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Perceptions of the Importance and Integration of High-Impact Practices in Traditional Versus Online Learning

Melissa Martin Farrish
mjfarrish@gmail.com

PERCEPTIONS OF THE IMPORTANCE AND INTEGRATION OF HIGH-IMPACT PRACTICES IN TRADITIONAL VERSUS ONLINE LEARNING

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Melissa Martin Farrish
Approved by
Dr. Lisa A. Heaton, Committee Chairperson
Dr. Ronald Childress
Dr. Edna Meisel
Dr. Brenda Tuckwiller

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SIGNATURE PAGE

I hereby affirm that the following project meets the high academic standards for original scholarship and creative work established by my discipline, college, and the Graduate College of Marshall University. With my signature, I approve the manuscript for publication.

Project Title:	Perceptions of the Importance and Integration of High-Impact Practices in Traditional Versus Online Learning
Student's Name:	Melissa Martin Farrish
Department:	Curriculum & Instruction
College:	College of Education and Professional Development

Lisa A. Heaton
Committee Chairperson

4/10/2018
Date

DEDICATION

This work is dedicated to my parents, my husband, Chris, and my children, Madison and Will.

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I would like to acknowledge and express my gratitude to several individuals for their support and encouragement along this journey.

First, I would like to thank my parents for their love, support, and encouragement. This accomplishment would not have been possible without my mom who spent countless hours with my children so I could attend class and complete assignments. Sadly, my father passed away during this journey. I know he would be so proud of this accomplishment.

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TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

The purpose of this mixed methods study was to examine the differences, if any, in the perceived importance and the level of integration of high-impact practices in traditional versus online courses/programs by faculty and administrators of institutions in the Appalachian College Association. The study further identifies the perceptions of faculty and administrators regarding the importance of high-impact practices based upon selected demographics and the level of integration of high-impact practices based upon selected demographics. Finally, this study investigates the benefits and challenges experienced by educators in their attempt to incorporate high-impact practices in courses/programs and identifies other successful strategies in engaging students. Quantitative data obtained from responses to the online survey, *High-Impact Practices,* were compared using descriptive statistics and nonparametric tests to determine statistically significant differences. Qualitative responses were coded, sorted, and analyzed to identify emergent themes. The study had a population of 3,234 educators from member institutions of the Appalachian College Association that yielded 438 complete or partial surveys and 15 individuals participated in interviews. Findings from this study have significance to faculty, course designers, policy makers, administrators, and researchers as they seek to design courses incorporating high-impact practices proven to engage and retain students.

CHAPTER 1

INTRODUCTION

Despite declining higher education enrollment, distance education enrollment continues to grow. In fall 2016, 6 million people (29.7% of all students) took a course at a distance including 2.9 million completing all courses at a distance and 3.1 million completing some, but not all, courses at a distance (Allen & Seaman, 2017). While universities are using online learning as a tool to reach new learners, online learning can appear as "nothing more than an independent or self-study where students passively engage in the learning" (Hersman, 2014, p. 23). Designing and delivering online units that actively engage students pose some challenges to the higher education community (Pittaway & Moss, 2014).

Student engagement is the "amount of time and effort students put into their studies and other educationally purposeful activities" (Indiana University School of Education, 2016, para. 1). The Australian Council for Education Research defines student engagement as "students' involvement in activities and conditions likely to generate high-quality learning" (Coates, 2008, p. 1) providing information about "individuals' intrinsic involvement with their learning" (p. 1). Engagement is further described as a state where "students become active partners in shaping their learning experience" (Higher Education Academy, 2017, para. 1) where a mix of behavior, emotion, and cognition engages the "minds, hearts, and imaginations" of students (Owen & Dunne, 2013). McCormick, Gonyea, and Kinzie (2013) found a correlation between specific dimensions of engagement and retention. Aspects of engagement, including time and effort, have repeatedly been linked to positive outcomes (Trowler & Trowler, 2010). Student engagement has become a priority in higher education as "disengagement in school is widespread" (Bundick, Quaglia, Corso, & Haywood, 2014, p. 1).

Through the Liberal Education and America's Promise (LEAP) initiative, 10 high-impact practices were identified as the "best means of fostering student growth in desired outcomes" (Sandeen, 2012, p. 82). These high-impact practices engage students "at levels that elevate their performance across multiple engagement and desired-outcomes measures such as persistence" (Kuh G., 2008, p. 14). High-impact practices have a high degree of positive impact on self-reported deep learning with gains in general education, personal and social development, and practical competence (Finley, 2011). These practices "make a claim on student time and energy in ways that channel student effort toward productive activities and deeper learning" (Kuh G., 2007, p. 7) engaging students and promoting academic achievement.

In general, high-impact practices increase student engagement; however, there has been little research on incorporating these practices into online courses/programs. According to Dixson (2010), student engagement is one of the primary components of effective online teaching. Pittaway and Moss (2014) found there has been little work that directly addresses student engagement within a fully-online environment. According to Hersman (2014), creating an active online learning experience will effectively enhance student learning and engagement. This research seeks to identify how schools in the Appalachian College Association are integrating high-impact practices into online courses/programs.

Background

Institutions are "increasingly challenged by governments to contribute to national economic achievement" (Zepke & Leach, 2010, p. 167). State legislators, accreditors, parents, and employers want to know what students are learning and how these skills and competencies will benefit the economy when graduates join the workforce (Kuh, 2001). According to McCormick, Gonyea, and Kinzie (2013), there was growing skepticism as many questioned how

much students were learning in college. Accreditors demanded institutions utilize information gathered through assessment for purposes of improvement. Further, policymakers continued to see college costs escalate at an unsustainable rate. According to a report by The College Board, between 2006-07 and 2016-17, tuition and fees increased at an average rate of 3.5% above inflation at public four-year institutions while private four-year institutions experienced a 2.4% increase (Ma, Baum, Pender, & Welch, 2016). These national calls for accountability and mandates from governing, state, or legislative boards served as motivational factors for many colleges and universities (McCormick, Kinzie, & Korkmaz, 2011).

In 2005, the Association of American Colleges and Universities (AAC&U) launched Liberal Education and America's Promise (LEAP) "to align the goals for college learning with the needs of the new global century" (Brownell, Swaner, & Kuh, 2010, p. xiii). Through the LEAP initiative, George D. Kuh released the publication entitled *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* in 2008, which identified practices that "improve student retention, increase graduation rates, and have potential to enable students to achieve the outcomes they will need in this new global economy" (p. xiv). Kinzie (2012) found high-impact practices "require students to make their own discoveries and connections, grapple with challenging real-world questions, and address complex problems—all necessary skills if students are to become engaged and effective members of their communities" (para. 1).

National Survey of Student Engagement

The National Survey of Student Engagement responded to the concerns of accreditors and policymakers by providing results focused on key dimensions of quality in undergraduate education: level of academic challenge, active collaborative learning, student-faculty interaction,

enriching educational experiences, and supportive campus environment (McCormick, Gonyea, & Kinzie, 2013). In 2000, 276 bachelor's degree-granting institutions participated in the first National Survey of Student Engagement (NSSE). The survey assessed college quality by asking first-year and senior students about their "educationally purposeful experiences" (p. 7). An annual assessment identifying "alternative measures of college quality" (Kuh, 2001, p. 12) could provide institutions with information needed for improvement purposes and help "enlighten the public" (p. 12) as to the important components of collegiate quality.

Since 2000, participation in the National Survey of Student Engagement has grown from 276 institutions to more than 1,600 colleges and universities with nearly six million students completing the survey in the United States and Canada (Indiana University School of Education, 2018). According to McCormick, Gonyea, and Kinzie, (2013), "what started as a bold experiment in changing the discourse about quality and improvement in undergraduate education – and providing metrics to inform that discourse – is now a trusted fixture in higher education's assessment landscape" (p. 7). In 2009, NSSE began a multi-year revision process involving many participating institutions in which a new set of engagement measures was created focusing on educational quality organized within the former themes of the NSSE Benchmarks. This revision included six items reported separately as high-impact practices (see Table 1).

Table 1 *High-Impact Practices*

Former NSSE Benchmarks	New Engagement Measures
Level of Academic Challenge	Higher-Order Learning Reflective and Integrative Learning Learning Strategies Quantitative Reasoning Theme: Academic Challenge
Active and Collaborative Learning	Collaborative Discussions with Diverse Others Theme: Learning with Peers
Student-Faculty Interaction	Student-Faculty Interaction Effective Teaching Practices Theme: Experiences with Faculty
Supportive Campus Environment	Quality of Interactions Supportive Environment Theme: Campus Environment
Enriching Educational Experiences	Participation in High-Impact Practices Learning Communities Service-Learning Research with Faculty Study Abroad Internships and Field Experiences Culminating Senior Experiences

Reprinted from "Refreshing Engagement NSSE at 13," by A. C. McCormick, R. M. Gonyea, and J. Kinzie, (2013), *Change: The Magazine of Higher Learning* (p. 11). Copyright 2013 by Taylor & Francis. Reprinted with permission (see Appendix A).

High-Impact Practices

NSSE designated certain undergraduate opportunities, due to their positive associations with student learning and retention, as "high-impact." High-impact practices (HIPs) "demand considerable time and effort, facilitate learning outside of the classroom, require meaningful frequent and substantive feedback" (National Survey of Student Engagement, 2015). According to NSSE's founding director, George Kuh (2008):

> When I am asked, what one thing we can do to enhance student engagement and increase student success? I now have an answer: make it possible for every student to participate in at least two high-impact activities during his or her undergraduate program, one in the first year, and one taken later in relation to the major field. (p. 19)

Students describe participation in high-impact practices as "life-changing" (McCormick, Gonyea, & Kinzie, 2013, p. 13) where students must "invest considerable time and effort" (p. 13) and the experiences "facilitate out-of-class learning, engage students meaningfully with faculty, encourage interaction with people unlike themselves, and provide frequent feedback on performance" (p. 13). Kuh's (2008) high-impact practices measured by NSSE (2013) include the following:

- Learning communities or some other formal program where groups of students take two or more classes together
- Community-based projects or service-learning opportunities embedded within coursework
- Research opportunities in partnership with faculty
- Internship, co-op, field experience, student teaching, or clinical placement opportunities
- Study abroad experiences requiring students to study and live in a foreign environment
- Culminating senior experiences in the form of capstone courses, a senior project or theses, a comprehensive exam, or portfolio

Kuh (2008) emphasized "to engage students at high levels, these practices must be done well" (p. 20). Quality in implementing high-impact practices involves frequency, equity, intentionality, and innovation (McNair & Albertine, 2012). The American Association of Colleges and Universities recommends multiple high-impact learning experiences for all

students. Kuh found positive relationships between high-impact practices and different measures of achievement including grade point averages and retention (Finley & McNair, Assessing underserved students' engagement in high-impact practices, 2013).

Problem Statement

Improved student engagement and retention continue to be a national priority in higher education with student engagement leading to increased retention. The literature shows the potential of retaining students by providing opportunities to promote student engagement through the incorporation of high-impact practices. Baccalaureate institutions experience higher persistence, retention, and grade point averages among students participating in high-impact activities (Kuh, 2008).

As Sandeen (2012) found, Kuh's work has focused on the classroom-based residential setting with research showing the value of high-impact practices in traditional programs. Reed (2015) noted the lack of research on the adaptation of high-impact practices for online programs. Despite the significant literature on high-impact practices and traditional programs, there has been little examination of how high-impact practices can be successfully incorporated into online learning courses/programs. The growth rate of students enrolled in at least one online course increased by 3.9% from 2014 to 2015 (Allen & Seaman, 2017). As the number of online courses/programs escalates, there is a need to examine if and how these high-impact practices are incorporated into online programs in the Appalachian College Association.

Reports indicate high-impact practices, despite the benefits, are "neither widespread in higher education or part of the average college student's education experience" (Brownell, Swaner, & Kuh, 2010, p. 1). Further, Kuh and O'Donnell (2013) state there may be other areas that engage students in "meaningful, personally relevant ways" (p. 11) and taking part in these

experiences may provide benefits similar to the high-impact practices. Colleges report a need to focus "on practical means and methods to engage faculty with implementing HIPs in appropriate ways" (McNair & Albertine, 2012, p. 4). According to Kuh and O'Donnell (2013), research and data collection are needed "that will allow us to document the relative importance and influence of the structural and programmatic characteristics of HIPs in terms of inducing student effort and other desirable outcomes" (p. 8).

Purpose of the Study

This study will focus on discovering if private non-profit schools in the Appalachian College Association have incorporated high-impact practices in traditional and online learning courses/programs and will seek to identify how high-impact practices are integrated into online learning. According to large-scale trends, private non-profits, fulfill a role as major distance education providers (Allen & Seaman, 2017). A review of the literature found numerous benefits to the incorporation of high-impact practices in baccalaureate programs. The research shows specific practices for online course design which, with thoughtful consideration, can create a learner-centered environment that stimulates student engagement. According to Kuh (2010) "learning begins with student engagement, which in turn leads to knowledge and understanding" (p. xi). Further, the study will attempt to identify other experiences that yield a similar effect. As Kuh and O'Donnell (2013) explain, "as we learn more about the components of HIPs that make them enriching educational experiences, we may see other areas on and off the campus where conditions similar to HIPs can be created to engage students in meaningful, personally relevant ways" (p. 11).

Research Questions

This mixed-methods study will address the following research questions:

R1. What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices in traditional versus online classes/programs?

R2. What differences, if any, are there in the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators at colleges/universities in the Appalachian College Association?

R3. What is the relationship between the perceived importance and the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators in the Appalachian College Association?

R4. What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices based upon selected demographics and the level of integration of high-impact practices based upon selected demographics?

R5. What are the benefits and challenges experienced by colleges and universities in the Appalachian College Association in their attempt to incorporate high-impact practices into traditional and online learning classes/programs?

R6. What, if any, are other strategies that have been successful in engaging students enrolled in traditional and online learning classes/programs?

Operational Definitions

The operational definitions used for this study are described in this section. Additional definitions are located in Appendix B. The data collection instruments include a survey (see

Appendix C) and interview guide (see Appendix E). The following operational definitions were used for this study:

1. Importance of high-impact practices refers to the respondent's perception of the significance or value of each high-impact practice based on a Likert scale where 1=not important, 2=somewhat important, 3=important, and 4=very important as reported by respondents to the researcher-developed survey found in Appendix C.
2. Level of integration refers to the incorporation of each high-impact practice as an essential or central part of the respondent's academic program/course based upon a Likert scale where a 1=never, 2=optional (students may choose to participate in this component), and 3=required component of the program as reported by respondents to the researcher-developed survey found in Appendix C.
3. Challenges refer to the difficulties derived from the incorporation of any of the six practices in traditional and online learning programs by faculty and administrators as reported by respondents to the researcher-developed survey found in Appendix C and as described in responses to the interview questions found in the interview guide in Appendix E.
4. Benefits refer to the advantages or desirable outcomes derived from the incorporation of any of the six practices in traditional and online learning programs by faculty and administrators as reported by respondents to the researcher-developed survey found in Appendix C and as described in responses to the interview questions found in the interview guide in Appendix E.
5. Strategies refer to the method(s) leading to the goal of increasing student engagement in traditional and online programs as self-reported on the survey found in Appendix C.

Respondents select the best fit from the following: no or yes. Respondents marking yes will have an opportunity to describe the strategy on the survey. Strategies will also be described in response to the interview question found in the interview guide in Appendix E.

6. Teaching assignment refers to the respondent's primary teaching assignment as self-reported in Part A of the survey found in Appendix C. Respondents select from the following: Traditional face-to-face courses, completely online, or blended (a mix of traditional face-to-face courses and online).
7. Sex refers to the respondent's sex as self-reported in Part A of the survey found in Appendix C. Respondents select the best fit from male or female.
8. Years of teaching experience in higher education refers to the number of years teaching in higher education, including the present year, as self-reported in Part A of the survey found in Appendix C. Respondents select the best fit from the following categories: 1-4, 6-10, 11-15, 16-20, 21-25, 26-30, or more than 30.
9. Role refers to the respondent's position at the institution as self-reported in Part A of the survey found in Appendix C. Respondents select the best fit from the following: Full-time faculty, Adjunct or part-time faculty, Program Director, Dean, Department Chair, Information Technology, Provost, Other.
10. Academic discipline refers to the area of the respondent's teaching assignment at the institution as self-reported in Part A of the survey found in Appendix C. Respondents select from the following: Arts/Humanities, Social Sciences, Business, Communications, Education, Health Professions, Social Service Professions, STEM, Religion, Other Disciplines

11. Level refers to the academic division of the respondent's teaching assignment as self-reported in Part A of the survey found in Appendix C. Respondents select from the following: undergraduate, graduate, or both.
12. School size refers to the enrollment (including undergraduate and graduate) at the respondent's institution as self-reported in Part A of the survey found in Appendix C. Respondents select from the following: Fewer than 1,000, 1,000 – 2,499, 2,500 – 4,999, 5,000 – 9,999, 10,000 – 19,999, 20,000 or more.

Significance of the Study

By investigating the incorporation of NSSE's high-impact practices into traditional and online programs, this research identified best practices and successful strategies for incorporating these practices into online course design. This study has significance to the higher education community, particularly online faculty, and higher education officials responsible for online course design, as the results will be presented at the annual Appalachian College Association Summit (see Appendix F). Findings from this study have significance to faculty, course designers, policy makers, administrators, and researchers as they seek to design online courses incorporating NSSE's high-impact practices proven to engage and retain students. Additionally, this research provides examples of best practices for online program improvement and development in incorporating high-impact practices in online programs. The research has an opportunity to fill a gap in the current literature related to incorporating high-impact practices in online learning programs.

Delimitations and Limitations

A delimitation of the study includes the decision of the researcher to limit the research to schools within the Appalachian College Association (ACA). While the study includes schools

from various Carnegie classes, the schools are limited to private four-year liberal arts colleges and universities in Kentucky, North Carolina, Tennessee, Virginia, and West Virginia. As private four-year liberal arts colleges and universities, school size will be a delimitation of the study.

From the population of 35 schools, only 21 offer online degree programs. This determination is limited by the content available on college and university websites. The websites may not provide the most current information on available online programs. Institutions of higher education continually make curriculum changes. It is possible that schools may have changed programmatic offerings – either adding or deleting online degrees from the institution's offerings. These changes must then be communicated to the public through the institution's website. There may be a lack of diligence by the institution or program in maintaining website content. The study is also limited to the participants' self-reported perceptions. These perceptions may or may not be influenced by an educator's positive or negative feelings toward online learning or high-impact practices.

Organization of the Study

The first chapter of this study includes an introduction, background literature, statement of the problem, purpose of the study, research questions, operational definitions, and significance of the study. Chapter two provides a review of the literature on online learning, student engagement, and high-impact practices. The benefits and challenges of each high-impact practice as identified in the literature is also discussed. Chapter three includes the research methods, data collection procedures selected to address the research questions, population, sample, and data analysis procedures. Chapter four presents the results organized by research question. Chapter five summarizes and discusses the results with conclusions, implications, and suggestions for further research.

CHAPTER 2

REVIEW OF THE LITERATURE

Chapter 2 includes a review of the literature on high-impact practices and online learning. The chapter provides an overview of the evolution and pros and cons of online learning and online course/program design. The history of the National Survey of Student Engagement (NSSE) outlines how high-impact practices have evolved as a measure of student engagement. The chapter later discusses the benefits and challenges of incorporating each practice into courses and programs.

Online Learning

Higher education has evolved from brick and mortar structures into high-tech online environments. Online education has become a priority for colleges and universities across the country with six million students taking at least one online course during fall 2016 (Allen & Seaman, 2017). Further, 2.9 million of those students enrolled exclusively in online courses. According to a study conducted by The Sloan Consortium, "the rate of growth in online enrollments is ten times that of the rate in all higher education" (Allen & Seaman, 2011, p. 11). The study reported 65% of all chief academic officers believed "online learning is a critical part of their long-term strategy" (p. 4).

This learning environment allows institutions of higher education to reach students anytime and anywhere, making learning convenient and accessible. Online learning makes educational opportunities available regardless of geography, time, or other constraints allowing older adults with families and full-time jobs to pursue higher education (Hersman, 2014). Many online students attend class on a part-time basis with the desire to advance in their current career or with the hope of transitioning to a new one (Sandeen, 2012). The flexibility of online learning

is attractive to individuals with families or full-time jobs where time is limited (Hersman, 2014). The following paragraphs discuss the pros and cons of online learning.

Pros

Students are drawn to the many benefits of the online classroom. Online learning is "independent of time," "geographic location," and has an "open environment" (Desai, Hart, & Richards, 2008, p. 331). According to Desai et al. (2008), online learning "can result in a deeper understanding" (p. 331). Online learning provides opportunities for those who could not further their education traditionally. Adult learners prefer online learning as it provides "cost-effective, high-quality educational choices" (p. 331). Students prefer online programs to a face-to-face program because of "accessibility," "flexibility," and "convenience" (Boling, Hough, Krinsky, Saleem, & Stevens, 2012, p. 121) allowing learners the "convenience of learning at one's own pace" (Hersman, 2014, p. 23).

In a personal interview with a graduate student at Phoenix University, Fedynich (2007) found the student enjoyed the freedom of creating her schedule and the many communication formats in which she could participate. The online learning platform increased communication as everyone in the class could easily contribute (2007). A study of 219 students at a college in South Texas by Kupczynski, Stallone Brown, and Davis (2008) found student participation increased in the asynchronous environment, unlike a traditional classroom environment, as students found time to "post messages, read, and respond to messages, reflect on responses, revise interpretations, and modify original assumptions and perceptions" (p. 6).

In a peer-reviewed article, Hersman (2014) noted online learning helped students develop self-discipline, requiring them to learn on their own and pace themselves throughout the course to complete assignments and meet deadlines. Hersman further noted, some learners were

intimidated in the classroom and were more comfortable in an online environment that was quiet and distraction free.

Cons

Despite the many benefits of online learning, there are many limitations and challenges. Learning requires "dedication and discipline" (Desai, Hart, & Richards, 2008, p. 331). For students accustomed to a structured classroom environment, online learning can create "distressing experiences and burdens not associated with traditional learning such as frustration, anxiety, and confusion, due to communication breakdowns and technical difficulties" (p. 331). According to Hersman (2014), some learners may not have the self-discipline to be able to pace their learning through the course.

Traditional classroom experiences provide opportunities for "spontaneous responses and social interactions" (Desai, Hart, & Richards, 2008, p. 331) while there is a "lack of social cues" (Boling, Hough, Krinsky, Saleem, & Stevens, 2012, p. 119) in the online environment. Without social cues, communication is "task-oriented, cold, and less personal than face-to-face communication" (Walther, Anderson, & Park, 1994, p. 465). Despite positive academic performance, online learners have greater outside demands on their time and can easily disengage from learning (Reed, 2015). These demands may vary throughout the year with disengagement often occurring between semesters.

Online Program Design

According to Desai et al. (2009), "high levels of interaction" must be present in distance education for learners to have "positive attitudes and greater satisfaction" (p. 328). The interaction between the students and other learners and the instructor reduces the feeling of isolation. A lack of social presence can affect a leaner's performance and outcomes. In a study

by Kupcynski, Brown, and Davis (2008) of 219 students enrolled in online courses at a south Texas college, students perceiving their instructors as highly accessible were more motivated to learn while students who perceived their instructors as not accessible were less motivated to learn.

According to a study conducted by Boling et al. (2012), "social interaction, community development, and meaningful, real-world activities" (p. 121) helped eliminate the distance and reduce the feelings of isolation. Effective online programs used a variety of strategies including live classrooms, group work, threaded discussions, co-ops, and project-based learning to build a cohesive online community of learners. According to Collins (1987), cooperative learning is a "powerful motivator and a powerful mechanism" (p. 22). Desai et al. (2008) found structured online courses "foster a certain amount of dialogue between the learner and instructor" (p. 328).

In a descriptive, qualitative, case study approach, Boling et al. (2012), explored the online teaching and learning experiences of teachers and students. Ten adult students and six online faculty participated in the study. Students reported feeling "disconnected with their instructors, the course content, and their fellow classmates" in courses that offered little to no interaction. The students defined a good instructor as someone who was "accessible" and "flexible" (p. 121) and identified the "social exchanges that occurred" (p. 123) as their favorite aspect of the course.

Deacon (2012) recommended creating a "context of care" within the online classroom. She explained a "context of care" created "a robust environment for student learning; it facilitates better dialogue between students and teachers and allows teachers to draw out individual students and help them achieve their potential" (p. 6). Anticipating student anxiety and minimizing anxiety from technological concerns was a key component of creating a "context of care." Boling et al. (2012) found successful programs offered online class sessions teaching

students how to obtain support and assistance from university librarians, technology support, and career development personnel. Instructors "provided training, engaged students in learning simulations, and then emphasized career placement, advancement, or transition" (p. 122).

Communication between the instructor/learner and learner/learner reduces isolation. The lack of social presence "might affect learner's performance and outcomes during the instructional transaction" (Desai, Hart, & Richards, 2008, p. 328). For distance learning to be successful, Desai et al. (2008), argued: "high levels of interaction typically need to be present for learners to have a positive attitude and greater satisfaction" (p. 328). Dixson (2010) found instructors need to be actively involved in the online environment as this social presence allows students to feel connected to their instructor and other students.

Designing an effective online course that promotes student engagement requires much more than replicating traditional classroom techniques. Often, traditional course content is placed into a course management system without consideration of how the materials should be adapted to the online instructional environment. In the essay, "The Debate about Online Learning: Key Issues for Writing Teachers," Patricia Webb Peterson explained:

> The affective factors of face-to-face teaching are not easily (if at all) replicated in distance-learning courses and without considering what students need in order to learn, our adoption of distance-learning technologies will not serve our educational goals (as cited in Deacon, 2012, p. 9).

Dayton and Vaughn (2007) believed effective course design a) creates a learning community, b) presents appropriate challenges, and c) fosters individualized motivation and growth. The themes were adapted from Chickering and Gamson's (1987) "Seven Principles for Good Practice in Undergraduate Education" which promote effective course design:

- Encourages contacts between students and faculty.
- Develops reciprocity and cooperation among students.
- Uses active learning techniques.
- Emphasizes time on task.
- Communicates high expectations.
- Gives prompt feedback.
- Respects diverse talents and ways of learning.

There are several existing models and frameworks for the development of effective online course design. In addition to Chickering and Gamson's Seven Principles, Oliver and Herrington identified features of learning tasks, learning supports, and learning resources for the design and development of effective online courses (Ireland, Correia, & Griffin, 2009). Garrison and Anderson emphasized the importance of cognitive presence, social presence, and teacher presence within the course design (Ireland, Correia, & Griffin, 2009).

National Survey of Student Engagement

The National Survey of Student Engagement originated in 1998 when Russ Edgerton gathered a small group of educational leaders and scholars at The Pew Charitable Trusts to discuss concerns with college rankings (Kuh, 2001). The leaders determined a survey of quality could provide colleges, universities, and other stakeholders with valuable information on collegiate quality.

NSSE sparked conversations about collegiate quality with a focus on student learning and encouraged "institutions to share what they are doing to enhance the quality of the undergraduate experience" (Kuh, 2001, pp. 14-15). Institutional accreditation primarily focused on research and process measures (National Survey of Student Engagement, 2001) while NSSE focused on good

educational practices that impact learning (Kuh, 2001). Government oversight through license requirements and program review mechanisms continued to emphasize regulation and procedural compliance. While third-party judgments of "quality" as determined by media rankings focus on specific matters such as affordability, best value, and faculty credentials, NSSE measured “the investments that institutions make to foster proven instructional practices and the kinds of activities, experiences, and outcomes that their students receive as a result” (National Survey of Student Engagement, 2001).

The data collection initiative, the National Survey of Student Engagement, collected data through the survey instrument, The College Student Report. The survey was designed to obtain information about the educational experiences of undergraduate students. NSSE found that “level of challenge and time on task are positively related to persistence and subsequent success in college” and “the degree to which students are engaged in their studies impacts directly on the quality of student learning and their overall educational experience” (National Survey of Student Engagement, 2001, p. 1). NSSE (2001) determined “characteristics of student engagement can serve as a proxy for quality” (p. 1). A national survey could identify the presence or absence of quality practices providing an alternative tool for college and universities.

NSSE (2001) targeted key aspects of the student experience. NSSE envisioned internal and external uses for the data. First, the results allowed colleges and universities to improve their performance by gauging the degree to which schools foster practices consistent with particular institutional characteristics and commitments. Second, the data were used as part of an assessment of institutional effectiveness, a component of a self-study or to strengthen benchmarking processes. Third, the information could be reported in news magazines and college guides.

According to McCormick, Gonyea, and Kinzie (2013), NSSE's greatest strength is "its ability to stimulate serious conversations about what colleges and universities are doing well and where improvement is needed" (p. 14). Schools receiving data files from NSSE must take action by "sharing and making meaning of results, identifying priorities for action, formulating concrete action plans, implementing those plans, and circling back to assess their impact" (p. 13). If used effectively, the analysis of NSSE results can lead to "deeper inquiry, action, and improvement" (p. 14).

College Success

Today's society is expecting more from college graduates with retention and graduation rates no longer serving as the only indicators of student success. In the introduction to Kuh's (2008) report on high-impact practices written by Carol Geary Scheider, President of the Association of American Colleges and Universities, a college degree is meaningful when the learning is "both valued by society and empowering to the individual" (p. 2). Employers have become vocal on the underachievement of college graduates and their perception that "the college degree needs to comprise something much more than forty courses and a major" (p. 3). This shift in thinking requires colleges and universities to provide evidence to support the quality of learning, as well as, evidence about persistence and completion. In addition to earning a degree, college success encompasses "whether graduates are in fact achieving the level of participation – in terms of knowledge, capabilities, and personal qualities – that will enable them to both thrive and contribute in a fast-changing economy and in turbulent, highly demanding global, societal, and often personal contexts" (p. 2). The goal of providing students with a method of achieving the outcomes, desired by both educators and employers, is achieved with

"students' successful engagement in a thoughtfully planned sequence of high-impact practices" (p. 8).

High-Impact Practices

In the foreword written by Kuh for Brownell and Swaner's (2008) publication, Kuh described high-impact practices as "developmentally powerful because they combine and concentrate other empirically validated pedagogical approaches into a single multidimensional activity that unfolds over a period of time" (p. xi). McNair and Albertine (2012) explain that the integration of high-impact practices into higher education learning experiences is an old concept, with many being utilized for decades. However, after 2008, there was a collective effort to document the impact of these practices. The long-term challenge is to transparently connect learning outcomes with the high-impact practices. A description of the practices and the benefits and challenges of each follows.

Learning Community

Eby et al. (2006) defined a learning community as a "group of students who study together in an intense, integrated, thematic course that meets for large blocks of time" (p. iix). Learning communities are designed to enhance a "students' academic and social development" (Love, 2012, p. 7) through the intentional grouping of students. These groups vary in "size, intensity, scope, and format" (Rivera-Mills & Trujillo, 2010, p. ix) and may be created within a curriculum (intradisciplinary or interdisciplinary), a classroom, a residential space (those living in the same housing unit), or based on other criteria (demographics or interests) (Love, 2012).

Benefits. Dewey and Vygotsky often promoted the positive results of collaborative, cooperative, and integrative learning environments (Bonet & Walters, 2016). Learning communities "build community, enhance learning, and foster connections among students,

faculty, and disciplines" (Smith & MacGregor, 2009, p. 67). O'Connor et al. (2003) believed learning communities "encourage continuity and integration in the curriculum" and "build a sense of group identity, cohesion, and 'specialness'" (p. 8). Rivera-Mills and Trujillo (2010) found students reported "a strong sense of belonging, sense of community, and fostered the development of many friendships that the students considered important" (p. 219). The interdependency created through learning communities had a positive effect on student engagement as students did not want to let each other down. Rogo and Portillo (2015) found students were motivated and obligated to contribute to the online discussion with quality. Learning communities provide an opportunity to form a network of peer support, share knowledge, and understand diverse social and academic worlds (Bonet & Walters, 2016).

A qualitative case study by Rogo and Portillo (2015) of 17 students enrolled in an online graduate program at a northwestern U.S. university discovered students in community learning experienced "deeper levels of understanding" (p. 298) and found value in sharing their knowledge and experiences. In this synergistic learning experience, students felt their contributions to the group created something unique and greater than each person's part. The study further found students progressed through a hierarchy of relationships beginning with the foundation provided by an online meet and greet for connecting learners in the community. As time progressed, students developed "a close and caring relationship" creating "a network of interconnected learners" where students felt safe and trusted and supported one another (p. 300). At the highest level of relationship development, learners were able to "cooperate and collaborate based on the enhanced quality of the interconnected relationships developed through ongoing interaction in the core courses" (p. 300).

Challenges. Despite the many benefits of learning communities, faculty may experience some challenges in managing the communities. Students in learning communities may face peer pressure to comply, and group think may occur (Bonet & Walters, 2016). Further, learning communities require coordination and logistical support (Reed, 2015). Research conducted by Rogo and Portillo (2015) found "the lack of visual cues" (p. 296) made online communication difficult, and the inability to observe body language created difficulty in interpreting messages.

Service-Learning

Gredley (2015) described service learning as a transformative learning opportunity where students "engage in community service which they then reflect on in the classroom" (p. 246). Jacoby (1996) defined service learning as "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development" (p. 5). McDonald and Domingues (2015) emphasized service learning provides a benefit "to both the student (related to their classwork) and to the community partner" (p. 52). Service learning allows students to see the connection between the classroom and the larger global community by connecting "classroom content, literature, and skills to community needs" (Kaye, 2004, p. 9).

There are five essential and interdependent stages found in successful service-learning ventures (Kaye, 2004). These stages include investigation, preparation and planning, action, reflection, and demonstration. Kaye described the first stage, investigation, as a time when students identify the interests, skills, and talents of the group and the needs of the community. In the preparation and planning stage, students seek to understand the community need through research and discussion. In the action stage, Kaye (2004) found students complete the service-learning project by applying what has been learned in the preparation and planning stage to

address the community need. During the reflection stage, students consider how the acquired knowledge, skills, and experience relate to their own lives and communities. In the final stage, demonstration, students teach others by presenting their service-learning project. Progressing through these stages enhances the student's "academic development, life skill development, and sense of civic responsibility" (Astin & Sax, 1998, p. 262).

Benefits. Furco and Root (2010) found several benefits for students involved in service-learning, which included 1) improved student engagement in school and learning, 2) positive effects on students' performance on subject-matter exams and assessments, 3) increased motivation toward school, 4) enhanced civic responsibility and citizenship, 5) enhanced personal and social skills including leadership capacity, and 6) retention of students' character assets as they mature. According to Kaye (2004), students will

> 1) apply academic, social, and personal skills to improve the community, 2) make decisions that have real, not hypothetical, results, 3) grow as individuals, gain respect for peers, and increase civic participation, 4) experience success no matter what their ability level, 5) gain a deeper understanding of themselves, their community, and society, and 6) develop as leaders who take initiative, solve problems, work as a team, and demonstrate their abilities while and through helping others. (p. 9)

Challenges. Successful service learning activities require faculty to invest considerable amounts of time and effort. According to Reed (2015), opportunities for service learning "require extra coordination and logistical support" (p. 6). McDonald and Domingues (2015) identified several challenges for developing successful service learning opportunities. First, a lack of understanding or a failure to provide a distinction between volunteer community service and service learning is the primary reason for the failure of service learning opportunities. Second,

faculty must identify course objectives for the service learning opportunity and provide a framework for planning, assessment, and reflection. Lastly, the ability to establish a successful partnership with a community partner is critical to the success of service learning opportunities.

Collaboration with Faculty

Undergraduate research is defined to include "scientific inquiry, creative activity, and scholarship" (Harward, 2012, p. 83). Stith, Jester, and Linn (1992) believe student-faculty collaborative research is "an invaluable supplement to classroom learning" (p. 470). Pullen et al. (2006) believe "shared professional development among faculty and students occurs best when theory and practice unite to model principles of adult learning, multidisciplinary collaboration, and service" (p. 321). Anderson and Carta-Falsa (2002) found effective student-faculty relationships empower students to achieve at a higher level where each group (faculty and students) can "learn to perceive each other as contributing, mentoring, and resourceful individuals who empower each other" (p. 138).

Benefits. Faculty and students associate many benefits to collaborative research projects with student-faculty research being linked to a higher rate of persistence (Harward, 2012). Students appreciate the frequent interaction and partnership created through the collaborative research opportunity (Friedman & Leigey, 2014). According to Anderson and Carta-Falsa (2002), partnerships encourage students and faculty to become more "active, collaborative, and exploratory" (p. 134). Potential student benefits realized from undergraduate research experiences with faculty include:

> 1) cultivating an understanding of the discipline or the contributions of an interdisciplinary approach to solving problems, 2) learning specific skills in research (inquiry, scholarship, and performance) relevant to a field of interest, 3) explorations of

> careers by doing career-related work, 4) experiencing collaborative work that is critical to both the workplace and citizenship, 5) developing confidence and persistence in tackling complex problems that do not yield to simple procedures, 6) discovering that "failing," "mistakes," "error," and "negative outcomes," are natural parts of research and skilled performance, and 7) that a critical response to understanding can be useful in advancing in one's skills and goals. (Della-Piana, Gardner, & Della-Piana, 2014, p. 46)

Della-Piana, Gardner, and Della-Piana (2014) found faculty experience intrinsic and career-related benefits. Students provide a "rich source of labor and new ideas during the time-consuming research process" (Stith, Jester, & Linn, 1992, p. 470). Additional opportunities to publish (Della-Piana, Gardner, & Della-Piana, 2014) can "lead to career advancement for both students and faculty" (Stith, Jester, & Linn, 1992, p. 470). Further, faculty can appreciate a sense of satisfaction by contributing to student outcomes (Della-Piana, Gardner, & Della-Piana, 2014). Through publications and presentations, the institution can benefit from increased publicity, which can lead to funding initiatives from national agencies (Petrella & Jung, 2008).

Challenges. Faculty identified several challenges to research experiences including 1) balancing student support and personal productivity, 2) not knowing how to manage undergraduate research projects with students, 3) resource issues, and 4) sheer time and effort (Della-Piana, Gardner, & Della-Piana, 2014). Resource issues prevent many students from traveling to regional or national conferences to present research findings as many institutions are unable to provide financial support (Petrella & Jung, 2008).

Internship

As defined by Weible (2009), "an intern is someone working in a temporary position with an emphasis on education rather than employment" (p. 59). Internship opportunities

provide significant benefits to students, employers, and institutions of higher education. According to Gault, Redington, and Schlager (2000), internships "provide students with a means of bridging the gap between career expectations developed in the classroom and the reality of employment in the real world" (p. 52).

Benefits. A study of 1,117 alumni at a large southern university by Knouse, Tanner, and Harris (1999) found college students with internship experience graduated with a higher grade point average and were more likely to receive job offers upon graduation than graduates with no internship experience. The study further found college internships improved course performance by improving time management, communication skills, and self-discipline with students developing a heightened initiative and an overall better self-concept.

According to the National Association of Colleges and Employers survey, many employers use college internships as recruiting tools with employers making full-time job offers to 65% of their 2014 college interns (Ball, 2015). Knouse and Fontenot (2008) found students with internship experiences received job offers much faster than students without internships. Further, recruiters rated students with an internship identified on their resume higher than students without an internship on their resume. A study by Raymond and McNabb (1993) found internships exposed students to ethical issues and global dimensions that cannot be created in the classroom.

Gault, Redington, and Schlager (2000) found college graduates with internship experience reported "significantly higher levels of extrinsic success" (p. 50) than graduates without internship experience including higher starting salaries. Further, as college students served in internship opportunities, the number of personal and business connections with the

university increased (Gault, Redington, & Schlager, 2000). These connections can help the university by increasing opportunities for fundraising, research, and development initiatives.

Challenges. While there are many benefits to internships, they do present some challenges for students. O'Neill (2010) found some students were frustrated and disappointed with their internship as the work appeared to be busywork or not tied to career or educational goals. Students felt their internships "lacked direction and meaningful work" (para. 4). Further, communication challenges were common among career services staff, faculty, and employers. Divine, Linrud, Miller, and Wilson (2007) found requiring internships led to a "substantial commitment of departmental time and resources" (p. 48) and presented several challenges for institutions. First, institutions must identify a sufficient number of internship opportunities to place all students. For students unable to secure an appropriate internship, alternate ways to fulfill the requirement should be made available by the institution. Further, travel is necessary to oversee geographically dispersed worksites for numerous internships, presenting an administrative challenge in observing internship experiences. These challenges often require hiring an internship director to manage additional workload.

Study Abroad

Students participating in study abroad seek educational opportunities outside of their home country. These experiences provide students with opportunities to "explore cultures, life experiences, and worldviews different from their own" (Kuh, 2008, p. 10).

Benefits. According to a study including 183 study abroad students conducted by Cisneros-Donahue, Krentler, Reinig, and Sabol (2012), the "experience of studying and living in a foreign environment not only builds confidence in navigating basic living skills but also increases individuals' beliefs in their abilities to be introspective with respect to their reactions

and personal styles in culturally diverse settings" (p. 175). The study further found study abroad experiences enhanced cultural sensitivity through the comparison of languages and cultures, increased patience and flexibility, and provided students with an understanding of the interdependence of countries around the globe. Ungar (2016) found four-year graduation rates were higher among students who studied abroad. These students developed a greater understanding of global affairs and a deeper appreciation for the way different societies addressed problems. Gonyea (2008) found students returning from study abroad experiences were more engaged in integrative and reflective learning.

Challenges. Study abroad experiences pose several challenges for colleges and universities. Study abroad is expensive, and institutions face a challenge in trying to make these opportunities more affordable for students (Lewin, 2010). Further, as the number of students participating in study abroad increases, there are questions concerning quality versus quantity. To provide the best results, study abroad must be embedded within the curriculum allowing students to flow seamlessly from the home institution to the study abroad location and back with little disruption (2010).

Senior Experience

Durel (1993) defined a capstone as "a crowning course or experience at the end of a sequence of courses with the specific objective of integrating a body of relatively fragmented knowledge into a unified whole" (p. 223). Kinzie (2013) described a senior experience as a culminating experience integrating educational experiences that foster the transition from school to work or an advanced degree. Capstone experiences facilitate the development of students' understanding of the big picture and assist students to make connections between theory and practice (Kerka, 2001).

Benefits. Senior experiences provide many benefits to students and the institution. Senior experiences address concerns of the public and employers by providing students "opportunities to be engaged in educationally purposeful practice" (Kinzie, Taking stock of capstones and integrative learning, 2013, p. 28). According to Gardner and Van der Veer (1998), senior experiences provide many positive institutional benefits including 1) improving college-business and college-state relations through partnerships with the institution and employers, 2) improving alumni relations, 3) promoting faculty development, 4) forging alliances between academic and student affairs, and 5) enhancing institutional research and student outcomes assessment. They described benefits to the student as bringing coherence and closure to the general education experience; integrating general education and the major; providing synthesis with the academic major; connecting the student's academic major with real-world work experiences; developing student skills, competencies and perspectives; enhancing preparation for postgraduate education; promoting practical life planning and decision making; and encouraging a sense of unity and community as alumni of the institution (1998).

Challenges. Mowbray (2015) questioned whether the focus of senior experiences should be on teaching content or developing skills and further whether institutions should "emphasize integration and consolidation of knowledge, or transition and the development of professional identity" (p. 43).

The Value of High-Impact Practices

Kuh (2008) found high-impact practices effective for several reasons. First, these practices require students to "devote considerable time and effort to purposeful tasks" (p. 14) requiring a daily commitment of time. Second, these activities place students in situations requiring interaction with faculty and peers over an extended period. Third, these activities allow

students to experience diversity as they are exposed to situations working with peers from various backgrounds. Fourth, these practices encourage close relationships with faculty and peers providing opportunities for continuous immediate formal and informal feedback. Fifth, high-impact opportunities allow students to "integrate, synthesize, and apply knowledge" that are "essential to deep, meaningful learning experiences" (p. 17). Lastly, high-impact practices are "life-changing" allowing students to "better understand themselves in relation to others and the larger world" (p. 17). Despite the benefits, the costs associated with incorporating these practices in online learning, as opposed to traditional programs, are much higher at a time when colleges and universities are facing dropping enrollments and escalating costs (Reed, 2015).

Summary

Chapter 2 provided an overview of the evolution and pros and cons of online learning and online course/program design. The many pros offered insight into the growth of online learning. The chapter provided an understanding of why NSSE became an important tool in assessing quality and how high-impact practices evolved as a measure of student engagement. A discussion of the benefits and challenges of incorporating each practice into courses and programs followed.

CHAPTER 3

METHODOLOGY

This mixed-methods study used both quantitative and qualitative methods to determine if and how institutions in the Appalachian College Association incorporate high-impact practices in traditional and online learning courses/programs. This chapter describes the research methodology and is organized into the following sections: research design, research questions, population and sample, instrumentation, validity and reliability, data collection methods, and data analysis.

Research Design and Questions

The goal of this research was to discover if private non-profit schools in the Appalachian College Association have incorporated high-impact practices and will seek to identify how high-impact practices are integrated into traditional and online programs. To understand how high-impact practices were integrated into courses/programs, this study used a mixed-methods research design combining both qualitative and quantitative forms of research. Creswell and Plano Clark (2007) found the strength of mixed-methods studies to be greater than either quantitative or qualitative research. Creswell and Plano Clark explained qualitative and quantitative research have limitations with the strengths of one method offsetting the limitations of the other method. They believe a combination of the research methods provides a more "complete understanding of the research problem" (p. 8) than qualitative or quantitative methods alone.

A mixed-methods study allowed the researcher to use quantitative and qualitative methods to address the research questions. While the two approaches are grounded in different paradigms, Roberts (2010) found a combination of the two in a single study "complement each

other by providing results with greater breadth and depth" by "combining *what* with a possible *why*" (p. 145). Through quantitative methods, "numbers, trends, and statistical results," the researcher will answer many of the research questions (Creswell & Plano Clark, 2007, p. 21).

The quantitative phase of this research involved the administration of an online survey sent to faculty and administrators at ACA schools. The quantitative component addressed the following research questions:

R1. What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices in traditional versus online classes/programs?

R2. What differences, if any, are there in the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators at colleges/universities in the Appalachian College Association?

R3. What is the relationship between the perceived importance and the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators in the Appalachian College Association?

R4. What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices based upon selected demographics and the level of integration of high-impact practices based upon selected demographics?

The qualitative component considered "participants as the experts" (Creswell & Plano Clark, 2007, p. 14) with narrative data provided through open-ended survey questions and semi-structured interview questions. Interview participants told their stories in descriptive detail. The

qualitative piece describes the benefits and challenges experienced by educators in their attempt to incorporate high-impact practices into their courses/programs and provides insight into other practices that improve student engagement and retention. Based upon social exchange, the participants were motivated to complete the survey and interview by the benefits they expect to receive (Dillman, Smyth, & Christian, 2009). The qualitative component addressed the following research questions:

R5. What are the benefits and challenges experienced by colleges and universities in the Appalachian College Association in their attempt to incorporate high-impact practices into traditional and online learning classes/programs?

R6. What, if any, are other strategies that have been successful in engaging students enrolled in traditional and online learning classes/programs?

Population and Sample

The population for this study started with 35 private four-year liberal arts colleges and universities in Kentucky, North Carolina, Tennessee, Virginia, and West Virginia comprising the Appalachian College Association (ACA). Collectively, ACA schools serve over 54,000 students. This population of schools was analyzed to determine the presence of online degree programs at the baccalaureate, masters, and doctoral levels. The content analysis included an examination of institution websites between October and December 2016. The content analysis determined 21 ACA schools with online degree programs (see Appendix I).

Participants included faculty, full-time and adjunct or part-time, and administrators. The online directory for each ACA school was reviewed, and a spreadsheet was compiled that included the name, title, organization, and email address. A list of 2,348 contacts was created through this process. Further, a second spreadsheet was created from the ACA faculty/staff

forum on the ACA website with a total of 2,298 individuals. This spreadsheet also included the name, title, organization, and email for each individual. A review of the spreadsheet eliminated duplicates, individuals without an email address, and those with a role other than faculty or administration. The individuals deleted from the spreadsheet had roles such as parent, research assistant, retired, spouse, student, STEM scholar, team member, volunteer, and wife. The total number dropped from 2,298 to 1,795. The list created from the examination of institution websites and the list created from the ACA faculty/staff forum were merged for a total of 4,143 contacts. Additional duplicates were deleted reducing the list to 3,567 contacts. Qualtrics survey software eliminated 97 contacts with invalid email addresses bringing the number to 3,470.

Of the 3,470 surveys distributed by email to members of the Appalachian College Association, 161 bounced decreasing the total to 3,309. Bounced messages were rejected or returned by the server because the recipient's email was full, temporarily unavailable or the email did not exist (Anderson, 2015). Of the 3,309, 75 recipients chose to opt-out resulting in a population of 3,234.

Interview participants were solicited at the end of the online survey. A stratification process was used to select interviewees and ensure representation (Dillman, Smyth, & Christian, 2009). The prospective interview candidates were divided into groups based on school, state, and program to allow representation and input from schools throughout the ACA. This allowed the researcher to gather data, best practices, and challenges from a variety of schools and programs. Approximately 16 interviews were planned.

Instrumentation

Two instruments were used in this research. The first, a survey (see Appendix C) administered through Qualtrics survey software. The survey was designed to "produce accurate

information that reflects the views and experiences of a given population" (Dillman, Smyth, & Christian, 2009, p. 16). The first section of the survey collected demographic information including the respondent's sex, year of birth, and number of years of teaching experience in higher education. The second section of the survey asked participants to identify their role at the institution, the academic discipline of their program, level (undergraduate or graduate), enrollment of the institution (including undergraduate and graduate students), and teaching assignment (traditional, online, or both). There were two versions of the survey. One designed for participants selecting "traditional" and the second for those selecting "online" and "both". Based upon their response to the teaching assignment question, participants were directed to the next section using a Likert scale to determine how the participants viewed the importance of each high-impact practice to traditional or online programs using 1 = "not important," 2 = "somewhat important," 3 = "important," 4 = "very important." A Likert scale was used to determine if the participant's program(s) contains any of the high-impact practices as a component using 1 = "never," 2 = "optional" or 3 = "required."

The last section of the survey allowed qualitative data to be gathered concurrently. The open-ended questions asked participants to provide examples of how each practice has been incorporated into their programs, to describe the challenges and benefits faced when incorporating the high-impact practices and to share other strategies that have been successful in increasing student engagement in online programs. The open-ended questions allowed respondents to answer the question as they wished to allow the researcher to "collect rich, detailed information from respondents" (Dillman, Smyth, & Christian, 2009, p. 72).

The survey asked participants if they were willing to participate in a follow-up interview. Participants agreeing to participate in an interview were redirected to a separate survey to gather

contact information. The researcher contacted participants willing to participate in an interview by phone. The interviews focused on gleaning additional qualitative information describing benefits, challenges, and specific examples of how practices have been integrated into online learning programs. Additional information included descriptions of other strategies utilized by the institution to engage and retain students. An interview guide (see Appendix E) guided the researcher through the interview process.

Validity and Reliability

Methodological triangulation allowed the researcher to capture different dimensions of the data through quantitative (survey) and qualitative (interview) methods ensuring "the most comprehensive approach is taken to solve a research problem" (Morse, 1991, p. 120). According to Fink (2009), a reliable survey "results in consistent information" while a valid survey "produces accurate information" (p. 8). Many of the questions forced respondents to choose from preselected alternatives making the survey more efficient. The reliability of the survey was enhanced by the uniformity of the data with everyone responding regarding the same options (2009).

The survey was given to a small number of Curriculum and Instruction doctoral students on Tuesday, May 30, 2017, experienced with designing surveys. The members of the panel are listed in Appendix G. The students pre-tested the survey to assess the design and to ensure the survey was user-friendly and not biased (Fink, 1995). Each member of the panel completed the content validity questionnaire listed in Appendix H. Feedback from this panel was used to improve the design of the survey by rewording survey questions and response options to ensure greater clarification and understanding for survey completers.

To further ensure content validity, a panel of experts including online faculty, administrators, and technical support personnel reviewed the instrument. The members of the panel have knowledge of the subject matter and are listed in Appendix G. As stated by Litwin (1995), the review provided "a good foundation on which to build a methodologically rigorous assessment of a survey instrument's validity" (p. 35). The panel of experts provided several suggestions related to question wording and instructions. The survey instrument was revised based on feedback to provide greater explanation and additional instructions for survey completers. According to Fink (2009), a well-designed and easy-to-use survey "always contributes to reliability and validity" (p. 8).

Data Collection Methods

Approval to collect data was obtained from the Marshall University Institutional Review Board (IRB) on September 28, 2017 (see Appendix J). The data collection began on October 10, 2017, and ended on November 7, 2017. Surveys (see Appendix C) were emailed to contacts at the schools in the sample population (see Appendix I) inviting their participation in the research. A cover letter was included describing the study and purpose of the research (see Appendix K). The cover letter also described the privacy and confidentiality of the participants. Respondents were assured that neither their identity nor the identity of their school would be disclosed in the data analysis.

The data collection followed the protocol and timelines developed by the tailored design method. According to Dillman, Smyth, and Christian (2009), the tailored design method "involves using multiple motivational features in compatible and mutually supportive ways to encourage high quantity and quality of response to the surveyor's request" (p. 16). The data collection period spanned four weeks. A cover letter, in the form of an electronic message, was

sent to each participant with a link to the survey. The participants were asked to complete the survey within the four-week period. Those who had not responded within one week received a follow-up email (see Appendix L). To encourage participation, the researcher incorporated the concepts of the tailored design method by explaining the benefits of the research to the respondents, to "build positive social exchange and encourage response" (Dillman, Smyth, & Christian, 2009, p. 16). Additional follow-up emails were sent to those not completing the survey at the end of week 2 (see Appendix M), at the end of week 3 (see Appendix N), and two days before the close of the survey (see Appendix O). If the survey response rates were found to be insufficient, the researcher planned to contact participants by phone to encourage participation.

During the administration of the survey, those agreeing to an interview were contacted by email to schedule a day and time for the interview. An interview protocol (see Appendix E) provided structure and a method for recording responses during the interviews. As recommended by Creswell (2009), the interview protocol included the following components:

- A heading with the date, time, interviewee's name and institution.
- The questions with probes designed to prompt the interviewees to elaborate on their responses.
- Space to record responses to each question.
- A thank you statement to show appreciation to the interviewee for participating in the interview.

Data Analysis

Analyzing the data included nonparametric statistics and qualitative methods. For the quantitative survey data, descriptive statistics and tests of significant differences provided answers to the research questions R1, R2, R3, and R4. The questions focused on the respondent's

view of the importance and their integration of each high-impact practice into traditional and online courses/programs. Salkind (2011) described nonparametric tests as "just as valuable" (p. 286) as parametric tests as they allowed the researcher to analyze data that came as frequencies. Gibbons and Chakraborti (2003) described nonparametric tests as "inherently robust because their construction requires only very general assumptions" (p. 6).

For research question R1, the Mann-Whitney U statistical method was used to compare two independent samples, traditional and online respondents, to determine differences. The frequency of each response from the Likert scale (not important, somewhat important, important, very important) was determined for each high-impact practice. The mean ranks and p-value were calculated with significance attained at a p-value of $p \leq .05$.

The Mann-Whitney U statistical method was also used for research question R2. The frequency of each response from the Likert scale (never, optional, required) was determined for each high-impact practice. The mean ranks and p-value were calculated with the significance attained at a p-value of $p \leq .05$.

Research question R3 measures the relationship, or connection, between the perceived level of importance and the extent of integration of high-impact practices by faculty and administrators in the Appalachian College Association. The Spearman Correlation examined the relationship between the variables from the Likert scale at the ordinal level of measurement. The word choices on the Likert scale have a sense of rank including not important, sometimes important, important, very important and never, optional, and required.

Research question R4 measures the differences, or possible inconsistencies, between the perceived level of importance and the extent of integration of high-impact practices by faculty and administrators as reported on the researcher-developed self-reporting survey found in

Appendix C. The Kruskal-Wallis test determined if there were statistically significant differences between the perceived level of importance (not important, somewhat important, important, very important) and extent of integration (never, optional, required) for each demographic and high-impact practice with the exception of sex. The Mann-Whitney U determined if there was a statistically significant difference for sex between males and females as there were two independent samples. The mean ranks and p-value were calculated with the significance attained at a p-value of $p \leq .05$.

Qualitative information was obtained to answer research questions R5 and R6 from the survey and interviews. The survey included open response questions allowing respondents to share the benefits and challenges of incorporating high-impact practices. Also, respondents described other successful strategies in increasing student engagement in their courses and programs. Additional qualitative data collected through interviews were transcribed.

To bring meaning to the information, a coding process was utilized allowing the researcher to engage in a "systematic process of analyzing textual data" (Creswell, 2009, p. 186). Through this process, Creswell recommended qualitative material be analyzed with codes created for topics the researcher expects to find based on the literature and for unusual or surprising codes that were not expected in the research. The process of triangulation added to the validity of the study as the perspectives from participants were sorted into themes (2009). In the search for themes, the researcher specifically looked for repetitions, similarities, and differences to determine if prominent themes emerged.

Summary

The procedures described were used to identify the extent to which institutions in the Appalachian College Association (ACA) were integrating high-impact practices into traditional

and online courses and programs and identified other experiences that yield a similar effect. This study shares the benefits and challenges experienced by educators in their attempt to incorporate these practices into traditional and online courses/programs. This information is beneficial to faculty and higher education as they attempt to design courses/programs that integrate high-impact practices.

CHAPTER 4

FINDINGS

The purpose of this mixed-methods study was to examine whether private non-profit schools in the Appalachian College Association have incorporated high-impact practices in traditional and online learning courses/programs. The study identified the perceived importance of high-impact practices by faculty and administrators and if the practices are integrated into courses/programs. The study discovered the benefits and challenges experienced by educators in the Appalachian College Association and identified practices, similar to high-impact practices, which yield a similar effect. Findings presented in this chapter are organized into the following sections: population and sample, respondent demographics and attributes, major findings for each of the six research questions investigated, and a summary.

The perceptions and extent of integration of high-impact practices by faculty and administrators in the Appalachian College Association were analyzed using both qualitative and quantitative data obtained using the researcher-designed survey, *High-Impact Practices* (see Appendix C), which consisted of three parts. Part A identified demographic variables. Part B identified the respondents' perception of the importance and level of integration for each of the six high-impact practices. Part C consisted of three open-ended questions designed to elicit qualitative comments about the benefits and challenges experienced when incorporating any of the six high-impact practices and other strategies the respondent has found to be successful in improving student engagement. At the conclusion of the survey, respondents interested in participating in an interview were redirected to a separate survey that collected contact information.

Population and Sample

The population of 3,234 yielded 438 complete or partial surveys. After the incomplete surveys were eliminated, 379 surveys were analyzed. A 6.2% margin of error at a 99% confidence level and a 4.7% margin of error at a 95% confidence level were calculated based on a random sample calculator at http://www.custominsight.com. A total of 71 respondents indicated an interest in participating in an interview. After a review of their information, three adjunct faculty and two retired faculty were eliminated from the pool resulting in 66 potential interviewees. Fifteen of these respondents participated in a recorded phone interview.

Respondent Demographics and Attributes

Part A of the survey included demographic and attribute questions (see Table 2). The data requested included sex, year of birth, number of years of teaching experience, role at the institution, academic discipline, level of the program, enrollment of the institution, and teaching assignment.

The distribution of respondents by sex included 38.4% male (n=143) and 61.6% female (n=229). Participants were asked to enter their year of birth using four digits. Approximate ages were calculated by subtracting the year of birth from 2017. The ages were grouped into five categories: 27-39 (23.5%), 40-49 (25.7%), 50-59 (27.3%), 60-69 (19.3%), and 70-76 (4.1%).

Participants selected the years of teaching experience from seven categories: 1-5 years of experience (19.1%), 6-10 years (23.9%), 11-15 years (15.9%), 16-20 years (13.0%), 21-25 years (9.8%), 26-30 years (7.7%), and more than 30 years (10.6%).

Participants were asked to identify their role within the institution by selecting from nine categories, including full-time faculty, adjunct or part-time faculty, program director, dean, department chair, information technology, provost, president, or other. Due to the limited

number of respondents selecting program director, dean, and department chair, the roles were collapsed into a category entitled college-level administrators and the category for adjunct or part-time faculty was combined with full-time faculty and renamed faculty. After merging categories, 73.3% were classified as faculty, 23.3% as college-level administrators, and 3.4% were left as other. Additional participants classified as other included information technology, librarians, university-level administrators (provosts), retired, chaplain, and student services staff.

Participants' academic disciplines of their programs were distributed over 10 categories. Due to the limited number of respondents selecting the religion category, for data analysis, religion was combined with social sciences. Arts/Humanities comprised 15.9%, social sciences and religion 10.8%, business 9.3%, communication 2.9%, education 13.0%, health professions 22.2%, social services professions 2.9%, STEM 19.8%, and other disciplines 3.2 %. Other disciplines included law, military science, student success, and campus life.

The distribution of respondents by level of program included 62.2% undergraduate, 14.9% graduate, and 22.9% both.

Respondents selected the enrollment of their institution from six categories on the survey. Due to the limited number of respondents selecting 10,000-19,999 and 20,000 or more, these categories were collapsed into 5,000 or more. The four categories resulted in 15.4% selecting an institutional enrollment of fewer than 1,000, 54.1% with an enrollment of 1,000-2,499, 18.6% with an enrollment of 2,500-4,999, and 11.9% with an enrollment of 5,000 or more.

Respondents selected their teaching assignment from three choices, all of the teaching is traditional face-to-face, all of the teaching assignment is online, and at least some of the teaching assignment is online. For data analysis, all of the teaching assignment is online and at least some of the teaching assignment is online were combined into online resulting in 46.7% (n=176) of

respondents teaching all traditional face-to-face courses and 53.3% (n=201) of respondents teaching online courses.

Respondents selected yes or no to indicate their success in utilizing strategies that increased student engagement. Respondents selecting yes comprised 56.7% while 43.3% selected no.

Respondents selected the learning management system adopted by their institution from nine categories. Due to the high number of respondents selecting other and listing Edvance 360 and Sakai, during data analysis, categories were created for them. The distribution of respondents by learning management system included Blackboard (39.9%), Moodle (28.7%), Canvas (14.4%), Sakai (5.3%), Edvance 360 (5.9%), and other (5.9%). Participants selecting Desire 2 Learn, Edmodo, Litmos, Schoology, and Smarter U were minimal and merged into the "other" category.

Table 2 *Demographic and Attribute Variables*

Characteristic	n	*f*	%
Sex	372		
Male		143	38.4
Female		229	61.6
Age	362		
27-39		85	23.5
40-49		93	25.7
50-59		99	27.3
60-69		70	19.3
70-76		15	4.1
Years of Teaching Experience	377		
1-5		72	19.1
6-10		90	23.9
11-15		60	15.9
16-20		49	13.0
21-25		37	9.8
26-30		29	7.7
More than 30		40	10.6

Characteristic	n	*f*	%
Role	378		
Full-Time or Part-Time Faculty		277	73.3
College-Level Administrators		88	23.3
Other		13	3.4
Academic Discipline of Program	378		
Arts/Humanities		60	15.9
Social Sciences/Religion		41	10.8
Business		35	9.3
Communication		11	2.9
Education		49	13.0
Health Professions		84	22.2
Social Services Professions		11	2.9
STEM		75	19.8
Other Disciplines		12	3.2
Level of Program	376		
Undergraduate		234	62.2
Graduate		56	14.9
Both		86	22.9
Enrollment of Institution	377		
Fewer than 1,000		58	15.4
1,000 – 2,499		204	54.1
2,500 – 4,999		70	18.6
5,000 or more		45	11.9
Teaching Assignment	377		
Traditional (face-to-face)		176	46.7
Online		201	53.3
Successful Strategies	291		
Yes		165	56.7
No		126	43.3
Learning Management System	188		
Blackboard		75	39.9
Moodle		54	28.7
Canvas		27	14.4
Sakai		10	5.3
Edvance 360		11	5.9
Other		11	5.9

Survey respondents interested in participating in an interview were organized in a spreadsheet with an attempt to select one online and one traditional respondent from each discipline. Twenty-one respondents were contacted to participate in an interview. Six individuals did not respond to the email to schedule an interview resulting in fifteen scheduled interviews. The interviewees represented the following disciplines: arts/humanities (n=2), business (n=1), communication (n=1), education (n=3), health professions (n=2), religion (n=1), social sciences (n=2), STEM (n=2), and other (n=1). Six interviewees taught in the traditional classroom and nine taught online.

Major Findings

Data were analyzed using IBM SPSS version 22. Frequencies, percentages, and modes were used for all Likert scale items. The Mann-Whitney U was used for RQ1 to calculate the mean rank and p-value that allowed a comparison of the importance of high-impact practices between traditional and online faculty. The Mann-Whitney U was used for RQ2 to compare the integration of high-impact practices between traditional and online faculty. The Spearman Test was used for RQ3 to summarize the strength of the relationship between the perceived importance and level of integration of traditional faculty and the perceived importance and level of integration of online faculty. Mann-Whitney U and Kruskal-Wallis tests were used for RQ4 to determine differences in importance of each high-impact practice and the integration of each high-impact practice based on demographics. The qualitative data obtained for RQ5 and RQ6 identifying benefits, challenges, and other strategies was evaluated and sorted into categories to identify major themes.

Research Question 1: Perceptions Regarding the Importance of High-Impact Practices

To answer Research Question 1, "What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices in traditional versus online classes/programs?" survey participants indicated their perception of the importance of high-impact practices in traditional and online classes/programs using a 4-point Likert scale in which 1 = "not important" (NI), 2 = "somewhat important" (SI), 3 = "important" (I) and 4 = "very important" (VI). A description of the frequencies of the importance of each high-impact practice for traditional courses/programs is presented in Table 3.

The majority of traditional faculty and administrators indicated "very important" (Mode 4) for four high-impact practices: service learning (35%), research with faculty (48%), internships (54%), and culminating experience (61%). The majority of respondents considered learning communities (34%) as "important" (Mode 3) and study abroad (36%) as "somewhat important" (Mode 2).

Table 3 *Importance of High-Impact Practices in Traditional Courses/Programs*

		NI		SI		I		VI		
High-Impact Practices	n	*f*	%	*f*	%	*f*	%	*f*	%	Mode
Learning Communities	175	23	13.1	47	26.9	60	34.3	45	25.7	3
Service Learning	167	12	7.2	39	23.4	57	34.1	59	35.3	4
Research with Faculty	166	9	5.4	21	12.7	56	33.7	80	48.2	4
Internships	165	7	4.2	25	15.2	44	26.7	89	53.9	4
Study Abroad	163	23	14.1	58	35.6	43	26.4	39	23.9	2
Culminating Experience	160	4	2.5	13	8.1	46	28.8	97	60.6	4

A description of the frequencies of the importance of each high-impact practice for online courses/programs is presented in Table 4. The table shows that the majority of online faculty and administrators indicated "very important" (Mode 4) for research with faculty (43%), internships (54%), and culminating experience (54%). The majority of respondents viewed learning

communities (33%) and service learning (36%) as "important" (Mode 3) and study abroad (33%) as "somewhat important" (Mode 2).

Table 4 *Importance of High-Impact Practices in Online Courses/Programs*

		NI		SI		I		VI		
High-Impact Practices	n	*f*	%	*f*	%	*f*	%	*f*	%	Mode
Learning Communities	198	16	8.1	55	14.5	66	33.3	61	30.8	3
Service Learning	196	16	8.2	49	25.0	70	35.7	61	31.1	3
Research with Faculty	198	13	6.6	28	14.1	72	36.4	85	42.9	4
Internships	195	9	4.6	30	15.4	51	26.2	105	53.8	4
Study Abroad	194	43	22.2	63	32.5	59	30.4	29	14.9	2
Culminating Experience	192	8	4.2	20	10.4	60	31.3	104	54.2	4

The Mann-Whitney U test was used to determine whether there were significant differences between traditional and online faculty and administrators in their view of the importance of each of the six high-impact practices. A statistically significant difference ($p \leq .05$) was determined for study abroad (.035) (see Table 5). The test indicated that traditional faculty viewed study abroad as statistically more important than online faculty.

Table 5 *Comparison of the Importance of High-Impact Practices*

	Traditional	Online	
High-Impact Practices	Mean Rank	Mean Rank	p
Learning Communities	179.21	192.07	.229
Service Learning	186.28	176.45	.349
Research with Faculty	187.70	176.25	.264
Internships	180.35	178.77	.874
Study Abroad	190.00	167.82	.035*
Culminating Experience	183.01	169.18	.151

*Significance attained at $p \leq .05$

Research Question 2: Level of Integration of High-Impact Practices

To answer Research Question 2, "What differences, if any, are there in the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators at colleges/universities in the Appalachian College Association?" survey

participants indicated their level of integration of high-impact practices in courses/programs by using a 3-point Likert scale in which 1 = "never," 2 = "optional," and 3 = "required".

A description of the frequencies of the level of integration of each high-impact practice for traditional courses/programs is presented in Table 6. The table shows that the majority of traditional faculty and administrators indicated service learning (36%) and a culminating experience (78%) as "required" (Mode 3). The majority of respondents indicated "optional" (Mode 2) for research with faculty (51%), internships (45%), and study abroad (60%). The majority of respondents indicated learning communities as "never" (Mode 1) required in their courses/programs.

Table 6 *Level of Integration of High-Impact Practices in Traditional Courses/Programs*

		Never		Optional		Required		
High-Impact Practices	n	*f*	%	*f*	%	*f*	%	Mode
Learning Communities	174	65	37.4	54	31.0	55	31.6	1
Service Learning	169	51	30.2	57	33.7	61	36.1	3
Research with Faculty	166	23	13.9	85	51.2	58	34.9	2
Internships	166	29	17.5	75	45.2	62	37.3	2
Study Abroad	164	62	37.8	98	59.8	4	2.4	2
Culminating Experience	162	16	9.9	19	11.7	127	78.4	3

A description of the frequencies of the level of integration of each high-impact practice for online courses/programs is presented in Table 7. The table shows that the majority of online faculty and administrators indicated a culminating experience (57%) as a "required" (Mode 3) part of courses/programs. The majority of respondents selected "never" (Mode 1) for learning communities (44%), service learning (56%), research with faculty (36%), internships (46%), and study abroad (76%).

Table 7 *Level of Integration of High-Impact Practices in Online Courses/Programs*

		Never		Optional		Required		
High-Impact Practice	n	*f*	%	*f*	%	*f*	%	Mode
Learning Communities	196	86	43.9	43	21.9	67	34.2	1
Service Learning	193	108	56.0	33	17.1	52	26.9	1

Research with Faculty	193	69	35.8	57	29.5	67	34.7	1
Internships	190	87	45.8	33	17.4	70	36.8	1
Study Abroad	191	145	75.9	46	24.1	0	0	1
Culminating Experience	188	62	33.0	19	10.1	107	56.9	3

The Mann-Whitney U test was used to determine whether there were significant differences between traditional and online faculty and administrators in the integration of each of the six high-impact practices. Table 8 shows a statistically significant difference ($p \leq .05$) was determined for five of the six high-impact practices: service learning (.000), research with faculty (.010), internships (.001), study abroad (.000), and culminating experience (.000). The test indicated traditional faculty integrate service learning, research with faculty, internships, study abroad, and culminating experiences at a statistically higher rate than online faculty.

Table 8 *Comparison of the Integration of High-Impact Practices*

	Traditional	Online	
High-Impact Practice	Mean Rank	Mean Rank	p
Learning Communities	187.82	182.48	.609
Service Learning	203.38	161.30	.000*
Research with Faculty	193.76	167.17	.010*
Internships	195.57	162.57	.001*
Study Abroad	214.63	145.45	.000*
Culminating Experience	198.00	155.08	.000*

*Significance attained at $p \leq .05$

Research Question 3: Relationship between Perceived Importance and Level of Integration

To answer Research Question 3, "What is the relationship between the perceived importance and the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators in the Appalachian College Association?" survey participants indicated their perception of the importance of high-impact practices in traditional and online classes/programs using a 4-point Likert scale in which 1 = "not important" (NI), 2 = "somewhat important" (SI), 3 = "important" (I), and 4 = "very important" (VI) and their level of

integration of high-impact practices in courses/programs by using a 3-point Likert scale in which 1 = "never," 2 = "optional," and 3 = "required".

A Spearman's correlation was used to assess the relationship between the importance and integration of high-impact practices for traditional and online faculty and administrators. Table 9 shows a statistically significant relationship between the perceived level of importance and the level of integration of high-impact practices by traditional and online faculty and administrators. A statistically significant and positive relationship was determined ($p \leq .05$) for all six high-impact practices for traditional faculty: learning communities (.000), service learning (.000), research with faculty (.000), internships (.000), study abroad (.000), and culminating experience (.000). A statistically significant and positive relationship ($p \leq .05$) was also determined for all six high-impact practices for online faculty: learning communities (.000), service learning (.000), research with faculty (.000), internships (.000), study abroad (.000), and culminating experience (.000).

Post-hoc tests confirmed the traditional group had a strong relationship for the high-impact practices: learning communities, service learning, research with faculty, and internships. A weak relationship was confirmed for study abroad and culminating experience.

Post-hoc tests confirmed the online group had a moderate relationship for the high-impact practices: learning communities, service learning, research with faculty, internships, and culminating experience. A weak relationship was confirmed for study abroad.

Table 9 *Spearman Test to Compare the Relationship between Importance and Integration*

	Traditional		Online	
High-Impact Practices	r_s	p	r_s	p
Learning Communities	.652	.000*	.419	.000*
Service Learning	.608	.000*	.521	.000*
Research with Faculty	.604	.000*	.495	.000*
Internships	.621	.000*	.457	.000*
Study Abroad	.387	.000*	.280	.000*

Culminating Experience	.301	.000*	.525	.000*

*Significance attained at p<.001

Research Question 4: Differences in Perceptions of Importance and Level of Integration Based on Selected Demographics

To answer Research Question 4, "What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices based on selected demographics and the level of integration of high-impact practices based upon selected demographics?" participants responded to seven demographic questions. The Mann-Whitney U test was used to determine differences, if any, in the perceived importance and level of integration based on the participant's sex. For the remaining demographics, the Kruskal-Wallis test was used to determine differences.

Survey respondents indicated their sex by selecting from two response options: female (n=229) and male (n=143). The Mann-Whitney U test was used to determine significant differences ($p \leq .05$) between the ratings of respondents based on sex and their perception of the importance of high-impact practices (see Table 10) and based on sex and the integration of high-impact practices (see Table 11).

Results revealed significant differences in ratings of the importance of high-impact practices based on sex related to service learning ($p = .001$) and internships ($p = .032$). Females rated the importance of service learning and internships higher than males.

Table 10 *Importance of HIP's by Sex*

	Female	Male	
High-Impact Practices	Mean Ranks	Mean Ranks	Mann-Whitney Significance
Learning Communities	191.67	170.47	.051
Service Learning	192.87	156.99	.001*
Research with Faculty	181.45	176.39	.627
Internships	185.87	164.24	.032*
Study Abroad	181.96	166.34	.145
Culminating Experience	178.68	165.41	.175

*Significance attained at p≤.05

Results revealed significant differences in ratings of integration of high-impact practices based on sex related to service learning (p = .001) and internships (p = .004). Females rated the integration of service learning and internships higher than males.

Table 11 *Integration of HIP's by Sex*

	Female	Male	
High-Impact Practices	Mean Ranks	Mean Ranks	Mann-Whitney Significance
Learning Communities	189.29	171.51	.095
Service Learning	191.69	158.38	.001*
Research with Faculty	180.98	171.85	.384
Internships	187.40	157.53	.004*
Study Abroad	180.92	166.45	.131
Culminating Experience	176.95	166.63	.259

*Significance attained at p≤.05

Survey respondents ages were organized into five response options: 27-39 years (n=85), 40-49 years (n=93), 50-59 years (n=99), 60-69 years (n=70), and 70-76 years (n=15). The Kruskal-Wallis test was used to determine significant differences (p≤.05) between the ratings of respondents based on age and their perception of the importance of high-impact practices (see Table 12) and based on age and the integration of high-impact practices (see Table 13).

Results revealed no significant differences in ratings of the importance of high-impact practices based on age.

Table 12 *Importance of HIP's by Age*

	Mean Ranks for Age					
High-Impact Practices	27-39	40-49	50-59	60-69	70-76	p
Learning Communities	192.03	175.41	167.67	186.27	168.03	.487
Service Learning	187.82	176.04	174.29	168.07	125.43	.215
Research with Faculty	177.46	177.44	161.36	183.40	195.53	.516
Internships	166.80	175.23	166.45	187.53	166.73	.597
Study Abroad	189.12	166.30	165.30	170.99	153.00	.422
Culminating Experience	154.28	165.09	167.82	190.56	178.93	.160

*Significance attained at p≤.05

Results revealed no significant differences in ratings of the integration of high-impact practices based on age.

Table 13 *Integration of HIP's by Age*

	Mean Ranks for Age					
High-Impact Practices	27-39	40-49	50-59	60-69	70-76	p
Learning Communities	183.94	158.85	180.37	186.90	193.80	.288
Service Learning	165.04	179.82	177.13	180.88	135.43	.394
Research with Faculty	181.20	161.17	162.46	181.05	218.60	.119
Internships	153.36	180.34	171.84	171.83	201.43	.253
Study Abroad	176.01	172.26	170.45	165.19	156.00	.898
Culminating Experience	165.08	151.48	168.90	186.32	193.13	.070

*Significance attained at p≤.05

Survey respondents indicated their years of teaching experience by selecting from seven response options: 1-5 years (n=72), 6-10 years (n=90), 11-15 years (n=60), 16-20 years (n=40), 21-25 years (n=37), 26-30 years (n=29), and more than 30 years (n=40). The Kruskal-Wallis test was used to determine significant differences (p≤.05) between the ratings of respondents based on years of teaching experience and their perception of the importance of high-impact practices (see Table 14) and based on years of teaching experience and the integration of high-impact practices (see Table 15).

Results revealed significant differences in ratings of the importance of high-impact practices based on years of teaching experience related to learning communities (p = .003) and

service learning (p = .001). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents with 16-20 years of experience rated the importance of learning communities significantly lower than those with 1-5 years (p = .000), 6-10 years (p = .000), 11-15 years (p = .006), and more than 30 years (p = .024) of experience.
- Respondents with 21-25 years of experience rated the importance of learning communities significantly lower than those with 1-5 years (.013) and 6-10 years (p = .034).
- Respondents with more than 30 years of experience rated the importance of service learning significantly lower than those with 1-5 years (p = .001), 6-10 years (p = .000), and 11-15 years (p = .011).
- Respondents with 16-20 years of experience rated the importance of service learning significantly lower than those with 1-5 years (p = .020) and 6-10 years (p = .007).
- Respondents with 21-25 years of experience (p = .029) and 26-30 years of experience (p = .049) rated the importance of service learning significantly lower than those with 6-10 years.

Table 14 *Importance of HIP's by Years of Teaching Experience*

	Mean Ranks for Years of Teaching Experience							
High-Impact Practices	1-5	6-10	11-15	16-20	21-25	26-30	30 +	p
Learning Communities	211.01	202.08	191.31	137.04	159.36	182.54	186.32	.003*
Service Learning	202.40	206.85	186.44	158.54	164.24	164.25	133.86	.001*
Research with Faculty	187.25	189.10	170.02	170.88	163.18	199.64	187.00	.603
Internships	203.40	187.33	169.44	175.58	163.38	177.05	157.18	.171
Study Abroad	166.26	183.23	170.66	166.14	182.97	197.12	191.40	.677
Culminating Experience	165.53	179.48	167.56	159.72	201.91	188.61	177.32	.366

*Significance attained at p≤.05

Results revealed significant differences in ratings of the integration of high-impact practices based on years of teaching experience related to learning communities (p = .016) and research with faculty (p = .010). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents with 11-15 years of experience (p = .035), 21-25 years of experience (p = .009), and more than 30 years of experience (p = .043) rated the integration of learning communities significantly lower than those with 1-5 years.
- Respondents with 16-20 years of experience rated the integration of learning communities significantly lower than those with 1-5 years (p = .000) and 6-10 years (p = .031).
- Respondents with 11-15 years of experience rated the integration of research with a faculty member significantly lower than those with 1-5 years (p = .002), 6-10 years (p = .003), 26-30 years (.003), and more than 30 years (.034).
- Respondents with 21-25 years of experience rated the integration of research with a faculty member significantly lower than those with 1-5 years (p = .037) and 26-30 years (p = .028).

Table 15 *Integration of HIP's by Years of Teaching Experience*

	Mean Ranks for Years of Teaching Experience							
High-Impact Practices	1-5	6-10	11-15	16-20	21-25	26-30	30 +	p
Learning Communities	217.44	189.37	180.46	150.69	163.83	193.57	176.87	.016*
Service Learning	202.18	185.81	183.19	178.96	173.76	155.00	157.58	.239
Research with Faculty	196.13	190.42	140.88	178.54	154.50	207.53	184.37	.010*
Internships	206.91	187.52	172.91	159.08	169.57	164.61	152.04	.055
Study Abroad	191.00	181.42	162.12	181.28	176.42	159.75	177.19	.589
Culminating Experience	168.59	180.70	162.05	169.23	178.71	195.68	179.41	.657

*Significance attained at p≤.05

Survey respondents indicated their role by selecting from three response options: faculty (n=277), college-level administrators (n=88), and other (n=13). The Kruskal-Wallis test was used to determine significant differences ($p \leq .05$) between the ratings of respondents based on role and their perception of the importance of high-impact practices (see Table 16) and based on role and the integration of high-impact practices (see Table 17).

Results revealed significant differences in ratings of importance of high-impact practices based on role related to learning communities ($p = .030$), internships ($p = .001$), and culminating experience ($p = .042$). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents in the role of faculty rated the importance of learning communities significantly lower than college-level administrators ($p = .008$).
- Respondents in the role of faculty rated the importance of internships significantly lower than college-level administrators ($p = .007$).
- Respondents in the role of other rated the importance of internships significantly lower than college-level administrators ($p = .001$) and faculty ($p = .030$).
- Respondents in the role of faculty rated the importance of a culminating experience significantly lower than college-level administrators ($p = .015$).

Table 16 *Importance of HIP's by Role at Institution*

	Mean Ranks for Role			
High-Impact Practices	Faculty	Admin	Other	p
Learning Communities	178.51	211.84	181.58	.030*
Service Learning	179.33	192.00	155.00	.383
Research with Faculty	179.70	185.87	205.50	.612
Internships	174.59	206.70	114.29	.001*
Study Abroad	176.24	181.18	211.68	.488
Culminating Experience	168.64	196.33	192.38	.042*

*Significance attained at $p \leq .05$

Results revealed significant differences in ratings of the integration of high-impact practices based on role related to service learning (p = .019) and internships (p = .027). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents in the role of faculty rated the integration of service learning significantly lower than college-level administrators (p = .006).
- Respondents in the role of faculty rated the integration of internships significantly lower than college-level administrators (p = .018).

Table 17 *Integration of HIP's by Role at Institution*

	Mean Ranks for Role			
High-Impact Practices	Faculty	Admin	Other	p
Learning Communities	181.62	200.78	150.88	.137
Service Learning	172.43	206.25	196.33	.019*
Research with Faculty	177.06	182.80	210.08	.483
Internships	172.32	201.48	143.46	.027*
Study Abroad	173.80	188.54	183.05	.406
Culminating Experience	169.43	192.20	177.75	.101

*Significance attained at p≤.05

Survey respondents indicated their academic discipline by selecting from nine response options: arts and humanities (n=60), social sciences and religion (n=41), business (n=35), communication (n=11), education (n=49), health professions (n=84), social services professions (n=11), STEM (n=75), and other disciplines (n=12). The Kruskal-Wallis test was used to determine significant differences (p≤.05) between the ratings of respondents based on academic discipline and their perception of the importance of high-impact practices (see Table 18) and based on academic discipline and the integration of high-impact practices (see Table 19).

Results revealed significant differences in ratings of importance of high-impact practices based on academic discipline related to learning communities (p = .000), service learning (p = .003), internships (p = .000), and study abroad (p = .000). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents in communication rated the importance of learning communities significantly lower than business (p = .015), social service professions (p = .028), health professions (p = .003), education (p = .001), and other disciplines (p = .001).
- Respondents in STEM rated the importance of learning communities significantly lower than business (p = .003), social service professions (p = .029), health professions (p = .000), education (p = .000), and other disciplines (p = .000).
- Respondents in social sciences/religion rated the importance of learning communities significantly lower than business (p = .024), health professions (p = 001), education (p = 000), and other disciplines (p = .001).
- Respondents in arts/humanities rated the importance of learning communities significantly lower than health professions (p = .005), education (p = .002), and other disciplines (p = .003)
- Respondents in STEM rated the importance of service learning significantly lower than education (p = .043), health professions (p = .000), other disciplines (p = .011), and social service professions (p = .007).
- Respondents in social sciences/religion rated the importance of service learning significantly lower than education (p = .009), other disciplines (p = .030), and social service professions (p = .019).
- Respondents in arts/humanities rated the importance of service learning significantly lower than health professions (p = .009), other disciplines (p = .037), and social service professions (p = .024).

- Respondents in arts/humanities rated the importance of internships significantly lower than social sciences/religion (p = .010), business (p = .001), health professions (p = .000), communications (p = .007), education (p = .000), and social service professions (.000).
- Respondents in STEM rated the importance of internships significantly lower than business (p = .022), health professions (p = .002), education (p = .000), and social service professions (p = .002).
- Respondents in other disciplines rated the importance of internships significantly lower than education (p = .032) and social service professions (p = .033).
- Respondents in social sciences/religion rated the importance of internships significantly lower than education (p = .010) and social service professions (p = .031).
- Respondents in health professions rated the importance of study abroad significantly lower than business (p = .022), STEM (p = .001), social sciences/religion (p = .002), communications (p = .009), other disciplines (p = .008), and arts/humanities (p = .000).
- Respondents in social service professions (p = .022), education (p = .000), business (p = .019), and STEM (p = .016) rated the importance of study abroad significantly lower than arts/humanities.

Table 18 *Importance of HIP's by Academic Discipline*

	Mean Ranks for Academic Discipline									
HIP	Arts/ Hum	Soc Sc & Rel	Bus	Comm	Educ	Health Prof	Social Service	STEM	Other	p
LC	167.84	151.44	206.27	119.27	230.15	216.79	215.55	142.86	267.50	.000*
SL	166.11	160.61	178.85	173.05	189.59	211.00	243.05	152.02	237.25	.003*
FR	177.14	193.81	167.09	139.91	189.66	178.68	129.30	193.14	222.36	.285
IN	125.76	176.55	196.04	210.09	228.30	197.78	248.60	151.11	160.77	.000*
SA	229.72	193.05	179.15	215.77	158.23	132.06	152.00	187.37	220.15	.000*
CE	176.54	166.21	175.64	189.55	206.70	177.49	158.85	160.15	160.95	.338

*Significance attained at p≤.05

Results revealed significant differences in ratings of the integration of high-impact practices based on academic discipline related to learning communities ($p = .000$), service learning ($p = .003$), internships ($p = .000$), and study abroad ($p = 000$). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents in communication rated the integration of learning communities significantly lower than education ($p = .009$) and health professions ($p = .001$).
- Respondents in social sciences/religion rated the integration of learning communities significantly lower than business ($p = .032$), education ($p = .001$), and health professions ($p = .000$).
- Respondents in STEM rated the integration of learning communities significantly lower than business ($p = .021$), education ($p = .000$), and health professions ($p = .000$).
- Respondents in arts/humanities rated the integration of learning communities significantly lower than education ($p = .003$) and health professions ($p = .000$).
- Respondents in other disciplines rated the integration of learning communities significantly lower than health professions ($p = .023$).
- Respondents in STEM rated the integration of service learning significantly lower than health professions ($p = .001$) and social service professions ($p = .010$).
- Respondents in arts/humanities rated the integration of service learning significantly lower than health professions ($p = .003$) and social service professions ($p = .014$).
- Respondents in arts/humanities rated the integration of internships significantly lower than business ($p = .008$), communications ($p = .006$), social service professions ($p = 006$), health professions ($p = .000$), and education ($p = .000$).

- Respondents in STEM rated the integration of internships significantly lower than social service professions (p = .038), health professions (p = .000), and education (p = .000).
- Respondents in social sciences/religion rated the integration of internships significantly lower than health professions (p = .000) and education (p = .000).
- Respondents in other disciplines rated the integration of internships significantly lower than health professions (p = .018) and education (p = .008).
- Respondents in business rated the integration of internships significantly lower than health professions (p = .008) and education (p = .003).
- Respondents in other disciplines rated the integration of a culminating experience as significantly lower than business (p = .044), health professions (p = .026), and education (p = .014).
- Respondents in arts/humanities rated the integration of a culminating experience as significantly lower than business (p = .025), health professions (p = .004), and education (p = .002).
- Respondents in social sciences/religion rated the integration of a culminating experience as significantly lower than health professions (p = .026) and education (p = .012).

Table 19 *Integration of HIP's by Academic Discipline*

	Mean Ranks for Academic Discipline									
HIP	Arts/ Hum	Soc Sc & Rel	Bus	Comm	Educ	Health Prof	Social Service	STEM	Other	p
LC	160.58	146.99	198.10	131.05	218.20	235.40	206.60	150.12	162.23	.000*
SL	158.96	174.91	185.40	177.68	183.35	209.30	244.50	154.97	216.68	.009*
FR	170.18	191.88	151.03	145.23	203.30	185.70	169.00	178.48	191.85	.342
IN	116.93	151.26	172.62	205.41	237.93	225.51	224.21	144.44	151.59	.000*
SA	187.95	167.38	194.41	199.73	161.31	174.20	182.00	175.26	209.30	.609
CE	148.73	153.03	189.98	185.86	200.33	191.25	160.75	173.59	131.14	.012*

*Significance attained at p≤.05

Survey respondents indicated the level of their program by selecting from three response options: undergraduate (n=234), graduate (n=56), and both (n=86). The Kruskal-Wallis test was used to determine significant differences ($p \leq .05$) between the ratings of respondents based on level of program and their perception of the importance of high-impact practices (see Table 20) and based on level of program and the integration of high-impact practices (see Table 21).

Results revealed significant differences in ratings of importance of high-impact practices based on academic discipline related to learning communities (p = .000), service learning (p = .038), internships (p = .001), and study abroad (p = .013). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents at the undergraduate level rated the importance of learning communities significantly lower than both (p = .000) and graduate (.000).
- Respondents at the undergraduate level rated the importance of service learning significantly lower than both (p = .011).
- Respondents at the undergraduate level rated the importance of internships significantly lower than both (p = .003) and graduate (.004).
- Respondents at the graduate level rated the importance of study abroad significantly lower than undergraduate (p = .003).

Table 20 *Importance of HIP's by Level of Program*

	Mean Ranks for Level of Program			
High-Impact Practices	Undergraduate	Graduate	Both	p
Learning Communities	160.48	233.27	223.79	.000*
Service Learning	171.41	182.06	204.16	.038*
Research with Faculty	181.50	204.67	163.98	.054
Internships	164.30	205.08	200.93	.001*
Study Abroad	186.44	142.59	176.48	.013*
Culminating Experience	170.89	184.81	179.42	.523

*Significance attained at $p \leq .05$

Results revealed significant differences in ratings of the integration of high-impact practices based on level of program related to learning communities (p = .000), service learning (p = .002), research with faculty (p = .005), internships (p = .000), study abroad (p = 012), and culminating experience (p = .034). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents at the undergraduate level rated the integration of learning communities significantly lower than both (p = .000) and graduate (p = .000).
- Respondents at both rated the integration of learning communities significantly lower than graduate (p = .037).
- Respondents at the undergraduate level rated the integration of service learning significantly lower than both (p = .000).
- Respondents at the undergraduate level rated the integration of faculty research significantly lower than graduate (p = .001).
- Respondents at the undergraduate level rated the integration of internships significantly lower than graduate (p = .000) and both (p = .000).
- Respondents at the graduate level rated the integration of study abroad significantly lower than both (p = .003).
- Respondents at the undergraduate level rated the integration of culminating experiences significantly lower than both (p = .015).

Table 21 *Integration of HIP's by Level of Program*

	Mean Ranks for Level of Program			
High-Impact Practices	Undergraduate	Graduate	Both	p
Learning Communities	161.51	244.12	208.13	.000*
Service Learning	167.35	187.84	210.81	.002*
Research with Faculty	168.93	216.35	180.96	.005*
Internships	150.48	204.70	233.26	.000*
Study Abroad	175.76	151.97	197.29	.012*

Culminating Experience	165.50	183.91	192.22	.034*

*Significance attained at p≤.05

Survey respondents indicated the enrollment of their institution by selecting from four response options: fewer than 1,000 (n=58), 1,000-2,499 (n=204), 2,500-4,999 (n=70), and 5,000 or more (n=45). The Kruskal-Wallis test was used to determine significant differences (p≤.05) between the ratings of respondents based on enrollment of institution and their perception of the importance of high-impact practices (see Table 22) and based on enrollment of institution and the integration of high-impact practices (see Table 23).

Results revealed significant differences in ratings of the importance of high-impact practices based on enrollment of institution related to learning communities (p = .008) and internships (p = .049). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents with an institutional enrollment of 1,000-2,499 rated the importance of learning communities significantly lower than respondents with an institutional enrollment of 2,500-4,999 (p = .001).
- Respondents with an institutional enrollment of 1,000-2,499 rated the importance of internships significantly lower than respondents with an institutional enrollment of 2,500-4,999 (p = .009).

Table 22 *Importance of HIP's by Enrollment of Institution*

	Mean Ranks for Enrollment of Institution				
High-Impact Practices	1,000 or less	1,000-2,499	2,500-4,999	5,000 or more	p
Learning Communities	188.34	172.65	221.99	188.27	.008*
Service Learning	174.13	177.41	195.28	184.24	.587
Research with Faculty	185.57	185.55	189.24	146.57	.087
Internships	191.22	168.12	203.02	179.74	.049*
Study Abroad	180.30	181.98	162.90	179.76	.603
Culminating Experience	187.15	175.82	174.71	160.01	.525

*Significance attained at p≤.05

Results revealed significant differences in ratings of the integration of high-impact practices based on enrollment of institution related to learning communities (p = .018) and internships (p = .001). Further analysis of Pairwise Comparisons and Mean Ranks showed that:

- Respondents with an institutional enrollment of 1,000-2,499 rated the integration of learning communities significantly lower than those with an institutional enrollment of 2,500-4,999 (p = .002).
- Respondents with an institutional enrollment of 1,000-2,499 rated the integration of internships significantly lower than those with an institutional enrollment of 2,500-4,999 (p = .002) and fewer than 1,000 (p = .002).

Table 23 *Integration of HIP's by Enrollment of Institution*

	Mean Ranks for Enrollment of Institution				
High-Impact Practices	1,000 or less	1,000-2,499	2,500-4,999	5,000 or more	p
Learning Communities	190.54	172.15	216.05	184.18	.018*
Service Learning	194.56	185.09	160.04	172.91	.192
Research with Faculty	204.33	177.45	170.10	167.84	.181
Internships	206.65	159.84	203.60	180.84	.001*
Study Abroad	192.11	172.43	175.52	180.52	.527
Culminating Experience	178.91	176.02	173.65	163.38	.806

*Significance attained at p≤.05

Research Question 5: Benefits and Challenges Experienced in an Attempt to Incorporate High-Impact Practices

To answer Research Question 5, "What are the benefits and challenges experienced by colleges and universities in the Appalachian College Association in their attempt to incorporate high-impact practices into traditional and online learning classes/programs?" survey participants identified the benefits and challenges, based upon their experience, by providing written responses to open-ended questions. Comments from interview participants provided support and confirmation of survey results.

Benefits

One hundred ninety-four participants provided written responses describing the benefits experienced when attempting to integrate high-impact practices into courses/programs. Forty-one of the responses were not related to the prompt. Examples of responses that did not relate to the prompt include "not applicable," "still working towards that," and "I would like to incorporate the practices into my teaching." The remaining 153 responses were analyzed and are discussed below.

Respondents found many benefits to high-impact practices in the online and traditional environment. Many of the respondents listed one or more high-impact practices and identified the benefits of each practice. The responses were sorted by high-impact practice with the summary of responses presented in Table 24.

Learning Communities. There were 34 comments related to learning communities with collaboration and relationship building as the most commonly cited. Respondents found learning communities encourage camaraderie and collaboration in an environment that fosters support and the sharing of personal experiences. One respondent found students working in learning communities "learn to work with others, manage conflict, step over social loafers and get the work done anyway (all situations they will encounter in the workplace)."

Service Learning. Twenty-five respondents commented on service learning. The most prevalent benefits were focused on the student's personal growth and awareness of real issues resulting from service learning experiences. In service learning, respondents found "students learn to manage in high uncertainty, hone their communication skills, and see that they can make a difference" providing "a much-needed perspective for students to broaden their cultural, socio-economic awareness and competence." One interviewee discussed the experience of traditional

nursing students on a mission trip to provide health care in Honduras "[the students] realize[d] how much they have, compared to how little these people have that they go to care for."

Research with Faculty. Respondents provided 24 comments related to research with faculty. Respondents found research with faculty provides benefits to both students and faculty. Students provide faculty with the extra support needed to execute many projects. Students benefit from the collaboration with faculty and the overall research experience. A respondent noted, "learning beyond devices (through practica, service learning, research, etc.) can help students apply their learning in the real world and see the relevancy of their coursework." An interviewee teaching online found research with faculty allows students "to explore interests" and "engages them in defining and exploring something that is a real interest to them."

Internships. There were 35 comments related to internships. Benefits focused on the value of real-world application and preparation for employment upon graduation. According to respondents, internships provide opportunities for students to grow "professionally, academically, personally, and spiritually" where students can "understand and integrate their knowledge through a practical hands-on experience." An interviewee teaching in a traditional nursing program found students "develop better critical thinking skills," "grow in their clinical judgement" and "manage their time better." The interviewee also found students improved in "their ability to decision-make" as they learned to "prioritize care for patients."

Study Abroad. Study abroad received the lowest number of comments with 15 respondents discussing the benefits of study abroad. Respondents commented on the increased confidence and global perspective gained through these experiences. Many respondents described study abroad as "life-changing" where "if done well, can foster student humility and cultural understanding, open minds, generate possibilities."

Culminating Experiences. Twenty-two respondents commented on the benefits associated with culminating experiences. Respondents commented on how the culminating experience brings together a student's knowledge and experience to prepare them for their chosen field. A respondent found the culminating experience "helps the students to make their own connections in the coursework." An interviewee teaching exclusively online found portfolios allow students to "evaluate their growth and their own level of proficiency."

Table 24 *Benefits Experienced in Online and Traditional Classes/Programs*

	Benefits	
High-Impact Practices	Online	Traditional
Learning Communities	-allow sharing of personal experiences -encourage camaraderie -explore topics in greater depth -increase student confidence -increase student involvement -learn to work with others -motivate students -provide support for one another -provide a forum for interaction -share knowledge and learn from one another	-encourage camaraderie -encourage collaboration -foster relationship building -improve self-awareness and interpersonal skills -increase student involvement and understanding -improve retention -learn from one another -provide experience working with others
Service Learning	-apply learning in the real world -connect digital world to real world -prepare educators -provide a transition into learning and practice -provide long-term documentation of ephemeral experience -show the relevancy of coursework	-broaden cultural, socio-economic awareness and competence -build empathy -connect classroom content with real-world application -deep personal growth -enriches learning through experience -highlight real local environmental issues -life-long practice of service -prepares students for the real world -promotes collaboration -reaches beyond the classroom -relationship building -teaches servant leadership

High-Impact Practices	Benefits	
	Online	Traditional
Research with Faculty	-apply learning in the real-world -deeply engages students -experience in the practice of professional communication -gets students invested in their learning as they choose the research question(s) -provides an advantage to students entering graduate school -provides an opportunity to work with faculty -model behaviors and attitudes -mutually beneficial to students and faculty -see the relevancy of their coursework -useful in post-graduate work and study	-allows a student to follow through in an area that has attracted her/his attention -broadens a student's understanding of how doing mathematics works -encourages collaboration -essential part of the education of STEM majors -fosters deep learning -students are more competitive for seats in graduate and professional schools -students in the traditional course setting are exposed to the increased confidence and depth of the participating student -students learn how to be scientists -students learn research does not go as planned -students learn to think for themselves
Internships	-ability to think about and reflect on a field experience while the student has it -deepens the ongoing experience allowing growth to take place in real time -determines a student’s career path -integrates the theoretical with the experiential -minimizes the lag time for "getting up to speed” when students enter the workforce -provides job opportunities -provides real-world experience -provide that transition into learning and practice	-assists students in identifying their interests -assists with job placement after graduation -builds confidence and leadership skills -observing students in the field -opportunity to apply knowledge and theory-based concepts from the classroom to the real world -practical experience with qualified, experienced healthcare practitioners -preparation for the real work of the job -preparation for the transition into society -promotes the idea of keeping up with current trends and changes within the profession

High-Impact Practices	Benefits	
	Online	Traditional
		-real-life experiences -relationship building
Study Abroad	-best part of the entire program -provide that transition into learning and practice -students gain independence and perspective in a new environment while realizing the commonalities that define humanity	-become fluent in a foreign language -being immersed in a foreign language and culture -broadens the view of humanity -change in perspective -creates a global perspective -develop a better, more sensitive understanding of their fellow human beings in other lands -culture -expanded worldview -increases confidence in their abilities -make friends in the host country -provides more real-world experience -provides exposure to new methods of teaching and learning -provides travel experiences for students who may not get any other chance -social justice questions -widens student horizons
Culminating Experience	-provides an experience in the practice of professional communication useful in post-graduate work and study -provides many hours and opportunities for experience in the field -provides a transition into learning and practice -students learn the relevance of information, skills, and perspectives	-demonstrates student knowledge (or lack thereof) -help students connect the dots in their majors -helps prepare the student for future -provides an assessment tool -pulls together key concepts -real benefit of the comp is in the preparation rather than the actual taking of the exam -senior seminar is an important milestone for graduates -students learn research and presentation skills -summative program assessment

	Benefits	
High-Impact Practices	Online	Traditional

Additional Benefits

There were 70 comments identifying benefits that did not indicate a specific high-impact practice. These responses were analyzed for emergent themes that were organized into three categories including experiential learning, marketable skills, and personal development.

Experiential Learning. Experiential learning was identified as the most common benefit with 24 comments related to real-world application/experiential learning. Respondents' stated high-impact practices provide a "richer learning experience for the student" with opportunities to apply classroom content by putting "education into practice." The high-quality and robust experiences provide students with a broader perspective making the "material relevant to the student." Students receive real-world experiences where they can practice and receive feedback for improvement making them better prepared for employment.

Personal Development. Personal development was commonly mentioned as a benefit of high-impact practices aiding in a student's growth both socially and emotionally. Of the 12 comments related to personal development, one respondent stated, "students who engage in these experiences tend to be better communicators and have more tolerance for diverse groups of people." Another respondent noted high-impact practices are "transformative for the student and faculty member alike" as we are "educating the whole person." Other benefits noted by respondents included greater confidence in the student's skills and abilities, empathy, independence, less hesitation to try new experiences, better critical thinking and time management skills. Respondents described high-impact practices as "transformative" and described them as some of the most rewarding moments of a student's college experience.

Marketable Skills. Ten respondents found high-impact practices increase a student's marketable skills after graduation providing students a well-rounded portfolio of experiences and accomplishments to share with a potential employer. One respondent said the practices "provided students with some of the experiences, skills, and perspective employers expect of college graduates." Another respondent stated "these practices help students develop the 21st-century skills employers want among them, the ability to produce results through collaboration and teamwork. These are imperative in the current climate, and therefore they should be a part of any educational experience (in seat or online)."

Challenges

Two hundred thirty-four participants provided written responses describing the challenges experienced when attempting to integrate high-impact practices into courses/programs. Forty-four of the responses were not related to the prompt. Examples of responses that did not relate to the prompt include "still working towards that" and "this survey is too long." The remaining 189 responses were analyzed and sorted according to theme based on the six high-impact practices. A summary of the challenges provided by respondents is listed in Table 25.

Learning Communities. Forty-two respondents provided comments related to challenges experienced when attempting to incorporate learning communities into their courses/programs. Scheduling was the most commonly cited challenge as the logistics of enrolling groups of students in the same courses each semester was difficult. Further, students dislike group work. As one respondent explained, "students are often resistant to work in groups." In the traditional and online environments, respondents noted a lack of understanding, training and desire of

faculty to incorporate learning communities. An interviewee found students in the traditional classroom often formed cliques.

Service Learning. Thirty-five respondents provided comments related to the challenges experienced when attempting to incorporate service learning into their courses/programs. The most common response was time. Embedding service learning opportunities required a significant commitment of time from faculty to design the course to incorporate the activity, locate an opportunity, monitor the activity and assess the work completed. Further, time, finances, and geography were issues for nontraditional students. One respondent described service learning challenges "in part due to the employment or financial situations of the students and in part due to their geographical distribution."

Research with Faculty. Research with faculty elicited 31 comments. Student interest was commonly cited as one respondent described the challenge as "convincing some students of the importance of the skills they are applying, seeing it as a valuable experience." Respondents also found research with faculty challenging "because it requires faculty to have ongoing, active research work in an area that is appropriate for work with students." Some felt that, given the limited number of faculty, there are not enough opportunities for all students.

Internship. Forty-two respondents described the challenges experienced when integrating an internship, co-op, field experience, student teaching, or clinical placement opportunity. Finding quality placement opportunities was the most frequently cited challenge. Respondents described difficulty finding enough placements offering quality experiences within the geographic area. Developing and maintaining professional relationships was the next most commonly cited challenge. As one respondent described, it takes "time to understand, develop, and implement good working relationships and experiences."

Study Abroad. Twenty-nine respondents commented on the challenges associated with incorporating study abroad opportunities in courses/programs. Financial challenges and student willingness were the challenges most often mentioned. One respondent described the challenges of study abroad as "dependent upon viable opportunities, financial means, course schedules, and student willingness."

Culminating Experience. Only 13 respondents described a challenge associated with incorporating a culminating experience in a course/program. The responses were mixed with the most common theme relating to faculty time. As a respondent described, the teaching load/student contact balance makes it "difficult to give the students the amount of useful guidance they need."

Table 25 *Challenges Experienced in Implementing High-impact Practices in the Online and Traditional Environment*

	Challenges	
High-Impact Practices	Online	Traditional
Learning Communities	-ability, training, and inclination of faculty to use the online tools -coordinating online groups is time-consuming -getting students to engage at a high level -grading group work is a constant struggle -instructor know-how and desire -logistics of enrollment -reluctance to act on their learning team contracts -scholarly discourse develops slowly as they are challenged to move past the superficial and to provide responses/questions that extend the inquiry/discussion -social loafing and overachieving often clash -student disagreements	-assuring all students are contributing to the work -class scheduling -designing assignments deep enough to support group work -financial/resource restraints -teaching restraints -group think -having the proper training -lack of understanding of learning communities by faculty and administration -logistics of enrollment -reluctance of students to work together

High-Impact Practices	Challenges	
	Online	Traditional
	-students' expectations of themselves and others are often misaligned -students prefer to work alone at their own pace -technology has conditioned students communications -uncomfortable with online tools	
Service Learning	-accountability – determining if a student performed the work -coordination -difficult in an online environment -employment obligations -faculty training and inclination -financial constraints -finding projects that are academically valuable and help the community -geographic constraints -initial resistance of students perceiving service learning as busy work -integration with activity -lack of student understanding of service learning component -locations of students and locations of opportunities may be unmatched -more difficult to monitor and assess remotely -not knowing what the institution offers in support -students are not usually within a radius of community where the instructor can incorporate the service learning as a group -time commitment	-accommodating many different home location of candidates -difficulty of nontraditional students to balance obligations and service learning projects -faculty claims of lack of time for content -faculty concerns that students are not doing a good job on site -faculty time/labor intensive for faculty to set up -getting students to see the greater importance of their service to the needs of the greater community -integrating the actual field experience into the course -lack of financial support from institution -logistics -monitoring service learning activities -opportunities do not translate into earned credit hours -placement opportunities may be difficult to find -reliability of community partners -self-centered and entitled behaviors of students -setting up service learning opportunities -time outside the classroom
Research with Faculty	-ensuring research basics are instilled	- availability of equipment and funding

High-Impact Practices	Challenges	
	Online	Traditional
	-devoting time and attention to developing opportunities -faculty time -integration -making available ongoing, active research work in an area that is appropriate for work with students -providing enough individual time with students while they are working on their research -student participation	-developing enriching projects which are accessible to students -lack of focus (institution is not a research institution) -lack of financial support -lack of student interest -lack of support/compensation -providing enough quality research experiences -research projects rarely fit neatly into a single semester -scheduling meetings to discuss research -student interest -time
Internships	-appropriate supervision -cost -difficult for working adults -establishment of partnerships -extra work for faculty/time -finding enough placements -integration -limited number in rural communities -locations of students and locations of opportunities may be unmatched -finding placements for online students -scheduling clinical rotations around class and students work or athletic participation -student interest -time with students while they are completing placements	-communicating expectations -coordinating the experience within time frame -finances/budget -finding quality placements -holding students to high academic standards -integrating the actual field experience into the course -lack of community partners in the area -making/maintaining professional relationships -practices in placement do not reflect current or best practices -providing quality oversight -rural setting/limited placements -student cost/out-of-pocket
Study Abroad	-coordination -establishing reliable partners abroad -financing -geographical distribution of students -nontraditional students with work and family obligations	-ability to add the experience without getting behind in program -contacts -lack of support for study abroad at institutions -lack of support from parents -liability -logistics

High-Impact Practices	Challenges	
	Online	Traditional
	-programmatic time constraints -reluctance of students and parents to participate	-reluctance of students to travel -school budget -student out-of-pocket expense -faculty time to coordinate -lack of emphasis on language acquisition
Culminating Experience	-faculty time -instructor know-how and desire -integration	-choosing a platform for online portfolios -cost and time to administer tests -course work load resulting from culminating experience -designing quality experiences -development of critical thinking -faculty time to give each student useful guidance -logistics -oversight of experiences -range of level of completion -teaching load/student contact balance

Additional Challenges

There were 87 comments identifying challenges not associated with a specific high-impact practice. These responses were analyzed for emergent themes that were organized into six categories including time, student interest, academic planning, resources, geography, and communication.

Time. Time was mentioned most often, with 39 respondents identifying a lack of both student and faculty time as major challenges to the successful delivery of high-impact practices. Commuters and online students have commitments outside the classroom as they often are employed and have family obligations. Student-athletes tend to have extra-curricular commitments. High-impact practices are labor intensive requiring a commitment of time from

faculty to plan, implement, and oversee these experiences along with course load and administrative responsibilities. As one respondent explained, "providing these experiences with students, plus doing our own research and scholarly activity results in 60-80 hour work-weeks." Another respondent commented, "all of these valuable experiences take a lot of faculty time and energy." In addition to heavy workloads, academically, there is a challenge trying to incorporate additional requirements with content expectations often driven by accreditation standards.

Student Interest. Sixteen respondents found student interest as a common challenge. With participation in many of the high-impact practices being optional, many students did not take advantage of the opportunities. Further, they did not see the importance of the opportunities. One respondent described a student's "lack of desire to participate and to get the most out of the educational experience" as a challenge. Several respondents noted the lack of "self-motivation" as a factor while one found "convincing commuter students to take the time to be engaged in more than just coursework for credit" as a challenge.

Academic Challenges. Twelve respondents cited academic challenges as being a barrier to the successful implementation of high-impact practices. One respondent noted an academic challenge as "ensuring high-quality student outcomes from a diverse set of students." Another respondent found it challenging to identify "what is important to a program and what aligns with their mission and program goals. Too often I see program[s] who try to do all of these but without thought and strategic planning."

Resources. Resources, such as faculty, funding, and facilities, were noted as a challenge by nine respondents. One respondent found high-impact practices require "additional resources" with another respondent noting schools "have a shortage of appropriate facilities." Another respondent described high-impact practices as "time-intensive activities that require additional

resources, and many institutions do not place enough value on them to provide the resources necessary to do them well."

Geography. Seven respondents found geography to be a challenge for commuting and online students as their distance from the university made it prohibitive to participate in extra activities. One respondent noted "students distance from the university is the biggest challenge." Another respondent described the challenge of securing placement opportunities: "successful internships and field experiences depend upon the establishment of partnerships with field placement sites. This can be challenging when students are not located in one geographic area."

Communication. Communication was noted as a challenge from four respondents in the online environment because of the lack of face-to-face contact. One respondent explained, "consistent, progressive, continuous communication in different formats between faculty and student is the biggest challenge." Respondents found it difficult to arrange groups as communication was a challenge.

Research Question 6: Other Successful Strategies for Engaging Students

To answer Research Question 6, "What, if any, are other strategies that have been successful in engaging students enrolled in traditional and online learning classes/programs?" survey participants identified other strategies that have been successful in engaging students, based upon their experiences, by providing written responses to an open-ended question. One hundred fifty-five participants provided written responses describing additional strategies including 85 respondents teaching one or more online classes and 70 respondents teaching traditional face-to-face classes. These responses were analyzed for emergent themes that were organized into three categories, including instructional strategies, technology, and

availability/care. Comments from interview participants provided support and confirmation of survey results.

Themes

Instructional Strategies. The majority of comments (116) were grouped into the theme, instructional strategies (see Table 26). The most commonly cited instructional strategies included discussion forums, group activities, flipped classroom, real-world application and active learning.

Discussion forums were mentioned by 20 online respondents and three traditional respondents. Respondents found discussion forums as useful for engaging students if faculty can "get students past a tendency to provide superficial responses." Another respondent explained that "the prompts/questions that are the most valuable are those that challenge students to take material and apply it to everyday life experiences, or that challenge them to examine their own deeply-held beliefs, and then engage in a dialogue with other students who may have very different experiences." In the traditional classroom, respondents recommended providing prompts for discussion and using a "fishbowl" discussion for the classroom. Online respondents advised faculty to be present in the online discussion forum, requiring regular participation with posts due within short intervals during the week where the content is relevant to the student.

Real-world application was mentioned by 20 respondents including four online and 16 traditional. Respondents emphasized incorporating real-world application by relating the material to the student's major, potential future occupations, and prior experiences. Respondents encouraged making the material "relevant" and "hands-on" by "adapting class projects and case studies to meet industry and professional standards critical to the industry in which the

employers operate." A respondent suggested that real-world application can be achieved through "realistic examples, videos, and activities."

Group activities were mentioned by 15 respondents including eight online and seven traditional. In the online environment, a respondent was able to "create community" when students could hear other student's voices. One respondent found "innovative instructional design, such as using course gamification - especially with teams" to be an effective way to engage students.

Ten respondents incorporated some form of an active learning-centered practice to reinforce key concepts including three online and seven traditional. In the traditional classroom, strategies included think-pair-share, mini-lab experiences, process-oriented guided inquiry learning (POGIL), and problem-based learning. In the online environment, respondent's active learning sessions include quizzes, project-based learning, and interactive activities.

Nine respondents believed the flipped classroom increased student engagement including two online and seven traditional respondents. As described "often a flipped classroom model creates more opportunities for engagement" by helping students "connect with the material." One respondent found the flipped classroom increased student engagement and accountability as "students must come to the classroom prepared and ready to actively participate." One respondent noted strategies aiding in the achievement of a flipped classroom model, including "mini-lectures, group activities, case scenarios, debate, and service development."

Table 26 *Instructional Strategies to Engage Students*

	Strategies	
Theme	Online	Traditional
Instructional Strategies	-adding a hybrid component -community-based learning -course gamification with teams -discussion forums	-big, current ideas and issues -building independent reading in the syllabus -case studies

Theme	Strategies	
	Online	Traditional
	-fast grading and feedback -flipped classroom -group projects/collaboration -include a partial synchronous format -interactive activities -project based learning -quizzes -unlimited submission of assignments -workshop writing in break-out rooms	-class activities that engage multiple sensory modalities -class activities that engage multiple sensory modalities -class discussions -citizen science -collaborative learning projects -discussion forums -flipped classroom -games "Kahoot" -mini-lab experiences -off-campus trips -out of class homework to reinforce classroom content -peer teaching -"pod" seating with 3-4 students in each pod -points associated with class attendance -presentations -problem-based learning -problem-solving -process oriented guided inquiry learning (POGIL) -projects -quizzes -reflections -students directing each other in learning -think-pair share

Technology. Technology was a commonly cited theme with 32 respondents commenting on using a form of technology to engage students (see Table 27). Creating videos and incorporating class chat sessions using virtual meeting software were most commonly cited. An online respondent who integrated synchronous meetings found "students like this approach as it assures they can interact with the instructor and fellow students in a more traditional classroom-

like experience, while still providing the flexibility of an on-line course." Requiring students to create videos, 5-minute oral responses using Screencast-O-Matic, or a digital collage with Storify were examples provided by one interviewee teaching online.

Table 27 *Technology Strategies to Engage Students*

	Strategies	
Theme	Online	Traditional
Technology	-discussion on videos (TED Talks) -frequent use of video and audio -help session captions (video or electronic document) -multimedia -online interactive videos -social media -textbook with online resources -video-based office hours -virtual meeting software for class chat sessions -visually adopting material -voice over PowerPoints -weekly video from the instructor -"WhatsApp" to connect with students 24/7	-conferencing -development of podcasts -learning videos (YouTube) -video chats using Face Time, Google Hangouts, Skype

Availability/Care. The final theme, availability/care, emerged from 28 respondents (see Table 28). Respondents believed faculty should be available and get to know and care for students. As one respondent advised "be there for the student, when the student needs you." Faculty can engage students by being available. In related comments respondents suggested "simply being there for students," "having plenty of office hours," "attending events on campus to show an interest in them beyond the classroom," and "getting to know them and learning their names, not judging them but encouraging them, being transparent with them." An interviewee

teaching online emphasized “early and often direct communication.” Another interviewee described a process of assigning each online student a mentor to “focus in on areas of improvement” to improve their success rate.

Table 28 *Availability/Care Strategies to Engage Students*

	Strategies	
Theme	Online	Traditional
Availability/Care	-assign student success coach -communicate often -encourage different points of view -expressing frequent gratitude to students' work -high level of faculty engagement -instructor presence and availability -prompt, in-depth, and kind feedback that sees the good and potential in their work while challenging them to go deeper still -provide extended faculty office hours -reach out to lagging students -reach out to students and have a positive first individual contact -utilize an introduction forum and reply to every student	-attend events on campus -be available -encourage students to express themselves -encourage students -encourage students to get to know classmates -ensuring personal relationships between students, staff, and faculty -faculty involvement in student organizations -get to know their names -intensive, personalized advising -open for student questions -provide plenty of office hours -remain flexible -show students you care

CHAPTER 5

SUMMARY AND DISCUSSION

Introduction

This chapter presents the summary and discussion of research regarding the perceptions of the importance and extent of integration of high-impact practices, the benefits and challenges experienced, and other engaging strategies discovered by educators in the Appalachian College Association. Implications and recommendations for further study derived from the findings of the *High-Impact Practices* survey and interviews are also presented.

Summary of Purpose

An in-depth review of the literature demonstrated the importance of integrating high-impact practices into courses/programs to improve student engagement and learning. The purpose of this study was to examine whether private non-profit schools in the Appalachian College Association have incorporated high-impact practices into traditional and online learning courses/programs and sought to identify how high-impact practices are integrated into online learning. The research shows specific practices for online course design which, with thoughtful consideration, can create an environment that stimulates student engagement. Further, the study identifies other experiences that yield a similar effect.

Summary of Population

Of the 3,471 links to the survey distributed to educators at member institutions of the Appalachian College Association, a total of 379 surveys were analyzed providing a 6.2% margin of error at a 99% confidence level and a 4.7% margin of error at a 95% confidence level based on the random sample calculator at http://www.custominsight.com. The majority of survey respondents were female (62%). Respondents were fairly evenly split based on age (age 50-59

(27%), age 40-49 (26%), age 27-39 (24%), and age 60-69 (19%)) with the exception of those ages 70-76 (4%). The number of years of teaching experience varied with nearly one-fourth of the population having 6-10 years of experience followed by 1-5 years (19%), 11-15 years (16%), 16-20 years (13%), more than 30 years (11%), 21-25 years (10%), and 26-30 years (8%). The majority of respondents were faculty (73%). The academic discipline of the respondent's program varied with most from health professions (22%) followed by STEM (20%), Arts/Humanities (16%), education (13%), social sciences and religion (11%), business (9%), communication (3%), social services professions (3%), and other disciplines (3%). Over half of the respondents taught at the undergraduate level (62%). Institutional enrollment varied with most indicating enrollment of 1,000-2,499 (54%) followed by 2,500-4,999 (19%), fewer than 1,000 (15%), and an enrollment of 5,000 or more (12%). The teaching assignment was almost split with 47% of the respondents teaching solely traditional (face-to-face) courses and 53% teaching one or more online courses.

The interviewees represented the following disciplines: arts/humanities (n=2), business (n=1), communication (n=1), education (n=3), health professions (n=2), religion (n=1), social sciences (n=2), STEM (n=2), and other (n=1). Six interviewees taught in the traditional classroom and nine taught online. Interviewees represented all five states where ACA schools are located, including: Kentucky (n=5), North Carolina (n=2), Tennessee (n=6), Virginia (n=1), and West Virginia (n=1).

Conclusions, Discussion, and Related Literature

As Kinzie (2012) described, Kuh's research found high-impact practices improve the "quality of students' experience, learning, retention, and success" (para. 3). The *High-Impact Practices* survey used the high-impact practices published by George Kuh through the Liberal

Education and America's Promise national initiative launched by the Association of American Colleges and Universities (AAC&U) as the basis for surveying educators from the Appalachian College Association. Analysis of the results revealed that while the majority of educators value the importance of high-impact practices, there are challenges with integration, particularly for online faculty. Conclusions related to each research question follow with a discussion of related literature.

Research Question 1: Perceptions Regarding the Importance of High-Impact Practices

Research question 1 asks, "What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices in traditional versus online classes/programs?" Of the six high-impact practices, there was a significant difference between traditional and online faculty and administrators' perceptions of the importance of study abroad. Traditional face-to-face respondents viewed study abroad as more important than online respondents. There were no significant differences between traditional and online faculty and administrators' ratings of the importance of learning communities, service learning, research with faculty, internships, or culminating experience.

Study abroad requires students to live and study in a foreign environment. From the literature, the greatest challenge students and educational institutions face with study abroad is financial as the expense to travel, live, and study abroad is significant (Lewin, 2010). Online faculty and administrators viewed study abroad as less important than traditional faculty and administrators as they work with nontraditional online students. As the literature describes, the flexibility of online learning is attractive to individuals with families or full-time jobs where time is limited (Hersman, 2014). These students often attend class on a part-time basis with the desire

to advance in their current career or with the hope of transitioning to a new one (Sandeen, 2012). Leaving their families and jobs to travel to a foreign country to live and study is not an option for most of these students.

While not statistically different, the data revealed online faculty and administrators ranked the importance of learning communities higher than traditional faculty and administrators. One of the challenges of asynchronous learning is the feeling of isolation (Rovai, 2001). To decrease this feeling, skillful online educators incorporating the principles of effective online course design have found it "worthwhile for learners to develop a sense of community to enhance the educational experience" (Rogo & Portillo, 2015, p. 293).

Again, while not statistically significant, the data revealed traditional respondents ranked service learning, research with faculty, internships, and culminating experiences higher than online respondents. The research identified a number of challenges experienced by educators in their attempt to incorporate high-impact practices in online learning. As one respondent commented on the survey "there are unique challenges and opportunities when dealing with online courses in any of these six practices because of time, geographic, and demographic constraints. Many of our students take online courses because they are working full-time or have family obligations that prevent them from involvement in some of these practices."

Research Question 2: Level of Integration of High-Impact Practices

Research question 2 asks, "What differences, if any, are there in the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators at colleges/universities in the Appalachian College Association?" The study determined significant differences between traditional and online faculty and administrators in the integration of five of the six high-impact practices. The test indicated traditional respondents

integrate service learning, research with faculty, internships, study abroad and culminating experiences at a higher rate than online respondents. There was no significant difference between traditional and online faculty and administrators in the integration of learning communities.

These findings support the literature and align with qualitative responses to the question regarding challenges experienced in the implementation of high-impact practices. The demographics of an online student differ significantly from that of a traditional student. Online learning provides students "accessibility," "flexibility," and "convenience" (Boling, Hough, Krinsky, Saleem, & Stevens, 2012, p. 121). One survey respondent stated, "online learners are very busy people." Another respondent commented "most of our online students are not traditional students, so most of them are employed full-time as well as being students. For them, there is only so much time to divide between work, family, and school, and to add another dimension for one of these practices would be overwhelming."

Kuh (2008) described high-impact practices as requiring students to "devote considerable time and effort to purposeful tasks" (p. 14) requiring a daily commitment of time. As described in the literature and through the qualitative component of this study, online learners are often nontraditional students juggling family, work, and school obligations. Service learning, research with faculty, internships, study abroad, and culminating experiences all require considerable time and effort. One interviewee teaching online described her program as "catered more towards adult learners" with "full-time jobs and kids." She further stated, "I really try not to ask too much of them."

There was no significant difference in learning communities. Interview and survey respondents described the formation of learning communities through scheduling, the sequencing of courses, and the cohort structure. Brownell, Swaner, and Kuh (2010) state "in their simplest

form, learning communities are a collection of courses that a small group of students complete together" (p. 13). Most often in the online environment, programs are offered in the cohort format with learning communities naturally forming within this structure. One interviewee described her online program as "not an intentional learning community" but based upon low enrollment in any given major, "it turns out to be a community; even though it's not a formal [one]."

Research Question 3: Relationship between Perceived Importance and Level of Integration

Research question 3 asks, "What is the relationship between the perceived importance and the level of integration of high-impact practices into traditional versus online classes/programs by faculty and administrators in the Appalachian College Association?" A statistically significant and positive relationship is shown between the perceived importance and the level of integration of high-impact practices by traditional and online faculty and administrators for all six of the high-impact practices. According to Kuh (2008), faculty play a large role in creating an environment conducive to high-impact practices where "what faculty think and value" (p. 21) makes a difference in a student's participation in high-impact practices.

There was a strong relationship for traditional faculty and administrators between the perceived importance and level of integration for four of the six high-impact practices (learning communities, service learning, research with faculty, and internships). The relationship between importance and integration for study abroad and culminating experience was weak for the traditional group.

There was a moderate relationship for online faculty and administrators between the perceived importance and level of integration for five of the six high-impact practices (learning communities, service learning, research with faculty, internships, and culminating experience).

The relationship between importance and integration for study abroad was weak for the online group.

The challenges identified in the literature and through the qualitative component of the study seek to explain why traditional and online faculty and administrators are experiencing difficulty integrating study abroad in courses/programs at institutions in the Appalachian College Association. The relationship is weak for study abroad, meaning that while most respondents agree study abroad is somewhat important, integration was typically noted as optional by traditional respondents and never by online respondents. In fact, only four of 325 respondents indicated requiring study abroad. Respondents described study abroad opportunities as "life-changing" but the expense prohibits students from participating (Lewin, 2010). One respondent described study abroad as "dependent upon viable opportunities, financial means, course schedules, and student willingness."

The strong relationship for traditional faculty and administrators compared to the moderate relationship for online faculty and administrators seems to confirm that traditional faculty have an easier time integrating high-impact practices. This is supported by RQ1 and RQ2 findings. The weak relationship for culminating experiences in traditional courses/programs could not be explained by the literature or qualitative component of the research and warrants further study.

Research Question 4: Differences in Perceptions of Importance and Level of Integration Based on Selected Demographics

Research question 4 asks, "What differences, if any, are there in the perceptions of faculty and administrators in the Appalachian College Association regarding the importance of high-impact practices based upon selected demographics and the level of integration of high-

impact practices based upon selected demographics?" Statistically significant differences were determined related to perceived importance based on sex, experience, role, discipline, level, and enrollment. There were also statistically significant differences in level of integration based on sex, experience, role, discipline, level, and enrollment. There was no significant difference for perceived importance or level of integration based on age. The results of significant differences in perceived importance and level of integration by demographics are summarized in Table 29. The greatest number of differences were found related to internships (10) followed by learning community (9), and service learning (8). Differences were limited for study abroad (3), culminating experience (3), and research with faculty (2).

Table 29 *Significant Differences in Importance and Integration by Demographics*

	Sex		Age		Experience		Role		Discipline		Level		Enrollment	
High-Impact Practice	Imp	Int	Imp	Int	Imp	Int	Imp	Int	Imp	Int	Imp	Int	Imp	Int
Learning Community					✓	✓	✓		✓	✓	✓	✓	✓	✓
Service Learning	✓	✓			✓			✓	✓	✓	✓	✓		
Research with Faculty						✓						✓		
Internships	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓
Study Abroad									✓		✓	✓		
Culminating Experience							✓			✓		✓		

Sex

There were significant differences between males and females related to the importance and integration of service learning and internships. Females viewed service learning and internships as more important and integrated at a higher rate than males. The data reveals females rated the importance and integration higher for all six practices; however, there were no statistically significant differences between males and females when considering learning communities, research with faculty, study abroad, or culminating experience.

According to the survey results, females believe service learning and internships are more important and seek to integrate these opportunities more than males. A national survey of 33,986 faculty by the Higher Education Research Institution at UCLA designed to assess faculty beliefs

and behaviors about community service found female faculty scored substantially higher than male faculty on measures of community service (Antonio, Astin, & Cress, 2000).

There was a significant difference between males and females related to the perceived importance and level of integration of internships. Nearly 61% of survey respondents were female with approximately 35% related to health science and education fields. These fields require students to have on-the-job experience through clinical experiences and student teaching before placement, which is mandated by their accreditors.

Age and Teaching Experience

There were no significant differences in ratings of importance and integration of high-impact practices based on age. While there were no differences based on age, there were differences based on years of teaching experience related to perceptions about the importance of learning communities and service learning and integration of learning communities and research with faculty. Trends in higher education along with the ambitions of newer faculty pursuing promotion and tenure are the most likely explanations for differences in this category.

Respondents with fewer years of teaching experience (1-5, 6-10, and 11-15 years) rated the importance and level of integration of learning communities the highest. The significant differences were identified in the middle categories (16-20 and 21-25 years), where the ratings dropped significantly then rebounded slightly for respondents with the most experience (26-30 and 30+ years). While learning communities have roots back to the 1920's, a growing national movement occurred in the 1990's when the national discussion focused on teaching and learning with pedagogies capable of achieving "deep learning" (Smith, 2001). Through this discussion, learning communities became pervasive. It is likely more recent graduates have been part of a

learning community, and therefore, see value and are more likely to seek to integrate learning communities in their courses/programs.

Educators with fewer years of teaching experience (1-5, 6-10, and 11-15 years) also found service learning to be an important component. As the number of years of teaching experience increased, the perceived importance declined. In a study of 622 new teachers, 69% reported they were likely or very likely to incorporate service learning opportunities despite the extra workload (Wade, et al., 1999).

According to Andrew Seligsohn, President of Campus Contact, a group with over 1,000 college and university members, "There's been a big push to integrate civic learning and service learning into the curriculum" with over half of the members signing a civic-action plan and 90% "dedicating administrative or funding support to civic-engagement efforts campus wide" (Anft, 2018, p. 11). Further, the U.S. Department of Education encouraged institutions of higher education to make civic learning and democratic engagement a "national priority in order to help the country emerge from what it called a civic recession" (New, 2016, para. 5).

Research with faculty was integrated more by individuals with 21-25 years of teaching experience followed by those with 1-5, 6-10 and 30+ years of experience. The survey consisted of educators from member institutions of the Appalachian College Association. The association is comprised of small, private, liberal arts institutions where the primary focus is on teaching and learning as opposed to research.

Role

Results revealed administrators view the importance and integration of all six high-impact practices higher than faculty, with significant differences in ratings related to perceived

importance of learning communities, internships, and culminating experience and related to level of integration of service learning and internships.

Results indicate there may be a disconnect between the responses of administrators and faculty. While administrators may have a better understanding of the importance of high-impact practices, faculty may be more aware of the practicalities and challenges. Resources, such as faculty, funding, and facilities, were noted as challenges in the qualitative component of the study. Survey respondents stated high-impact practices require "additional resources" and are "time-intensive."

Academic Discipline

Results revealed significant differences in ratings of the perceived importance of high-impact practices based on academic discipline related to learning communities, service learning, internships, and study abroad and in the integration of high-impact practices related to learning communities, service learning, internships, and culminating experiences.

Education and health professions were among the highest reported mean ranks for the perceived importance and level of integration for learning communities. This finding is supported by data collected on the NSSE 2017 summary of high-impact practices with participation by student characteristic. Based upon the report (National Survey of Student Engagement, 2017), the highest percentage of senior students participating in learning communities were in education and health professions. Business programs also emphasize teamwork and collaboration in an effort to prepare graduates to enter the workforce where these strategies are necessary to solve business problems. Health professions focus on collaboration as health care providers must work together to formulate plans for patient care.

Social services, health professions, and education reported the highest mean ranks for perceived importance and level of integration for service learning. The NSSE (2017) report differed slightly in sequence, with education reporting the highest percentage of senior participation, followed by health professions and social services, which seems to provide reasonable confirmation of the results of this study.

For research with faculty, social science/religion and STEM reported the highest mean ranks for importance and social science/religion and education reported the highest for level of integration. STEM and social sciences reported the highest participation on the NSSE (2017) report.

Social services, education, communication, and health professions reported the highest mean ranks for perceived importance and level of integration for internships. The NSSE (2017) report was slightly different with education and communication reporting the highest participation followed by engineering and biological sciences, two programs that were merged into the STEM category for this research study. Health professions and social service followed. Education and degrees in the health professions are designed to meet the requirements of accrediting bodies, which require practice-based clinical experiences.

Arts/Humanities, communication, and social science/religion reported the highest mean ranks for perceived importance for study abroad. Communication, business, and arts/humanities reported the highest mean ranks for level of integration. These results align with NSSE (2017) findings where students in arts/humanities, communication, and social science reported the highest participation in study abroad.

For culminating experience, education, communication, and health professions reported the highest mean ranks for level of integration. The student experience reported by NSSE (2017)

varied for culminating experience reporting the highest participation from arts/humanities, communication, social sciences, and engineering.

Level of Program

Results revealed significant differences in ratings of perceived importance of four of the six high-impact practices based on level of program: learning communities, service learning, internships, and study abroad. Significant differences in ratings of the level of integration of all six high-impact practices were found based on the level of program: learning communities, service learning, research with faculty, internships, study abroad, and culminating experience.

Respondents at the graduate level rated importance and integration higher for each high-impact practice, with the exception of study abroad. Kraska (2008) found learning communities to be a new trend in graduate education as they provide "social aspects and collaboration with groups" (p. 65) that enhance learning and improve retention at the graduate level. Graduate programs typically include a smaller number of students and are more likely to be cohort-based, making establishment of learning communities easier in some ways. Graduate students are more likely to have work experience in their field, and particularly online graduate students, may be working in the field of study while completing coursework. This offers advantages for practice-based learning and reflection, which might include service learning as graduate candidates may be more likely to have the ability to try new experiences. Graduate programs are more likely to require research with faculty in the form of research projects such as a thesis. Graduate programs in fields such as education and the health sciences may require students to complete clinical or student teaching experiences in order to gain or add endorsements. Graduate programs have traditionally required some form of culminating experience in the form of clinical, research, portfolio, or project.

Institutional Enrollment

Results revealed significant differences in ratings of the perceived importance and level of integration of high-impact practices based on enrollment of institution related to learning communities and internships. Challenges identified in the qualitative component of the study are often related to resources and access. One interviewee explained many smaller ACA schools are located in rural areas making it difficult to secure quality internship experiences. Further, some students have difficulty obtaining transportation to complete internships at a distance from campus. Divine, Linrud, Miller, and Wilson (2007) found requiring internships led to a "substantial commitment of departmental time and resources" (p. 48) that presents challenges for smaller campuses with a limited number of personnel.

Schools with 2,500-4,999 students rated learning communities as more important and did more to integrate learning communities into their courses/programs than schools with an enrollment of 1,000-2,499. Neither a review of the literature nor other findings in this study explain the significant difference, which seems contrary to assumptions that establishing learning communities would be easier at a smaller school. This finding warrants further investigation.

Research Question 5: Benefits and Challenges Experienced in an Attempt to Incorporate High-Impact Practices

Research question 5 asks, "What are the benefits and challenges experienced by colleges and universities in the Appalachian College Association in their attempt to incorporate high-impact practices into traditional and online learning classes/programs?" The benefits and challenges experienced by faculty and administrators in their attempt to incorporate high-impact practices into traditional and online classes/programs were discussed for each high-impact practice in chapter 4. Common themes for the benefits experienced by educators across the six

high-impact practices include experiential learning, marketable skills, and personal development. Common themes for the challenges include time, student interest, academic, resource, geography, and communication.

According to Kuh (2008), a college degree is meaningful when it "represents forms of learning that are both valued by society and empowering to the individual" (p. 2). In addition to earning a degree, graduates must be able to enter the workforce with a level of "knowledge, capabilities, and personal qualities" (p. 2) to succeed. The benefits discovered through this research, experiential learning, marketable skills, and personal development, will provide the level of preparation necessary for students to "thrive and contribute in a fast-changing economy and in a turbulent, highly demanding global, societal, and often personal contexts" (p. 2).

The themes support the literature as learning communities promote "social development" (Love, 2012, p. 7). Service learning promotes student learning and development (Jacoby, 1996, p. 5) and enhanced "personal and social skills including leadership capacity" (Furco & Root, 2010). Knouse, Tanner, and Harris (1999) found college internships improved time management, communication skills, and self-discipline with students developing a heightened initiative and an overall better self-concept. Study abroad was found to build confidence in navigating basic life skills (Cisneros-Donahue, Krentler, Reinig, & Sabol, 2012).

Common themes for the challenges experienced by educators across the six high-impact practices include time, student interest, academic, resource, geography, and communication. The themes support the literature as learning communities and service learning require coordination and logistical support (Reed, 2015). Institutions found research with faculty to be challenged by resource issues and time and effort (Della-Piana, Gardner, & Della-Piana, 2014). Divine, Linrud,

Miller, and Wilson (2007) found requiring internships led to a "substantial commitment of departmental time and resources" (p. 48). Study abroad is expensive (Lewin, 2010).

Research Question 6: Other Successful Strategies for Engaging Students

Research question 6 asks, "What, if any, are other strategies that have been successful in engaging students enrolled in traditional and online learning classes/programs?" Kuh and O'Donnell (2013) believe there might be other experiences that provide benefits similar to high-impact practices that engage students in "meaningful, personally relevant ways" (p. 11). Participants identified other strategies found to engage students that were grouped into three categories. Instructional strategies were reported most frequently followed by strategies within the categories of technology and availability/care.

Instructional strategies were most often provided by traditional educators. Instructional strategies included discussion forums, real-world application, group activities, active learning, and the flipped classroom. A common theme across the instructional strategies is the concept of active learning techniques. Prince (2004) defines active learning broadly as "any instructional method that engages students in the learning process" (p. 223). As Herreid and Schiller (2013) describe "Telling doesn't work very well. Doing is the secret" (p. 65).

Technology was most often cited by online faculty. According to a report by the U.S. Department of Education written by South and Lew (2017), technology provides students with the knowledge and skills needed to compete in today's workforce. Technology provides flexible learning by enabling students to access "learning opportunities apart from the traditional barriers of time and place" and "high-quality learning resources, regardless of their institution's geographical location or funding" (p. 17).

The availability/care theme was a common theme among online and traditional faculty. The theme aligns with Deacon's (2012) "concept of care" (p. 6) describing the importance of an educator showing interest in students and their success. The finding also aligns with a study by Kupcynski, Brown, and Davis (2008), where students perceiving their instructors as highly accessible were more motivated to learn.

Implications

This study provides information that can aid the higher education community in incorporating high-impact practices in traditional and online courses/programs. The challenges identified through the study will prove valuable as institutions design the implementation of these practices. The successful strategies that emerged will provide methods to consider as institutions seek to incorporate high-impact practices. Faculty, course designers, policy makers, administrators, and researchers may gain useful information that will guide the design and implementation of high-impact practices in courses/programs for institutions in the Appalachian College Association. Based upon the literature and qualitative and quantitative research findings, stakeholders interested in implementing high-impact practices in traditional or online courses/programs should consider the following implications of this study:

1. In NSSE's (2007) annual report, founding director, George Kuh advised institutions to "make it possible for every student to participate in at least two high-impact activities during their undergraduate program, one in the first year, and one later related to their major field" (p. 8). Often institutions and educators focus on the results of the NSSE survey and feel compelled to attempt to integrate all of the high-impact practices. Low participation percentages in one or more practices creates a sense of failure. When in reality, it was not George Kuh's intention for students to

participate in all of the high-impact practices. If colleges/universities attempt to incorporate all high-impact practices, they most likely will not do them all well. Discussions between faculty and administrators should be encouraged to determine the high-impact practices most suitable for each academic program. Program-specific high-impact practices may prove to be the best means for providing meaningful student experiences. Institutions should focus on the high-impact practices that can be done well, based upon the institutional resources available, and ensure students participate in at least two practices, one in the first year, and one in their major.

2. The literature and qualitative and quantitative findings of this research clearly show distinct demographic differences between the students enrolled in traditional and online courses/programs. Based upon these differences, not every high-impact practice is a good fit for every student. Institutions should carefully consider each practice and the demographics of their students to ensure institutional requirements related to high-impact practices are doable for the student and add value to the course/program.
3. High-impact practices are effective educational practices proven to increase student engagement. The quantitative and qualitative components of this research question if the high-impact practices are well-suited for online courses/programs. A separate list of high-impact practices may be more applicable for online courses/programs or for nontraditional students.
4. Administrators and faculty uncertain of the importance of high-impact practices should be encouraged to see the many benefits of the integration of high-impact practices in courses/programs. The qualitative component of this research identified

benefits experienced by educators integrating high-impact practices in courses/programs. Specific benefits were listed for each high-impact practice with remaining benefits grouped by emergent themes and organized into categories, including experiential learning, personal development, and marketable skills.

5. The qualitative component of this research identified challenges experienced by educators in their attempt to integrate high-impact practices in courses/programs. Challenges were identified for each high-impact practice with remaining challenges grouped by emergent themes and organized into categories, including time, student interest, academic challenges, resources, communication, and geography. Professional development targeting these challenges should be considered.
6. The research identified many strategies for increasing student engagement in the traditional and online classrooms. Emergent themes were organized into three categories, including instructional strategies, technology, and availability/care. Professional development targeting the strategies identified through this research should be considered to encourage educators to incorporate these practices.

Recommendations for Future Research

This study provides insight into the integration of high-impact practices by educators from member institutions of the Appalachian College Association regarding the importance and integration of high-impact practices in traditional and online courses/programs. Further, the study investigated the benefits and challenges experienced and identified other strategies educators feel have been useful in increasing student engagement. Recommendations for further research include:

1. The research focused on the six high-impact practices measured on the National Survey of Student Engagement. Replication of the study focusing on the other practices identified as high-impact which include first-year seminars and experiences, common intellectual experiences, writing-intensive courses and collaborative assignments, and projects would provide a greater understanding of the integration of high-impact practices.
2. Distributing a survey to faculty and program directors teaching in a program offered exclusively online would allow future researchers to collect more in-depth information and gain a greater understanding of practices in the online environment.
3. Replication of this study with institutions identified as one of the top institutions by number of students taking at least one distance course would be beneficial for gaining a greater understanding of practices in the online environment.
4. Significant differences found among certain demographic variables might warrant further examination. For example:
    a. The literature and study do not explain the significant difference in ratings of the perceived importance and level of integration of learning communities based on enrollment of institution.
    b. The data indicated a possible disconnect between administrators and faculty related to their perceived importance and level of integration of high-impact practices.
5. Replication of this study with institutions in a larger geographic area, in other states or nationwide, would be beneficial for comparison purposes and would aid in generalizing findings to other populations.

6. Distributing a survey to online learners designed to gather their perceptions of the importance and the level of integration of high-impact practices would allow future researchers to understand the student's expectations and motivations. It would also be helpful to learn more about benefits and challenges from the student's perspective.
7. The weak relationship for culminating experiences in traditional courses/programs could not be explained by the literature or qualitative component of the research and warrants further study.

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APPENDICES

Appendix A: Copyright Clearance

Title:	Refreshing Engagement: NSSE at 13
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Appendix B: Definitions

1. NSSE refers to the National Survey of Student Engagement, an annual survey completed by first-year and senior students at hundreds of institutions. The survey assesses the extent to which students are participating in educational practices associated with high levels of learning and personal development.
2. High-impact educational practices refer to educational experiences known for their positive association with learning and retention. High-impact practices include learning communities, service-learning, research with faculty, study abroad, internships and field experiences, and culminating senior experiences.
3. Carnegie Classification refers to a system to recognize and describe institutional diversity in U.S. higher education created in 1970 by the Carnegie Commission on Higher Education.
4. The Mid-Atlantic region refers to schools in Kentucky, North Carolina, Virginia, Pennsylvania, Ohio, Maryland, and West Virginia.
5. The Appalachian College Association (ACA) is a consortium of 35 private liberal arts college and universities in the central Appalachian mountains of Kentucky, North Carolina, Tennessee, and West Virginia.
6. HIPs refer to the ten high-impact educational practices.
7. AAC&U refers to the American Association of Colleges and Universities
8. LEAP refers to Liberal Education and America's Promise, an initiative of the American Association of Colleges and Universities.

Appendix C: Survey Instrument

Demographics 1

Part A

What is your sex?

- ❍ Male
- ❍ Female

What is the year of your birth? (enter using 4-digits)

Which of the following identifies your number of years of teaching experience (in higher education), including the present year?

- ❍ 1-5
- ❍ 6-10
- ❍ 11-15
- ❍ 16-20
- ❍ 21-25
- ❍ 26-30
- ❍ more than 30

End of Block

Demographics 2

Select one of the following which best describes your role at your institution:

- ❍ Full-time faculty
- ❍ Adjunct or part-time faculty
- ❍ Program Director
- ❍ Dean
- ❍ Department Chair
- ❍ Information Technology
- ❍ Provost
- ❍ President
- ❍ Other, please specify _____

What is the general academic discipline of your program?

- ❍ Arts/Humanities
- ❍ Social Sciences
- ❍ Business
- ❍ Communications
- ❍ Education
- ❍ Health Professions
- ❍ Religion
- ❍ Social Service Professions
- ❍ STEM - Science, Technology, Engineering, & Math
- ❍ Other Disciplines - please specify _____

❍

Select one of the following to identify the level of your program(s):

- ❍ Undergraduate
- ❍ Graduate
- ❍ Both

Enrollment of your institution (including undergraduate and graduate)

- ❍ Fewer than 1,000
- ❍ 1,000-2,499
- ❍ 2,500-4,999
- ❍ 5,000-9,999
- ❍ 10,000-19,999
- ❍ 20,000 or more

End of Block

Teaching Assignment

Which of the following best describes your teaching assignment? (select one)

- ❍ All of my teaching load is face-to-face.*
- ❍ At least some or all of my teaching load is online.**

End of Block

***All of my teaching load is face-to-face survey.**

Learning Community - FACE to FACE

Part B

Learning Community

	Indicate how important learning communities are to a student's education experience?				To what extent are learning communities part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Learning community or some other formal program where groups of students take two or more classes together	❍	❍	❍	❍	❍	❍	❍

If learning communities are an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Service-Learning - FACE to FACE

Service-Learning

	Indicate how important service-learning is to a student's education experience?				To what extent is service-learning part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Courses that include a community-based project (service-learning)	❍	❍	❍	❍	❍	❍	❍

If service-learning is an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Research with Faculty Member - FACE to FACE

Work with a faculty member

	Indicate how important working with a faculty member is to a student's education experience?				To what extent is working with a faculty member part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Work with a faculty member on a research project	❍	❍	❍	❍	❍	❍	❍

If working with a faculty member on a research project is an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Internship - FACE to FACE

Internship

	Indicate how important internships are to a student's education experience?				To what extent are internships part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Internship (co-op, field experience, student teaching, or clinical placement)	❍	❍	❍	❍	❍	❍	❍

If an internship is an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Study Abroad - FACE to FACE

Study abroad

	Indicate how important study abroad experiences are to a student's education experience?				To what extent are study abroad experiences part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Study abroad experiences requiring students to study and live in a foreign environment	❍	❍	❍	❍	❍	❍	❍

If study abroad is an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Culminating experience - FACE to FACE

Culminating experience

	Indicate how important a culminating experience is to a student's education experience?				To what extent are culminating experiences part of your traditional courses/program?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Culminating experience (capstone course, project or theses, comprehensive exam, portfolio, etc.)	❍	❍	❍	❍	❍	❍	❍

If a culminating experience is an optional or required component of your courses/programs, please provide an example of how the practice has been incorporated into your traditional courses/program.

End of Block

Challenges and Benefits - FACE to FACE

Based upon your experience, share the challenges faced when incorporating any of the 6 practices below in traditional courses/programs. The six practices include 1) learning communities, 2) service-learning, 3) research with faculty, 4) internship, co-op, field experience, student teaching, or clinical placement opportunities, 5) study abroad, and 6) culminating senior experiences.

Based upon your experience, share the benefits of incorporating any of the 6 practices above in traditional courses/programs.

End of Block

Strategies - FACE to FACE

Have you found other strategies successful in increasing student engagement in traditional courses/programs?

- ❍ Yes
- ❍ No

If yes, please briefly describe the strategy or strategies:

End of Block

Interview

Would you be willing to participate in a follow-up interview?

- ❍ Yes, I would like to participate in an interview.
- ❍ No, I am not interested in participating in an interview.

Thank you for your willingness to participate in an interview. Please click HERE to provide your contact information.

End of Block

Interview Survey

Thank you so much for your willingness to participate in an interview. Your input will aid in our understanding of how to incorporate high-impact practices in traditional and online courses and programs. The results of this research will be presented at the annual Appalachian College Association (ACA) fall summit in September 2018.

Name:

Institution:

Role at the institution:

Email address:

Preferred telephone number (area code first):

Preferred contact time (day/time):

End of Block

****At least some or all of my teaching load is online survey.**

Learning Community

Part B

Learning Community

	Indicate how important learning communities are to a student's education experience?				To what extent are learning communities part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Learning community or some other formal program where groups of students take two or more classes together	❍	❍	❍	❍	❍	❍	❍

If learning communities are an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Service-Learning

Service-Learning

	Indicate how important service-learning is to a student's education experience?				To what extent is service-learning part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Courses that include a community-based project (service-learning)	❍	❍	❍	❍	❍	❍	❍

If service-learning is an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Research with Faculty Member

Work with a faculty member

	Indicate how important working with a faculty member is to a student's education experience?				To what extent is working with a faculty member part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Work with a faculty member on a research project	❍	❍	❍	❍	❍	❍	❍

If working with a faculty member on a research project is an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Internship

Internship

	Indicate how important internships are to a student's education experience?				To what extent are internships part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Internship (co-op, field experience, student teaching, or clinical placement)	❍	❍	❍	❍	❍	❍	❍

If an internship is an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Study Abroad

Study abroad

	Indicate how important study abroad experiences are to a student's education experience?				To what extent are study abroad experiences part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Study abroad experiences requiring students to study and live in a foreign environment	❍	❍	❍	❍	❍	❍	❍

If study abroad is an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Culminating Experience

Culminating experience

	Indicate how important a culminating experience is to a student's education experience?				To what extent are culminating experiences part of your online courses/programs?		
	Not important	Somewhat Important	Important	Very Important	Never	Optional	Required
Culminating experience (capstone course, project or theses, comprehensive exam, portfolio, etc.)	❍	❍	❍	❍	❍	❍	❍

If a culminating experience is an optional or required component of your online courses/programs, please provide an example of how the practice has been incorporated into your online courses/programs.

End of Block

Challenges and Benefits

Based upon your experience, share the challenges faced when incorporating any of the 6 practices below in online courses/programs. The six practices include 1) learning communities, 2) service-learning, 3) research with faculty, 4) internship, co-op, field experience, student teaching, or clinical placement opportunities, 5) study abroad, and 6) culminating senior experiences.

Based upon your experience, share the benefits of incorporating any of the 6 practices above in online courses/programs.

End of Block

Strategies

Have you found other strategies successful in increasing student engagement in online courses/programs?

- ❍ Yes
- ❍ No

If yes, please briefly describe the strategy or strategies:

End of Block

Interview Survey

Thank you so much for your willingness to participate in an interview. Your input will aid in our understanding of how to incorporate high-impact practices in traditional and online courses and programs. The results of this research will be presented at the annual Appalachian College Association (ACA) fall summit in September 2018.

Name:

Institution:

Role at the institution:

Email address:

Preferred telephone number (area code first):

Preferred contact time (day/time):

End of Block

Appendix D: Consent to Participate in Research – Verbal Consent

Hello, my name is Melissa Farrish. You have been chosen at random to be in a study about Incorporating High-Impact Practices in Online Learning and through the survey agreed to participate in an interview. The purpose of this research study is to assess the value and usage of high-impact practices by schools in the Appalachian College Association. This will take about 15-30 minutes of your time. If you choose to be in the study, I will ask a series of questions and you will be expected to respond to the best of your knowledge.

There are no foreseeable risks or benefits to you for participating in this study. There is no cost or payment to you. If you have questions while taking part, please stop me and ask. Your identity will be kept confidential. I will link your answers by a code and this code will be deleted later in order to protect your identity.

If you have questions, you may contact me at 304.575.8521 or Dr. Lisa Heaton at 304.746.2026. If you feel as if you were not treated well during this study, or have questions concerning your rights as a research participant call the Marshall University Office of Research Integrity (ORI) at (304) 696-4303.

Your participation in this research is voluntary, and you will not be penalized or lose benefits if you refuse to participate or decide to stop. May I continue?

Appendix E: Faculty Personal Interview Guide

Date: _____
Time: _____
Interviewees Code: _____
Institution: _____
Role: _____

The recently completed survey was designed to obtain information on the integration of high-impact practices at your college/university and how these practices are incorporated within courses/programs. This interview is an approach to obtain more detail.

High-impact practices include:

a. Learning communities or some other formal program where groups of students take two or more classes together
b. Community-based projects or service-learning opportunities embedded within coursework
c. Research opportunities in partnership with faculty
d. Internship, co-op, field experience, student teaching, or clinical placement opportunities
e. Study abroad experiences requiring students to study and live in a foreign environment
f. Culminating senior experiences in the form of capstone courses, a senior project or theses, a comprehensive exam, or portfolio

Actual questions asked during interviews may vary based upon conversation. All questions asked will be focused on gleaning additional qualitative information to enrich the quantitative research findings. Interview questions may include:

1. Do you teach traditional courses, online, or a mix of traditional and online courses?

2. Have you integrated a high-impact practice into your course(s)/program(s)?

YES >

a. If yes, please identify the practice and describe how it was integrated.

b. What, if any, benefits have you witnessed as a result of integrating this practice? Can you provide any examples from your experience?

c. Has incorporating the HIP increased student engagement and/or retention? If so, in what ways?

d. What, if anything, do you feel are challenges to integrating this HIP? Can you provide any examples of this from your experience?

e. Have you integrated other high-impact practices into your course(s)/program(s)?

    a. If yes, would you like to select one and discuss?

    (Repeat questions a, b, c, and d)

NO >

a. If no, have you considered the integration of high-impact practices into your courses/programs?

b. Are there obstacles or challenges you have encountered that have prevented you from incorporating HIP's?

ALL Interviewees >

a. Are there other strategies (similar to HIP's) utilized by your institution to engage and retain students?

b. Is there anything else you would like to share with me about your courses/ programs?

Thank you for participating in this interview. I greatly appreciate your time.

Appendix F: Appalachian College Association Fellowship Award

Appalachian College Association

Dear Melissa Farrish,

Congratulations on your award from the Appalachian College Association! The Selection Committee members were quite impressed by your application. In the upcoming weeks, your Institutional Representatives will be receiving an Award Agreement from the Appalachian College Association. Among the items in this agreement will be:

- a copy of your application for reference
- the due date of your interim report, n/a
- the due date of your final report, 12/30/2017
- information on your requirement to present your work at the Annual Summit 2018

Please acknowledge your acceptance of this award by signing this letter and returning it via electronic mail to awards@acaweb.org in a PDF format. Once all signatures have been obtained, you will receive a copy of the Award Agreement to the electronic mail account that we have connected to your MyACA online profile. As a reminder, all of your past proposals and a history of your participation at ACA events can be retrieved from your MyACA online profile at any time.

Once again, congratulations on your successful application and we look forward to learning about your work.

Sincerely yours,

Tom Rogers

Tom Rogers
Interim President
Appalachian College Association

cc: Dr. Letha Zook

Melissa Farrish Date: 12/13/16
Signature

Melissa Farrish
Print Name

Appendix G: Content Validity Panel

Mollie Ferguson (Skype), Doctoral Candidate, Marshall University

Allyson Goodman, Doctoral Candidate, Marshall University

Dr. Lisa Heaton, Professor, Marshall University

Casie McGee, Doctoral Candidate, Marshall University

Bridget Phillips, Doctoral Candidate, Marshall University

Kandas Queen, Doctoral Candidate, Marshall University

Melissa Rhodes, Doctoral Candidate, Marshall University

Bobbie Seyedmonir, Doctoral Candidate, Marshall University

Faculty, administrators, and technical support personnel

Dr. Briana Cicero-Johns	adjunct faculty	University of Charleston
Jamie Kipfer	Instructor	Campbell University
Amanda Meadows	Assistant Professor of Business	University of Charleston
Dr. Marjorie Smith	Associate Professor of Business	University of Charleston

Appendix H: Content Validity Questions

1. Are there typographical errors in the survey?
2. Are there any misspelled words in the survey?
3. Are instructions clearly written?
4. Is the vocabulary appropriate for the respondents?
5. Are questions easy to understand?
6. Do respondents know how to indicate responses?
7. Are the response choices mutually exclusive?
8. Are the response choices exhaustive?
9. Is the survey too long?
10. Is the style of the items too monotonous?
11. Does the survey format flow well?
12. Are the items appropriate for the respondents?
13. Do respondents understand when to complete the survey?
14. Do the respondents have any suggestions regarding the addition or deletion of questions, clarification of instructions, or improvements in the survey format?
15. Do the instructions tell respondents what the survey is about, what they are asked to do, and why?
16. Is the order of the questions appropriate?

(Fink, 2003; Litwin, 2003)

Appendix I: Schools in Sample Population

Kentucky
Alice Lloyd College
Berea College
*Campbellsville University
*Kentucky Christian University
*Lindsey Wilson College
*Union College
University of Pikeville
*University of the Cumberlands

North Carolina
Brevard College
*Lees-McRae College
*Lenoir-Rhyne University
Mars Hill University
*Montreat College
Warren Wilson College

Tennessee
*Bryan College
*Carson-Newman University
*Johnson University
*King University
Lee University
Lincoln Memorial University
Maryville College
*Milligan College
Tennessee Wesleyan University
*Tusculum College
University of the South

Virginia
*Bluefield College
*Emory & Henry College
*Ferrum College

West Virginia
*Alderson Broaddus University
Bethany College
*Davis & Elkins College
Ohio Valley University
*University of Charleston
*West Virginia Wesleyan College
*Wheeling Jesuit University
*indicates school offers online courses/programs

Appendix J: IRB Approval

w w w . m a r s h a l l . e d u

Office of Research Integrity
Institutional Review Board
One John Marshall Drive
Huntington, WV 25755

FWA
00002704

IRB1
#00002205
IRB2
#00003206

September 28, 2017

Lisa Heaton, Ph.D.
Curriculum & Instruction, MUGC
RE: IRBNet ID# 1123530-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)
Dear Dr. Heaton:

Protocol Title: [1123530-1] Incorporating High-Impact Practices in Online Learning

Expiration Date: September 28, 2018
Site Location: MUGC
Submission Type: New Project APPROVED
Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee for the period of 12 months. The approval will expire September 28, 2018. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Melissa Farrish.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/ Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or

day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Appendix K: Initial Contact

To: [Email]

From: martin18@marshall.edu

Subject: High-impact practices in online learning

You are invited to participate in a doctoral research project entitled *Incorporating High-Impact Practices in Online Learning*, designed to assess the value and usage of high-impact practices by schools in the Appalachian College Association. This research study is part of the dissertation requirement for Melissa Martin Farrish. The study is being conducted by Dr. Lisa Heaton and Melissa Martin Farrish from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB).

Your opinions are very important to the success of this study. The Appalachian College Association has reviewed and supports this study. The results of this survey will be presented at the 2018 Appalachian College Association Summit.

This survey will take you approximately ten minutes to complete. Your replies are anonymous, and there are no known risks involved with this study. At the end of the survey, there is an option to participate in a phone interview. If you choose to participate in the interview, you will be directed to a page to submit your contact information that is separate from the survey and will not be linked to your survey answers.

Participation is completely voluntary, and there will be no penalty or loss of benefits should you choose not to participate or to withdraw. If you choose not to participate, you may delete this message. Completing the online survey indicates your consent to use of the responses you supply. If you have any questions or concerns about this study, you may contact me at 304.575.8521 or Dr. Lisa Heaton at 304.746.2026.

If you have any questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at 304.696.4303. By completing this survey, you are also confirming that you are 20 years of age or older.

Please print this page for your records.

If you choose to participate in the study, you will find the survey at

https://marshall.az1.qualtrics.com/jfe/form/SV_ekyvnPSTHx4m2EJ

If the link above does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at martin18@marshall.edu or 304.575.8521.

Please respond to all of the questions as honestly and accurately as possible by October 16th, so there is a valid representation of programs in the Appalachian College Association. Thank you in advance for your timely participation in this research study.

Sincerely,

Melissa Martin Farrish

Appendix L: 1 Week After Survey Link Was Emailed

To: [Email]
From: martin18@marshall.edu
Subject: High-impact practices in online learning

Approximately one week ago a link to a survey, *Incorporating High-Impact Practices in Online Learning*, exploring the value and usage of high-impact practices by schools in the Appalachian College Association, was emailed to you.

If you have already completed the survey, please accept my most sincere appreciation. If not, please respond by INSERT DATE, so a valid representation of schools in the Appalachian College Association is presented.

I am grateful for your assistance and recognize how busy you are during this time, but when experienced educators and administrators like yourself share your opinions and experiences, we can advance the quality of education and increase the engagement of our students. The results of this survey will be presented at the 2018 Appalachian College Association Summit.

Please click on the following link to complete this survey:

INSERT LINK

If the link above does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at martin18@marshall.edu or 304.575.8521.

At the end of the survey, there is an option to participate in a phone interview. If you choose to participate in the interview, you will be directed to a page to submit your contact information that is separate from the survey and will not be linked to your survey answers.

Again, thank you for taking the time to participate in this important research study.

In appreciation,

Melissa Martin Farrish

Appendix M: 2 Weeks After Survey Link Was Emailed

To: [Email]
From: martin18@marshall.edu
Subject: High-impact practices in online learning

Approximately two weeks ago a link to a survey, *Incorporating High-Impact Practices in Online Learning*, exploring the value and usage of high-impact practices by schools in the Appalachian College Association, was emailed to you.

If you have already completed the survey, please accept my most sincere appreciation. If not, please respond by INSERT DATE, so a valid representation of schools in the Appalachian College Association is presented.

I am grateful for your assistance and recognize how busy you are during this time, but when experienced educators and administrators like yourself share opinions and experiences, we can advance the quality of education and increase the engagement of our students. The results of this survey will be presented at the 2018 Appalachian College Association Summit.

Please click on the following link to complete this survey:

INSERT LINK

If the link above does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at martin18@marshall.edu or 304.575.8521.

At the end of the survey, there is an option to participate in a phone interview. If you choose to participate in the interview, you will be directed to a page to submit your contact information that is separate from the survey and will not be linked to your survey answers.

Again, thank you for taking the time to participate in this important research study.

In appreciation,

Melissa Martin Farrish

Appendix N: 3 Weeks After Survey Link Was Emailed

To: [Email]
From: martin18@marshall.edu
Subject: High-impact practices in online learning

Approximately three weeks ago a link to a survey, *Incorporating High-Impact Practices in Online Learning*, exploring the value and usage of high-impact practices by schools in the Appalachian College Association, was emailed to you.

If you have already completed the survey, please accept my most sincere appreciation. If not, please respond by INSERT DATE, so a valid representation of schools in the Appalachian College Association is presented.

I am grateful for your assistance and recognize how busy you are during this time, but when experienced educators and administrators share opinions and experiences, we can advance the quality of education and increase the engagement of our students. The results of this survey will be presented at the 2018 Appalachian College Association Summit.

Please click on the following link to complete this survey:

INSERT LINK

If the link above does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at martin18@marshall.edu or 304.575.8521.

At the end of the survey, there is an option to participate in a phone interview. If you choose to participate in the interview, you will be directed to a page to submit your contact information that is separate from the survey and will not be linked to your survey answers.

Again, thank you for taking the time to participate in this important research study.

In appreciation,

Melissa Martin Farrish

Appendix O: 2 Days Before Survey Closes

To: [Email]

From: martin18@marshall.edu

Subject: High-impact practices in online learning

Approximately four weeks ago a link to a survey, *Incorporating High-Impact Practices in Online Learning*, exploring the value and usage of high-impact practices by schools in the Appalachian College Association, was emailed to you.

If you have already completed the survey, please accept my most sincere appreciation. If not, please respond by INSERT DATE, so a valid representation of schools in the Appalachian College Association is presented.

I am grateful for your assistance and recognize how busy you are during this time, but when experienced educators and administrators like yourself share opinions and experiences, we can advance the quality of education and increase the engagement of our students. The results of this survey will be presented at the 2018 Appalachian College Association Summit.

Please click on the following link to complete this survey:

INSERT LINK

If the link above does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at martin18@marshall.edu or 304.575.8521.

Again, thank you for taking the time to participate in this important research study by the end of today.

In appreciation,

Melissa Martin Farrish

Appendix P: Author's Curriculum Vitae

MELISSA MARTIN FARRISH

EDUCATION

Ed.D. Curriculum and Instruction/Educational Leadership May 2018
Marshall University
Dissertation Title: "Perceptions of the Importance and Integration of High-Impact Practices in Traditional Versus in Online Learning."
Committee: Dr. Lisa Heaton (chair), Dr. Edna Meisel, Dr. Ron Childress, Dr. Brenda Tuckwiller

Ed.S. Curriculum and Instruction December 2014
Marshall University

Master of Business Administration May 2002
Marshall University

Bachelor of Business Administration, Finance & Business Law May 1997
Marshall University

TEACHING

University of Charleston Charleston, WV
Assistant Professor of Business January 2013-present

Mountain State University Beckley, WV
Assistant Professor of Business *Aug. 2012-Dec. 2012*

Director of Distance Education, Business & Technology *July 2011-August 2012*
Served as Interim Director from July 2011- March 2012

Adjunct Instructor- School of Leadership & Prof. Development *June 2002-June 2012*

New River Community and Technical College Beckley, WV
Adjunct Instructor-Business *Aug. 2007-Dec. 2007*

CAREER EXPERIENCE

Mountain State University Beckley, WV
Senior Officer of Student Services *July 2004-May 2007*

Registrar *July 2002-July 2004*

Coordinator of Student Services/Assistant Registrar *Sept.99-July 2002*
School of Extended & Distance Learning

Admissions Counselor/Recruiter *May 97-Sept. 99*

PUBLICATIONS

Farrish, M. & Heaton, L. (2013). From Brick and Mortar to Online Learning. *Selected Papers from the 24th International Conference on College Teaching and Learning.* pg. 113-125.

PRESENTATIONS

Farrish, M. (September 2017). *High-Impact Practices.* 2017 Appalachian College Association Summit, Kingsport, TN.

Farrish, M. (September 2017). *Groups.* University of Charleston Technology Café, Charleston, WV.

Farrish, M., & Heaton, L. (April 2013). *From Brick and Mortar to Online Learning*. 24th Annual International Conference on College Teaching and Learning, Ponte Vedra, FL.

Farrish, M., Heaton, L, Porter, L, Barker, I. (April 2013). Gaming and Learning? Taking a Look Beyond the Book. 24th Annual International Conference on College Teaching and Learning, Ponte Vedra, FL.

Farrish, M. Heaton, L, Porter, L, Barker, I. (July 2013). Using Gaming Principles to Personalize Learning. West Virginia Statewide Technology Conference, Morgantown, WV.

GRANT WRITING

Submitted grant for Forward Southern to the Beckley Area Foundation, Inc. for $7,000 **(Funded)** April 2015.
*Funds were used as a portion of the local match needed to develop six miles of hiking/biking trail that will connect the existing Piney Creek trail segment on Raleigh County Airport Property to the boundary of the New River Gorge National River***.**