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Walden University

College of Education

This is to certify that the doctoral study by

Michelle Potthoff Wylie

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2021

Abstract

Experiences in an Online Learning Community

by

Michelle Potthoff Wylie

MPA/HSA, University of San Francisco, 2016

BA, University of California, Los Angeles, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

November 2021

Abstract

Master of public health online programs have been experiencing issues with retention and problems related to inconsistent implementation of online learning communities. This basic qualitative study aimed to understand the efficacy of online programs and the perceived impact of the implantation of online learning communities. The conceptual framework for this study is Siemens's connectivism theory supporting different types of learning in the online environment. Two research questions guided the study: (a) How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities and (b) Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial. Qualitative interviews with 12 respondents enrolled in a Master of Public Health online degree program were conducted through a video conferencing software. The semi structured interviews included topics related to joining student groups, attending webinars, and connecting with their peers on social media, among others. Data analysis consisted of a deductive approach utilizing general a priori codes centered on the research questions, then additional codes were added inductively as the analysis progressed. The six themes identified through the research process were: time management, self-motivation, helping people in their community, faculty engagement, faculty discussion engagement, and engagement outside the classroom. Information related to best practices for implementing online learning communities within higher education, particularly in graduate public health programs, was identified. The study has the potential to create positive social change by identifying factors that promote student success to help students graduate.

Experiences in an Online Learning Community:

A Qualitative Descriptive Design Study

by

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Doctoral Study Submitted in Partial Fulfillment

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October 2021

Dedication

My study is dedicated to my family for allowing me this opportunity to follow my dreams. Special thank you to my husband and two sons, Hunter, and Wyatt, for your support and encouragement during this challenging educational journey. I couldn't have done this without all your support.

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I have been very blessed to have an excellent support network in my educational journey. I would like to first thank my mother and father for never losing hope in my academic dream. You always encouraged me when I did not think I was able to continue this journey. Next, I want to thank my husband and children for their continued support throughout this journey. You have been my constant cheerleaders to help me reach this incredible degree. I would also like to thank my friend and mentor, Dr. Kia James. You have been an inspiration to me during my educational journey and always encouraged me to be my best possible self. In addition, to Dr. Sharonda Wallace, who has become my friend and second mentor who encourages me daily. Finally, my colleagues at work encouraged and helped me by sharing their experiences when I had questions. Thank you for helping me along this journey and sharing your past experiences with me.

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Chapter 1: Introduction to the Study

Online education affords an opportunity for graduate students who cannot attend the traditional face-to-face programs offered by campus-based universities (Berry, 2018). Because of its flexibility, online education in the United States has opened a significant space for nontraditional graduate students to expand their educational potential. In addition, many nontraditional graduate students are working professionals with physical limitations that prevent them from attending in-person classes (Singh & Hurley, 2017). Although online learning offers valuable benefits to these graduate students, online learning is their first exposure to higher learning. Additionally, these classrooms are different from traditional classrooms in many respects. For example, graduate students enrolled in online courses are responsible for managing their learning strategies, including allocating time to read the assigned material, watch videos, answer discussion posts, and submit assignments on time.

Another difference between traditional face-to-face and online learning is that online courses usually do not provide social interaction cues because they lack synchronous face-to-face engagement of the brick-and-mortar classroom (Singh & Hurley, 2017). When physically present in the classroom, social interactions allow students to connect with each other, gain the trust of others through their interactions, and create safe learning communities. Graduate students in online classrooms need guidance and assistance from instructors to create those communities. Graduate students begin to

feel lost, isolated, and develop the belief that they are alone in their programs (Berry, 2018).

Although graduate students do not have the means to create social interactions, instructors have many methods to encourage a sense of belonging in the online classroom (Wikle & West, 2019). Berry (2017) established that instructors can foster a sense of community by being approachable and committed through a range of practical classroom strategies—such as photos, videos, and articles—to enhance the classroom environment and connect with students. Wikle and West (2019) found that instructors in online classrooms could make discussions more engaging for students. Researchers' findings from a study conducted with graduate students from Texas State University suggested that faculties can encourage active learners to help develop a sense of community in the classroom (Jo et al., 2020). Therefore, instructors and students can create a community-driven learning environment by being engaged and present in the classroom.

One of the roles of online instructors is to help create a sense of community in a classroom. Instructors bring key and precise elements of instruction to the online learning environment (Wasik et al., 2019). Students can exploit these elements by creating and establishing shared roles and responsibilities through group projects and other engaging assignments (Gillett-Swan, 2017). Creating group projects and engaging assignments allows students to work together and create a sense of community by getting to know each other.

Although some research has been conducted regarding online classrooms and community, most of this research focused on undergraduate education. There is a dearth in the current literature focused on building online learning communities in graduate education (Berry, 2019). Graduate students have specific needs compared to undergraduate students. Many graduate students are fully employed, have families and additional financial responsibilities that many undergraduate students do not have. Graduate students may not always have the necessary skillset to succeed in the online classroom due to temporal gaps in education (Bussell & Guder, 2017). The ability of the instructor to provide resources and support in the online classroom is critical.

The findings of this research may assist instructors and university staff in forming an understanding of the specific needs of online graduate students to serve students and institutions better. In virtual interviews, graduate students answered questions about their perceptions regarding online programs. The graduate students' answers help form an understanding of how graduate students use online learning communities to improve student outcomes in an online environment.

The research site has been experiencing problems with retention rates, as described by an informant on the program's instructor. Graduate students from an online Master of Public Health (MPH) program at a university have exited the program for various reasons. Many reasons include financial, related to the pandemic, and the feelings of isolation and loneliness in the online classroom. The site program is a newer program, and accreditation data has not been published. The research site data will be available by

December 2021. However, similar information was found at another institution. The most recent retention data (the institution is publishing up-to-date data) at a similar program revealed retention issues. For example, "The lowest one-year retention rate from 2012 to 2013 was for those students with a GPA of 3.0–3.4 (65%) as compared with those with a GPA of 2.5–2.9 (71%) and those with a GPA of ≥ 3.5 (73%)" (Council on Education for Public Health, 2020, p.54). Understanding graduate students' perceptions in an online classroom can help instructors comprehend how to help these graduate students. Thus, the results of this study could lead to positive social change by revealing factors that encourage graduate students to graduate, move into the field of public health, and have a positive impact on their communities. Online learning communities can be a collaborative learning environment that supports and encourages students to earn their degrees (Berry, 2018).

In Chapter 1, I present an overview of the study. The major sections of this chapter include the introduction, background, problem statement, purpose of the study, research questions, conceptual framework for the study, nature of the study, definitions, assumptions, scope and delimitation, limitations, and significance. The chapter concludes with a summary.

Background

One of the purposes of online learning is to help nontraditional students receive a flexible quality education (Berry, 2018). Students may not learn effectively from instructors who simply post online content in the classroom (Slapak-Barski, 2017).

Students need different online models, including e-learning technologies, videos, and webinars, to help different types of learners in the online classroom. In traditional face-to-face education, teaching presence is an instructor's ability to meaningfully guide students via direct interactions (Kyei-Blankson et al., 2019). Online instructors can leave students feeling isolated and alone (Slapak-Barski, 2017). In online learning, teaching presence depends on an instructor's understanding of how to use the online learning platform to achieve outstanding results.

Berry (2017) linked entirety in online learning communities with both achievements of student learning outcomes and reduction of student attrition rates. Online learning communities entail students, instructors, and other staff members working together to achieve academic goals (Berry, 2017). An online graduate learning community promotes engagement through expectation, communication, trust, and expectations of the learning community (Blayone et al., 2017). These communities also encourage collaboration by advocating constant communication among all the students rather than meetings in classrooms that are face-to-face (Blayone et al., 2017).

Many online instructors and their institutions have only partially implemented the techniques necessary to gain those benefits (Luo et al., 2017; Nguyen, 2017). The absence of an online community and inclusiveness in online graduate classrooms frequently leaves students feeling isolated and lonely in their learning (Dağhan & Akkoyunlu, 2016). Decreased student satisfaction with learning leads to decreased student success rates (Dağhan & Akkoyunlu, 2016; Slapak-Barski, 2017). Undergraduate

online classrooms have 10-20% higher dropout rates than face-to-face classrooms; on average, 40-80% of online students drop out each semester (Bawa, 2016).

An investigation regarding graduate students in online programs revealed that students value collaborative, engaging environments, and good communication, creating successful learning outcomes (Martin & Bolliger, 2018). Engagement and open communication are more conducive in traditional settings, but collaboration can be challenging in an online classroom (Bowers & Kumar, 2015).

Institutions have advocated for online education to help students obtain an education. However, student retention rates in online education have been inadequate, demonstrating a need for more effective strategies (Bowers & Kumar, 2015). This descriptive qualitative study aimed to gain an understanding of graduate students' perceptions in online learning environments, which can help identify areas of improvement for the instructor. This study addressed an area of higher education that has not been thoroughly researched. In addition, there is a gap in practice related to limited literature concerning best practices for implementing online learning communities within higher education, particularly in the graduate education of public health.

MPH programs are growing in number, primarily because of the current Covid-19 pandemic. The U.S. Bureau of Labor Statistics (2020) stated that "from 2019 to 2029, all health care occupations are projected to grow by 15%—much faster than average—and add 2.4 million new jobs"(U.S. Bureau of Labor Statistics, 2020, September 1). Therefore, the demand for qualified MPH graduate students in the workforce is

increasing. Despite this increased demand for skilled workers, graduate students are experiencing difficulties continuing with the program. To meet the need for skilled and educated public healthcare workers, identifying problematic issues within the execution of the educational programs could be helpful and productive. The information gathered at the local site has the potential to extend to other similar institutions. Thus, this study has the potential to contribute to the existing scholarly literature and provide useful information to instructors and Universities.

Problem Statement

The problem explored by this study concerns the inconsistent implementation of online learning communities, which may negatively influence graduate school student success. Online MPH programs have problems with retention rates (Council of Education for Public Health, 2020). An informant on the instructor of the program confirmed that "the MPH [Master of Public Health] program has fallen short of the Council on Education for Public Health standard for three years" (C. Tex, personal communication, May 28, 2020).

In discussing the retention problem, the instructor member at the research site described several issues. The first issue concerned "a lack of consistency in the implementation of online learning communities" (C. Tex, personal communication, May 28, 2020). The instructor informant also noted, "As the Covid-19 pandemic continues, we are routinely having more students feeling isolated. To reduce such isolation, there is a need to build communities for our MPH students" (C. Tex, personal communication,

May 28, 2020). Thus, the local site has been experiencing retention issues and inconsistent implementation in online learning communities. Forming an understanding of the students' perspectives, especially in a time of global uncertainty, could help mitigate the issues.

Nguyen (2017) and McDaniels et al. (2016) suggested that an obstacle to the online community framework within higher education starts with the many instructors not creating engaging and inclusive online classrooms. A significant gap remains within existing qualitative literature regarding criteria for immersive online learning communities (McDaniels et al., 2016; Nguyen, 2017). Most research related to the topic of online learning communities has focused on undergraduate students, and very few researchers have investigated graduate students' perceptions of the efficacy and sense of inclusivity of their online learning communities (Berry, 2017; McDaniels et al., 2016; Nguyen, 2017).

Purpose of the Study

The purpose of the qualitative study was to form an understanding of the perceived impact of the implantation of online learning communities. This study explored an area of higher education that has not been thoroughly researched that has the potential to assist online graduate education practitioners. The study results may have the potential to fill the gap in the literature concerning best practices for implementing online learning communities within higher education, particularly graduate education. The study could

also aid in understanding how online learning communities impact student outcomes for graduate students.

Research Questions

Two research questions guided the study:

Research Question 1: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities?

Research Question 2**:** Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial?

Conceptual Framework

The conceptual framework for the study is Siemens's (2004) connectivism theory. Connectivism theory stems from cognitivism chaos theory and is related to self-organization and networks. The theory of connectivism is rooted in several cognitive learning theories. Behaviorism, cognitivism, and constructivism are theories that frame learning approaches and best practices for use with students (Siemens, 2017). Behaviorism theory comprises several theories of behavior observation, which is important for understanding activities, and learning is about behavioral change based on simple elements (Siemens, 2017). Cognitivism is learning viewed as a short-term memory procedure coded for the long term. Furthermore, constructivism theory suggests that learners create knowledge as they attempt to understand their experiences. Siemens

(2004) published connectivism theory originally to address issues and gaps in online learning in the digital age.

Connectivism is one of the most unparalleled network learning theories developed specifically for e-learning environments (Goldie, 2016). Connectivism theory emphasizes the value of technology in students' education, especially the internet, online discussion forums, and social networks (Siemens, 2017). Siemens (2004) also opined that through connectivism theory, learning might occur internally and externally through a sense of belonging to an organization. A key topic of the connectivism theory is the importance of learning within a community setting to promote knowledge sharing, collaboration, and students assisting one another when confronted with complex material (Goldie, 2016). Students learn what knowledge is by drawing inferences, connecting to, and participating in learning communities (Goldie, 2016). In addition, students can engage with each other in conversation; these conversations in an online classroom are part of the discussion with images, videos, and multimedia, allowing the students to learn (Goldie, 2016).

Connectivism theory is an appropriate theoretical framework for this study. The study explored graduate students' perceptions in an online university and discerned how participation within a virtual learning community could impact learning outcomes. Furthermore, online education researchers have utilized connectivism theory as a foundation for their studies (Siemens, 2017). Therefore, the contributory development and data analysis for this research are related to the scheme because the questions are

directed toward understanding the perceptions of online students of their lived experiences and networks.

Nature of the Study

This study used a qualitative methodology. In addition, the study used a qualitative descriptive research design (Sandelowski, 2000). The key phenomenon being investigated was perceptions related to graduate students' online learning communities in the online MPH programs. The descriptive qualitative design was chosen to understand the descriptions of online students concerning their perceptions of online courses. The rationale for the design was that it allows for the flexibility needed to explore the issues described by online graduate students in their experience of the online classroom.

Rather than using a quantitative study, a qualitative descriptive design study asks "how" and "why" questions that revealed the students' descriptions of their experiences of online learning communities. The qualitative descriptive research design allows the participants to explain their experiences in-depth and provide a wealth of data related to a fairly new concept in online learning (Cohen et al., 2017). Therefore, exploring graduate students' perceptions was best suited for a qualitative study.

The data analysis and interpretation plan included a data collection tool and a series of questions developed by the researcher from the literature used as a semistructured interview protocol. The semistructured interview questions investigated the issue at hand and focused on the efficacy of online learning communities. The interviews included topics related to joining student groups, attending webinars, and

connecting with their peers on social media, among others. The data analysis began immediately upon the conclusion of the interviews, and transcriptions of the interviews were done. Subsequent reporting and discussion of the data analysis was the final step in the research process.

Population

The local site where the study occurred is an online MPH degree program at a university in the United States. Therefore, purposeful sampling was used to recruit MPH students from this program as participants. Parry et al. (2017) defined purposive sampling as a nonparametric method used to identify and recruit research participants who share similar experiences. Furthermore, purposive sampling allowed me to concentrate on a selected population affected by the subject of interest (Campbell et al., 2020). Correspondence via email was used to recruit and solicit participants. Twelve students volunteered as respondents, and interviews were conducted online via Zoom.

Definitions

The following definitions are terms associated with online education used throughout this proposal:

Connectivism theory: Connectivisim theory is based on the attainment of learning focused on the future and not the past (Siemens, 2017).

Distance learning: This mode of delivering education and instruction to students is provided to those who are not physically present in a classroom (Berry, 2017).

Fully inclusive online learning community: A fully-inclusive online learning community contains members who operate based on the spirit, trust, interactions, and common expectations of the overall learning community (Blayone et al., 2017).

Nontraditional students: Nontraditional students are working professionals who cannot physically attend classes because of health, geographic location, or family commitments (Singh & Hurley, 2017).

Teaching presence: Teaching presence represents an instructor's ability to meaningfully guide students through interactions (McKerlich et al., 2011).

Online learning community: An online learning community is composed of students, instructors, and other staff members working together to achieve academic goals (Berry, 2017).

Online learning students: Online learning students are responsible for managing their learning strategies, including allocating time to read the assigned material, watching videos, answering discussion posts, and submitting assignments on time in a learning management program (Berry, 2017).

Student success: Student success is represented by strong grades and timely graduation rates (Schrenier, 2020).

Assumptions

The study had four principal assumptions. The first assumption was that students were available for interviews and could answer the questions willingly and honestly. It was important that students were prepared to participate and provide honest responses

because the study results were based on these students' answers. The second assumption was that information obtained from the interviews would help me answer the research questions for this study. In addition, I assumed that the discussions of participants provided information related to their experiences in online learning communities. The third assumption was that the students had the potential to feel isolated in their online environments, as this correlates to current literature. Therefore, I asked open-ended questions to avoid bias and encourage students to discuss their personal experiences without applying my prior knowledge. The fourth assumption was that I have exhausted available sources and obtained as much information from existing literature as possible. Finally, I assumed that the review and analyses of previous research assisted my understanding of the content needed to conduct the interviews.

Scope and Delimitations

The participants in this study consisted of graduate students enrolled in an online MPH program at a local university. I chose the master's program because very little research has been conducted on MPH graduate students' perceptions of online learning communities. The graduate students answered interview questions about their perceptions of online learning communities, described what they find most beneficial to a graduate student's success, and whether online learning communities have any drawbacks to that success. The study's problem concerned the inconsistent implementation of online learning communities in the MPH program that could negatively influence student success. With this study, I sought to address the gap in the practice of online learning.

This gap focused on understanding students' perceptions regarding the necessary criteria to create inclusive and effective MPH online learning communities. In addition, the goal of examining graduate students' experiences in this online MPH program was to help instructors and stakeholders develop an engaging curriculum with support systems in place to meet online graduate students' demands.

The transferability of the results of the study depends on the nature of the research findings. If there was no relationship between graduate students' feeling of isolation in online classrooms and helpful support provided by online learning communities, then the transferability of the research findings would have been limited. Participants did describe a connection to feelings of engagement and online learning communities. Therefore there is potential for replication at other online universities with MPH programs with retention issues.

Limitations

There were five main limitations to this study, and they were related to the participants, research site, coronavirus pandemic, methodological weakness, and researcher bias. The study aimed to gain an understanding of online graduate students' perceptions related to online learning communities. The first limitation of the study was the possibility of finding graduate students who were willing to participate. Although additional graduate students may have wished to participate, they may have needed to drop out of the study due to health, financial issues, or the changing of jobs. The second limitation was that the results were not generalizable to all institutions because only one

group from a specific institution was being investigated. Finally, I interviewed 12 graduate students based on the program's size from which I drew the sample. However, the limited sample of respondents was sufficient in size for a qualitative study.

The third limitation was that the Covid-19 Pandemic left many graduate students feeling even more uneasy and lonely in life than before. This additional isolation may have skewed the results. I hoped to combat the potential of this occurrence by posing questions that addressed worldwide issues. This framing of questions ensured that the respondents' answers were not magnified or intensified because of the global pandemic. I handled these limitations with thoughtfulness and discussed them with participants. Some interview questions specifically aimed toward discussing their experiences in the program and online communities before March 2020 and after. The sensitive nature of questions related to isolation and potential anxiety was carefully addressed. If a participant seemed distressed, I ended the interview and helped to provide them with information related to mental health and psychological help.

The fourth limitation was that methodological weakness related to note-taking, transcription, and the transfer of the information to computer programs may have occurred. Human error can occur in note-taking or the coding of the data. The notes may not give full details about the responses, which may have affected the coding of the responses. The interviews are recorded to make the review of the notes and transcripts easier and ensure accuracy.

The fifth limitation was potential researcher biases, including my history and involvement with MPH programs and the opinions and interpretations I have accumulated as a result. I guarded against personal bias during the study by not having any prior contact with the graduate students before the study. Addressing these limitations was essential to ensure neutrality and professionalism throughout the research's data collection and analysis phases. I worked to gain trust and confidentiality with the participants in this study.

Significance

The findings of this study have the potential to illuminate areas where instructors can improve or highlight areas where instructors succeed in forming and implementing online learning communities to help facilitate graduate students passing classes and graduating. The original contribution of the study is related to knowledge about how participation within an online learning community can impact learning outcomes. The study is significant because the results expand knowledge on how graduate students view the efficacy of online learning communities in connection with their overall academic success. The results from this research can assist faculty and administrators in possibly creating more useful online learning communities, thereby filling in the research gap in this area.

Instructors can foster a sense of community in their classrooms by using technology to connect with and support graduate students. Instructors can also reduce students' dissatisfaction with online learning environments by humanizing the student

experience (Berry, 2017). Supportive and collaborative experiences in online learning communities can help students feel connected to their classmates and instructors, reducing student attrition and improving overall student success (Berry, 2017; Dağhan & Akkoyunlu, 2016).

The results of this study could lead to positive social change by identifying factors that help students graduate from their online programs. Engaged and successful graduate students may directly impact their places of employment and possibly make positive societal changes in their communities and the field of public health. For example, a student with an MPH graduate degree can set up community health clinics, food education centers, community health clinics, disaster preparedness programs, and help with disease prevention. By creating these programs within their communities, graduates working in public health can improve the health of others.

Summary

The introduction provided background information related to online learning communities and information related to the research site. The study's central problem is that MPH online programs have been experiencing issues with retention, in addition to experiencing problems related to inconsistent implementation of online learning communities. Forming an understanding of the graduate students' perspectives, especially in a time of global uncertainty, could help mitigate these problems. The purpose of the qualitative study is to gain an understanding of graduate students' perceptions in online learning environments. These issues are investigated using

Siemens's (2004) connectivism theory. The results of the study may help to form an understanding of online graduate students' perceptions regarding online learning communities and could potentially assist instructors and stakeholders as they work to improve online programs.

A comprehensive review of the literature will be presented in Chapter 2. I review the building of a community in an online classroom, effective strategies for building online communities, culture in online learning, cultural sensitivity in countries other than the United States, and barriers to cultural sensitivity. I also supported the conceptual framework through an in-depth review of related literature.

Chapter 2: Literature Review

The study sought to find a solution to the inconsistent implementation of online learning communities by instructors within an online MPH university, which may have negatively influenced MPH student outcomes. This qualitative study sought to gain an understanding of the perceptions of MPH students as it relates to online graduate learning communities. In order to gain this understanding, I obtained knowledge about MPH students' perceptions in online learning environments.

Online education has become a mainstream global phenomenon that requires instructors worldwide to experiment with innovative pedagogies and techniques to create effective learning models. This trend has presented stakeholders with various opportunities and challenges (Kumar et al., 2017). In the United States, online higher education has continued to grow dramatically (Fredericksen, 2017). Recent estimates show that about 6% of all students are enrolled in an online course (Seaman et al., 2018). MPH programs have continued to grow as well due to the Covid-19 pandemic. Many researchers have tried to measure the efficacy and challenges of online learning environments. While researchers have investigated online programs and undergraduate students (Baldwin & Trespalacios, 2017; Martin et al., 2017), information related to MPH student perspectives is still needed.

Chapter 2 begins with the description of the literature search strategy. Next, the connectivism theory is described and the application of the theory to the study. The chapter will provide a thorough review of existing literature organized according to

themes. The review begins with an overview of online learning. The conceptual framework was provided for the basis of an understanding of learning and the online community. Next, the key themes in the literature review are presented, which include: (a) the overview of online learning, (b) online learning outcomes, (c) building community in the online classroom, (d) effective teaching strategies for online communities, and (e) the culture of online learning. The next section reviews the literature on online graduate learning outcomes and building community in the online graduate classroom, two important aspects of online MPH learning. The next section identifies several effective strategies for online communities. The final themes explored an aspect of culture and special topics related to online learning. This information is pertinent to the study due to the diverse student background in attendance at the research site. The review ends with a synthesis of existing publications related to the research questions and a description outlining why the selected approach is meaningful.

In this chapter, the following subjects are presented. First, an overview of online learning, online learning outcomes, building a community in the online classroom, strategies for online communities, culture, and online learning were provided. Next, the conceptual framework was supported through an in-depth review of related literature. Finally, the essentiality of engagement in online classrooms was established for graduate students' success.

Literature Search Strategy

A thorough literature search and review were conducted to form a thorough understanding of the existing literature related to online learning communities. Peer-reviewed articles published between 2016 and 2021 in databases of Walden University's library were accessed, including Educational Source, ERIC, ProQuest, Sage Journals, and CINAHL Plus with Full Text. Also, searches were conducted using Google Scholar and Google. The following search terms were used to locate works specific to this study: *online community, online learning communities, building online community, computer-mediated communication (CMC), communities of practice (CoPs), graduate online students, Master of Public Health online students, virtual communities, student perspective online learning, academic motivation, public health, Master of Public Health students, Master of Public Health, graduate students, masters students, online education outcomes, student isolation online learning communities, nonverbal communication, online learning behaviors, multicultural education, online learning design, intercultural learning, critical discourse, engaged pedagogies, connectivism theory,* and *culturally diverse students.* Variations of these terms and databases were used to generate results. When it was difficult to obtain literature, the researcher searched Google Scholar and Google. Most of the search results were limited to 2016–present; however, the time parameters were eliminated in instances where a theoretical framework or research methodology was investigated. The literature search provided an abundant array of published literature according to the themes in the study. Saturation was reached when

scholarly articles could be found on several search engines and became repetitive or predictable. The thorough search on multiple databases with many search terms and combinations ensured exhaustive search strategies and parameters.

Conceptual Framework

The conceptual framework for the study is Siemens's (2004) connectivism theory. Connectivism is derived from the cognitivism chaos theory and is embedded in self-organization and systems, which has roots in the theories of behaviorism, cognitivism, constructivism and addresses gaps in online learning (Siemens, 2017). The phrase "connectivism attention of education" relates to the context of the material that is learned and how the learner understands it (Mattar, 2018). Connectivism is a learning model that helps one to understand the shift in online learning (Mattar, 2018). A student's decision-making is a learning process because they choose what to learn and the meaning of incoming information as seen through the lens of continuously shifting reality (Siemens, 2017). Therefore, although an answer may be correct today, it may not be correct tomorrow because alterations in the information climate can affect its meaning (Siemens, 2017). Applying this theory in accordance with the ever-changing and evolving nature of technology and online learning was both relevant and significant within the current educational climate where the ubiquitous virtual learning platform facilitates a rapid transfer of information.

Connectivism is an unparalleled network learning theory developed specifically for e-learning environments (Goldie, 2016). Connectivism focuses on the thesis of the

dissemination of information across a group of interconnections (Hendricks, 2019). Connectivism has been used to explain e-learning environments through the expansion of online learning.

Several researchers have used connectivism theory as a foundation for their studies. Attar (2018) examined the role of connectivism theory in making schools smart. Smart schools were formed because of the impact and development of technology that provided a new environment for learning and teaching. According to connectivism theory, understanding and knowledge are distributed across a network of individuals. It defines learning as "the process of connection, growth, and navigation of those networks" (Attar, 2018, p. 3). Overall, Attar identified the need to reorganize school structures and spaces while considering technology to promote opportunities for connection and co-creation of knowledge. Corbett and Spinello (2020) examined the role of connectivism in redefining leadership because of the changes in learning and leadership in the digital age. Connectivism has been applied in this study to help gain an understanding of students' perspectives. I integrate connectivism theory to investigate how students are successful in online classrooms.

Literature Review

The literature review covers the main topics raised by the issues of online learning for MPH students. In particular, the concept of community for the online cohort of students is covered in several aspects. Those topics include building community, creating a sense of community, and the mental health of the community. Learning outcomes, the

social presence of the online classroom, effective teaching strategies, and feedback in the online classroom are also presented.

Online Learning

Online education provides a form of graduate education with a flexible schedule that enables nontraditional students to expand their educational potential in the comfort of their homes (Lee, 2017). Therefore, the most important standards associated with online education were satisfaction, instructor support, policies, and planning (Baldwin & Trespalacios, 2017). Martin et al. (2017) conducted a content analysis of existing global online learning standards to identify commonalities regarding essential standards for success in online graduate education. Course designers have applied these seven principles: (a) access to the instructor, (b) cooperation with peers, (c) active learning interventions, (d) prompt feedback, (e) timely tasks, (f) constant communication, and (g) respect for different ways of learning to the development of online courses with positive results (Martin et al., 2017). The participants of the study are a unique group of online students: MPH graduate students. Although published literature regarding this specific group of students is limited, it is presented in the section below.

Masters of Public Health Online Students

The literature on MPH graduate students pertains to topics related to nontraditional students' learning about the field of public health and how the limited knowledge of the field of public health provides challenges in the classroom (Lang, 2019). The field of public health is continually growing. The rise in demand for

healthcare occupations also opens educational opportunities for undergraduate and aspiring graduate students. There are 185 distance base programs, resulting in 84% of MPH degrees operating in the United States of America (Council on Education for Public Health, 2021). With the continual rise of programs and opportunities in the field, many people seek to switch careers with limited knowledge of the field of public health or online education. Students starting MPH classes are from a variety of different backgrounds and struggle with writing assignments in the classroom (Sullivan et al., 2018).

Many MPH online graduate students are nontraditional students that are either switching careers or trying to advance their career in the field of public health and are not sure of what the degree in public health entails. (Sullivan et al., 2018). MPH programs emphasize the practical aspect of public health and the role of promoting community awareness, violence prevention, environmental awareness, communicable diseases, and other health and safety issues (Sullivan et al., 2018).

These practical applications are necessary and greatly beneficial to society. However, they are challenging issues that should be tackled in the online classroom. Learning about the field of public health and being in an online classroom can be very overwhelming for many students. The College of Public Health at the University of South Florida (USF) conducted a study and found that students enrolled in their program felt that they were not prepared for a career in public health (Torrens et al., 2020). The Council on Education for Public Health outlined the criteria for schools and programs of

public health to reflect the needs of the workforce (Torrens et al., 2020). Through enhancing the opportunities of online learning MPH students, graduate students can become better prepared for the public health workforce through online education (Torrens et al., 2020). This ensures that the instructor has the necessary resources to foster a thriving online learning environment that enables the instructor to explain the field of public health and how students can navigate the online classroom are critical to the success of graduate students in the online classroom.

Another issue that MPH graduate students struggle with within the online classroom is writing skills. Lang (2019) stated, "Public health educators, we cannot assume that students come to us knowing how to write clearly about complex public health topics" (p. 4). Many assignments in MPH programs are presented in online discussions forums and written papers (Lang, 2019). Without proper writing skills, these graduate students will struggle with online discussion boards and papers. To provide proper resources for graduate students in an MPH program, the instructor can provide feedback and resources to assist the graduate student.

Online learning offers valuable benefits to these MPH graduate students but also generates areas of challenges for creating a community. As described in the previous section, most online MPH graduate students face constraints such as raising families and outside employment, which makes the programs difficult and demanding. It is important that MPH instructors and students work collaboratively to create a sense of belonging, which in turn can promote MPH graduate student engagement and success in the virtual

environment (Sullivan et al., 2018). A successful strategy to create a sense of belonging in the online classroom is through the creation of online learning communities.

Online Learning Community

An online learning community consists of students, instructors, and other staff members who collaborate to accomplish academic goals (Berry, 2017). While sharing some similar qualities, virtual communities are different from physical communities. Virtual communities have fewer opportunities for verbal clues and socializing before and after class. Students need to feel a sense of belonging when interacting in online communities (Arasaratnam-Smith & Northcote, 2017). In educational contexts, instructors, learners, and peers join together to form what is typically considered a community of practice (CoP) (Arasaratnam-Smith & Northcote, 2017). Bowers and Kumar (2015) indicated that within these communities, students feel a strong connection with their instructors. Creating a sense of belonging in the online classroom is a key topic of interest related to online learning and helps overall student outcomes, as well as satisfaction (Berry, 2017). Faculty who can recognize and engage students in the online classroom help to increase students' satisfaction (Ratliff, 2018). Supporting the idea that continuous measurement of online performance is important and engagement with the course improves satisfaction and allows the student to create a social presence in the online classroom (Choy & Quek, 2016).

Creating a sense of community entails individuals' feeling of a sense of belonging when interacting in online communities (Arasaratnam-Smith & Northcote, 2017). One

way an online instructor can establish this sense of belonging is to provide an introductory exercise in which students post photos of what they see outside of their windows before posting photos of themselves, and this provides them with something interesting to talk about before seeing whom they are interacting with (Arasaratnam-Smith & Northcote, 2017). Creating a connection in the virtual online classroom has the potential to help the students and the instructor start to create a sense of community.

The lack of nonverbal cues in online learning is not automatically a disadvantage (Clark-Gordon et al., 2018). Online instructors can provide clear instructions to establish decorum for students' interaction in the forum, which is particularly advantageous for students who feel uncomfortable about online communication. The addition of nonverbal elements to the student's experience, such as a profile photo or emojis, can help the student feel more connected. (Clark-Gordon et al., 2018). Graduate students can easily get into the classroom without being immediately required to be interactive. Online forums that use asynchronous engagement can be helpful for students who tend to not speak up for various reasons, such as being inhibited, feeling they are interrupting someone or being embarrassed about having an accent (Osborne et al., 2018). They also allow time for reflection that can lead to deeper responses (Arasaratnam-Smith & Northcote, 2017). Allowing the graduate student and the instructor to continue the educational online learning experience creates a sense of community.

When instructors foster engagement strategies in the online environment, students tend to become more active participants. An active role for instructors to engage students

would be to reach out to them regarding late or missing assignments, and this can help create a sense of an online community. Bao et al. (2018) developed a graduate instructor of practice role in a large online university with the goal of encouraging greater instructor engagement to increase student achievement. Students indicated better connections and stronger relationships with those in the instructor of practice role (Bao et al., 2018). Based on the analysis, the researchers concluded that the instructor of practice role has the potential to improve student success and satisfaction in online classrooms. In creating online learning communities, it is important to ensure that the instructor has practiced the role and knows the subject matter. The continuous professional education of instructor members who are about how to create online communities will help them to be successful in teaching the online learning outcomes to the class (Mohr & Shelton, 2017). Creating support guides for the instructor in the online classroom enables learning outcomes to be taught in an engaging way to the online students.

Building Community in Online Classroom

In the online virtual classroom, faculties can create a community to help students feel connected to each other. To build an effective online community, instructors need to foster the relationship between themselves and the students. This encompasses, for example, being attuned to the students suffering from mental health issues, where social presence in the classroom is challenging, and as such, may employ humor or levity to create a more engaged online community. Community, which is described as a feeling of being part of a social group, is critical to the online students' success (Berry, 2018).

In the face-to-face classroom, students foster community by sitting in one room looking at facial cues and body language. An online learning community fosters a feeling of connection among students through working together in an atmosphere based on trust (Baran, 2019). Students that feel connected to the instructor and fellow peers will be more engaged in the online learning environment and less likely to withdraw from the program (Gillett-Swan, 2017). There are a variety of ways that the instructor can build community within the online learning environment. Instructors' engagement with students can support retention in online programs (Berry, 2019). Effective facilitation techniques for online teaching involve social presence, cognizance of mental health concerns, and promoting a sense of community to build connectedness between students and instructors. Social presence in online teaching may include techniques, such as engaging in meaningful interactions (Obizoba, 2016). Responding to questions and comments in the discussion boards on a regular basis shows that the instructor is engaged in the course. It is also helpful to have a question-and-answer discussion section that the instructor checks often. Providing grades on time to students helps them know that the instructor is reviewing assignments (Bolliger & Martin, 2018). Through continual engagement with the student and instructor, the student can start to create a sense of community in the online classroom.

Berry (2018) found that being a part of an online learning community can help foster relationships and eliminate social isolation. This will, in turn, improve the students' mental health, which is related to students' success. Graduate students struggle with

anxiety, depression, and social isolation that can contribute to withdrawing from courses (Sverdlik et al., 2018). The feeling of being a part of a community can also help reduce graduate students' mental health obstacles (Berry, 2018).

Online Learning Outcomes

Outcomes related to online learning refer to creating online learning communities, analyzing the data, and the design of the online classroom. In the modern global economy, the critical measure of students' success in online learning environments is the achievement of desired learning outcomes (Bettinger et al., 2017). Transactional distance, according to Moore (1991), is defined as the following:

> distance of understandings and perceptions, caused in part by the geographic distance, that has to be overcome by instructors, learners and educational organizations, if effective, deliberate, and planned learning is to occur and thus can influence the degree to which students engage with their schools and their academic progress in general. (p. 2)

Yet within online environments, instructors have continued to track students' progress traditionally, using learning goals and student satisfaction as metrics (Shih & Tsai, 2017). Analyzing the learning outcomes by key areas of learning analytics, class design, and academic outcomes are all part of the online learning outcomes.

The use of learning analytics can enhance students' engagement and performance in online classes (Martin & Ndoye, 2016). By using learning analytics, instructors can collect and analyze data about students and use that data to improve the design and

delivery of curriculum to make it more purposeful for students (Martin & Ndoye, 2016). Martin and Ndoye (2016) reviewed different kinds of online evaluations and identified data sets that instructors could collect and analyze. To accomplish this, instructors may use 'Tableaus' and 'Many Eyes' to analyze and visualize quantitative and qualitative data, respectively. These tools allow instructors to link different pieces of data that inform and support their decision-making while evaluating teaching and learning. In addition, instructors could provide instant feedback to students and develop improved teaching methods and learning materials (Martin & Ndoye, 2016).

The online class design is an important element related to learning outcomes. Ensuring that the class design enables students to learn the material in the course is key to academic success. Eom and Ashill (2016) examined online learning in association with class design, intrinsic and extrinsic motivation, instructor, student self-regulation, and dialogue. Student–student dialogue, instructor-student dialogue, course design, and instructor effectiveness significantly influenced students' satisfaction and learning outcomes. Continuing education for instructors in online teaching skills helped create courses that promote student success (Eom & Ashill, 2016). The strongest predictors of student satisfaction and learning outcomes were associated with the instructor's responsibility for the course's design and engagement potential for the student (Eom & Ashill, 2016).

Academic outcomes of graduate students are an important part of the online classroom. Researchers found evidence that students need to feel a sense of belonging

when interacting in online communities (Arasaratnam-Smith & Northcote, 2017). Instructors can provide clear instructions for decorum to interact in the forum, which is especially advantageous to students that feel uncomfortable or shy away from face-to-face online communication (Madden et al., 2017). Online forums that use asynchronous communication can be helpful to graduate students that tend to stay quiet in class.

Discussion forums can help to reiterate the learning outcomes of the module and allow time for reflection, which has the potential for more in-depth responses. Wikle and West (2019) examined that discussion forums did not benefit students' easy learning concepts; however, discussion forums were associated with better learning outcomes for those learning moderately difficult topics. While participation did not produce positive outcomes for highly difficult topics, high-quality participation helped to improve outcomes (Wikle & West, 2019). The concepts that the students discussed in online discussion forums depended on the level of difficulty associated with students' learning outcomes (Wikle & West, 2019). Graduate students' awareness of the quality of their participation and the level of difficulty of the topic improved their review and understanding of the concepts learned. Understanding the elements of online learning outcomes is the first step in building communities in online classrooms.

Mental Health and Online Learning Communities

The mental health of graduate students is an important topic to address. Graduate students have the responsibility of overseeing family, finances, and jobs that create additional stressors in their lives. This is because completing a graduate-level program

demands time and commitment. Many of these graduate students have been out of school for several years, and thus, going back to an online graduate program can cause stress and anxiety. Eighteen percent of doctoral students who majored in economics in the United States experienced mental health issues in the form of depression and anxiety (Evans et al., 2018). Many students in the economics doctoral program had symptoms of mental distress caused by failure to seek treatment. Evans et al. (2018) recommended that faculties listen to students and advise them to partner with the university's counseling center. In the online virtual classroom, providing resources for students to seek help is key to students' success. At the beginning of the courses, it is helpful to provide a mental health announcement with key resources and counseling opportunities for students that may need help. This can also help students to know that there are resources, and they are not alone in this journey (Evans et al., 2018). Through the continual check-in and understanding, graduate students will help with creating a sense of community in the online classroom.

Creating a Sense of Community in the Online Classroom

A sense of community is created through establishing roles and responsibilities in the classroom through projects that support working together rather than alone (Garrett et al., 2017). Online learning communities differ from a sense of community because online learning communities are a learning management software system of students coming together to learn the material. Collective and personal interactions between instructors and students help create a sense of community by making the instructor accessible and

engaging in the online classroom (Berry, 2017). The instructor can create a community by hosting virtual office hours for students. Allowing graduate students to attend a virtual face-to-face session to see the instructor and ask questions helps humanize the experience of seeking help and knowing that the instructor is accessible to them (Lowenthal et al., 2017). In addition to office hours, face-to-face meetings, and answering the students' emails in a timely manner allows students to know that the instructor is available if needed (Berry, 2019). Having the instructor accessible and available to students helps create a sense of trust between the student and the instructor (Berry, 2019).

Online communication could allow graduate students to speak more openly with authoritative figures. Proactive communication between instructor and students at the beginning of the class is the first step of humanizing the classroom (Miller et al., 2019). Allowing the MPH students to observe that an instructor is present and able to help them breaks down the barriers in the online classroom. When the instructor can share about themselves and their journey in the online classroom, it allows the student to have a connection with the instructor (Berry, 2019). The continual outreach of the instructor reminds the graduate student that they are being supported, which encourages them to reach out and not feel isolated. This also allows for the students to provide feedback to the instructor, which will help them to enhance their teaching abilities (Steyn et al., 2019). At the end of the course, it is important to congratulate the students on their success in completing the course and advancing in their journey (Steyn et al., 2019).

Social Presence in the Online Classroom

A social presence and a sense of belonging are essential within online learning environments (Baleria, 2019). According to Peacock and Cowan (2019), "The need for belonging is one of the most important needs for all students to function well in all types of learning environment" (p. 68). Self-efficacy, self-confidence, and improved academic engagements have been linked to a sense of belonging (Peacock & Cowan, 2019). An instructor who continually focuses on fostering peer collaboration and active engagement in the online classroom will help create a sense of presence and belonging for the students to optimize academic success.

Connectedness to the course is critical in creating a sense of community. According to Zimmerman and Nimon (2017), "Online students' connectedness refers to human interactions in computer-mediated learning environments, that allow individuals to participate comfortably in group communications, thereby forming social relationships" (p. 4). Using humor to create rapport in the online classroom has been an effective way to create connectedness and engagement (McCabe et al., 2017). Humor helps to engage students and sustain attention on the material; focusing on the class material helps facilitate the educational process (Savage et al., 2017). A sense of humor when delivering material can help brighten up the material and enhance a dull material. Providing a joke in the faculties' announcements to students can help aid in the process of the student reading the announcement and their desire to learn more about the material. It is important to note that inappropriate humor should not be used at all in an online

classroom. Providing laugher for students in the online classroom can be more difficult, but laughter is a universal language of emotions that all humans share (Savage et al., 2017). Creating this sense of connectedness is important for the success of the graduate student. In addition to social presence, there are other effective strategies that faculties can utilize in the classroom.

Effective Teaching Strategies for Online Classrooms

Online learning is popular; however, it is important to understand certain strategies to build community in an effective classroom because popularity does not always equate to success. By reaching out regularly, the use of discussion boards, dividing the large class into smaller groups, and obtaining feedback from students, instructors can work on fine-tuning their online course delivery methods. A sense of community in an online classroom is different from online communities because of the role the instructor and students play in creating an online community.

Berry (2019) conducted a qualitative case study on faculties' perspectives of creating community in an online program. The findings suggested that the instructor's role is to foster a sense of community by helping students to make connections in the online classroom. Reaching out to students regularly, creating engaging and smaller group discussions boards, providing formative and summative feedback, and guarding against a rubric will support student success.

Reaching out regularly to graduate students in the class helps them know that an instructor is present in the classroom and creates a connection with the instructor.

Arasaratnam-Smith and Northcote (2017) explored the concept of constant communication and its significance for creating community in association with online communities of practice. People within online learning communities feel a strong connection with their instructors (Voelkel & Chrispeels, 2017).

Mohr and Shelton (2017) found that there is a need to support the development of instructors' and students' computer and Internet skills. These skills should be included as essential components of education to aid students in their academic and future professional endeavors. Although other factors clearly influence the efficacy of online education, such as students' cultural backgrounds and instructors' pedagogical skills, it is also critical that instructors seek out, make use of, and share with their colleagues the best strategies for online teaching from the literature (Damary et al., 2017).

Utilizing the discussion board within the course enriched with articles, videos, and supplementary material allows students to continue the conversation of the lecture with the instructor and other classmates (Covelli, 2017). The continual use of dialogues and discussions allowed the students' interactions to be collaborative. In this process, the instructor assumes that the student would read the material and then process the text and concepts to participate in a discussion (Ratliff, 2018). Kent and Rafaeli's (2016) study results suggested that students' learning outcomes improved when they had greater autonomy to lead or foster interactive discussions in online settings. Another factor to consider when designing an online graduate learning environment is the need for

instructors to explain assignments as if they were in a face-to-face learning environment (Choy & Quek, 2016).

Breaking the large online graduate classroom into smaller groups helps students feel that there is room for everyone to contribute (Yang et al., 2020). Creating small groups allows each student to individually respond and share thoughts with the other students (Yang et al., 2020); this helps to encourage the facilitation of the online graduate discussion. Engaging graduate students in discussions about their ideas and challenging fellow classmates on the ideas helps the students feel comfortable and become part of the community (Yang et al., 2020). Once graduate students feel comfortable in the classroom, the instructor can then continue to build a relationship through feedback.

Feedback in the Online Classroom

Another strategy to build community in the Master of Public Health learning environment is consistent feedback from the instructor to the students. Feedback from a graduate instructor to students needs to be supported by the rubrics for the assignments (Thomas & Graham, 2019). Rubrics are used to help the instructor grade the paper and discussions against a set of guidelines. The use of a rubric provides students with a complete form of feedback because it gives specific feedback about the extent to which a student has succeeded or failed to meet given standards (Thomas & Graham, 2019). The two most common written feedback types were margin comments and tracked changes (Walters & Henry, 2016). Rizana et al. (2020) also found that user satisfaction, actual usage, and continuance usage were associated with academic outcomes (Rizana et al.,

2020). Walters and Henry (2016) and Rizana et al. (2020) demonstrated that continuous feedback to students has a significant effect on their success in the course.

The graduate instructor's role in the discussion of student feedback is important for coaching and helps to foster a high level of online thinking in the classroom (Fabiano et al., 2018). The instructor should also be engaged in the discussion, providing support and guidance to students, and addressing students that are making irrelevant or lengthy comments that are not related to the material (Fabiano et al., 2018). The graduate instructor can engage in two key types of feedback: (a) formative and (b) summative, which are the determining factors in students' success in the online classroom (Ryan & Henderson, 2018). Formative feedback is qualitative feedback of a student's work and performance which allows for an opportunity to improve the submission (McCarthy, 2017). Providing high-quality and timely feedback to the graduate student plays a major role in improving students' learning and developing a student-instructor relationship. Formative feedback is important to the student to ensure that they learn the material throughout the duration of the course (McCarthy, 2017).

In the online graduate classrooms, it is also important to receive students' feedback to help the instructor review students' opinions after participating in the online class. The students' feedback could be given through email, discussion board, survey, or even polling the students. The qualitative feedback provided by graduate students will help the graduate instructor to adjust the class to suit the students' needs (Bolliger & Martin, 2018).

The demonstration of the students' knowledge in a quiz or formal course exam allows the students and the instructor to assess the students' level of learning. In online classrooms, summative feedback through pretests to assess the students at the beginning of the course helps to gauge the students' knowledge (Steele & Holbeck, 2018). This allows the instructor to know the appropriate level of the students' knowledge and how to guide them during the course. Creating an engaging online course may improve the student's experience (McDaniels et al., 2016). Enabling graduate students to connect with the instructor and other students can help them increase their engagement during their course. Through these effective strategies in the online classroom, faculties can help increase engagement and learn from the students. To continue these effective efforts, it is important to understand the culture of the online classroom.

Special Topics in Online Learning

This section covers special topics that are not normally addressed with the topic of online learning and virtual classroom environments. The topics that will be covered here include the awareness of different cultures of students that interface with the online materials. The issues of diversity in the curriculum and international student issues are also described. Finally, the implications of the impact of the Covid-19 pandemic on online MPH learning are introduced.

Culture in Online Learning

Online virtual graduate classrooms draw from a wide population of diverse students that choose to attend online classes. There are several significant elements

related to culture and creating an online community that needs to be considered. It is important to review the curriculum, the components of an inclusive environment, and understand international students' needs, as all these help to build community.

Culture in online graduate learning is important because instructors often do not recognize and address the cultural diversity in their online learning environments (Kumi-Yeboah et al., 2017). Creating a culture in the online learning environment entails creating a culturally diverse curriculum and an inclusive environment. Also, creating the instructor-student relationship helps build a culturally diverse community. Understanding the needs of graduate students from other cultures can assist in creating an inclusive curriculum. Ensuring that online courses have resources that can support international students is important, as well as presenting a variety of material to help diversify the curriculum. The ability to present materials in a variety of ways can help with different cultural issues, as well as improve the success rates of online students (Arthur, 2017).

Diverse Curriculum

The curriculum for a particular graduate course is the educational plan of learning for the students, which includes the syllabus, discussion boards, and assignments (Chung et al., 2017). The online learning curriculum format is different from the in-person curriculum format because it is presented in advance in the learning management software course shells. Allowing students to have individual work, group work, discussions, and making video presentations will help students become successful in the classroom (Arthur, 2017). Instructors can also provide lectures through text, video, and

supplementary visual materials to help students understand the key concepts. Shaping an understanding of diverse cultures in the online classroom can help students overcome cultural boundaries. Thus, ensuring that the online graduate community is aware and understanding of cultural differences are two elements that are desired by students to create a trusting online environment (Morong & DesBiens, 2016). This is especially important in diversified parts of the world where people of many different cultures are taught together.

Kumi-Yeboah et al. (2017) conducted a study with 20 graduate students from diverse cultural backgrounds enrolled in an online graduate program and found that they faced challenges in dealing with the lack of diversity in the curriculum or discussion posts. Creating a diverse curriculum with reading, diverse learning activities about cultural inclusions, and exposing the students to a wide variety of cultures encourage the students to share about themselves and their experiences (Damary et al., 2017). It is important to create an MPH curriculum that considers the cultures of other countries. This will ensure the success of the students and the program.

Creating an inclusive environment for all cultures is critical because students in the online classroom may come from a variety of different backgrounds. Damary et al. (2017) stated that students from some parts of Asia tend not to understand that learning is a social process, and they experience issues collaborating in groups. All students have a right and opportunity to bring knowledge and experience into the online classroom, which helps with understanding and retention of the learning material (Damary et al.,

2017). Through the different cultures and societal make-up of the student population, it is also imperative to understand the international students in the classroom.

International Students

Many international students are enrolled in online courses and can find it challenging to understand the materials in an online virtual classroom. The instructor's role is student-centered compared to instructor-centered, as it may be in a more traditional classroom (Damary et al., 2017). This change of focus in online learning is challenging because instructors in different cultures play different roles, such as a guru who transmits educational knowledge to the learner, or a facilitator who is egalitarian, making all students equal (Damary et al., 2017). Creating a culture in the online graduate classroom requires that students be provided appropriate support from their schools (Atkins et al., 2016). The work discussed in this section has the potential to improve online education strategies for graduate students of all ethnicities, resulting in better understanding and respect in the modern globalized world. The findings of multiple researchers indicated that although there are barriers to online learning that must be overcome, the positive outcomes of online graduate communities include increased collaboration and peer learning (AlDahdouh, 2017; Ambrose et al., 2017; Atkins et al., 2016).

The culture of the online classroom is important in the current society to understand and respect our students. Fostering a relationship of understanding and acceptance will help students form a trusting atmosphere with the instructor. An

understanding of various cultures, as well as the individual culture of the classroom, was pertinent to this study because the participants have formed a diverse group of online learners.

Covid-19 Implications

The Covid-19 pandemic has led to an explosion in online learning worldwide, as instructors try to keep students safe while continuing their education (Dhawan, 2020). The need for strategies to develop useful online classes is more pressing than ever, and understanding those strategies and how to implement them has become of great importance (Dhawan, 2020). The study could bring positive social change by identifying the perceptions of online students in challenging times to help serve them better. In addition to adding to scholarly literature, the study could help educate stakeholders involved in the development of online education to make choices that could help reduce attrition of students and increase graduation rates.

Summary and Conclusions

In conclusion, the key themes in the literature review of online learning helped in identifying the importance of creating a community within the online classroom. Fostering instructor engagement strategies with students can help build a community by promoting a sense of belonging, which will ultimately improve the overall satisfaction of online students (Arasaratnam-Smith & Northcote, 2017). Through the continual sense of community, the online learning outcomes of using analytics in the classroom can help identify engagement and performance issues (Martin & Ndoye, 2016). Understanding the

analytics and applying the feedback can help in building community in the online classroom. Understanding the students' needs and checking on the students' mental health can foster the essential elements of the community (Sverdlik et al., 2018). Regularly contacting students with constant feedback builds online communities based on engagement (Arasaratnam-Smith & Northcote, 2017). An understanding of the composition of the students in the online community is an essential part of understanding the culture of the students. Reviewing and updating the curriculum to ensure that the material is culturally diverse is an important element to ensure that all the students feel accepted in the classroom (Kumi-Yeboah et al., 2017). It also ensures that every student has the support and resources that are needed to succeed (Atkins et al., 2016).

The Covid-19 pandemic has made online teaching nearly mandatory, which makes this study and similar ones pertinent for the effective development of education. Researchers have investigated many different aspects of online learning, including student academic outcomes, but many researchers have targeted the undergraduate level (Berry, 2019; Slapak-Barski, 2017). Although more researchers have taken an interest in graduate students, there are still large gaps in existing literature, especially regarding graduate students' perceptions (Berry, 2019). The lack of information on how graduate students perceive their participation in online learning identified in the literature review may contribute to low retention rates in online Master of Public Health programs; the study could help mitigate this problem.

In Chapter 3, I focus on the research methods of the study. The research design, the rationale for the design, and my role as the researcher is discussed. Also, a description of the methodology, instrumentation, trustworthiness, and ethical procedures of the study is given.

Chapter 3: Research Method

The purpose of this qualitative study was to gain an understanding of online graduate student perceptions as it relates to online learning communities. Over the past 20 years, online learning has surged in response to the desire of students to balance a social life, employment, and academic schedules (Berry, 2018). Understanding students' perceptions of online learning are therefore important, especially in the context of academic success. In this chapter, the research methods to investigate the topic are presented. The sections that follow describe the research design and rationale, the role of the researcher, participant selection**,** instrumentation, recruitment, data collection, data analysis, trustworthiness, and ethical procedures.

Research Questions

Two research questions:

Research Question 1: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities?

Research Question 2: Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial?

Research Methodology

This study used a qualitative methodology. According to Yazan (2015), researchers can adopt a qualitative, quantitative, or mixed-methods approach in a research study. A researcher should select a research method that is in line with the study

conducted based on the nature and purpose of the research and the formulated research questions (Patton, 2002). According to Yin (2015), researchers conduct qualitative methodology mainly to collect relevant and important information about encounters, views, attitudes, and perceptions of a particular event by participants, which enhances the understanding of the phenomenon studied.

Researchers frequently use qualitative research methods to investigate the attitudes, feelings, and experiences of participants in relation to a phenomenon. According to Merriam (2002), researchers investigate people's views regarding a given event using qualitative methodology. Qualitative research helps to understand the interpretation of a person's experience and overall experience (Merriam, 2002). Stake (2010) recommended that qualitative researchers ask "what" and "how" questions.

Quantitative research methodology is relevant to the study, but it was not best suited to address the research questions. Merriam and Tisdell (2015) established that applying a quantitative methodology to a research problem involves developing and examining assumptions and hypotheses. A quantitative researcher should strictly demonstrate the relationships between variables that are necessary for the hypotheses regarding a given phenomenon to be accepted or rejected. Researchers use quantitative methodology when they want to respond to closed-ended "what" questions (Yazan, 2015). This project neither formed hypotheses nor showed how variables related but allowed participants to express their views in open-ended discussions, which made a quantitative methodology inappropriate for the study.

Yazan (2015) stated that the mixed methods approach integrates both qualitative and quantitative research methods in the investigation of an event. Merging qualitative and quantitative data is also important when carrying out a comprehensive study. However, the mixed methods approach was not relevant because of the purpose and qualitative nature of the study. Therefore, a qualitative approach is relevant to the study.

Research Design and Rationale

A qualitative descriptive research design was used as the research design to collect the data to answer the research questions. Qualitative descriptive research design uses basic qualitative description as a categorical inquiry into the nature of a phenomenon (Sandelowski, 2000). According to Thorne (2016), this research design can address "what" and "how" questions, which makes it compatible with the purpose of the study and the chosen qualitative methodology. A qualitative descriptive design is best suited to investigate the experiences of MPH students in online learning communities. Researchers can use qualitative descriptive design to gain deeper insight and more information about real-life events experienced by study participants (Dulock, 1993; Sandelowski, 2000). A descriptive qualitative design is relevant for the study, and semistructured interviews were used utilized to gather data from participants regarding their perceptions of online environments.

I also considered other research designs, including ethnography, grounded theory, narrative inquiry, and phenomenology. Researchers employ ethnography when exploring a given population (Patton, 2002), which was not the purpose of this study. Merriam

(2002) stated that a grounded theory design is applicable when the purpose of a study is to create a theory based on research findings. Theory building was also not the goal of the study. Clandinin et al. (2015) stated that researchers conduct narrative inquiry research when exploring participants' life experiences and stories, which means that narrative inquiry design was irrelevant for the study. Finally, phenomenology was not best suited for the study because I did not plan to focus on participants' lived experiences but rather on their thoughts and views. After considering other research designs, a descriptive qualitative research design (Sandelowski, 2000) was best suited for the study. A qualitative descriptive design study allowed me to address the concept at hand and to be able to understand students' perspectives in the online classroom.

Role of the Researcher

According to Merriam and Grenier (2019), a qualitative researcher has several roles in the research process. The first role of the researcher is to organize, plan, and facilitate the research process. For the study, I planed the research process and its implementation. This included identifying data collection tools, contacting participants, and taking any other steps needed to reach the research objectives.

The second role of the researcher is to reduce bias. As the investigator, I used several techniques to minimize research bias. The first technique involved the strict adherence to Institutional Review Board (IRB) protocols. Second, I maintained a researcher journal and used bracketing during data analysis to visually set aside my thoughts and concerns in the margins. Patton (2002) described bracketing as a method

that a researcher uses to ensure the validity of data collection and analysis. Bracketing entails a researcher declaring and removing personal experiences, knowledge, interests, and beliefs from a study. I engaged in the practice of bracketing by interviewing participants and documenting their responses in my research journal. The process continued throughout the data collection and analysis, and I prepared a final report of personal bias.

The third role of the researcher is to maintain and uphold ethical considerations guiding social research. In this case, I respected participants and protected their privacy and confidentiality using pseudonyms. I talked to participants respectfully, addressed all their concerns relating to the study in a timely fashion, and provided them with opportunities to consider their participation in the study. I gave every potential participant an equal opportunity to be considered for participation without discrimination or bias.

As the faculty manager of a Master of Public Health program, I occasionally work with instructors to address students' complaints. I have also worked closely with professors and administrators to help train the instructor regarding teaching methods in an online classroom. To avoid any conflicts of interest or possible situations that could cause bias, I did not accept any participant of any instructor with whom I have worked in the past regarding students' complaints. I did not include colleagues as participants. Any personal information or my own experiences of taking online MPH courses or experiences related to work or my education were not discussed with participants.

After the interviews, I documented any feelings of bias or thoughts in my journal to continue the bracketing process. Giving clear details about my roles and informing participants that I am a faculty manager who is working on her doctoral dissertation and conducting the research helped ensure transparency. To ensure that participants did not feel obliged to share or withhold information based on my job role, I explained that the student's identity would be protected. The use of bracketing (Janak, 2018) was helpful in addressing any conflicts of interest or bias to ensure that these factors do not influence the data collection or analysis.

Finally, before collecting data, I obtained approval from the Walden University IRB, as well as the research site's IRB, to ensure that my planned treatment of participants was ethical. I informed participants that they are free to end their participation at any time, even during an interview, without any negative effects. Best practices related to reducing bias and information, keeping the students' identity protected, addressing potential bias, conflicts of interest or power differentials ensured that the study is conducted in the most ethical manner possible.

Methodology

The methodology section consists of participant selection logic, instrumentation, procedures for recruitment, participation, data collection, and data analysis plan. Furthermore, several issues of trustworthiness are also addressed in this section.

Participant Selection

The target population for the study consisted of students enrolled in an MPH program at an online university. I used purposive sampling to recruit participants. As defined by Yin (2015), purposive sampling is a nonparametric method that researchers use to identify and recruit research participants who share similar experiences. Purposive sampling was suitable because the study participants will be within reach. Furthermore, purposive sampling allowed me to concentrate on a particular population directly affected by the subject of interest (Merriam, 2002). I recruited a purposive sample of 12 participants. This sample size is justified because Morse (2000) recommended a small sample for qualitative studies given the amount of interview data that were collected and analyzed.

I contacted the appropriate personnel at the selected university by emailing them. In this contact, I formally requested to gain access to potential participants to invite them to participate. The Dean of the MPH program then provided a list of students' names and contact information to recruit participants for the interview. Next, I emailed the students with the recruitment email (Appendix A) explaining the study, outlining the purpose of the study, and inviting the students to participate. Upon receiving confirmation from potential participants by expressing their intentions to take part in the study, I confirmed their ability to take part based on the following participation criteria: Every participant needed to be enrolled in the online MPH program at the university and needed to have participated actively in online learning. Each participant was required to complete an

informed consent form (see Appendix B) that was emailed to them along with an explanation of the interview protocol to demonstrate their voluntary participation. The participants were informed of their rights during the study, and I used pseudonyms known only to the participants to maintain their privacy and confidentiality.

Instrumentation

In this study, the data collection tools were open-ended, semistructured interviews. According to Yin (2015), I was the principal data collection instrument. Lambert and Lambert (2012) contended that the use of semistructured interviews for data collection allows qualitative researchers to gather necessary in-depth data about a phenomenon of interest. Interviews were carried out online through Zoom. Permission was requested to record the audio of each interview before the interview began.

Triangulation was applied to the semi structured interviews for the 10 to 20 students. Triangulation ensures the "credibility and validity of the research findings" (Noble & Heale, 2019, p. 4) to enhance the reliability, validity, and saturation of the data. Member checking was used to validate the semi structured interviews. According to Yin (2015), member checking is a qualitative technique that allows participants to explain their transcripts or interpret their responses for an investigator to ensure that recorded data are consistent with participants' thoughts and opinions. I used peer debriefing for my colleagues to review the data and obtain any insights they might have about the issues presented.

A researcher journal was utilized throughout the data collection and analysis. The methods helped ensure that the data collection tools were reliable and could assist in achieving the purpose of the study. The instrument development and data analysis were related to the framework of the study. Additionally, the interview questions were utilized to discuss the experiences of the 12 students from the Master of Public Health online program. These questions allowed the data from the MPH students to be grouped into categories of engagement in the classroom to perceive the efficacy of online learning communities, feelings of isolation and loneliness, and to address their experience in the online program.

The research instrument, its development, and the subsequent data analysis related to the study's framework as the research instrument included interview questions specifically targeted at the 12 students from the Master of Public Health online program. The questions were grouped into categories, including (a) engagement in the classroom, (b) perceptions of the efficacy of online learning communities, (c) feelings of isolation and aloneness, and (d) their overall experiences in the online program.

Procedures for Recruitment, Participation, and Data Collection

Before commencing data collection, approval was sought from Walden University's IRB and the IRB at the research site to carry out the study. The IRBs reviewed the application and ensured that the study was following the university's ethical guidelines and with United States'-regulations. After receiving approval, the process included contacting potential participants and assessing whether they met the criteria for

taking part in the study. I contacted the online Master of Public Health students through recruitment emails and then followed up the process of emailing all students who have completed two courses in the online Master of Public Health program. I simultaneously raised awareness about the study through social media campaigns with the permission of stakeholders. The emails, along with phone calls, served as a follow-up strategy of my outreach to communicate with those who meet the inclusion criteria. I personally called every participant to set the day and time for their online interview. After agreeing on a day and time, participants received a meeting invitation for the interview, which required every participant to sign a consent form that was emailed to them before they took part in the study. The consent form indicated the study's purpose and informed participants that they did not receive an incentive for participating in the study.

Interviews occurred over a period of a few weeks, and each participant selected a particular date they were comfortable with for their interview. The use of third-party pseudonyms gave me the ability to hide the identities of students in the study. Each interview lasted for 45–60 minutes to give the participants ample time to respond to the interview questions.

When each interview ended, debriefing began, and the participants were thanked for their time. They were also commended for contributing to the improvement of the online Master of Public Health program. Participants received the researcher's contact information so that if any questions arose, they were able to make contact. Participants were informed that a transcript of their interview was sent to them for review and

comment as needed. Participants were asked if they would like to add any additional comments or have other concerns. They were also reminded that their identities and feedback were confidential and were concealed even in the final published study. Additionally, follow-up with participants to inform them about the progress of the study and how to read the final published study were communicated to them.

Data Analysis Plan

Data analysis started immediately upon the conclusion of data collection. The main reason for this is to minimize the chances of data loss before data analysis begins (Maguire & Delahunt, 2017). I used open coding on Microsoft Excel® to identify and generate patterns and themes from the data collected.

To become acquainted with the collected data, I recorded the transcripts in Microsoft Word®. After transcribing my conversations with the participants, I reviewed the transcripts and listened to the audio recordings so that I could have an overview of the responses to each question. I transferred the individual responses from Microsoft Word into Nvivo (QSR International, 2021), where I coded the responses electronically and reviewed the codes in the software program. Through this process, I was able to filter the responses by noting the frequency of use and reporting reoccurring themes. After another thorough review of responses, I gave the group similar phrases for further analysis (Maguire & Delahunt, 2017).

After initial organization, I assigned unique codes to the identified and reoccurring words and phrases and then categorized similar patterns and possible themes

for easy retrieval and consistency. With this, I was able to generate and identify all emerging patterns and themes from the coded and classified data. I used the retrieved themes and patterns to write an analysis report and discuss how themes and patterns link to the study, theory, and existing literature. Finally, the data generated during the study were stored on a password-secured external USB drive to limit unauthorized access.

The logic of validity testing is an important factor to control in qualitative studies to discern discrepant data or negative case analysis. When conducting research, sometimes events or accounts which depict defects that cannot be accounted for occur in the data. Discrepant findings can also identify potential flaws in the design of the questions or the response answers (DiLoreto & Gaines, 2016). When discrepant data are presented, the researcher needs to review the material supporting the discrepancies and determine whether the results should be amended or retained as they are (DiLoreto & Gaines, 2016). If this occurred, I asked peers who assisted with debriefing to review the discrepant cases to possibly identify errors in research logic and methods or discuss possible outcomes that were not apparent in the literature.

Trustworthiness

The trustworthiness of qualitative data requires specific attention to strategies and techniques that ensure the data captures what it is intended to represent. The issues of trustworthiness of the data are the requirements that the data be credible, transferable, dependable, and confirmable. These aspects of trustworthiness are found in the structure of the research study, which confirms that the collected data represent the issues and the

context of the research (Hayashi et al., 2019). Therefore, an emphasis on tests and strategies supports trustworthiness as a critical dimension of the overall study. This section addresses the techniques and strategies used to ensure the trustworthiness of the data.

Credibility

Yazan (2015) defined credibility as the dependability or acceptability of participants in a study. According to Merriam and Grenier (2019), qualitative results are credible when accurately interpreting participants' thoughts and experiences. Stake (2010) suggested that lengthening the data collection process, member checking, encouraging peer debriefing, and triangulation can improve the credibility of a study. I utilized triangulation, including member-checking, peer debriefing, and the use of a researcher journal to be able to triangulate the data and to validate the interview responses in this study (Sandelowski, 2000).

Transferability

A key criterion for determining the trustworthiness of the study is transferability. Stake (2010) contended that a researcher could produce transferable findings by first defining the key assumptions and challenges of their study. As Merriam (2002) emphasized, providing rich descriptive explanations of collected data that allow readers to easily interpret the results can enhance transferability. I described study assumptions that were likely to affect the final analysis to improve the transferability of this study to

other institutions. I also encouraged participants to give candid responses. To assist future researchers in this area, I also defined the criteria used in the recruitment of participants.

Dependability

According to Dulock (1993), rich data are of high quality in a qualitative study. The purpose of concentrating on data richness and thickness is to ensure the capture of important details that provide dependability of the data. I researched data saturation by carrying out detailed interviews with every participant, using member checking to corroborate transcripts, and applying triangulation to review archived documents.

Confirmability

To achieve confirmability, I ensured that the information gathered was informed by the participants and not me. Confirmability can be achieved by using an audit trail that begins with recording the interviews, then transcribing and analyzing the data. Each step of the analysis process is noted in the researcher's journal, along with data that is unique and interesting. The detailed documentation of the process provides a trail of the process of using and analyzing the data. The reflexivity technique of examining participant-researcher relationships will be used (Jacobson & Mustafa, 2019). By trying to examine and consciously acknowledge that I bring the assumptions and preconceptions of being an online student and working for the university. Through acknowledging these assumptions, I was able to write them down in my research notebook to ensure that I was not biased. Intrinsic to research confirmability, I included an audit process whereby the researcher's communication and self-accounts are genuine to the research design and

parameters. If inquiries display a spectrum of fairness of concerns or issues, then authenticity is demonstrated, thus ensuring confirmability through the detailed notes and auditing to ensure data accuracy.

Ethical Procedures

The ethical procedures related to this study are important to ensure that the research is done ethically through the IRB, as required by Walden University. Walden University and the IRB protect the students from any potential harm. Students' participation in the study was voluntary, and informed consent was obtained from all participants before the study was conducted.

My role as the researcher for this basic qualitative study was to: (a) develop the research questions, (b) send emails to selected students, (c) coordinate all data collection procedures, (d) collect the data, and (e) analyze and interpret the results. I submitted my proposal to the IRB along with a waiver of documentation of informed consent. After gaining approval from the IRB, the data collection process began. First, I sent a recruitment flyer with information about the study and a survey link to the school administrator providing a summary of the purpose, rationale, research instruments, confidentiality and anonymity protections, and informed consent of the study, along with my contact information. After the administrator received my invitation and granted me permission to conduct the study information, I next provided recruitment permission forms and nondisclosure agreements for everyone participating in the research to sign. I reminded participants who had any concerns about the study that their participation was

voluntary and that they could leave at any time, even during an interview. If a participant had a specific emotional issue, such as feeling overwhelmed by the sense of loneliness or isolation due to Covid-19, or feelings of loneliness or isolation in general, I immediately directed them to contact the students' services department and seek university resources. During the Covid-19 pandemic, it was essential that I conducted the study carefully and ensured that students had access to help if they had issues relating to mental health, addiction, or extreme loneliness. At the end of the study, I stored all information relating to the study safe on a personal flash drive unrelated to the university and protected by passwords. This personal flash drive has been stored in a secure lockbox for three years before being destroyed. The findings from the data are presented in Chapter 4.

Summary

In this chapter, I provided information on the research methods that I used while conducting the study. Specifically, I discussed the rationale for the research design, my role as the researcher, the population and sampling, instrumentation, data collection, and analysis. Chapter 4 will give a detailed discussion of the research findings.

Chapter 4: Results

This study used a descriptive qualitative design to address how graduate students in a Master of Public Health program perceive the advantages and disadvantages of online learning communities. In addition, the study was developed to potentially create positive social change by identifying factors that promote student success to help students graduate. The following research questions guided the data collection and analysis:

Research Question 1: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities?

Research Question 2: Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial?

In this section, I present the results of the study and analysis of the data collected. The analysis used Braun and Clarke's (2012) six-step thematic analysis process to analyze the data collected from Zoom video and audio recordings. Interviews from 12 participants were coded and analyzed. As a result, six themes related to the two research questions emerged. The following section presents the descriptive findings for the participants.

Setting of the Study

The university used as the study site is a private for-profit healthcare and nursing school with campuses across the United States and offers online programs. The University was part of the Deaconess School of Nursing. The Deaconess School of

Nursing started in 1943 and was purchased by 2005 from the school of nursing and then transformed into a college of nursing and health professions. The university is accredited by the Higher Learning Commissions with Master of Public Health, Master of Social Work and Doctor of Nursing Practice. The headquarters of the University is located in Chicago.

The Master of Public Health program worked on the Council on Education for Public Health under the Dean that started the MPH program. The first dean then retired, and a second Dean was hired and placed to finish the accreditation process with Council on Education for Public Health. The second Dean noticed the trend of student retention and has actively been working to figure out retention issues in the program. Through developing and implementing new programs to help with retention, the students might have seen these initiatives in place and might have helped with their persistence in the online program.

Recruitment Process

After receiving IRB Approval (IRB # 2021-04-26-02 &), I started the participant recruitment process. A purposeful sampling process was used. First, I contacted the Dean of the MPH program. The Dean provided a list of students' names and contact information to recruit participants for the interview. Next, I emailed the students the recruitment letter explaining the study, outlining its purpose, and inviting them to participate. After the first email, three students signed up right away to take part in the interviews. I then sent two follow-up emails and recruited the remaining nine students to

participate in the interview. Finally, after the students agreed to participate in the interviews, I emailed them the informed consent form. The students then emailed back "I consent," informing me they agreed to the interview process.

After recruiting the necessary number of respondents, I scheduled the interviews and sent out emails with the links to the Zoom.us (Zoom Video Communications Inc., 2016) online room. I also provided Microsoft Outlook® calendar invites to the respondents. Finally, reminders were sent to the respondents 10 minutes before the commencement of the interview.

Participant Profiles

This section provides a detailed narrative summary of the target population demographics and characteristics utilized to inform the study results. The participants for this study were Master of Public Health students currently enrolled in the program. All 12 students were women in the field of public health. Out of the 12 students, nine students (75%) had prior online educational experience with their undergraduate courses or professional development classes. Three of the students (25%) were taking online courses for the first time. Additionally, all 12 graduate students were working professionals, with seven of the students being mothers. Table 1 provides a summary guide to the participants.

Table 1.

Descriptions of the Participants

Participant Code	Gender	Time in Program	Prior Online Education Experience	Working Parent
Student 1	Female	1.5	Yes	No
Student 2	Female	1	No	Yes
Student 3	Female	1	Yes	No
Student 4	Female	7 months	Yes	Yes
Student 5	Female	1	Yes	Yes
Student 6	Female	6 months	Yes	Yes
Student 7	Female	1	No	Yes
Student 8	Female	1	Yes	Yes
Student 9	Female	1.5	Yes	Yes
Student 10	Female	1	Yes	Yes
Student 11	Female	1.5	Yes	Yes
Student 12	Female	1	No	No

Recruitment

After receiving IRB Approval (IRB # 2021-04-26-02 &), I started the data collection process. First, I contacted the Dean of the MPH program, who provided me with a list of students' names and contact information to recruit participants for the interview. I emailed the students with the recruitment email explaining the study, outlining the purpose of the study, and inviting the students to participate. After the first email, three students signed up right away to take part in the interviews. I then sent two

follow-up emails and recruited the remaining nine students to participate in the interview. After the students agreed to participate in the interviews, I emailed them the informed consent form. The students then emailed back "I consent," informing me they agreed to the interview. Next, I scheduled the interviews and sent out emails with the links to the Zoom.us online room. I also provided Microsoft Outlook® calendar invites to the participants. Finally, reminders were sent to the participants 10 minutes before the commencement of the interview. The participants for this study were Master of Public Health students currently enrolled in the program. All 12 students were women in the field of public health. Out of the 12 students, nine students (75%) had prior online educational experience with their undergraduate courses or professional development classes. Three of the students (25%) were taking online courses for the first time.

Data Collection

The purpose of the data collection was to collect data to answer the research questions. The study data were collected using Zoom.us (Zoom Video Communications Inc., 2016) in a virtual conferencing setting. The Master of Public Health Program students lived in locations dispersed throughout the United States. Instead, the students remained offsite to observe Covid-19 social distancing protocols. The space I chose for conducting the interviews was my home office. To ensure confidentiality, I confirmed that this space was secure and that others could not overhear me. I also advised the participants to find a quiet area where others would not hear them.

The virtual interviews were conducted at a convenient time for each participant's schedule. The interviews took place before work hours, during lunch breaks, and after work to not interfere with the participants' employment commitments. To establish a connection, the participants and I engaged in a light conversation about the weather, how they were coping during the Covid-19 pandemic, and how work was going before commencing the formal interview process. The participants were excited and appeared to be comfortable in participating in this interview. The pre conversation did not create tension or pressure to influence the participant's response to the interview questions.

The interviews were between 30-45 minutes in length via the Zoom.us virtual platform (Zoom Video Communications Inc., 2016). During the interview, I also jotted down notes of the student's feelings or personal biases that could potentially emerge. After interviewing nine students, I started to see a theme emerge concerning the responses. Using comparison to identify themes and perspectives of the interview, I noticed by the ninth interview that information was being repeated. Data saturation was then considered because nine students repeated the same time management information, isolation, self-motivation. Therefore, I used the remaining three interviews to see if any new information would surface. The data in the last three interviews presented consistent themes and perspectives from the following interviews. Therefore, after 12 interviews, I received the same or similar responses to the answers. This response repetition confirmed that I had reached data saturation.

When the participants consented to the interview process, I requested permission to record the virtual Zoom.us (Zoom Video Communications Inc., 2016) interviews. I used the interview guide and related the importance of the interview to ensure that the participants understood the interview. In the interview guide protocol (see Appendix C), all the participants seemed honored to be asked to be part of the study and excited to help contribute to the field of Public Health.

Many participants allowed me to video record the interviews; some did not turn on the virtual Zoom.us (Zoom Video Communications Inc., 2016) camera because they felt more comfortable without the camera and just used the audio. Before recording, I asked the participants if they felt more comfortable with the camera on or off. I also used the instant transcript application in the Zoom.us (Zoom Video Communications Inc., 2016) recording. After recording, the transcript was also encrypted with the recording for my review. The transcript was reviewed upon completion. I then listened to the recording and checked the transcript to ensure all the data was captured. The efficiency of the transcript software was accurate in capturing the audio accounts of the study participants. I had to change a couple of spelling of words to ensure the transcript was transcribed correctly. The transcripts were then saved to Microsoft Word®.

Data Analysis

In this study, qualitative data was collected to configure the information appropriately. This data was collected using a qualitative descriptive research design

(Sandelowski, 2000). The purpose of the data analysis was to analyze the qualitative data to answer those research questions. The process of analysis is presented in this section.

After completing the interview, the recorded interview data was transcribed using the Zoom.us (Zoom Video Communications Inc., 2016) audio transcription application and then saved as a Microsoft Word® document. Each transcript was then reviewed by the researcher to ensure the responses were correct. The transcripts were then emailed to the participants for a member-checking process. The use of member-checking was an opportunity to review and explore specific data points for correctness or modification (Baškarada, 2014). The data analysis process began after the member-checking process.

Although NVivo (QSR International, 2021) was initially planned for the data analysis process, the time required to learn the software posed an impediment to the analysis process. Therefore, the analysis was completed by hand using Microsoft Excel® spreadsheets as a framework. The use of Microsoft Excel® also supported a deductive coding process. The deductive approach was chosen due to the theoretical framework used for the study and a priori codes developed for the interview questions (Christians et al., 1989).

The theoretical framework for the study was Siemens's (2004) connectivism theory. Connectivism is a learning model that helps one understand the shift in online learning (Mattar, 2018). With this theoretical framework, a student's decision-making is seen as a learning process because they choose what to learn. The meaning of incoming information is seen through the lens of continuously shifting reality (Siemens, 2017).

According to the connectivism theory, although an answer may be correct today, it may not be correct tomorrow because alterations in the information climate can affect its meaning (Siemens, 2017). Applying this theory following the ever-changing and evolving nature of technology and online learning was relevant and significant within the current educational climate where the ubiquitous virtual learning platform facilitates a rapid transfer of information. Thus, applying the theory meant that certain codes were inherent in the questions and the descriptive responses that participants provided.

Thematic Analysis Process

The data analysis process was conducted using Braun and Clarke's (2012) six-step approach to thematic analysis. The six-step process was used to analyze the interview data collected from participants. According to Braun and Clarke, the first step in the six-step process is to review the text several times in preparation for the initial coding process. The a priori codes provided high-level codes for initially grouping text sections that responded to the interview questions in step two. Step two also encourages coding as an iterative process. Following these steps, the information was then coded further by reviewing the answer to the 15 interview questions (see Appendix C) and relating the answers to the initial a priori codes. As the initial coding progressed, additional high-level codes were developed to capture the descriptions and thoughts of the participants. In the third step, once the interview text was segmented into blocks under the high-level codes, additional codes were developed for the segmented text. In this step, I identified codes and highlighted the text, allowing me to see the reoccurring

codes with the specific response from the interview text. The reoccurring codes were then transferred to an additional Microsoft Excel® sheet for comparison, categorization, and reorganization. Appendix D contains the table of codes that emerged in the first round of the coding process.

This process led to step four, where the reoccurring codes were compared across the data sets, and initial categories and themes were developed. Then, using the identified codes, I could figure out the relationship across the codes. In the fifth step, these themes were refined through an iterative process of analysis. The sixth and final step involved the development of the final analysis of the data. Table 2 lists the final themes.

Table 2.

Final Themes Answering the Research Questions

Research Questions	Final Themes
RQ1: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities?	Theme 1.1. Time Management Theme 2.2. Self-Motivation Theme 1.3. Helping People in Their Community
RQ2: Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial to graduate student success?	Theme 2.1. Faculty Engagement Theme 2.2. Faculty Discussion Engagement Theme 2.3. Engagement Outside the Classroom

Evidence of Trustworthiness

Maintaining trustworthiness was an essential step to ensure that participants were comfortable responding to the research questions. In qualitative research designs, trustworthiness is the ability for the researcher to capture data and to illuminate meaning-making, and provide understanding in answering the research questions (Yin, 2015). In a qualitative design, the criteria to assess trustworthiness included credibility, dependability, transferability, and confirmability (Yin, 2015). These aspects of trustworthiness were included throughout the overall research study by the use of several strategies described below.

Credibility

I used several strategies to establish the study's credibility, including member checking, peer debriefing, and a research journal to validate the interview responses. After each interview with the students, I reviewed the transcript with them over the phone. Then I emailed the students the interview transcript for them to review. After receiving the transcript, one student called me and clarified her answer, which helped me provide additional credibility to the interview. The research journal that I kept throughout the process helped me express my feelings, thoughts, and experiences in the online classroom that could have caused biases or changed the interpretation of the data collected.

Transferability

Transferability was addressed by clearly describing the assumptions that might affect the final analysis. I also encouraged participants to give candid responses. Finally, to understand clearly students' experiences in online communities, I defined the criteria used to recruit participants.

Dependability

Dependability refers to the ability to confirm the research process through documentation and consistent, reliable practices. Dependability refers to the degree to which research procedures are documented and result in reliable and consistent findings (Hayashi et al., 2019). In a review of trustworthiness in qualitative studies, Golafshani (2013) describes the use of audit trails and consistency in research methods such as data collection, coding, and analysis techniques. To ensure dependability, I used the reflexivity technique of keeping a research journal to record research decisions about data collection and analysis (Merriam & Grenier, 2019). In addition, member checking and peer debriefing allowed for others to review and comment on the research.

Confirmability

To achieve confirmability, I used the reflexivity technique. Using the technique, I would ask the graduate students to explain their experiences if I needed clarity to understand. I also kept detailed notes of the interviews and reflected on the experiences in my research journal if I felt any emotions or bias during the interview. I constantly reviewed the data for confirmability. Through this process, I also reflected on my

experiences in the online learning communities and added this in my research journal; this enabled me to use bracketing to determine confirmability.

Intrinsic to research confirmability, I included an audit process whereby the researcher's communication and self-accounts are genuine to the research design and parameters. If inquiries display a spectrum of fairness of concerns or issues, then authenticity is demonstrated, thus ensuring confirmability through the detailed notes and auditing to ensure data accuracy.

Results

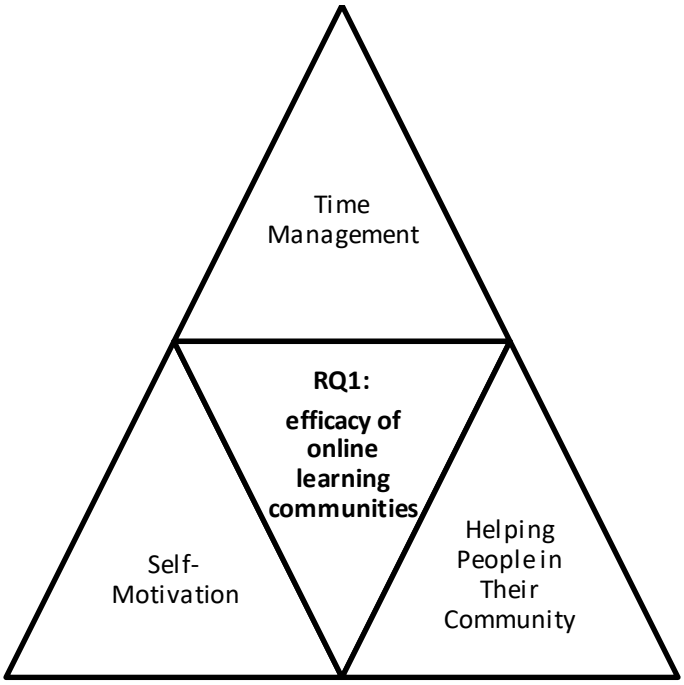
This section discusses the results of the analysis. The results section displays the final themes and their relation to the research questions. I included quotes from the 12 respondents transcribed from the interview questions to support each theme.

Research Question 1

Research Question 1 asked: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities? The codes related to the online school experience for the research question were the pros, cons, needs of online school, and time management. Three themes emerged to answer research question one. The themes that emerged from these codes described the Master of Public Health online school experience, time management, self-motivation, and personal interest in the field of public health. Creating a triangle below in Figure 1 depicts how these three themes come together to help understand the efficiency of online learning. Figure 1 shows the interrelationship of the themes to research question one.

Figure 1.

Interrelationship Among Themes for Research Question 1



Theme 1.1. Time Management. Convenience and flexibility were very important to all 12 graduate students due to work, family, and life demands. Eleven students expressed that they decided to attend online school because of the flexibility and convenience of the classroom set-up and the assignments. One graduate student stated that they took take online courses because of an employee benefit. This was the only student that stated they took online courses because of an employee benefit. This graduate student was an outlier.

The positive part of the online school for all 12 respondents was the flexibility and convenience that online courses provided. All the respondents shared that they had busy jobs, school, and life. Respondents 3, 6, 7, 9, and 10 echoed each other when they stated that they decided to take virtual courses because it was more convenient to their busy schedules working full time and having children at home. Respondent 3 stated:

> It's so convenient, and you can do schooling anywhere. I'm a mom of three; of course, the youngest is 10, and the other two are in their 20s, so they're not too needy anymore. But still, just to have complete quiet, I might just wake up in the middle of the night, and I can do school right there at school, so I really enjoyed that. And that's how I knew that I could succeed.

The students also expressed challenges to online learning due to time management. Being working mothers and having demanding jobs make it impossible to give needed attention to online schoolwork. These respondents work hard to manage their

time and do their assignments. The respondents' emotions changed when they were talking about the challenges of time management. Respondent 11 stated:

> I think it's an adult learner; it's really challenging to satisfy that time when, you know, work, you know, is a priority. And having a demanding position. You know schedules can vary, working even evening hours sometimes. So that's challenging, just having balance, the balance between work and personal, and then completing coursework.

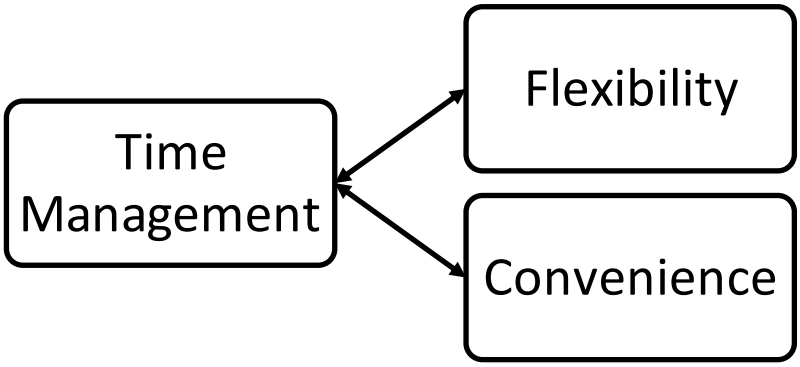
On the other hand, one issue in time management that causes students to struggle is balancing everything. Even though the online courses are flexible, sometimes the respondents feel overwhelmed. Learning how to juggle their work, home, and life can help students become efficient in the online learning communities. Concerning challenges with time management and schedules, Respondent 5 stated:

> Juggling, I guess, my own personal schedule with work includes work but just, including leaving that into school, as far as like right all these things, especially now with Covid and everything opening back up…I'm battling my schedule like a personal schedule with my school schedule.

Figuring out how to manage and balance work, school and life sometimes can be too much for the students causing them to drop out of fail. Through Time Management, two themes emerged of flexibility and convenience. Figure 2 shows the relationship among the components of this theme.

Figure 2.

Components of Online Learning Related to Time Management



Theme 1.2. Self-Motivation. Self-motivation to succeed was another emerging theme from the interviews. All 12 students stated that they had a strong desire to be successful in this program. Through their self-motivation, they felt they were able to be successful. For example, Respondent 11 stated, "I'm motivated just in the sense of the work that I already do, as well as my personal goal..." Respondent 6 had a similar comment:

> …a lot of it is self-motivation, you know, it's something that I've always wanted to master for a long time, and I've toyed in between an MBA, and an MPH, because of just, you know, my personal interest.

The desire to achieve a master's degree and promote themselves to the next level of their careers has helped these students to continue moving forward in their program.

Whereas Respondent 2 stated: “The self-motivation …that I'm doing good. I'm doing pretty good so far. In my classroom, you know ….” The student expressed the motivation to continue since they were successful in the classroom. In addition, the positive reinforcement of knowing that the faculty member is there with them in the classroom and encouraging them helped the student feel connected to the online classroom.

Theme 1.3. Helping People in Their Community. Through self-motivation, the theme of personal interest in the field of public health emerged. Two respondents expressed their interest in helping their community. Respondent 4 stated:

> I'm trying to see how I can better serve my community and how I can merge, me being a pharmacist to help people around me. Overall, while taking medicine, eating properly, because I keep seeing people getting readmitted for the same thing repeatedly.

The respondent’s desire to help the community have better public health practices helps motivate this student to succeed. Respondent 9 also stated:

> I want to use public health to understand patient relationships as they go through cancer treatments to make sure that they have a patient advocate to talk to them about research and current strategies that are available to them, so getting the degree so I can do that motivates me.

This respondent’s personal experience with cancer patients has helped motivate her to continue learning how to help her community. This desire to help others in their

communities makes these respondents stay motivated to succeed in online communities. Figure 3 shows the components that support student self-motivation in the program.

Figure 3.

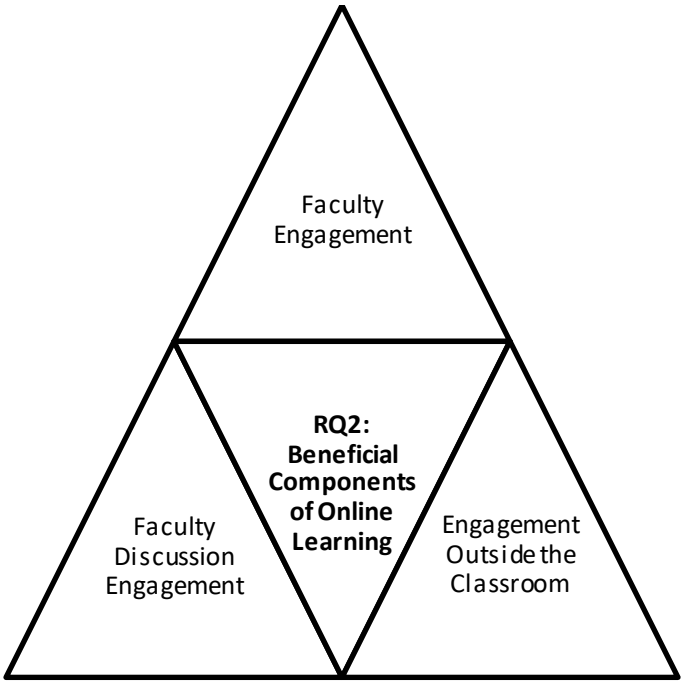
Components Supporting Student Self-Motivation

Research Question 2

Research Question 2 asked: Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial to graduate student success? The themes that emerged from these codes described faculty engagement, faculty discussion engagement, and engagement outside the classroom. Respondents also expressed that they generally had a positive experience in the program. Figure 4 shows the interrelationship of the themes to Research Question 2.

Figure 4.

Interrelationship Among Themes for Research Question 2



Theme 2.1. Faculty Engagement. Faculty engagement was significant to student success in the classroom. Eight of the 12 respondents expressed how important it was to their success to reach the faculty members and set up appointments. For example, Respondent 1 stated: "He was great he would, he would set up appointments with me I'd call him he'd kind of work through some things, but you know that's, you know, 30 minutes or whatever so he was always like that always send me." Through the student knowing that the faculty could talk or set up an appointment, they felt that they had a

connection in the class. Respondent 6 indicated that when a faculty member does not give feedback, they feel alone in the online classroom. Whereas Respondent 10 stated:

> Just being able to reach out to the professor when I need to. I just feel like I'm not alone, like I, I have helped like, I need something I can, reach out to whoever professors for that class and get through it.

Respondent 10 expressed how the faculty response to text or email helped them know that they had support in the classroom and expressed where and how they were there for them when they had questions or needed help.

The faculty member's availability to respond instantly and set up an appointment was very important to the respondents. Not having the instant communication with the faculty leaves the students feeling alone.

Theme 2.2. Faculty Discussion Engagement. Faculty discussion engagement was another theme that emerged through the interviews. Recognition in the online classroom comes from the faculty members helping the students know they have done a good job. This recognition helped the graduate students to continue in the program. Respondent 2 stated, “I would say for teachers, interacting with students on board would be most beneficial for students.” With this continual theme of engagement with faculty, Respondent 8 mentioned the discussion posts that students make:

> Everybody kind of reads the post, and if they have some feedback… some insights about that pose, they do add more detail or your experience, so you kind

> of get an overall, you know, be more knowledgeable with some of the different issues that you've heard about.

Having the personalized response of the faculty to the discussion posts allows the graduate students to gain additional knowledge and skills within the course. In addition, the respondent expressed that they felt that when the faculty had engaging responses in the discussions, they felt they had connections with the faculty member and were more connected to the course.

The respondents also expressed that they started to feel isolated and alone without the faculty engagement in the classroom and the discussion. Respondent 3 stated:

> When you're in the discussions, that's why you feel isolated because you feel like you don't know if anyone's going to respond to you or if the teacher says he is out or you're, you're thinking a little bit like that, like, what were they think of my poster. Yeah, I tried to think everybody's busy; I know they're so busy.

Without the individualized feedback and responses from the faculty, the graduate students feel isolated and alone in the course. The feeling of isolation and alone was a common theme in the topic of posting in the discussions. Respondent 7 shared more insight and stated:

> I don't think I've gotten a response in the discussion from a faculty member, I think, I mean, I've gotten feedback from the points I've gotten, but it's not the same; sometimes it's like canned responses, it's the same every week. Sometimes it's a little more specific.

When graduate students receive canned responses from faculty members, they feel that the faculty member is not actively present in the classroom. The impression is that the faculty are just checking the boxes off as they are replying to the graduate students. Respondent 7 also expressed that the canned responses made them also feel alone in the classroom.

Through the discussion, post conversation discussion posts emerged that presented individualized personal feedback to the graduate students. Nine respondents felt isolated or alone in the classroom when they received little or canned feedback from the professors. Respondent 9 expressed:

> I have some instructors that are a lot more engaging than others. I had some professors that I didn't feel like I responded to my work very well at all, were at all. Which made me feel isolated and alone.

When faculty do not respond to the graduate students' work, the students start to feel that they are alone in the classroom and are putting all this effort into a post or an assignment, and it is not being read. Respondent 12 stated:

> Whereas when individualized feedback was given, other professors will give examples, and even with the feedback so even once we are graded on our assignments or discussions, it's always great feedback on tone so we can better ourselves for next, the next discussion or assignment.

This made the student feel engaged and connected in the classroom. When the faculty members are engaged in the discussion boards and provide the graduate students

with personalized feedback, they all feel more connected in the classroom. This was the main theme concerning actions that were beneficial to the success of the Master of Public Health graduate students.

Theme 2.3. Engagement Outside the Classroom. This engagement with the faculty was included with other supportive events mentioned, such as the New Student Orientation, Town Halls, and Master of Public Health Student group. Outside engagement of graduate students and faculty helped the students stay engaged in the classroom. Through the live events, graduate students felt that they could connect with the faculty and other graduate students in the program. Respondent12 stated:

> I attended a Town Hall and Orientation beginning. Of course, it was helpful because you are new to the program, but then it's a graduate program, so it kind of gave us the background of what we'll be expecting, especially at the end for Applied Practicum experience and everything, so it was very useful and helpful.

Live Town Hall and orientations allowed the graduate students to ask questions and learn about the program. They also stated how this helped them stay engaged in the program. Respondent 10 stated:

> I found it very informative. I feel like the faculty, staff, and dean shared support for you. I just felt comfortable at the New Student Orientation that the Dean and Faculty are vested interest in making us succeed in the program.

Through the personal virtual connection the graduate students were making in the Live New Student Orientation, talking with faculty, staff, and other graduate students

gave the graduate students key information and a base of people they could reach out to. This also helped the graduate students understand the program and contacts they can reach out to if they need help.

It was important to all 12 respondents that they felt that the faculty and Dean were engaged with them and their success in the program. Knowing that the faculty and Dean cared about their success allowed the students to have a support system throughout the program. The respondents found the live interaction with the faculty and Dean during the Orientation and town halls very beneficial. Five respondents formed study groups with other graduate students in their class through online applications. Respondent 5 discussed these study groups "Yes, there's; Six students formed a group, on WhatsApp, and we talk about anything and everything when it comes to the program." Through the formation of a group text on a social media platform it helped this graduate student receive instant responses back. In addition, by forming a study group with graduate students in the class, these six graduate students have been able to connect and create their own community to answer questions and receive feedback. Another group of two graduate students became part of a group project where they had to reach out and form a study group. Respondent 2 described this group:

> We talk on the phone and through Zoom and which was interesting. I've never experienced this technology aspect as part of a group. We pass information through email and just exchange ideas on a group project. And we put everything together and present it to the teacher.

Communicating with other graduate students through technology allowed the graduate students to create a connection and bond to collaborate on a project. The ability of these graduate students to connect with other students is important to their success in the program. Through forming study groups and connecting with graduate students outside the classroom, the graduate students were able to feel engaged and successful in the classroom.

Although graduate students' experience in the online community was mainly positive, they were able to point out areas that were detrimental to their success. In an online program, graduate students are based across the United States, and that becomes challenging for graduate students to find time to connect and communicate when they are working on a group assignment. Respondent 1 specified: "…the group work, that is hard to with people in different time zones and, you know, work schedules and things like that."

Respondents 2, 3, and 4 stated that they were not prepared for the math course. They did not remember all the math that they had learned previously in school. "Yes, [the] problem was the Epidemiology and Biostatics math portions of the course. I wasn't prepared for the math equations." The respondent also expressed that they have not been in school for a while, and this caused issues.

Another respondent also said that since they had been out of school, coming back to an online school had been difficult due to learning the different platforms. Respondent 10 struggled to learn the online management system, which made it difficult for her to

succeed in the classroom. Respondent 10 discussed this aspect of online learning. “It was painful. I cannot understand the whole system. I spent a lot of time in the system, learning the ropes of the course; you don't know what to do when the course is new to you.” Respondent 7 stated that the technology used in the classroom management system is not set up for the successful learning process of the student.

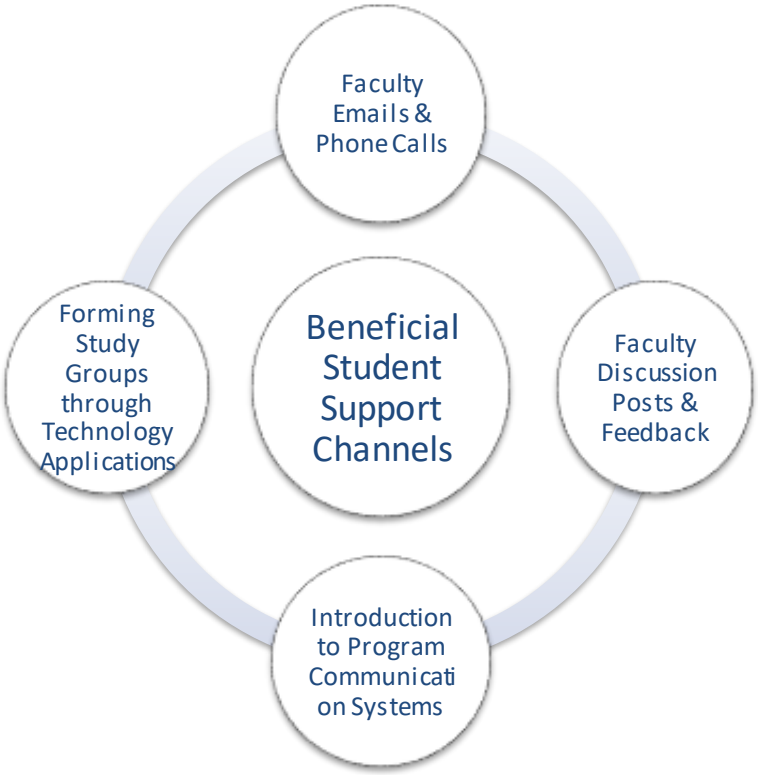
Respondent 7 also complained that the faculty did not provide lectures to help with the supplemental learning of the material. Respondent 7 stated:

> Instructor being able to answer questions that come up in a lecture is that interactive aspect of in-person learning is something I didn’t realize I really missed, but I do. You know, just the real-time connection to the learning environment. I think that that’s detrimental to a lot of people.

Figure 5 shows the relationship of the various constructs of beneficial support for student engagement with the program.

Figure 5.

Channels of Support for Student Engagement



Summary

Chapter 4 described the research findings based on the data collected from interviews with 12 graduate students attending a Master of Public Health online program. Thematic analysis was used as the process for analyzing the individual interview transcripts. The six-step process of thematic analysis described by Braun and Clark (2012) was used to analyze the data. The first step required the researcher to become familiar with the data by reading raw transcript data several times. In the second step,

initial coding for thematic analysis began by highlighting words and patterns related to generating codes. The third step in Braun and Clarke's thematic analysis process was the generation of themes. In this thematic analysis step, data was collated among the coded transcripts of the student participants to group themes together. The fourth step of thematic analysis involved an iterative review of these themes across the data sets to understand how they answered the research questions. The fifth step in the thematic analysis involved a detailed analysis and categorization of each theme. This step was a preparation for the sixth step, which involved writing up the analysis. The last step reflected on themes developed in step three and their significance in answering the two research questions.

The following two research questions guided the exploration of phenomena:

Research Question 1: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities?

Research Question 2: Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial?

Twelve Master of Public Health program graduate students were interviewed to answer these questions. The respondents described their online school experience and how their relationship to being in the online classroom had many different factors to be efficient. By understanding how to balance their schedule through time management, they can schedule a time to study and learn the material. In addition, their undesirable

self-motivation to succeed helps them stay motivated day in and day out. Through this desire to be successful, they also have a strong interest in public health. They believe that through this degree, they will be able to make a difference in the field.

Concerning RQ2: the major themes that were analyzed and reviewed were (a) faculty engagement, (b) faculty discussion engagement, and (c) engagement outside the classroom. The respondents felt that faculty engagement was a key to this success in the online classroom. First, faculty engagement was broken down into two categories outside the classroom: making appointments and answering questions. Then faculty discussion engagement of providing personalized feedback and answering student discussion responses were utilized. The respondents also noted that engagement outside the classroom through the New Student Orientation and Town Halls helped them be engaged and felt that they had a community of support.

In this section, I presented the recruiting process, participant profiles, and data collection and analysis processes for this study. The evidence for trustworthiness was also presented, along with the results concerning the two research questions. Finally, the interpretations of the finding, limitations of the study, recommendations, and implications are discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The interpretations of the finding, limitations of the study, recommendations, implications, and conclusions based on the interviews' perceptions are presented in Chapter 5. The purpose of this study is to enhance awareness of how to create communities for online graduate students. Successful and satisfied MPH graduate students have the potential to directly impact their places of employment and make positive societal changes in their communities within the field of public health. This study also addressed the lack of published research regarding online MPH graduate students' perceptions about the online programs that trained them regarding the literature review. Thus, this study has the potential to contribute to the existing scholarly literature and provide helpful information to instructors and Universities.

Summary of the Findings

The purpose of this qualitative descriptive study was to explore how graduate students in an online MPH program described their learning experiences concerning their online educational journey. Convenience sampling was used to obtain the participants, who were then individually interviewed over Zoom. These 12 graduate student participants provided their perceptions regarding the efficacy and benefits of the program. The interview transcripts were reviewed and analyzed. Six themes emerged that addressed two research questions. This section discusses the significant contribution of the study findings to the scientific body of knowledge by addressing the research questions.

Research Question 1

Research question one asked: How do graduate students in an online Master of Public Health program perceive the efficacy of online learning communities? The results indicated that graduate students perceive online learning communities as effective. Three themes emerged to respond to the issue of efficacy. The first theme concerned time management for the graduate students and how the program supported and required this skill. The second theme concerned the self-motivation of the graduate students to succeed in the program. The third theme indicated that helping people in the community was also seen as a motivation for success. These results show how important online learning communities can be to the Master of Public Health graduate students.

These findings support research from the literature review indicating that a flexible schedule enables nontraditional students to succeed in online learning communities (Lee, 2017). Baldwin and Trespalacios (2017) stated that the essential standards associated with online learning that all 12 graduate students expressed in instructor support interviews were vital to their academic success. The graduate students also expressed seven principles of Martin et al.(2017): (a) access to the instructor, (b) cooperation with peers, (c) active learning interventions, (d) prompt feedback, (e) timely tasks, (f) constant communication, and (g) respect for different ways of learning to the development of online courses with positive results. Through the different interviews, these seven principles became clear that the graduate students found these different themes important in their success.

Theme 1.1. Time Management. All 12 graduate students struggled with time management. Their needs to balance everything among home, work, and life were overwhelming. Added to these needs was the task of trying to figure out how to get their schoolwork accomplished. The graduate students explained that it took time to figure out how to manage online school and life. Respondents 1, 4, and 8 all expressed how managing their day-to-day tasks and adding schoolwork to the mix overwhelmed them.

These views were addressed in the Mental Health and Online Learning literature review of how students struggle to maintain balance in the online classroom and life. Online MPH programs need to take into consideration how these graduate students are maintaining and juggling school, home, and life. Two of these considerations are setting up online support resources to connect with faculty to get instant feedback. Having chat features to connect with graduate students online will help them stay connected to the faculty and their peers. Understanding the nontraditional MPH perspective of the emerging themes will help Deans and faculty make positive changes in the curriculum (Lang, 2019).

Theme 1.2. Self-Motivation. The 12 graduate students also all had a strong desire to succeed in their schoolwork due to their personal desires to succeed in their careers. The graduate students also expressed their desire to receive a master's degree, and that goal helped them be successful in the classroom. This topic was not addressed in the literature review but is an important theme to continue to research.

Theme 1.3. Helping People in Their Community. Two graduate students expressed their desire to help their community lead healthier lifestyles through learning about public health. These graduate students' desire to change their community helped them challenge themselves in the classroom, knowing they can make a difference in their communities. This topic was not addressed in the literature review but is an important theme to continue to research.

Research Question 2

Which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial to graduate student success? Three themes emerged to answer this question. The results indicated that three key issues are beneficial to graduate student success. The first theme discussed the issue of faculty engagement with the online MPH student. The second theme specified the online discussion engagement of the faculty with the online MPH graduate student. Finally, the third theme concerned the importance of engagement outside the online classroom for the online MPH program.

Theme 2.1. Faculty Engagement. Faculty engagement is a strong theme that is very important to these graduate students' success in the classroom. The faculty reaching out and engaging with the graduate students through phone calls, text messages, and emails help the graduate students know that the faculty is invested in the classroom and their success. This issue was discussed in the literature review under the topics of social presence in the online classroom and effective teaching strategies for the online

classroom. The actions that create a sense of belonging in the classroom for the graduate students can assist the faculty with engaging and supporting the graduate student's success (Berry, 2017). Thus, this finding is supported by the literature for online MPH programs. This finding indicates that MPH graduate programs will need to adapt procedures for faculty to be engaged with their graduate students in the classroom.

Theme 2.2. Faculty Discussion Engagement. Faculty discussion engagement is critical to the success of the graduate student. It is essential that MPH instructors and graduate students work collaboratively to create a sense of belonging, promoting MPH graduate student engagement and success in the virtual environment (Sullivan et al., 2018). When the faculty provided personalized and insightful discussion responses, it helped the graduate students to learn the public health material and foster educational improvement. In addition, when the faculty provides personalized feedback, that allows the graduate student to feel that the faculty are engaged in the classroom and learning the material. Faculty discussion engagement was discussed in the literature review through the feedback in the online classroom that graduate students thrive on the personalized feedback that faculty provide them. Online MPH graduate programs may need to adapt these recommendations to help graduate students succeed in the classroom. Arasaratnam-Smith and Northcote (2017) referred to educational contexts, instructors, learners, and peers joining to form what is typically considered a community of practice (CoP). When students are within these communities, they feel a strong connection with their instructors (Bowers & Kumar, 2015). Arasaratnam-Smith and Northcote (2017) explored the

concept of constant communication and its significance for creating community in association with online communities of practice. People within online learning communities felt a strong connection with their instructors (Voelkel & Chrispeels, 2017). Establishing strong connections with their faculty through discussion engagement will help the graduate students be successful.

Theme 2.3. Engagement Outside the Classroom. Engagement in groups, the New Student Orientation, Town Halls, and Master of Public Health Student group were essential to the graduate student's engagement and success in the online MPH program. In addition, other supportive events were mentioned, such as forming study groups and connecting with graduate students outside the classroom. Arasaratnam-Smith and Northcote (2017) stated that students need to feel a sense of belonging when interacting in online communities. In educational contexts, instructors, learners, and peers join to form what is typically considered a community of practice (CoP) (Arasaratnam-Smith & Northcote, 2017). Bowers and Kumar (2015) indicated that within these communities, students feel a strong connection with their instructors. Creating a sense of belonging in the online classroom is a key topic of interest related to online learning and helps overall student outcomes, as well as satisfaction (Berry, 2017). Having opportunities for graduate students to connect outside the classroom with their faculty and peers will help the graduate students feel connected to the classroom.

Limitations of the Study

While completing the study, three limitations arose. These limitations were not unexpected. These limitations are related to participants, coronavirus pandemic, and methodical weakness. The study aimed to gain an understanding of online graduate students' perceptions related to online learning communities. The first limitation of finding graduate students to participate was problematic. Many graduate students were extremely busy due to the surge of the Covid-19 Delta variant and working in hospitals or at the Department of Public Health. Graduate students also were overloaded with schoolwork due to the end of the sessions. However, I worked around the graduate student's schedules to host interviews at times that made it as convenient as possible for them. The second limitation is that the Covid-19 pandemic and Delta variant left many graduate students feeling even more uneasy and lonely in life than before. When asking interview questions concerning loneliness and isolation, graduate students talked about their Covid-19 experience and how that has affected them in the classroom and in life.

The third limitation was the possible methodological limitations related to note-taking, transcription, and information transfer to computer programs. I was meticulous during the note-taking process, transcribing and transferring information, but errors did occur. I had to check and double-check the notes to ensure that everything was coded correctly without errors. I did have to fix a few errors related to the coding. Human error can occur in note-taking or the coding of the data.

Recommendations

I recommend that this study be replicated in MPH programs and other online Master programs across the United States to better understand graduate student perceptions of online MPH programs. Including current graduate students and alumni would add depth and variety for additional information. In addition, a replication of this study could help by identifying factors that promote graduate student success to help students graduate. Successful and satisfied MPH graduate students can directly impact their places of employment and make positive societal changes in their communities within the field of public health.

I suggest that this study be replicated in MPH online programs that have identified retention issues. Understanding the graduate student's perspective can help the administration understand the changes to their curriculum or incorporate opportunities for students to connect virtually. The graduate student could also be implemented in other online master programs to understand the students' perspectives. In the current pandemic, graduate students' perspectives are important to the success of online classrooms.

I also recommend a comparative study of the faculty perception of the initiatives that they have been working on to help foster engagement and inclusion in the online classroom. Through gathering this information, it could help MPH programs create an engaging and collaborative curriculum for their graduate students. This comparative study could also be done at other Online Master's programs to learn how their graduate students can foster engagement and inclusion in the online classroom.

Implications

The results of this study could potentially be used by academic leadership to help implement curriculum plans to enhance graduate student engagement in the MPH programs. Academic leadership may consider the graduate student perceptions of the Master of Online programs informative of how to make changes within their programs to enhance graduate student retention. Involving the graduate student perspectives in modeling faculty responsibility in the courses of providing substantial individual feedback, video lectures, and availability to meet with graduate students will help enhance student retention in the program. Incorporating the graduate student perceptions and the faculty's ideas and suggestions on how to improve will help understand how to create an engaging community in the online classroom.

Methodological Implications

This was a basic qualitative study that could be used as an example of a literature review for other scholars needing to use the basic qualitative methodology in their research projects and studies. This study focused on and highlighted the graduate student perceptions in the online MPH. The methodological selection could be a model for other researchers or students to use to apply a basic qualitative method research approach when understanding graduate student perceptions in other MPH programs or online Master programs.

Theoretical Implications

The theoretical framework for the study was Siemens's (2004) connectivism theory. Siemens published connectivism theory originally to address issues and gaps in online learning in the digital age. Connectivism also represents one of the most unparalleled network learning theories developed specifically for e-learning environments (Goldie, 2016). Connectivism theory emphasizes the value of technology in students' education, especially the internet, online discussion forums, and social networks (Siemens, 2017). A key topic of the connectivism theory is the importance of learning within a community setting to promote knowledge sharing, collaboration, and students assisting one another when confronted with complex material (Goldie, 2016).

Connectivism theory applied to the themes responding to research question two. This research question focused on which components of online learning communities do graduate students in an online Master of Public Health program perceive as most beneficial to graduate student success? Three themes focused on specific forms of engagement that were described as essential to graduate student success in the online environment. The first theme addressed faculty engagement. Eight of the 12 respondents expressed how important it was to their success that they could reach the faculty members and set up appointments. This sense of engagement went beyond the online learning environment and provided a sense of immediate support when the faculty responded to set up arrangements for meetings.

The second theme addressed faculty discussion engagement. Nine respondents felt isolated or alone in the classroom when they received little or canned feedback from the professors. Recognition in the online classroom comes from the faculty members helping the graduate students know that they have done a good job. This recognition helped the graduate students to continue in the program. The third theme addressed graduate student engagement outside of the online classroom environment. Respondent comments supporting this theme mentioned outside groups set up by the graduate students and the orientation meetings provided by the school.

The findings supported an expanded approach to the use of connectivism theory in the online learning environment by emphasizing the types of engagement occurring in connection with the online classroom environment. Siemens (2004) opined that through connectivism theory, learning might occur internally and externally through a sense of belonging to an organization. The respondents' comments about learning and engagement extend beyond the actual online meetings support this need for a sense of belonging.

Practical Implications

The practical implications of this study include the reference of the graduate student's experience in the MPH program. The study focused on the graduate students' perceptions concerning what was currently happening in the MPH program. Graduate students indicated the lack of consistency in faculty personalized responses, video lectures and ensured availability of the faculty. The constant communication with the

graduate students through personalized responses, video lectures, and availability of the faculty are key best practices that can help graduate students be successful (Arasaratnam-Smith & Northcote, 2017).

The engagement in the classrooms of the community with the faculty and graduate students can help to create a community in the classroom, enhancing the graduate students feeling of being connected to each other. It is this feeling of connectedness that is critical to the online graduate students' success (Berry, 2018). The connectedness in the classroom helps with the mental health of the graduate students that is very important in today's pandemic. Creating best practices such as checking in with the graduate students and seeing how they are doing can help the graduate students know that there are resources and support for them (Evans et al., 2018). The results and findings of this study will help to add to the body of literature on graduate students' perceptions and how to improve online MPH programs and other online graduate programs during a global pandemic.

Recommendations for Practice

This study may contribute to the MPH program's ability to create engagement and community within the classroom, which will help graduate students be successful in their online MPH graduate programs. This study may help provide practices to Academic Leadership on requirements and standards that they should uphold in the online classroom to ensure graduate students are engaged. Additionally, this study could provide

additional resources to online programs on practices on how to set up online classrooms and best practices in engagement in the classroom.

The results of this study could help to improve online MPH graduate students' and other Master graduate students' experiences in the online classroom. Findings indicate that the engagement of faculty with graduate students by providing individualized feedback in the discussion boards, responding to graduate students' emails, and understanding the online MPH graduate students' experiences supported the sense of belonging for the graduate student. A solid recommendation from these findings is to establish a set of best practices for faculty, starting with a Week 1 classroom submission with personalized and individualized introductions to the graduate students. In addition, posting the faculty ability and response rate for return emails and grading assignments to the graduate students helps the students to know what is expected. The faculty member should also call graduate students via the telephone and introduce themselves and offer support and assistance in the classroom. Another best practice is ensuring that the graduate students know when the faculty member is available to help them throughout the session. Faculty should encourage graduate students to form study groups to have peer-to-peer help and feedback in the courses is another best practice that faculty can use. Additional suggestions were to create check-in with each graduate student within the course to ensure that they feel supported and encouraged in the classroom. Finally, graduate students wanted the response postings by faculty in the discussion boards and assignments to provide details and personalized feedback to each student's post. These

best practices support the development of positive outcomes for graduate students in the MPH programs.

Conclusion

The purpose of this basic qualitative descriptive design study was to understand graduate students' perceptions in the Online Master of Public Health program. The research findings of time management, self-motivation, helping people in their community, faculty engagement, faculty engagement in discussion, and engagement outside the classroom are important elements to consider in the design and creation of tailoring an online curriculum for nontraditional graduate students in the online MPH program. Understanding the nontraditional graduate students and the resources and engagement that they desire will help faculty understand how to help graduate students be successful in the online MPH program.

The study findings provided support for the need for increased attention to MPH graduate students' perceptions of the online classroom experience. The results demonstrated that several best practices within the classroom, such as engaging personalized feedback, providing video reviews, and having an instant response to graduate students' questions, can provide graduate students with the support to know they are succeeding. The information provided in these findings on graduate students' perceptions may help academic leadership in improving MPH programs, which in turn could increase retention rates and provide for the increasing demand for skilled public healthcare workers.

References

AlDahdouh, A. A. (2017). Does artificial neural network support connectivism's assumptions? *International Journal of Instructional Technology and Distance Learning*, *14*(3), 3–26. https://files.eric.ed.gov/fulltext/ED577291.pdf

Ambrose, M., Murray, L., Handoyo, N., Tunggal, D., & Cooling, N. (2017). Learning global health: A pilot study of an online collaborative intercultural peer group activity involving medical students in Australia and Indonesia. *BMC Medical Education*, *17*(10), 1–11. https://doi.org/10.1186/s12909-016-0851-6

Arasaratnam-Smith, L. A., & Northcote, M. (2017). Community in online higher education: Challenges and opportunities. *Electronic Journal of E-Learning*, *15*(2), 188–198. https://files.eric.ed.gov/fulltext/EJ1141773.pdf

Arthur, N. (2017). Supporting international students through strengthening their social resources. *Studies in Higher Education*, *42*(5), 887–894. https://doi.org/10.1080/03075079.2017.1293876

Atkins, S., Yan, W., Meragia, E., Mahomed, H., Rosales-Klintz, S., Skinner, D., & Zwarenstein, M. (2016). Student experiences of participating in five collaborative blended learning courses in Africa and Asia: A survey. *Global Health Action*, *9*(N), 28145. https://doi.org/10.3402/gha.v9.28145

Attar, M. (2018). Connectivism theory: A noteworthy necessity in the process of making schools smart. In *Proceedings: International conference on psychology, educational and behavioral sciences. Volume* (Vol. 3).

Baldwin, S. J., & Trespalacios, J. (2017). Evaluation instruments and good practices in online education. *Online Learning*, *21*(2). https://doi.org/10.24059/olj.v21i2.913

Baleria, G. (2019). Story sharing in a digital space to counter othering and foster belonging and curiosity among college students. *Journal of Media Literacy Education*, *11*(2), 56–78. https://doi.org/10.23860/jmle-2019-11-2-4

Bao, M., Selhorst, A. L., Moore, T. T., & Dilworth, A. (2018). An analysis of enhanced faculty engagement on student success and satisfaction in an online classroom. *International Journal of Contemporary Education*, *1*(2), 25–32. https://doi.org/10.11114/ijce.v1i2.3653

Baran, E. (2019). *Rovai, "A practical framework for evaluating online distance education programs."* Online Learning Toolbox. https://iastate.pressbooks.pub/onlinelearningtoolbox/chapter/rovai-a-practical-framework-for-evaluating-online-distance-education-programs/

Baškarada, S. (2014). Qualitative case study guidelines. *The Qualitative Report*, 19(40), 1-18. Retrieved from https://nsuworks.nova.edu/tqr/vol19/iss40/3

Bawa, P. (2016). Retention in online courses: Exploring issues and solutions—A literature review. *Sage Open*, *6*(1), 215824401562177. https://doi.org/10.1177/2158244015621777

Berry, S. (2017). Building community in online doctoral classrooms: Instructor practices that support community. *Online Learning*, *21*(2). https://doi.org/10.1177/2158244015621777

Berry, G. R. (2018). Learning from the learners: Student perception of the online classroom. *Quarterly Review of Distance Education, 19*(3), 39–56. Berry, S. (2019). Faculty perspectives on online learning: The instructor's role in creating community. *Online Learning, 23*(4), 181–191. https://doi.org/10.1177/2158244015621777

Bettinger, E. P., Fox, L., Loeb, S., & Taylor, E. S. (2017). Virtual classrooms: How online college courses affect student success. *American Economic Review*, *107*(9), 2055-75. https://doi.org/10.1257/aer.20151193

Blayone, T. J., Barber, W., DiGiuseppe, M., & Childs, E. (2017). Democratizing digital learning: Theorizing the fully online learning community model. *International Journal of Educational Technology in Higher Education*, *14*(1). https://doi.org/10.1186/s41239-017-0051-4

Bolliger, D. U., & Martin, F. (2018). Instructor and student perceptions of online student engagement strategies. *Distance Education*, *39*(4), 568–583. https://doi.org/10.1080/01587919.2018.1520041

Bowers, J., & Kumar, P. (2015). Students' perceptions of teaching and social presence: A comparative analysis of face-to-face and online learning environments. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT), 10*(1), 27–44.

Braun, V. & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds), *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological*. American Psychological Association.

Bussell, H., J., & Guder, C.S. (2017). Research needs and learning format preference of graduate students at a larger public university: An exploratory study. *College & Research Libraries*, 78(7), 978-998. https://doi.org/10.5860/crl.78.7.978

Campbell, S., Greenwood, M., Prior, S., Shearer, T., & Walkem, K., (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661. https://doi.org/10.1177/1744987120927206

Choy, J. L. F., & Quek, C. L. (2016). Modeling relationships between students' academic achievement and community of inquiry in an online learning environment for blended course. *Australasian Journal of Educational Technology, 32*(4). https://doi.org/10.14742/ajet.2500

Christians, Clifford G., & Carey, James W. (1989). The logic and aims of qualitative research. In G. H. Stempel III & B. H. Westley (Eds.), *Research methods in mass communication*, (pp. 354-374). Prentice-Hall.

Chung, R., Ledger, S., & Shields, R. (2017). Curriculum design for distance education in tertiary sector. *Turkish Online Journal of Distance Education, 18*(2), 4–15. https://doi.org/10.17718/tojde.306552

Clandinin, D. J., Murphy, M. S., Huber, J., & Orr, A. M. (2009). Negotiating narrative inquiries: Living in a tension-filled midst. *The Journal of Educational Research*, 103(2), 81-90. https://doi.org/10.1080/00220670903323404

Clark-Gordon, C. V., Bowman, N. D., Watts, E. R., Banks, J., & Knight, J. M. (2018). "As good as your word": face-threat mitigation and the use of instructor nonverbal cues on students' perceptions of digital feedback. *Communication Education, 67*(2), 206–225. https://doi.org/10.1080/03634523.2018.1428759

Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education.* Routledge.

Corbett, F., & Spinello, E. (2020). Connectivism and leadership: harnessing a learning theory for the digital age to redefine leadership in the twenty-first century. *Heliyon, 6*(1), e03250. https://doi.org/10.1016/j.heliyon.2020.e03250

Council of Education for Public Health. (2020). *Council of education annual report.* https://ceph.org

Covelli, B. K. (2017). Online discussion boards: The practice of building community for adult learnings. *The Journal of Continuing Higher Education, 65*(2), 139–145. https://doi.org/10.1080/07377363.2017.1274616

Dağhan, G., & Akkoyunlu, B. (2016). Modeling the continuance usage intention of online learning environments. *Computers in Human Behavior, 60*, 198–211. https://doi.org/10.1016/j.chb.2016.02.066

Damary, R., Markova, T., & Pryadilina, N. (2017). Key challenges of on-line education in multi-cultural context. *Procedia-Social and Behavioral Sciences, 237*, 83–89. https://doi.org/10.1016/j.sbspro.2017.02.034

Dhawan, S. (2020). Online learning: A panaceas in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5–22. https://doi.org/10.1177/0047239520934018

DiLoreto, M., & Gaines, T. (2016). An investigation of discrepancies between qualitative and quantitative findings in the survey research. *International Journal of Learning, Teaching and Educational Research, 15*(12), 143–154.

Dulock, H. L. (1993). Research design: Descriptive research. *Journal of Pediatric Oncology Nursing, 10*(4), 154–157. https://doi.org/10.1177/104345429301000406

Eom, S. B., & Ashill, N. (2016). The determinants of students' perceived learning outcomes and satisfaction in university online education: An update. *Special Issue: Identifying and Managing Critical Success Factors of Online Education*, *14*(2), 185–215. https://doi.org/10.1111/dsji.12097

Evans, T. M., Bira, L., Gastelum, J. B., Weiss, L. T., & Vanderford, N. L. (2018). Evidence for a mental health crisis in graduate education. *Nature Biotechnology, 36*(3), 282–284. https://doi.org/10.1038/nbt.4089

Fabiano, G. A., Redy, L. A., & Dudek, C. M. (2018). Teacher coaching supported by formative assessment for improving classroom practices. *School Psychology Quarterly, 33*(2), 293–304. https://doi.org/10.1037/spq0000223

Fredericksen, E. E. (2017). A national study of online learning leaders in US higher education. *Online Learning, 21*(2). https://doi.org/10.24059/olj.v21i2.1164

Garrett, L. E., Spreitzer, G. M., & Bacevice, P.A. (2017). Co-constructing a sense of community at work; The emergence of community in coworking spaces. *Organization Studies, 38*(6), 821-842.

Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. *Journal of Learning Design, 10*(1), 20. https://doi.org/10.5204/jld.v9i3.293

Goldie, J. G. S. (2016). Connectivism: A knowledge learning theory for the digital age? *Medical Teache*r, *38*(10), 1064–1069. https://doi.org/10.3109/0142159X.2016.1173661

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607. DOI: 10.46743/2160-3715/2003.1870

Hayashi, P., Abib, G., & Hoppen, N. (2019). Validity in qualitative research: A processual approach. *Qualitative Report*, 24(1), 98–112. https://doi.org/10.46743/2160-3715/2019.3443

Hendricks, G. P. (2019). Connectivism as a learning theory and its relation to open distance education. *Progressio, 41*(1), 1–13. https//doi.org/10.25159/0256-8853/4773

Jacobson, D., & Mustafa, N. (2019). Social identity map: A reflexivity tool for practicing explicit positionality in critical qualitative research. *International Journal of Qualitative Methods, 18*, https://doi.org/10.1177/1609406919870075

Janak, E. (2018). Bracketing and bridling: Using narrative reflexivity to confront research bias and the impact of social identity in a historical study. *Philanthropy & Education*, 1(2). 82-93.

Jo, I., Huh, S., Bannert, A., & Grubb, K. (2020). Beginning the journey to creating an active online learning environment: Recommendations from graduate students. *Journal of Geography, 119*(6), 197–205. https://doi.org/10.1080/00221341.2020.1821085

Kent, C., & Rafaeli, S. (2016). How interactive is a semantic network? Concept maps and discourse in knowledge communities. *2016 49th Hawaii International Conference on System Sciences (HICSS).* https://doi.org/10.1109/hicss.2016.265

Kumar, A., Kumar, P., Palvia, S. C. J., & Verma, S. (2017). Online education worldwide: Current status and emerging trends. *Journal of Information Technology Case and Application Research*, *19*(1), 3–9. https://doi.org/10.1080/15228053.2017.1294867

Kumi-Yeboah, A., Dogbey, J., & Yuan, G. (2017). Online collaborative learning activities: The perspectives of minority graduate students. *Online Learning, 21*(4). https://doi.org/10.24059/olj.v21i4.1277

Kyei-Blankson, L., Ntuili, E., & Donnelly, H. (2019). Establishing the importance of interaction and presence to student learning in online environment. *Journal of Interactive Learning Research, 30*(4), 539–560. https://core.ac.uk/download/pdf/268085474.pdf

Lambert, V. A., & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research, 16*(4), 255–256. https://www.tci-thaijo.org/index.php/PRIJNR/article/download/5805/5064/

Lang, T. A. (2019). Who me? Ideas for faculty who never expected to be teaching public health students to write. *Public Health Report, 134*(2), 206–214. https://doi.org/10.1177/0033354918821880

Lee, K. (2017). Rethinking the accessibility of online higher education: A historical review. *The Internet and Higher Education*, *22*, 15-23.

Lowenthal, P., Dunlap, J., & Snelson, C. (2017). Live synchronous web meetings in asynchronous online courses: Reconceptualizing virtual office hours. *Online Learning Journal, 2*1(4). https://doi.org/10.24059/olj.v21i4.1285

Luo, N., Zhang, M., & Qi, D. (2017). Effects of different interactions on students' sense of community in e-learning environment. *Computers & Education, 115*, 153–160. https://doi.org/10.1016/j.compedu.2017.08.006

Madden, L., Jones, G., & Childers, G. (2017). Teacher education: Modes of communication with asynchronous and synchronous communication platforms. *Journal of Classroom Interaction, 52*(2), 16–30.

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education, 9*(3). http://ojs.aishe.org/index.php/aishe-j/article/view/335/553

Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, *22*(1), 205–222. https://doi.org/10.24059/olj.v22i1.1092

Martin, F., & Ndoye, A. (2016). Using learning analytics to assess student learning in online courses. *Journal of University Teaching & Learning Practice, 13*(3), 7. https://ro.uow.edu.au/jutlp/vol13/iss3/7

Martin, F., Polly, D., Jokiaho, A., & May, B. (2017). Evaluation instruments and good practices in online education. *The Quarterly Review of Distance Education*, *18*(2), 1–10. https://olj.onlinelearningconsortium.org/index.php/olj/article/view/913

Mattar, J. (2018). Constructivism and connectivism in education technology: Active, situated, authentic, experiential, and anchored learning. *Revista Iberoamericana de Education a Distancia, 21*(2), 201–2017. https://doi.10.5944/ried.21.2.20055

Merriam, S.B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons.

McCabe, C., Sprute, K., & Underdown, K. (2017). Laughter to learning: How humor can build relationships and increase learning in the online classroom. *Journal of Instructional Research, 6*, 4–7. https://files.eric.ed.gov/fulltext/EJ1152964.pdf

McCarthy, J. (2017). Enhancing feedback in higher education: Students' attitudes towards online and in-class formative assessment feedback models. *Active Learning in Higher Education, 18*(2), 127-141

McDaniels, M., Pfund, C., & Barnicle, K. (2016). Creating dynamic learning communities in synchronous online courses: One approach from the Center for the Integration of Research, Teaching and Learning (CIRTL). *Online Learning, 20*(1), 110–129. https://files.eric.ed.gov/fulltext/EJ1096380.pdf

McKerlich, R., Riis, M., Anderson, T., & Eastman, B. (2011). Student perceptions of teaching presence, social presence, and cognitive presence in a virtual world.

Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis.* San Francisco, CA: Jossey-Bass Publishers.

Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis* (Nth ed.). John Wiley & Sons.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

Miller, N., Greer, K., Cozier, L., Whitener, S., Patton, J., & Koffarnus, J. (2019). An advising initiative for online students on academic probation. *NACADA Journal, 39*(1), 5–21. https://doi.org/10.12930/NACADA-16-019

Mohr, S. C., & Shelton, K. (2017). Best practices framework for online faculty professional development: A delph study. *Online Learning Journal, 21*(4). https://doi.org/10.24059/olj.v21i4.1273

Moore, M. (1991). Editorial: Distance education theory. *The American Journal of Distance Education*, *5*(3), 1–8. https://www.learningdesign.psu.edu/assets/uploads/deos/deosnews1_25.pdf

Morong, G., & DesBiens, D. (2016). Culturally responsive online design: Learning at intercultural intersections. *Intercultural Education*, 27(5), 474-492. https://doi.org/10.1080/14675986.2016.1240901

Morse, J. M. (2000). Determining sample size. *Qualitative Health Research*, *10*(1), 3–5. https://doi/10.1177/104973200129118183

Nguyen, V. A. (2017). The impact of online learning activities on student learning outcome in blended learning course. *Journal of Information & Knowledge Management*, *16*(4), 1750040. https://doi.org/10.1142/s021964921750040x

Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evidence Based Nursing*, *22*(3), 67–68. https://doi.org/10.1136/ebnurs-2019-103145

Obizoba, C. (2016). Effective facilitation methods for online teaching. *International Journal of Higher Education Management*, *2*(2), 14–25. https://ijhem.com/cdn/article_file/i-4_c-30.pdf

Osborne, D. M., Byrne, J. H., Massey, D. L., & Johnston, A. N. (2018). Use of online asynchronous discussion boards to engage students, enhance critical thinking, and foster staff-student/student-student collaboration: A mixed-method study. *Nurse Education Today, 70,* 40–46. https://doi.org/10.1016/j.nedt.2018.08.014

Parry, S. M., Remedios, L., Denehy, L., Knight, L. D., Beach, L., Rollinson, T. C., Berney, S., Puthucheary, Z. D., Morris, P., & Granger, C. L. (2017). What factors affect implementation of early rehabilitation into intensive care unit? A qualitative study with clinicians. *Journal of Critical Care*, *38*, 137–143. https://doi.org/10.1016/j.jcrc.2016.11.005

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work*, *1*(3), 261–283. https://doi.org/10.1177147332500200100363 6

Peacock, S., & Cowan, J. (2019). Promoting sense of belonging in online learning communities of inquiry in accredited courses. *Online Learning, 23*(2), 67–81. https://doi.org/10.24059/olj.v23i2.1488

QSR International (2021). Nvivo Qualitative Software. https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home

Ratliff, K. (2018). Building rapport and creating a sense of community: Are relationships important in the online classroom? *Internet Learning Journal, 7*(1). https://doi.org/10.18278/il.7.1.4

Rizana, A. F., Hediyanto, U. Y. K. S., Ramadhan, F., & Kurniawati, A. (2020). E-learning success determinants in higher education: A systematic literature review from users' perspective. *IOP Conference Series: Materials Science and Engineering*, *830*, 032012. https://doi.org/10.1088/1757-899x/830/3/032012

Ryan, T., & Henderson, M. (2018). Feeling feedback: students' emotional responses to educator feedback. *Assessment & Evaluation in Higher Education, 43*(6), 880-892.

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health, 23*(4), 334–340. https://doi.org/10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g

Savage, B. M., Lujan, H. L., Thipparthi, R. R., & DiCarlo, S. E. (2017). Humor, laughter, learning, and health! A brief review. *Advances in Physiology Education, 41*(3), 341–347. https://doi.org/10.1152/advan.00030.2017

Schrenier, L. (2020). *Thriving in transitions: A research-based approach to college student success, 2nd ed*. National Resource Center for The First-Year Experience and Students in Transition: University of South Carolina

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States.* Babson Survey Research Group. https://files.eric.ed.gov/fulltext/ED580852.pdf

Shih, W. L., & Tsai, C. Y. (2017). Student's perception of a flipped classroom approach of facilitating online project-based learning in marketing research courses. *Australasian Journal of Education Technology*, *33*(5). https://doi.org/10.14742/ajet.2884

Siemens, G. (2004). *Connectivism: A learning theory for the digital age*. Elearnspace. http://www.elearnspace.org

Siemens, G. (2017). Connectivism. In *Foundations of learning and instructional design technology*. Pressbooks. https://lidtfoundations.pressbooks.com/chapter/connectivism-a-learning-theory-for-the-digital-age

Singh, R. N., & Hurley, D. (2017). The effectiveness of teaching and learning process in online education as perceived by university faculty and instructional technology professionals. *Journal of Teaching and Learning with Technology*, *6*(1), 65-75.

Slapak-Barski, J. (2017). *Faculty and Student Perceptions of Teaching Presence in Distance Education Courses: A Mixed Methods Examination* (Doctoral Dissertation). Direct link to paper: https://nsuworks.nova.edu/fse_etd/120/

Stake, R. E. (2010). *Qualitative research: studying how things work*. Guilford Press.

Steele, J., & Holbeck, R. (2018). Five elements that impact quality feedback in the online asynchronous classroom. *Journal of Educators Online*, *15*(3), n3. https://files.eric.ed.gov/fulltext/EJ1199171.pdf

Steyn, C., Favies, C., & Sambo, A. (2019). Eliciting student feedback for course development: the application of a qualitative course evaluation tool among business research students. *Assessment & Evaluation in Higher Education, 44*(1), 11–24. https://doi.org/10.1080/02602938.2018.1466266

Sverdlik, A., Hall, N. C, McAlpine, L., & Hubbard, K. (2018). The PhD experience: A review of the factors influencing doctoral student's completion, achievement, and well-being. *International Journal of Doctoral Students, 12*(1), 361–368. http://informingscience.com/ijds/Volume13/IJDSv13p361-388Sverdlik4134.pdf

Sullivan, L. M., Velez, A., Edouard, V.B., & Galea, S. (2018). Realigning the Master of Public Health (MPH) to meet the evolving needs of the workforce. *Pedagogy in Health Promotion*, *4*(4), 301-311. https://doi.org/10.1177/2373379917746698

Thomas, J. E., & Graham, C. R. (2019). Online teaching competencies in observational rubrics: What are institutions evaluating? *Distance Education, 40*(1), 114–132. https://doi.org/10.1080/01587919.2018.1553564

Thorne, S. (2016). *Interpretive description: qualitative research for applied practice*. Routledge.

Torrens, A., Corvin, J.A., Azeredo, J., Burke, S., Carr, C.C., & King, C. (2020). Redesigning college professional development resources to meet the needs of emerging public health professionals. *Health promotion practice, 21*(4), 487-491.

U.S. Bureau of Labor Statistics. (2020, September 1). *Healthcare occupations: Occupational outlook handbook.* U.S. Bureau of Labor Statistics. https://www.bls.gov/ooh/healthcare/home.htm.

Voelkel, R. H., & Chrispeels, J. H. (2017). Understanding the link between professional learning communities and teacher collective efficacy. *School Effectiveness and School Improvement, 28*(4), 505–526. https://doi.org/10.1080/09243453.2017.1299015

Walters, K., & Henry, P. (2016). Critical analysis of embedded and summative feedback from online doctoral instructors on benchmark major assessments. *Journal of Learning, Teaching and Educational Research, 15*(1). http://ijlter.org/index.php/ijlter/article/view/231

Wasik, S., Barrow, J., Royal, C., Brooks, R., Dames, L., Corry, L., & Corbin, B. I. R.D. (2019). Online Counselor education: Creative approaches and best practices in online learning environments. *Research on Education and Psychology*, 3(1), 43-52.

Wikle, J. S., & West, R. E. (2019). An analysis of discussion forum participation and student learning outcomes. *International Journal on E-Learning*, *18*(2), 205–228. https://www.learntechlib.org/primary/p/181356/

Yang, T., Lou, H., & Sun, D. (2020). Investigating the combined effects of group size and group composition in online discussion. *Active Learning in Higher Education*, 1469787420938524. https://doi.org/10.1177/1469787420938524

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The Qualitative Report*, *20*(2), 134–152.

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford Publications.

Zimmerman, T. D., & Nimon, K. (2017). The online student connectedness survey: Evidence of initial construct validity. *The International Review of Research in Open and Distributed Learning, 18*(3). https://doi.org/10.19173/irrodl.v18i3.2484

Zoom Video Communications Inc. (2016). Security guide. Zoom Video Communications Inc. Retrieved from https://d24cgw3uvb9a9h.cloudfront.net/static/81625/doc/Zoom-Security-White-Paper.pdf

Appendix A. Email to Participants

Dear [name]: My name is Michelle Wylie. I am a doctoral candidate at Walden University.

I hope to learn more about online communities in Master of Public Health programs; therefore, I will be conducting research to possibly provide insight into this issue.

I will conduct a study that aims to address the identification and definition of the criteria necessary to create community, and inclusivity, and success within online Master of Public Health learning communities. Your participation in this study could provide stakeholders in online Master of Public Health programs with solutions for increasing retention and graduation rates. There are no known risks associated with this research. Participants in the study will engage in one-on-one semi structured interviews that will take approximately 30 minutes. If you have completed an online Master of Public Health course at a university, you are welcome to be part of the study.

Should you decide to participate in this study, I will meet with you virtually at a designated date and time convenient to you. More details about the study will follow when I contact you by email.

Thank you for your time, and I look forward to your response.

Sincerely,

Michelle Wylie

Appendix C. Interview Protocol for Master of Public Health Online Students

Thank you once again for volunteering to participate in this study. Your opinions are greatly valued. As a reminder, all information will be kept confidential. If at any time you would like to stop the interview, please just tell me. Also, if there is anything you would like me to remove from the interview transcript at any time, even after the interview, please let me know. First, we will begin by talking about your specific experiences as a current/former adult learner.

1. To begin, please tell me about your online educational experiences.
   a. Why did you decide to take virtual courses?
   b. Please describe your current experience in the Master of Public Health online classes.
   c. Do you feel that the instructor engages with you in your courses? (Specify response.)
   d. How do you feel in the online classroom? Have you ever felt that you were isolated in the online classroom?
2. Please tell me how you perceive the efficacy of online learning communities.
   a. Have you participated in orientations or town halls? If so, what was your experience?
   b. Have you reached out to fellow students to form study groups? If so, what was your experience?

c. Have you attended any of the Master of Public Health student groups? If so, what was your experience?

3. What components of online learning communities do you perceive as most beneficial to student success?

4. What motivates you to continue with your online education?

5. What are some challenges that you face as an adult learner?

Next, we will talk about your perceptions of issues pertaining to online education.

6. What are the advantages of being an online student?

7. Do you have any other ideas about ways to improve your experiences as an online student?

8. Do you perceive any components of online learning communicates as detrimental to your success? Have there been any negative experiences related to participation in online learning communities?

9. What barriers do you believe impact student success for online learners?

10. Do you have any other comments/ideas/questions about anything we discussed?

Thank you, again, for taking time to participate in this study. Your insight is greatly appreciated. If you have any ideas or questions after this interview, please do not hesitate to contact me through email or telephone to let me know.

Appendix D. Code Book

Codes from the Analysis

Code	Definition of Code	# of Coded	%
Online School Experience	Student online school experience	12	100%
Pros Online School Experiences	Positive experiences in online school	8	67%
Cons Online School Experience	Negative experiences in online school	1	8%
Current experience	Experience in MPH program	12	100%
Positive experience	Positive experiences in online school	11	92%
Current Experience Cons	Current experience in online school Cons	6	50%
Current Experience Needs	Current experience in online school Needs	7	58%
Instructors Engages	Faculty engagement with students	13	108%
Lack of Engagement	Lack of Faculty engagement with students	5	42%
Instructor Engages Needs	Instructor engagement needs for improvement	3	25%
isolated in an online class	The feeling of isolation and aloneness in classes	10	75%
Participation in Orientation	Student participation in Orientation	8	67%
Participated in Town Hall	Student Participation in Town Halls	7	58%
Reached out to fellow students	Students outreach to other students	5	42%
Formed Study Group	Students forming Study Groups	3	25%
Attended MPHSG Groups	Students Attending MPHSG	6	200%

Code	Definition of Code	# of Coded	%
components of online learning communities	Online Learning Communities	12	100%
Motivation	What motivates the student to succeed	12	100%
Challenges as an Adult learner	Challenges Adult Learners Faces	12	100%
Advantages of Online Student	Benefits of Online Classes	11	92%
Ideas of improvement	Suggestion for improvement	9	75%
Detrimental	Detrimental experiences in online school	8	67%
positive experiences	Positive experiences	12	100%
Barriers	Challenges the student faces in the online classroom	12	100%
Other comments/ideas/questions	Additional suggestions or ideas	7	58%