for them, the main problem with course-virtualization is that the technology involved could not replicate the emotional dynamics of in-person instruction. Moreover, the participants provided highly detailed information as how exactly that technology was falling short in this respect, and the different participants' descriptions of these failings were remarkably consistent with one another. The fact that the different participants' statements were so consistent with one another, while also being so detailed, suggests that other, demographically similar populations might have views similar to those of this study's participants (Sutter, Krause & Kuhn, 2021). Consequently, while it is currently unknown whether the present study's findings can to any degree be generalized, it is worth conducting similar studies, so as to see whether they generate similar findings and, if so, whether those similarities have any basis in demographic or sociocultural similarities between the populations being studied.

Recommendations

This research was significant on several levels. First, it is one of the first in-depth studies of instructor attitudes towards the COVID-driven compulsory virtualization of instruction that recently occurred (Orejarena, Murillo & Vicente, 2021). Second, it is one of the first, if not the first, studies of hospitality management instructor attitudes towards this phenomenon (Pillai, Haldorai, Seo & Kim, 2021). Such a study is especially important at this historical juncture, given how rapidly higher education is being virtualized (Radhamani et al., 2021). Both this study's weaknesses and its strengths represent opportunities for future research and practice, as will presently be detailed.

Recommendations for Future Research

It is recommended that at least one replication study be conducted. This will help determine whether or not this study's findings hold generally. It is also recommended that such replication studies be repeated whenever there is a fundamental change in virtualization-related technology. It is further recommended that studies similar to this one be conducted concerning instructors in areas other than hospitality management, given that such studies will help generalize the results of findings of studies, such as the present, that are focused on hospitality management instructor attitudes. It is also recommended that some of the studies just described be longitudinal, as opposed to cross-sectional, given that it may take an instructor several months or even years to master the technology involved in course-virtualization. Moreover, it is recommended that there be studies similar to this one that focus on the kinds of technological improvements that instructors believe should be made to virtualization-related technology. Finally, it is recommended that studies concerning *student* attitudes towards course-virtualization be

conducted, given that instruction-quality cannot be evaluated without taking into account the students' perspectives on the matter.

Recommendations for Future Practice

This study's findings, assuming them to be corroborated by other studies, have implications concerning educational practices and also concerning technological research. One of this study's main findings is that current virtualization-technology is limited in its ability to allow instructors to engage with students with the same degree of depth with which they engage them in-person, and, assuming this finding to be accurate, it would behoove those who design such technology to make the needed changes.

This study also has implications for educational practice. Assuming its findings to be valid, this study suggests that, within the limits set by existing technology and by institutional protocol, instructors should explore different ways of improving student-engagement and otherwise optimizing virtual instruction. Although this study's findings have to be validated by future research, they strongly suggest that virtual instruction, if conducted properly, is structurally different from in-person instruction. In order to virtualize a class successfully, so this study suggests, it is not enough simply to conduct that class via Zoom. Unless the class in question undergoes some sort of structural change, so this study appears to indicate, student-engagement will fall to unacceptably low levels and instruction quality will suffer as a result. Consequently, it behooves instructors to explore conceivable avenue, within the limits set by technology and professional ethics, to determine what those structural changes should be.

Holistic Reflection on the Problem Space

Prior to this study, it was not known how hospitality management instructors describe their attitudes towards the effects on teaching of the COVID-driven, compulsory virtualization of instruction (Aliyyah et al., 2020; Auma & Achieng, 2021; Bui et al., 2020; Zayapragassarazan, 2020). Based on the findings of this study, the researcher concludes that, from the viewpoint of this study's participants, virtualization did more to diminish than to enhance the quality of instruction. According to some participants, virtual instruction is in some respects more convenient than in-person instruction. Moreover, some participants were of the view that virtual instruction is inevitable and, consequently, that instructors have an obligation to figure out how to optimize virtual instruction. However, the participants were unanimous in claiming that their courses suffered as a result of virtualization, and they were unanimous in believing the primary problem to be diminished student-engagement. Participants had different views as to the underlying causes of student disengagement. According to some, the issues reflected the state of current technology and might be rectified with better technology. According to others, the issues were less a reflection of current technology than of a basic need that students to be in the physical presence of their instructors. The data generated by this study left it open how this debate was to be adjudicated.

The data for this study was derived from fourteen semi-structured individual interviews and two semi-structured focus groups. The interviews and focus groups generated a large body of relevant data. Thematic analysis of that data generated several findings. The main finding was that virtualization led to a sharp drop-off in student engagement. It was also found that the efforts instructors made to increase student

engagement to adequate levels led to courses' becoming overly structured and assuming a "prefabricated" quality, similar to that of correspondence courses. It was also found that courses with lab and lab-like components could not be properly taught.

This study's findings, assuming them valid, have several implications for both research and pedagogical practice. These findings suggest that technologies should be developed that make it possible for virtual classes to be governed by the same emotional dynamics as in-person classes. These findings also suggest that, in order to be taught properly, virtual courses must be structurally different from their in-person counterparts. Finally, these findings suggest that instructors and the institutions that host them should do everything possible, within the limits set by professional ethics, to explore ways to optimize virtual instruction within the limits set by current virtualization-related technology.

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Appendix A.

Ten Strategic Points

1. Topic - Hospitality and Management (HandM) instructor attitudes towards the COVID-driven compulsory virtualization of their courses that occurred in Spring 2020. The learner is enrolled in the DBA program, and the topic concerns a business (a college of Hospitality and Management) that itself teaches business. Therefore, the topic aligns with the learner's field of study.
2. Literature review – (a) Pre-COVID course-virtualization was voluntary, as was pre-COVID virtualization in general. Compulsory virtualization has different effects from voluntary course-virtualization, especially in relation to issues relating to instructor acceptance of technology and to instructor attitudes towards the pedagogical effectiveness of said technology. There have been many studies of cases of pre-COVID voluntary course-virtualization, and many quantitative studies of COVID-driven course-virtualization, but no qualitative descriptive studies or COVID-driven cases of course-virtualization. Indeed, there have been no in-depth qualitative studies of any kind of the effects of compulsory course-virtualization. Moreover, the results of existing studies conflict with one another. The proposed study addresses this gap in the literature by using the Technology Acceptance Model to investigate how HandM instructors believe compulsory course-virtualization to have affected their ability to teach effectively. (b) The Technology Acceptance Model (TAM), the Extended Technology Acceptance Model (TAM2), and the Unified Theory of the Use and Acceptance of Technology (UTUAT) are the theoretical foundation of the proposed study. TAM2 and UTUAT are extensions of TAM, not alternatives to it. Instructor attitudes towards course-virtualization are mediated by their attitudes towards the technology involved, and TAM, along with its extensions, is therefore the appropriate theoretical foundation for the proposed study. (c) The literature surveyed concerns pre-COVID studies of course-virtualization, post-COVID studies of course-virtualization, and TAM and its extensions. Included are discussions of scholarship concerning the psychological differences between voluntary and compulsory technology acceptance, including but not limited to contexts where technology acceptance is a consequence of course-virtualization. Also discussed are the relevance of TAM and of alternatives to TAM to cases of both voluntary and compulsory technology acceptance. The themes covered are *voluntary course-virtualization, compulsory course-virtualization, TAM, alternatives to TAM, and the relative merits of TAM and TAM-alternatives in describing cases of compulsory technology acceptance, especially in connection with course-virtualization.* (d) Chapter 2 discusses the theoretical foundations of the proposed study and discusses in detail how the proposed study relates to existing scholarship concerning course-virtualization, both voluntary and compulsory
3. Problem statement - It is not known how instructors of hospitality management describe their attitudes towards the effects on teaching of the pandemic-driven virtualization of instruction.

4. Sample and location - HandM instructors from Johnson and Wales College of Hospitality Management in Providence, Rhode Island.
5. Research questions - Provides research questions to collect data to address the problem statement. (i) How do instructors of hospitality management describe their attitudes towards the effects on teaching of the pandemic-driven virtualization of instruction? (ii) How do such instructors describe the setbacks created by said virtualization? (iii) How do such instructor describe the befits of said virtualization?
6. Phenomena - The attitudes of hospitality management instructors at a college of management in the Northeastern United States towards the effects on teaching of the COVID-driven, compulsory virtualization of their courses.
7. Methodology and design - A qualitative methodology and descriptive design will be used. A qualitative methodology is appropriate since the proposed study does not study relationships between variables. A descriptive design is appropriate because the purpose of the proposed study is to generate a rich body of observational data, and only a descriptive design will give the researcher the requisite degree of flexibility.
8. Purpose statement – The proposed study will use the Technology Acceptance Model to explain how 25 hospitality management at a college of management in the Northeastern United States describe their attitudes towards the effects on the effectiveness of their teaching of the pandemic-driven compulsory virtualization of their courses that occurred in Spring 2020.
9. Data collection - The two primary sources of data for each research question are interviews and focus group interviews. Preliminary questionnaires will screen for eligibility. A second round of questionnaires will provide data on the basis of which interviews will be structured. Interviews lasting approximately 60-90 minutes will be conducted and transcribed using a service such as Trint.com. These will be subject to thematic analysis. Thematic analyses will be summarized and given to prospective members of the focus groups and then revised in light of the focus group sessions.
10. Data analysis - Thematic analysis will be used to identify categories needed to identify recurring themes. Categories and themes will be numerically encoded and appropriately grouped. Summaries of the results of thematic analysis will be present to members of member checking focus groups prior to the convening of such groups, and those analysis will be valuated by group members at such meetings and then revised in light of group-member feedback.

Appendix B.

Site Authorization

Site authorization on file at Grand Canyon University.

Appendix C.

IRB Approval Letter



GRAND CANYON
UNIVERSITY™

3300 West Camelback Road, Phoenix Arizona 85017 602.639.7500 Toll Free 800.800.9776 www.gcu.edu

DATE: April 22, 2021

TO: Nicholas Makris
FROM: Grand Canyon University Institutional Review Board

STUDY TITLE: Hospitality Management Instructor Attitudes towards Covid-driven Compulsory Course-virtualization: A Qualitative Descriptive Study
IRB REFERENCE #: IRB-2021-3446

SUBMISSION TYPE: Submission Response for Initial Review Submission Packet

ACTION: Determination of Exempt Status

REVIEW CATEGORY: Category 2:

Thank you for your submission of study materials.

Grand Canyon University Institutional Review Board has determined this study to be **EXEMPT FROM IRB REVIEW** according to federal regulations. You now have GCU IRB approval to collect data.

If applicable, please use the approved recruitment script and informed consent that are included in your published documents.

We will put a copy of this correspondence on file in our office.

If you have any questions, please contact the IRB office at irb@gcu.edu or 602-639-7804. Please include your study title and reference number in all correspondence with this office.

ADVANCEMENT TO CANDIDACY

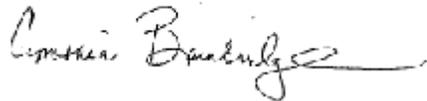
Congratulations!

On behalf of the College of Doctoral Studies, we are pleased to inform you that you have now advanced to the Candidacy stage of your Doctoral journey. This means you have completed all of the required proposal phases of the dissertation and you are now ready to move into the research portion of the dissertation work.

This is an important step in the doctoral process. Through advancing to candidacy, you are now among an elite group of learners who are doing academic research. This also means you are representing yourself and Grand Canyon University as an independent doctoral researcher and with that comes a great deal of responsibility. We wish you the best in your endeavors! Congratulations on this important step in your doctoral journey and welcome to Candidacy!



Dr. Michael Berger
Dean, College of Doctoral Studies



Dr. Cynthia Bainbridge
Assistant Dean, Research and Dissertations
Director, Institutional Review Board
College of Doctoral Studies

Appendix D.

Informed Consent

INFORMED CONSENT FORM

INTRODUCTION

The title of this research study is, “Hospitality Management Instructor Attitudes towards COVID-driven Compulsory Course-virtualization: A Qualitative Descriptive Study”.

I am Nicholas Makris a doctoral student under the supervision of Dr. Calvin Lathan in the College of Doctoral Studies at Grand Canyon University. The purpose of this study is to study how hospitality management instructors describe their attitudes towards the compulsory virtualization of their courses that occurred in Spring 2020.

KEY INFORMATION

This document defines the terms and conditions for consenting to participate in this research study.

- **How do I know if I can be in this study?**
 - You can participate in this study if:
 - In Spring 2020, you taught, from start to finish, at least one hospitality management course that started as an in-person course and underwent virtualization due to COVID 19.
- **You cannot participate in this study if you:**
 - In Spring 2020, you did *not* teach, from start to finish, at least one hospitality management course that started as an in-person course and underwent virtualization due to COVID 19.
- **What am I being asked to do?** If you agree to be in this study, you will be asked to: (*List all research activities with duration for each activity*).
 - **What**
 - Be interviewed by Nicholas Makris for approximately 60-90 minutes on one occasion;
 - Participate a focus group session that will last approximately 60 minutes
 - **When** Between April 20, 2021 and August 1, 2021, during business hours.
 - **Where** Via Zoom.
 - **How** Via Zoom.

Audiotaping: I would like to use a voice recorder to record your responses. You cannot participate if you do not wish to be recorded. The audio will never be released.

- **Who will have access to my information?** Myself and my dissertation committee. Participation is voluntary. However, you can leave the study at any

time, even if you have not finished, without any penalty or loss of benefits to which you are otherwise entitled. If you decide to stop participation, you may do so by sending an email apprising me of the same. If so, I will not use the information I gathered from you.

- *Any possible risks or discomforts?* *No*
- *Any direct benefits for me?* *No*
- *Any paid compensation for my time?* *No*
- *Any paid compensation for my time?* *No*
- *How will my information and/or identity be protected?* The researcher will replace the name of the participants with pseudonyms. Data will be de-identified. The researcher will store the physical data in a locked drawer. All electronic data will be stored on a password-protect hard drive. The physical data and hard drive will be stored in the same locked drawer for three years, accessible to the researcher alone. After three years, the researcher will destroy this data by erasing the digital files and shredding any paper forms.

PRESENTATION OF INFORMATION COLLECTED

The data will be presented to the researcher's dissertation committee. If there is a request for publication, data will be published and potentially presented.

PRIVACY AND DATA SECURITY

- *Will researchers ever be able to link my data/responses back to me?* *No.*
- *Will my data include information that can identify me (names, addresses, etc.)?* *Yes.*
- *Will researchers assign my data/responses a research ID code to use instead of my name?* *No.*
 - *If yes, will researchers create a list to link names with their research ID codes?* *Yes.*
 - *If yes, how will researchers secure the link of names and research ID codes? How long will the link be kept? Who has access? Approximate destroy date?* The researcher will secure the electronic data links through password-protected hard drive. The physical hard drive will be stored in a locked drawer only accessible by the researcher. The data will be destroyed three years after the completion of this study.
 - *How will my data be protected (electronic and hardcopy)? Where? How long? Who will have access? Approximate destroy or de-identification date?* The researcher will replace the name of the participants with pseudonyms. Data will be de-identified. The researcher will store the physical data in a locked drawer. All electronic data will be stored on a password-protect hard drive. The physical data and hard drive will be stored in the same locked drawer for three years, accessible to the researcher alone. After three years, the researcher will destroy this data by erasing the digital files and shredding any paper forms.

- **Where and how will the signed consent forms be secured?** Signed consent forms will be stored in the same locked drawer as the de-identified data.

FUTURE RESEARCH

Once identifiers are removed from these data collected for this study, the de-identified information could be used for future research studies or distributed to other investigators for future research studies without additional informed consent from you or your legally authorized representative.

STUDY CONTACTS

Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Nicholas Makris through: [REDACTED].

If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the College of Doctoral Studies at IRB@gcu.edu; (602) 639-7804.

VOLUNTARY CONSENT

PARTICIPANT'S RIGHTS

- You have been given an opportunity to read and discuss the informed consent and ask questions about this study;
- You have been given enough time to consider whether or not you want to participate;
- You have read and understand the terms and conditions and agree to take part in this research study;
- You understand your participation is voluntary and that you may stop participation at any time without penalty.

Your signature means that you understand your rights listed above and agree to participate in this study

Signature of Participant or Legally Authorized Representative

Date

INVESTIGATOR'S STATEMENT

"I certify that I have explained to the above individual the nature and purpose, the potential benefits and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature. These elements of Informed Consent conform to the Assurance given by Grand Canyon University to the Office for Human Research Protections to protect the rights of human subjects. I have provided (offered) you a copy of this signed consent document."

(Your signature indicates that you have ensured the participant has read, understood, and has had the opportunity to ask questions regarding their participation.)

Signature of Investigator _____

Date _____

Appendix E.

Copy of Instruments and Permission Letters to Use the Instruments

Individual Interview Questions

1. Please identify the courses that you taught from start to finish that had to be virtualized because of COVID 19.
2. Which of those classes had a lab component?
3. Please briefly discuss the subject-matter of each of those courses.
4. Of all of your courses, which of those courses was the most affected by virtualization and why?
5. Which technologies were involved?
6. Of all of your courses, which was the least affected by virtualization and why?
7. Which technologies were involved?
8. Overall, how did course virtualization effect quality of instruction and why?
9. Do you feel that courses with certain kinds of subject matters are best taught virtually?
10. Did you feel the same way prior to COVID 19?

Focus Group Interview Questions

1. What are your feelings about teaching hospitality management virtually, as opposed to in-person?
2. Were your feelings on this matter different prior to COVID 19?
3. How would your feelings be different if you had chosen to teach your courses virtually, instead of being requires to by circumstances?
4. Were there any technologies that you found to be exceptionally useful or useless?

5. Do you feel that you had the institutional support that you needed to be effective in teaching your courses virtually?

6. Is there anything you feel that we should have covered or that you would like to add?

Appendix F.

Manually Generated Codebook for Field Tests

Categories	Themes	Times Noted
Different Animal/New Protocol/New Initiative	Virtual Classes Structurally Different from In-person Classes	6
Never Done Before	Virtual Classes Structurally Different from In-person Classes	1
Lacked Capacity	Virtualization to be Endured as Opposed to Benefited From	2
Hybrid/Semi-Hybrid/E-lab	Hybrid Courses Maximally Effective	3
Non-academic	Virtualization Ineffective for Lab Courses	4
Compulsory/Forced/Imposed	Virtualization to be Endured as Opposed to Benefited From	3
Complexity/Multiple Moving Parts	Virtual Classes Structurally Different from In-person Classes	4
Marginalization of Role of Instructor	Virtual Classes Tend to become Automated	
Survived online/Surviving virtualization	Virtualization to be Endured as Opposed to Benefited From	1
Mentality/Temperament	Virtual Classes Structurally Different from In-person Classes	4
Independent	Virtualization Only Effective for Students who Self-teach	11
Hand holding	Virtualization Only Effective for Students who Self-teach	1
Real Issue	Technological Problems with Virtualization Subordinate to Emotional Problems	3
Reclusiveness	Virtualization Leads to Student Disengagement from Other Students	2
Videos teaching class	Virtual Classes Tend to become Automated	5

Categories	Themes	Times Noted
Double edged	Virtualization is Beneficial in Some Respects	1
On the ground experience	Virtualization Ineffective for Lab Courses	22
Cooking Show/YouTube Channel	Virtual Classes Tend to become Automated	5
Drop out/Fail out	Virtualization Largely Ineffective	3
Did not go as planned	Virtual Classes Structurally Different from In-person Classes	1
Ambiguous/ambivalent	Virtualization is Beneficial in Some Respects	1
Challenge	Virtual Classes Structurally Different from In-person Classes	3
Distractions	Virtualization Largely Ineffective	2
Reaching students	Virtualization Leads to Student Disengagement from Other Students	6
Tuning out	Virtualization Leads to Student Disengagement from Instructor	5
Skew	Virtual Classes Tend to become Automated	1
Thrust into this	Virtualization to be Endured as Opposed to Benefited From	1
Wave of the future	Virtualization to be Endured as Opposed to Benefited From	2
One dimensional	Virtualization Leads to Instructor Disengagement	2
Raw information	Virtualization Leads to Instructor Disengagement	9
Virtual vs. Online	Virtual Classes Tend to become Automated	4
A little different	Virtual Classes Structurally Different from In-person Classes	1

Categories	Themes	Times Noted
Had a line to them (students one had previously taught in person)	Virtualization Leads to Student Disengagement from Instructor	1
Salesman	Virtual Classes Tend to become Automated	2
Loss of Interest	Virtualization Leads to Instructor Disengagement	9
A New Experience	Virtualization is Beneficial in Some Respects	1
Independent Learner	Virtualization Only Effective for Students who Self-teach	22
Synchronous vs. Asynchronous	Virtual Classes Tend to become Automated	2
Babysitter/proctor	Virtual Classes Tend to become Automated	1
Stale	Virtual Classes Tend to become Automated	1
impacting	Virtualization Leads to Student Disengagement from Instructor	2
Endured	Virtualization to be Endured as Opposed to Benefited From	7
Angry	Virtualization Leads to Student Disengagement from Instructor	4
Tough	Virtual Classes Structurally Different from In-person Classes	1
Brutal	Virtual Classes Structurally Different from In-person Classes	1
Couldn't afford it	Virtual Classes Structurally Different from In-person Classes	2
Unfair	Virtual Classes Structurally Different from In-person Classes	1
Hard to catch up	Virtual Classes Structurally Different from In-person Classes	1
Working adults	Virtualization Only Effective for Students who Self-teach	6

Categories	Themes	Times Noted
Silver lining	Virtualization is Beneficial in Some Respects	1
Left out in the cold	Virtualization Largely Ineffective	1
Disaster	Virtualization Largely Ineffective	1
Negative overall	Virtualization Largely Ineffective	5
Worthwhile	Virtualization is Beneficial in Some Respects	3
Attrition	Virtualization Largely Ineffective	2
Opinions about virtualization did not change	Virtualization Largely Ineffective	3
Not as good	Virtualization Largely Ineffective	8
No meaningful participation	Virtualization Leads to Student Disengagement from Instructor	15
More apt to ask questions in person	Virtualization Leads to Student Disengagement from Instructor	13
Students learn from each other	Virtualization Leads to Student Disengagement from Other Students	11
Interactive/Degree of interactiveness	Virtualization Leads to Student Disengagement from Instructor	9
Alienating	Virtualization Leads to Student Disengagement from Instructor	2
Purely academic	Virtualization Ineffective for Lab Courses	4
Thorny/gritty	Virtualization to be Endured as Opposed to Benefited From	1
Actually running a restaurant	Virtualization Ineffective for Lab Courses	14
Virtualization vs. virtualization-process	Virtualization Ineffective for Lab Courses	2

Categories	Themes	Times Noted
Headache	Virtualization to be Endured as Opposed to Benefited From	1
Camaraderie	Virtualization Leads to Student Disengagement from Other Students	1
Paradigm		1
Framework		1
Organic process	Virtualization Leads to Student Disengagement from Other Students	1
Had to turn everything into a concept	Virtualization Ineffective for Lab Courses	1
Embrace the silence	Virtual Classes Structurally Different from In-person Classes	1
Robots	Virtualization is Beneficial in Some Respects	1
Longing for old normal	Virtualization to be Endured as Opposed to Benefited From	2
No need to commute to work	Virtualization is Beneficial in Some Respects	1
On Ground	Virtualization Ineffective for Lab Courses	21
Scaling Down Expectations	Virtualization Largely Ineffective	2
Execution Issues/Implementation Issues	Virtualization Largely Ineffective	3
Loss of Specificity	Virtualization Ineffective for Lab Courses	14
Reliance on Workarounds	Virtualization to be Endured as Opposed to Benefited From	1
Specifics Hard to Teach	Virtualization Ineffective for Lab Courses	9
Mutual Integration of Multiple Components Necessary for Course Success	Virtualization to be Endured as Opposed to Benefited From	1
Students Look For Ways to Hide Absence	Virtualization Leads to Student Disengagement from Instructor	3

Categories	Themes	Times Noted
Students Cloak Attitudes	Virtualization Leads to Student Disengagement from Instructor	3
Absence of Visual Data Makes It Hard to Teach	Virtualization Leads to Student Disengagement from Instructor	11
Need for Face-to-face Contact	Virtualization Leads to Student Disengagement from Instructor	12
Hard to Reach Students Except When Instructor Previously Taught Them In-person	Virtualization Leads to Student Disengagement from Instructor	1
I Miss In-Person Teaching	Virtualization Leads to Instructor Disengagement	1
I Have Learned to Accept Virtual Instruction	Virtualization Largely Ineffective	2
Physically Going to Class Made the Experience More Real	Virtualization Leads to Instructor Disengagement	5
Automation Has Its Place	Virtualization is Beneficial in Some Respects	4
Different Future	Virtualization to be Endured as Opposed to Benefited From	1
Old Technologies Sometimes Better	Virtualization to be Endured as Opposed to Benefited From	2
Some Students Just Prefer In-person Instruction	Virtualization Leads to Student Disengagement from Instructor	6
Some Things Just Cannot be Taught Virtually	Virtualization Ineffective for Lab Courses	3
Cooking Skills Hard to Teach Virtually	Virtualization Ineffective for Lab Courses	2
Course Objectives Had to be Changed	Virtual Classes Structurally Different from In-person Classes	3
Hard to Teach Math	Virtualization Largely Ineffective	3
Hard to Teach Anything Equipment-related	Virtualization Ineffective for Lab Courses	3
100% Decline in Quality	Virtualization Largely Ineffective	1

Categories	Themes	Times Noted
Technology Not the Same as Software	Virtualization Largely Ineffective	2
Robotic	Virtual Classes Tend to become Automated	1
Regimented	Virtual Classes Tend to become Automated	1
Well drilled	Virtual Classes Tend to become Automated	1
Microexpressions	Virtualization Leads to Instructor Disengagement	1
Microdata	Virtualization Leads to Student Disengagement from Instructor	1
Pull away	Virtualization Leads to Student Disengagement from Instructor	1
Microdata	Virtualization Leads to Instructor Disengagement	1
Psychologically present	Virtualization Leads to Student Disengagement from Instructor	1
Will be resolved with better technology	Virtual Classes Structurally Different from In-person Classes	1
Highly structured environment	Virtual Classes Tend to become Automated	1
Casual approach	Virtual Classes Tend to become Automated	1
Good to be able to shift between formal and casual methods of teaching	Virtual Classes Tend to become Automated	1
Rapport	Virtualization Leads to Student Disengagement from Instructor	1
Monkey wrench	Virtual Classes Structurally Different from In-person Classes	1
Focus went from course-material to course-technology	Virtual Classes Tend to become Automated	1
Semi relevant questions	Virtual Classes Tend to become Automated	1
Actual college class	Virtual Classes Tend to become Automated	1
Driver's Ed	Virtual Classes Tend to become Automated	2

Categories	Themes	Times Noted
Everything has to be recorded and automated/done through software templates	Virtual Classes Tend to become Automated	2
Real college class	Virtual Classes Structurally Different from In-person Classes	1
YouTube Personality	Virtual Classes Tend to become Automated	3
Randomness/healthy randomness	Virtual Classes Tend to become Automated	2
Flow of ideas	Virtual Classes Tend to become Automated	5
Impoverished	Virtual Classes Tend to become Automated	1
Paralyzed	Virtual Classes Tend to become Automated	2
Unreal	Virtual Classes Tend to become Automated	1
Online sphere	Virtual Classes Tend to become Automated	1
Technology-driven	Virtual Classes Tend to become Automated	3
Software-driven	Virtual Classes Tend to become Automated	3
Software- vs. Technology-driven	Virtual Classes Tend to become Automated	2
Soulless/soullessness	Virtual Classes Tend to become Automated	1
Cookie cutter	Virtual Classes Tend to become Automated	1
Bureaucracy	Virtual Classes Tend to become Automated	1
Mousetrap	Virtual Classes Tend to become Automated	1
Dull	Virtual Classes Tend to become Automated	2

Appendix G.

Autogenerated (NVivo) Codebook for Field Tests

Codes	Number of coding references
11 week course	11
11 week term	3
16 week course	11
16 week semester	3
entrepreneurial aspect	7
mathematical aspects	7
alcoholic beverage product	3
beverage industry	11
business slash	6
whole business	2
collaborative class	2
different class	1
remote class	2
several classes	1
blackboard collaborative call	1
collaborative class	2
condensed version	2
control\cost control	10
damage control kind	3
damage control situation	3
cost control	10
control	10
cost cuts	3
food cost analysis	2
11 week course	11
16 week course	11
course material	2
course objectives	3
eight week course	11
online course	11
restaurant courses	3
COVID issues	2
stringent COVID	1
different animal	3
elab element	2
essential element	3
virtual lab elements	3
backhouse experience	2
ground experience	6
ground lab experience	5
house management experience	4
hybrid experience	2

Codes	Number of coding references
remote experience	3
semi lab experience	3
taught experience	3
face cards	5
face covering	1
ground face	2
experiential focus	7
real world focus	7
food cost analysis	2
food execution	1
much food	8
culinary front	4
front house staff	4
full front	2
ground experience	6
ground face	2
ground lab experience	1
ground students	1
front house staff	1
house management experience	5
management staff	5
beverage industry	1
restaurant industry	4
whole industry	2
institutional complexity	4
institutional problems	11
particular institution	9
Rapport	2
Paradigm	3
Framework	3
conversion issues	2
COVID issues	3
Monkey Wrench	2
lab component	9
ground lab experience	5
semi lab experience	3
ground lab experience	5
lab component	9
lab experiment	2
semi lab experience	3
virtual lab elements	3
financial management partnership	2
hospitality management	6
house management experience	4
management staff	4
restaurant management emphasis	13

Codes	Number of coding references
resume meeting	1
zoom meeting	2
much food	8
online sphere	3
overhead projector	2
moving parts	1
non-academic part	7
synchronous part	3
valuable parts	2
full time period	1
soviet period	1
bus person	6
different person	2
person assistance	2
person connection	1
plate presentation	2
sports platform	1
zoom platform	2
alcoholic beverage product	3
product project	2
group project	1
product project	2
restaurant industry\restaurant industry	9
restaurant management emphasis	13
restaurant courses	3
restaurant industry	9
restaurant management emphasis	13
culinary school	6
trade school	2
16 week semester	3
fall semester	1
whole semester	5
damage control situation	3
emergency situation	1
social situation	5
whole situation	3
convenience store	2
liquor store	2
online student body	6
remote student body	4
ground students	5
online student body	6
recent student	1
remote student body	4
student estrangement	2
student name	1

Codes	Number of coding references
student professor	2
students expressions	1
students hands	1
different teacher	2
taught experience	1
11 week term	3
past terms	5
final tier	2
third tier	
tier system	
top tier	
moving video	
video recording	
youtube videos	
11 week course	
11 week term	
16 week course	
16 week semester	
eight week course	
upcoming week	
cyber world	
real world focus	
fictitious year	
year end income statement	
zoom meeting	
zoom platform	
Dull	
Mousetrap	
Bureaucracy	
Cookie cutter	
Technology	
Healthy	
Templates	

Appendix H.

Field Test Transcripts

Field Test 1

Transcripts are on file at Grand Canyon University

Field Test 2

Transcripts are on file at Grand Canyon University

Field Test 3

Transcripts are on file at Grand Canyon University

Appendix I.

Individual Interview Guide

Introduction

My name is Nicholas Makris. I am the principal researcher in this study, and I want to thank you for participating in this study.

The reason you are being interviewed is to learn about your attitudes concerning the effects on the quality of instruction of the COVID-driven virtualization of your courses.

Let us briefly discuss my and your respective roles in this process.

Moderator/Participant Roles

Please feel free to develop or add to your initial response to my questions. If something occurs to you that you would like to add or believe to be significant, please feel free to state it.

If there is a question that you do not wish to answer, you can simply decline to answer to it. If you feel that a question is misconceived or could best be phrased in an alternate way, please state your views on the matter.

You may end the interview at any time.

Recording Procedures

This interview will be audio recorded. I will also be writing down notes.

Confidentiality

Everything you say will be confidential. Your name and other identifying information will not be included in my report. The audio recording and my notes will be kept in a secure location. No one apart from myself will have access to them, and they will be destroyed after three years.

Interview Session (Approximately 60 Minutes)

This will begin with some semi-structured questions. Please feel free to answer as thoroughly as you want. You may also decline to answer.

End of Interview Session

After the interview, if you have any questions or concerns, please feel free to contact me. I would like to thank you once again for participating in this study.

Appendix J.

Individual Interview Questions

The following interview questions will be used during the individual interviews with the study participants. The questions will be presented in this order.

1. Please identify the courses that you taught from start to finish that had to be virtualized because of COVID 19.
2. Which of those classes had a lab component?
3. Please briefly discuss the subject-matter of each of those courses.
4. Of all of your courses, which of those courses was the most affected by virtualization and why?
5. Which technologies were involved?
6. Of all of your courses, which was the least affected by virtualization and why?
7. Which technologies were involved?
8. Overall, how did course virtualization effect quality of instruction and why?
9. Do you feel that courses with certain kinds of subject matters are best taught virtually?
10. Did you feel the same way prior to COVID 19?

Appendix K.

Alignment of Individual Interview Questions with Research Questions and Theoretical Models

Individual Interview Question	RQ	Theoretical Model
Please identify the courses that you taught from start to finish that had to be virtualized because of COVID 19.	NA	NA
Which of those classes had a lab component?	NA	NA
Please briefly discuss the subject-matter of each of those courses	NA	NA
Of all of your courses, which of those courses was the most affected by virtualization and why?	RQ1, RQ2, RQ3	TAM, TAM2, UTUAT
Which technologies were involved?	RQ1, RQ2, RQ3	TAM, TAM2, UTUAT
Of all of your courses, which was the least affected by virtualization and why?	RQ1, RQ2, RQ3	TAM
Which technologies were involved?	RQ1, RQ2, RQ3	TAM
Which specific technologies did you find it difficult to master?	RQ2	TAM2
Overall, how did course virtualization effect quality of instruction and why?	RQ3	TAM2
Do you feel that courses with certain kinds of subject matters are best taught virtually?	RQ1	TAM, TAM2
Did you feel the same way prior to COVID 19?	RQ2	TAM, TAM2

Appendix L.

Focus Group Interview Guide

Introduction

My name is Nicholas Makris. I am the principal researcher in this study, and I want to thank you for participating in this study.

The reason we are here is to discuss your attitudes concerning the effects on the quality of instruction of the COVID-driven virtualization of your courses. I will help ensure that you have the opportunity to share your views with everyone else and to hear their views.

This focus group interview will last approximately 90 minutes.

Let us briefly discuss my and your respective roles in this process.

Moderator/Participant Roles

Please feel free Please feel free to develop or add to your initial response to my questions. If something occurs to you that you would like to add or believe to be significant, please feel free to state it.

If there is a question that you do not wish to answer, you can simply decline to answer to it. If you feel that a question is misconceived or could best be phrased in an alternate way, please state your views on the matter.

Focus Group Norms

There are two norms that we will abide by.

1. **Participation is important.** Letting others state their views, even if we disagree with them, is important. We are here to learn from one another.

2. **Mutual respect is key.** We must be courteous and professional towards one another. This means that we must allow one another enough to speak and must at all times be civil.

Recording Procedures

This interview will be audio recorded. I will also be writing down notes.

Confidentiality

Everything you say will be confidential. Your name and other identifying information will not be included in my report. The audio recording and my notes will kept in a secure location. No one apart from myself will have access to them, and they will be destroyed after three years.

Introductions (5 minutes)

Let us start by introducing ourselves. Please state your name and position, and please include the courses that you taught at this institution that underwent COVID-driven virtualization.

Interview Questions (Approximately 85 Minutes)

We will now begin the interview proper. This will take approximately 85 minutes. The interview questions will be semi-structured, and you should feel free to answer as thoroughly as you want. You may also decline to answer.

End of Interview Session

After the interview, if you have any questions or concerns, please feel free to contact me. I would like to thank you once again for participating in this study.

Appendix M.

Focus Group Interview Questions

The following interview questions will be used during the individual interviews with the study participants. The questions will be presented in this order.

1. What are your feelings about teaching hospitality management virtually, as opposed to in-person?
2. Were your feelings on this matter different prior to COVID 19?
3. How would your feelings be different if you had chosen to teach your courses virtually, instead of being required to by circumstances?
4. Were there any technologies that you found to be exceptionally useful or useless?
5. Do you feel that you had the institutional support that you needed to be effective in teaching your courses virtually?
6. Is there anything you feel that we should have covered or that you would like to add?

Appendix N.

Alignment of Focus Group Interview Questions with Research Questions and Theoretical Models

Focus Group Interview Question	RQ	Theoretical Model
What are your feelings about teaching hospitality management virtually, as opposed to in-person?	RQ1, RQ2, RQ3	TAM, TAM2, UTUAT
Were your feelings on this matter different prior to COVID 19?	RQ3	TAM, TAM2, UTUAT
How would your feelings be different if you had chosen to teach your courses virtually, instead of being required to by circumstances?	RQ3	TAM2
Were there any technologies that you found to be exceptionally useful or useless?	RQ3	TAM2
Do you feel that you had the institutional support that you needed to be effective in teaching your courses virtually?	RQ3	UTUAT
Is there anything you feel that we should have covered or that you would like to add?	RQ3	TAM, TAM2, UTUAT

Appendix O.**Field Test Rubric**

Field Test Volunteer	Test Setting	Test Duration [00:00:00]	Transcribed Pages [single-space typed]	# Codes Produced
FTV1	Zoom	1.06.21	11	109
FTV2	Zoom	50.41	9	102
FTV3	Zoom	52.02	10	197
Average		58.7	10	103
Total		2.38.64	32	129

Appendix P.

Feasibility and Benefits Checklist

<p style="text-align: center;">Gatekeepers:</p> <p>Who are the possible gatekeepers? (i.e., If you are in a school district, have you checked with the principal and the superintendent's office or their designee to see what the process is for research? Or, if you are at a company, talked with the management, etc.?)</p> <p>If you are planning on collecting data from a college, what is the process? It is preferred that you obtain Institutional Review Board (IRB) approval from that institution prior to applying for GCU's IRB approval).</p>	<p>The dean of the college has already given signed permission to conduct the study. See Appendix B. He is the only gatekeeper. Data will be obtained using interviews and focus groups, as indicated in the Invitation to Participate (Appendix L) and the Consent Form (Appendix D).</p>
<p style="text-align: center;">Gatekeeper Contact:</p> <p>Who do you need to keep in contact with as you form your research project to ensure that the benefits outweigh the risk and you can conduct your research? How will you initiate and maintain contact with them?</p>	<p>The dean. See above. There are no risks.</p>
<p style="text-align: center;">Outside IRB:</p> <p>If you are planning on recruiting participants or getting data from a college (or other institutions with an IRB), have you talked to their IRB determine the process and what participants/data they will allow you access? Please note, IRB approval typically takes some time.</p>	<p style="text-align: center;">N/A.</p>
<p style="text-align: center;">Study Benefits:</p> <p>What is the benefit of your research? Who do you need to keep in contact with as you form your research project to ensure that the benefits outweigh the risks?</p> <p><i>Remember that research should have a benefit; what benefit does your research have to others beside yourself?</i></p>	<p>The proposed study benefits hospitality and management educators and students, as well as patrons of hospitality-related establishments. Further, it benefits all educational institutions and businesses are attempting to virtualize their operations.</p>
<p style="text-align: center;">Research Activity:</p> <p>Is your research part of <i>normal every day activities</i>? This is significant because this must be outlined in your site authorization. A preliminary site authorization letter could simply be an email from a school/college/organization that indicates they understand what you want to do and how that benefits the school/college/organization. In some cases this will determine the classification of the study (this is especially important for educational research studies).</p> <p>***Please see below for information regarding preliminary site authorization</p>	<p>Yes. See Consent Form (Appendix D).</p>

<p style="text-align: center;">Recruitment:</p> <p>Please describe your proposed recruitment strategy. How do you plan to involve your participants in the process? What would your flyer/email say?</p>	<p>E-invitation (Appendix R) with Consent Form (Appendix D) attached. Purposively selected participants will be sent a demographic questionnaire (Appendix U) and then interviewed once for approximately 60 minutes. Interviewees will participate in 60-90 minute focus group interviews.</p>
<p style="text-align: center;">Data Collection</p> <p>What are you asking of participants? Are you asking them personal information (like demographic information such as age, income, relationship status)? Is that personal information necessary? How much time are you asking of participants (for example, if you are asking them to be interviewed, be in a focus group, fill out a questionnaire, fill out a journal/survey, collect artifacts, etc.)? How much time will they have to spend to be in your study? Does each part of your data collection help answer your research question? Participants <u>must be told how long it will take to participate in each activity</u>. Are you concerned that the activities will take too long and participants might not finish/drop out?</p> <p>Can you collect your data in a reasonable amount of time considering the stakeholders and possible challenges of gaining access to participants?</p>	<p style="text-align: center;">Individual Interview Questions</p> <ol style="list-style-type: none"> 1. Please identify the courses that you taught from start to finish that had to be virtualized because of COVID 19. 2. Which of those classes had a lab component? 3. Please briefly discuss the subject-matter of each of those courses. 4. Of all of your courses, which of those courses was the most affected by virtualization and why? 5. Which technologies were involved? 6. Of all of your courses, which was the least affected by virtualization and why? 7. Which technologies were involved? 8. Overall, how did course virtualization effect quality of instruction and why? 9. Do you feel that courses with certain kinds of subject matters are best taught virtually? 10. Did you feel the same way prior to COVID 19? <p style="text-align: center;">Focus Group Interview Questions</p> <ol style="list-style-type: none"> 1. What are your feelings about teaching hospitality management virtually, as opposed to in-person? 2. Were your feelings on this matter different prior to COVID 19? 3. How would your feelings be different if you had chosen to teach your courses virtually, instead of being requires to by circumstances?

	<p>4. Were there any technologies that you found to be exceptionally useful or useless?</p> <p>5. Do you feel that you had the institutional support that you needed to be effective in teaching your courses virtually?</p> <p>6. Is there anything you feel that we should have covered or that you would like to add?</p>
<p>Child Assent. Studies with children often fall under the regulations for a full board review (full board reviews take significantly longer in IRB). Each child must fill out a child assent AFTER there is parental consent. (It can be very difficult to get parental consent, especially if this is something sent home to parents).</p>	N/A
<p>Informed Consent</p> <p>Participants <u>must be told how long it will take to participate in each activity</u>. Are you concerned that the activities will take too long and participants might not finish/drop out?</p>	No.
<p>Site Authorization</p> <p>Do you have a site authorization letter? How difficult will this be to get from the school/ school district/college/organization? Use the GCU template to ensure the correct information is included.</p>	Yes. Appendix B.
<p>Can you collect your data in a reasonable amount of time considering the stakeholders and possible challenges of gaining access to participants?</p>	Yes.
<p>Organizational Benefits:</p> <p>Have you talked to your principal/supervisor/district/college/boss/ organization about your research? If so, have you asked them what you can do to help the district/organization/school?</p>	Yes. Their answer is to proceed with the proposed study.
<p>What is the overall benefit of your research to participants?</p>	It will give them information that will help them teach their courses
<p>What are the risks of your research? Please note that there are usually some risks (like revealing participant identity) in all research.</p>	There are no risks.
<p>Now that you have contemplated the above questions, how long do you imagine it will take you prior to access your participants/data? AND, how much are you asking of your participants?</p>	I am asking for 2-3 hours of their time. There are no issues relating to access.
<p>Based on the information that you have learned, is your study feasible? Why or why not? If not, how can you modify your ideas to make your study manageable?</p>	Yes. Completely feasible.

Appendix Q.

Copy of the Invitation to Participate (Study Advertisement)

My name is Nicholas Makris, and I am in the College of Doctoral Studies at Grand Canyon University under the direction of Dr. Calvin Lathan. The purpose of this letter is to request your participation in my research study entitled “Hospitality Management Instructor Attitudes towards COVID-driven Compulsory Course-virtualization: A Qualitative Descriptive Study.” The purpose of this study is to explore hospitality management instructor attitudes towards the COVID-driven compulsory virtualization of their courses that began in Spring 2020.

I am recruiting individuals that meet these criteria:

- Taught at least one course from start to finish in Spring 2020 that started out in-person and underwent virtualization due to COVID 19

You cannot be in this study if you:

- Did not teach at least one course from start to finish in Spring 2020 that underwent virtualization due to COVID 19.

The activities for this research project will include:

- Demographic questionnaire – ~10 minutes online.
- Individual interview – ~ 60 minutes via Zoom. Time to be arranged.
- Focus group – ~ 60 minutes via Zoom. Time to be arranged.

Your participation in this study is voluntary.

All data in this study will be protected by using an ID code assigned to each participant. No identity will be revealed. Data will be encrypted and password protected.

If you are interested in participating in this study, please contact me by email at nmakris@my.gcu.edu or by phone at [REDACTED].

Thank you!

Appendix R.
Screening Questions

1. In Spring 2020, were you teaching at least one hospitality management course? (If yes, proceed to question 2).
2. In Spring 2020, did at least one in-person hospitality management course that you were teaching undergo virtualization due to COVID 19 (If yes, proceed to question 3).
3. After that course underwent virtualization, did you continue to be the course-instructor and see the class to completion? (If yes, proceed to question 4).
4. In Summer 2020, did you teach any hospitality management courses that were virtual from start to finish or that started out in-person and were virtualized while in progress?
5. In Fall 2020, did you teach any hospitality management courses that were virtual from start to finish or that started out in-person and were virtualized while in progress?

Appendix S.

Expert Panel

Individual Reviewing Interview Protocol	Individual's Role (faculty, author in this area, professional in this area, etc.)	Identify the reason you selected them	Revisions they suggested making based on their review.
Panelist #1	Associate Professor of Food and Beverage Management	Expert in Online Instruction and Course-virtualization	“your questions were clear and concise”
Panelist #2	Assistant Professor of Food and Beverage Management,	Expert in Online Instruction and Course-virtualization	“I found your questions to be relevant and critical in researching the effectiveness, or lack thereof, of the new platforms we are using in the educational system.”
Panelist #3	Assistant Professor of Food and Beverage Management	Expert in Online Instruction and Course-virtualization	“all the questions were well thought and relevant to the subject matter.”

Appendix T.

Demographic Questionnaire

1. How many years have you been a hospitality management instructor?
2. What is your specialization within hospitality management?
3. What is your academic rank?
4. What is your age?
5. Which Spring 2020 classes of yours underwent compulsory virtualization?
6. Which, if any, of those classes had a lab component?
7. Which Summer 2020 classes of yours underwent compulsory virtualization?
8. Which, if any, of those classes had a lab component?
9. Which Fall 2020 classes of yours underwent compulsory virtualization?
10. Which, if any, of those classes had a lab component?

Appendix U.

Results of Demographic Questionnaire

Participant Age Years Teaching Academic Rank	Specialization	Classes that had to Undergo Virtualization in Spring 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Summer 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Fall 2020 (Courses with labs in boldface)
P1 40 5 Associate Professor	Music Entertainment and Industry Management	SEE 3045 (New Media Literacy) SEE 2030 (The Business of the Entertainment Industry)	None	SEE 3026 (Hip Hop Culture) SEE 2030 (The Business of the Entertainment Industry) SEE 3090 (Directed Educational Experience)
P2 51 15 Associate Professor	Food and Beverage	FSM 3001 (Introduction to the Hospitality Industry) FSM 2012 (Human Resources in the Hospitality Industry) MGMT 2001 (Human Resource Management) FSM 2010 (Medical Food Service)	None	FSM 3001 (Introduction to the Hospitality Industry) FSM 2012 (Human Resources in the Hospitality Industry) MGMT 2001 (Human Resource Management) FSM 2010 (Medical Food Service)

Participant Age Years Teaching Academic Rank	Specialization	Classes that had to Undergo Virtualization in Spring 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Summer 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Fall 2020 (Courses with labs in boldface)
P3 37 6 Associate Professor	Tourism Marketing and Management, Destination Management	FSM 2065 (Food and Beverage in the Hospitality Industry)	TRVL 3010 (Dynamics of Tourism)	HOSP 1001 (Introduction to the Hospitality Industry)
		TRVL 4011 (Destination Management Organizations)		FSM 2065 (Food and Beverage in the Hospitality Industry)
		TRVL 4160 (Strategic Management Seminar)		TRVL 4160 (Strategic Management Seminar)
P4 53 26 Associate Professor	Food and Beverage	FSM 4160 (Food and Beverage Strategies and Logistics)	None	MGMT 2020 (Organizational Dynamics)
				MRKT 1001 (Brand Marketing and Consumer Value)
				FSM 3075 (Food Service and Hospitality Strategic Management)
				FSM 4160 (Food and beverage Strategies and Logistics)

Participant Age Years Teaching Academic Rank	Specialization	Classes that had to Undergo Virtualization in Spring 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Summer 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Fall 2020 (Courses with labs in boldface)
P5 63 23 Associate Professor	Hotel Revenue Management	HOSP 4060 (Hospitality Strategy Design and Execution Seminar)	None	FISV (Credit Risk Analysis and Management) HOSP3077 (Revenue Management) HOSP4040 (Hotel Asset Management), HOSP 4060 (Hospitality Strategy Design and Execution Seminar)
P6 61 20 Associate Professor	Sports Entertainment and Event Management	SEE 3150 (TV Production Management) SEE 3045 (New Media Relations)	None	SEE 3150 (TV Production Management) SEE 3245 (Sports Entertainment Marketing)
P7 62 31 Associate Professor	Hotel Resort Management	Hosp 1001 (Introduction to Hospitality)	None	Hosp 1001 (Introduction to Hospitality) Hosp 3005 (Leading Service Excellence)
P8 68 12 Associate Professor	Sports Entertainment, Event Management	SEE 4060 (Senior Seminar)	None	SPM 2020 (Professional Sports Management)
P9 57 26 Associate Professor	Hotel Sales and Marketing	HOSP 3075 (Hotel Strategic Marketing and Brand Management)	None	HOSP 3075 (Hotel Strategic Marketing and Brand Management)

Participant Age Years Teaching Academic Rank	Specialization	Classes that had to Undergo Virtualization in Spring 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Summer 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Fall 2020 (Courses with labs in boldface)
P10 56 15 Associate Professor	Sports Entertainment Event Management	SEE 4060 (Sports Entertainment Event Management Seminar)	None	SPM 2020 (Professional Sports Management)
P11 60 22 Associate Professor	Event Management	SEE3042 (Weddings and Ceremonies)	SEE4060 (Senior Seminar)	EVENT3004 (Etiquette and Protocol)
		SEE4060 (Senior Seminar)		EVENT 4011 (Advanced Special Event Management)
P12 51 24 Full Professor	Guest Service Management	HOSP6120 (Organizational Behavior in the Hospitality Industry)	HOSP6080 (Experience, Adventure, Education Tourism)	HOSP6526 (Information Technology in Hospitality and tourism)
		HOSP6080 (Experience, Adventure, Education Tourism)	HOSP4060 (Hospitality Management Seminar),	HOSP6080 (Experience, Adventure, Education Tourism)
		HOSP6509 (Hospitality and Tourism: Global Issues)		HOSP6509 (Hospitality and Tourism: Global Issues)
		MGMT2020 (Organizational Dynamics)		DEE3999 (Directed Educational Experience)
		HOSP3087 (International Hotel Development)		MGMT2020 (Organizational Dynamics)
P13 63 23 Associate Professor	Service	HOSP1015 (Managing the Hotel Guest Experience)	None	HOSP1001 (Orientation to Hospitality)

Participant Age Years Teaching Academic Rank	Specialization	Classes that had to Undergo Virtualization in Spring 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Summer 2020 (Courses with labs in boldface)	Classes that had to Undergo Virtualization in Fall 2020 (Courses with labs in boldface)
P14 54 26 Full Professor	Guest Service Management	HOSP2260 (Exploring the Private Club Industry)	None	HOSP2260 (Exploring the Private Club Industry)
		FSM2180 (Hotel Operations Control)		FSM2180 (Hotel Operations Control)
		MGMT2001 (Human Resources)		

Appendix V.
Final Codebook

Codes*	Categories	Themes
No drive No commute No traffic No parking Nice not having to drive	Saved time	Theme 1 (There were some narrowly defined respects in which virtualization was convenient)
Could teach from living room	Saved time	Theme 1
Convenient for working students	Saved time	Theme 1
Simplified scheduling Simplified daily planning	Saved time	Theme 1
Access to guest speakers	Made it easier to convene class-participants	Theme 1
Could sleep in late	Saved time	Theme 1
Helped with virtual field trips	Functional improvement	Theme 1
Zoom with students anywhere	Made it easier to convene class-participants	Theme 1
Students appreciated the convenience	Saved time	Theme 1
Made life easier	Saved time	Theme 1
Zoom breakaway groups useless Zoom breakaway groups unwieldy	Hard to do group exercises	Theme 2 (Student-on-student interaction was limited)
Group exercises unfeasible	Hard to do group exercises	Theme 2
Low student morale Low student energy Students had little enthusiasm	Student alienation from course	Theme 2

Codes*	Categories	Themes
Students unresponsive to one another Students indifferent to one another Students didn't engage one another Students not engaged with one another Students seemed unaware of other students Students unresponsive to other students' points	Students alienated from course	Theme 2
Lots of black screens Sea of black screens A lot of black boxes	Students alienated from course	Theme 2
Students stared blankly at instructor	Students alienated from course	Theme 2
Students seemed isolated Students withdrew into isolation	Students alienated from course	Theme 2
Class discussions lacked vitality Class discussions halting Hard to spark class discussions No real class discussions Students need students	Course undermined by student-disengagement	Theme 2
Couldn't engage students Couldn't reel students in Students were hard to reach	Course undermined by student-disengagement	Theme 2
Limited engagement vectors No way to take students aside	Insufficient control over students	Theme 3 (Instructor-student interaction was limited)
Wasn't just a technological issue This wasn't a technology issue No way to take students aside Hard to exert firm but gentle guidance on errant students	Insufficient control over students	Theme 3
Had to go out of my way to make sure students were listening Had to target individual students in order to promote engagement Had to become disciplinarian in order to keep students focused Couldn't stimulate student-engagement without calling out individual students Had to target individual students to promote student-engagement	Students alienated from course	Theme 3
	Degradation of course-quality due to weak student-instructor bond	Theme 3

Codes*	Categories	Themes
No empathic rapport through Zoom Technology severed an unspoken bond between instructor and student Zoom not good for maintaining student-instructor bond	Students alienated from course	Theme 3
Didn't know if students were paying attention Couldn't tell if students were getting it Hard to determine student-engagement level Didn't know if students were really listening to me	Insufficient instructor-awareness of students	Theme 3
A sea of black screens Students didn't always have their cameras on	Students alienated from course	Theme 3
High student failure rate because of difficulties engaging students	Degradation of course-quality due to lack of instructor awareness and control	Theme 3
Courses either became chaotic or overly structured	Degradation of course-quality due to lack of instructor awareness and control	Theme 3
Low student engagement was the biggest problem with virtualization	Degradation of course-quality due to weak student-instructor bond	Theme 3
Half the screens were black Sea of black boxes Black box problem	Students alienated from course	Theme 4 (Students disengaged)
Students tuned out Students weren't 100% there Students disengaged Student attention-levels intermittent Student disengagement rampant Students were checked out	Students alienated from course	Theme 4
Course was crippled by low student engagement Hard to teach complicated material because students weren't paying attention Material didn't seem to be sinking in	Course undermined by student-disengagement	Theme 4

Codes*	Categories	Themes
Can't force students to pay attention	Insufficient control over students	Theme 4
The issue was existential, not technological The issue wasn't technology The issue was emotional, not technological	Students alienated from course	Theme 4
Students saw instructor as entertainer	Course undermined by student-disengagement	Theme 4
The virtual format severed the instructor-student bond	Students alienated from course	Theme 4
Students resented instructor attempts to engage them	Degradation of course-quality due to lack of instructor awareness and control	Theme 4
Students saw class as an imposition	Students alienated from course	Theme 4
Had to keep it simple because of limited student attention spans Couldn't explain complex ideas without losing my audience Couldn't go into detail without students disengaging Student attention span too short for me to convey ideas of any complexity Explanations lost on students due to short attention span Intricate ideas got lost in the shuffle		Theme 5 (Complex material was hard to teach)
Advanced material was hard to teach Had to stick to the tried and true Had to pitch them high and slow Had to dumb down course material Had to dumb it way down	Degradation of course-quality due to low student engagement	Theme 5
Rapport with students too fragile to support high level instruction Rapport with students too fragile to support real instruction	Degradation of course-quality due to low student engagement	Theme 5
Couldn't tell if students were paying attention	Insufficient instructor-	Theme 5

Codes*	Categories	Themes
	awareness of students	
Virtual ok for remedial classes	Degradation of course-quality due to low student engagement	Theme 5
Virtual teaching graphics-driven, not idea-driven	Degradation of course-quality due to low student engagement	Theme 5
High-level instruction not graphics-driven	Degradation of course-quality due to low student engagement	Theme 5
ProSim didn't work Simulation software inadequate ProSim inadequate ProSim doesn't work	Hard to virtualize labs	Theme 6 (Courses involving labs and lab-like components, such as field-trips, could not be taught properly)
No way to virtually replicate the experience of handling food	Hard to virtualize labs	Theme 6
Tourism lab was a non-starter	Hard to virtualize labs	Theme 6
No way to do field trips online	Hard to virtualize lab-like components	Theme 6
No virtual way to do lab	Hard to virtualize labs	Theme 6
Class wasn't the same without the field trip	Lab courses unfeasible	Theme 6
Class had to be restructured because of the lab	Lab courses unfeasible	Theme 6
No viable workarounds for lab	Lab courses unfeasible	Theme 6
Labs were a bust Labs didn't work	Lab courses unfeasible	Theme 6

Codes*	Categories	Themes
The issue was technology	Better technology can fix problems with lab courses	Theme 6
The issue was deeper than technology	Problems with lab courses a consequence of emotional disengagement	Theme 6
Not clear if better technology would solve the problem	Problems with lab courses a consequence of emotional disengagement	Theme 6
Use of multiple technologies could serve as a workaround	Better technology can fix problems with lab courses	Theme 6
Policing necessary	Instructor as disciplinarian	Theme 7 (For all intents and purposes, virtual courses became “correspondence courses”)
Need to micromanage courses	Discipline had to be embedded into class-structure	Theme 7
More of a babysitter than a real professor	Instructor as proctor	Theme 7
Too much structure	Teaching undermined by need for discipline	Theme 7
Classes were policed to death	Teaching undermined by need for discipline	Theme 7
Everything had to be nailed down before class	Discipline had to be embedded into class-structure	Theme 7
Going through a drill	Teaching undermined by need for discipline	Theme 7
Had to stick with program	Teaching undermined by	Theme 7

Codes*	Categories	Themes
	need for discipline	
Mail order class	Discipline had to be embedded into class-structure	Theme 7
Felt like I was proctoring more than teaching	Teaching undermined by need for discipline	Theme 7
Correspondence course	Teaching undermined by need for discipline	Theme 7
No wiggle room	Instructor as proctor	Theme 7
Had to stay strictly on topic all the time	Teaching undermined by need for discipline	Theme 7
Was drilling students through exercises Drill sergeant	Teaching undermined by need for discipline	Theme 7
Student disengaged if I didn't stick the plan	Instructor as disciplinarian	Theme 7
I was less of an instructor and more of a prison guard More cop than instructor Policed more than I taught Spare the rod Policed more than I taught	Instructor as disciplinarian	Theme 7
I was there to make sure they did the work No hammer meant students pulled out	Teaching undermined by need for discipline	Theme 7
I wasn't really functioning as a teacher Policed more than I taught	Instructor as proctor	Theme 7
It just wasn't the same.	Virtual instruction structurally different (from in-person)	Theme 8 (There were more cons than pros to teaching virtually)
100% worse	Virtual instruction unqualifiedly	Theme 8

Codes*	Categories	Themes
	inferior (to in-person)	
Had its moments but worse overall	Virtual instruction qualifiedly inferior	Theme 8
Was good in some ways but wasn't as good	Virtual instruction qualifiedly inferior	Theme 8
Unquestionably inferior	Virtual instruction unqualifiedly inferior	Theme 8
Worse on several levels	Virtual instruction unqualifiedly inferior	Theme 8
Neither better nor worse, just different	Virtual instruction structurally different	Theme 8
Not the real deal	Virtual instruction inferior because structurally different	Theme 8
The technology wasn't the problem	Virtual instruction inferior because structurally different	Theme 8
Lacked soul	Emotional alienation the issue	Theme 8
Isn't really teaching	Virtual instruction inferior because structurally different	Theme 8
Something important was missing	Emotional alienation the issue	Theme 8
Teaching has to be in-person	Emotional alienation the issue	Theme 8
Not a technology issue	Virtual instruction inferior because	Theme 8

Codes*	Categories	Themes
Student disengagement main problem	structurally different Emotional alienation the issue	Theme 8
Labs not feasible	Technological shortcomings the issue	Theme 8
Convenient in some respects	Virtual instruction has non-trivial advantages over in-person	Theme 8
Instruction very one-dimensional when not in-person	Emotional alienation the issue	Theme 8
More downside than upside	Virtual instruction qualifiedly inferior	Theme 8
Better simulation technology may mitigate lab issue	Virtual instruction inferior but not structurally different	Theme 8
Better technology unlikely to boost student engagement	Emotional alienation the issue	Theme 8
Cons outweigh pros	Virtual instruction qualifiedly inferior	Theme 8
Main problem low student engagement	Emotional alienation the issue	Theme 8
Advantages negligible compared to disadvantages	Virtual instruction qualifiedly inferior	Theme 8
Not a technology issue	Emotional alienation the issue	Theme 8
Students shift into different gear when not in-person	Emotional alienation the issue	Theme 8

* Variants of a given code are placed in the same cell. The parenthetical number refers to the total number of occurrences of the corresponding code.

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