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Improving Mentoring in Higher Education

Camey Lei Andersen

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Dr. Richard E. West, Chair
Dr. Charles R. Graham
Dr. Heather M. Leary
Dr. Eva M. Witesman

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ABSTRACT

Improving Mentoring in Higher Education

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Doctor of Philosophy

As universities and institutions of higher education seek to improve retention, persistence, well-being, and overall college experience satisfaction for their students, there is an increased emphasis on mentoring in higher education. Improving mentoring in higher education—the specific tools, training, and practices that develop effective mentors—remains an often-elusive goal for college administrators and university mentoring programs and in research. This research examined available research on effective mentoring and provided recommendations for how to create successful mentors and mentoring programs in higher education.

This dissertation is a three-article format presentation of information about mentoring in higher education. The first article is a literature review of mentoring and higher education literature analyzing what makes an effective mentor and implications for practice. The review of 34 articles examined themes of impact of mentoring, role of mentor, and mentoring programs, as well as implications for practice for each theme. The review showed that more research is needed on mentoring and higher education, mentor training, and the perspective of mentors. The second article investigated mentoring in online learning environments. The survey research study analyzed responses from 143 online mentors from around the world in a global higher education initiative. Four mentoring domains were used for analysis. Online mentors reported they were most effective at providing emotional and psychological support for students. Study results showed mentor support for individual students outside the virtual classroom, strategies for student goal setting, characteristics of online role modeling, and mentor confidence in technology skills. The study also contributed findings to the literature about online mentoring benefits for nontraditional students, technology challenges, and online mentoring role adoption. The third article examined ongoing mentoring training. The qualitative study analyzed interview responses from 20 international in-person mentors in a global higher education initiative to discover how ongoing training affects mentors' abilities to assist higher education students in achieving their educational goals. Study results showed the benefits from ongoing mentoring training, the importance of volunteer mentoring needs in ongoing mentoring training, and the effects of mentoring training creativity. The study also showed that ongoing training positively impacts mentors, volunteers may need more training, and that ongoing training advanced effective mentoring practices.

Successful mentoring can make a meaningful difference in students' lives. This research showed the impact of mentoring and its potential benefits in in-person and online learning environments. This research also showed the significance of effective mentoring programs and ongoing mentor training in mentoring.

Keywords: higher education, mentor, mentoring, online education, training, volunteer

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I am thankful that my children, Clayton, Christian, Caroline, and Claire, have been so supportive of my returning to school for a PhD. We often did homework together through the years and I am so grateful for their sacrifice and encouragement as I worked towards my degree. I hope they will always remember how much I value learning and education.

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TABLE OF CONTENTS

TITLE PAGE	i
ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	xi
Article 1 Tables.....	xi
Article 2 Tables.....	xi
Article 3 Tables.....	xi
DESCRIPTION OF RESEARCH AGENDA AND STRUCTURE OF DISSERTATION.....	xii
ARTICLE 1: Improving Mentoring in Higher Education in the Age of Online Learning.....	1
Abstract.....	2
Introduction.....	3
What is Mentoring in Higher Education?.....	3
Theoretical Approaches	5
Developing Effective Mentors.....	8
The Challenges of Mentoring	9
Research Question	12
Methods.....	12
Search Strategy	12
Study Screening and Data Extraction	13
Study Selection	13
Abstract Analysis.....	15

Impact of Mentoring	16
Student Retention.....	16
Student Persistence	17
Long-Term Benefits of Mentoring.....	18
Implications for Practice	19
Role of Mentor	20
Student Interaction	20
Student Support.....	21
Role Models	22
Implications for Practice	23
Mentoring Programs	24
Types of Mentoring Programs	25
Platforms for Mentoring	27
Mentoring Training.....	29
Implications for Practice	30
Implications for Future Research.....	31
Conclusion	32
References.....	34
ARTICLE 2: “We Overwhelm Them with Hope”: How Online Mentors Can	
Support Online Learners	43
Abstract.....	44
Introduction.....	45
Benefits of Online Mentoring.....	47

Challenges of Online Mentoring.....	48
Lessons Learned from Research.....	50
Implications for Current Research and Research Questions.....	52
Methods.....	53
Research Context and Study Design.....	53
Participants.....	55
Data Collection.....	56
Data Analysis.....	57
Trustworthiness.....	57
Limitations.....	58
Results.....	59
Support for Individual Students Outside the Virtual Classroom.....	60
Strategies for Student Goal Setting.....	63
Characteristics of Online Role Modeling.....	65
Confidence in Technology Skills.....	67
Discussion.....	69
Comparison and Interpretation of Findings.....	69
Creating student connection.....	70
Personalizing goal setting for the online student.....	71
Differentiating online role modeling.....	73
Overcoming technology challenges.....	74
Contributions of Findings to Literature.....	75
Online mentoring benefits for the nontraditional student.....	75

Technology challenges influence mentoring challenges.	76
Online mentoring role adoption.	77
Implications for Future Research.....	78
Implications for Practitioners.....	78
Conclusion	79
References.....	83
ARTICLE 3: “We Are Teaching and Learning with Each Other”: Improving Mentoring	
in Higher Education through Ongoing Training	90
Abstract.....	91
Introduction.....	92
Mentor Training – The Key to Success	93
Mentoring and Ongoing Training.....	94
The Value of Ongoing Mentoring Training.....	95
Types of Mentors and Ongoing Training.....	96
Challenges of Ongoing Training.....	97
Implications for the Current Research and Research Question	98
Methods.....	99
Research Context and Study Design.....	99
Participants.....	101
Data Collection	103
Data Analysis	103
Trustworthiness.....	104
Limitations	105

Results.....	106
Benefits from Ongoing Mentoring Training.....	107
Mentors better understood their roles and responsibilities.	107
Mentors gained knowledge.	107
Mentors received ongoing support.....	108
Volunteer Mentoring Needs.....	109
Mentoring Training Creativity.....	112
Discussion.....	113
Comparison and Interpretation of Findings	114
Ongoing training positively impacts mentors.	114
Identifying contributing mentor volunteers.	116
Ongoing training advances effective mentoring practices.....	117
Contributions of Findings to the Literature	118
Mentors contribute to best training practices.....	119
Volunteer mentors may need more training.....	119
The transferability of mentoring training across the world.	120
Implications for Future Research.....	120
Implications for Practitioners.....	121
Conclusion	122
References.....	124
DISSERTATION CONCLUSION	133
DISSERTATION REFERENCES.....	136

APPENDIX A: Survey Instrument 137

APPENDIX B: Interview Questions..... 141

APPENDIX C: IRB Study Approval..... 142

LIST OF TABLES

Article 1 Tables

Table 1 <i>Developing Search Terms</i>	14
Table 2 <i>Key Phrases in Article Abstracts</i>	15

Article 2 Tables

Table 1 <i>Rate (1-5) Your Ability to Provide Emotional Support for Students in the Virtual PathwayConnect Program</i>	61
Table 2 <i>Rate (1-5) Your Ability to Help Students Set Goals and See After-Pathway Options</i>	63
Table 3 <i>Rate (1-5) Your Ability to Be a Role Model for Students in the Virtual PathwayConnect Program</i>	65
Table 4 <i>Rate (1-5) Your Ability to Use Technology Effectively in the Virtual PathwayConnect Program</i>	67

Article 3 Tables

Table 1 <i>Study Mentors</i>	102
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DESCRIPTION OF RESEARCH AGENDA AND STRUCTURE OF DISSERTATION

This dissertation, *Improving Mentoring in Higher Education*, is written in a three-article format. The format meets traditional dissertation requirements while also presenting articles that can be published.

The first dissertation pages conform with university requirements for dissertation submission. The dissertation chapters are in journal article format and meet the stylistic requirements for submission to education journals. In the first section, I provide an extended literature review, *Improving Mentoring in Higher Education in the Age of Online Learning*, which synthesizes research findings related to mentoring and higher education. The review analyzed what makes an effective mentor and strategies for mentoring in literature from 2008-2018. The review was eventually narrowed to 34 articles from keyword and exclusion search criteria. Results from the analysis showed themes of impact of mentors, role of mentors, and mentoring programs, as well as implications for practice for each theme.

In the second section, I provided the first research article, "*We Overwhelm Them with Hope*": *How Online Mentors Can Support Online Learners*. This survey research study analyzed responses from 143 online mentors from across the world in a global higher education initiative. For the study, online mentors were emailed a 19-question open-ended/closed-ended survey to complete and return. The purpose of the survey was to understand online mentoring practices in the online educational program and how mentors help students achieve their educational goals. The study used three Nora & Crisp (2007) mentoring domains for analysis, (a) psychological or emotional support, (b) support for setting goals and choosing a career path, and (c) specification of a role model, and added an additional domain of (d) technology challenges. Of the four mentoring domains studied, online mentors reported being most successful at providing

emotional and psychological support for students. The study results showed mentor support for individual students outside the virtual classroom, strategies for effective mentoring in student goal setting, characteristics of an online role model, and mentor confidence in technology skills. The study also contributed findings to the literature about online mentoring benefits for nontraditional students, technology challenges influence mentoring challenges, and online mentoring role adoption.

In the third section, I include the second research article, *“We Are Teaching and Learning with Each Other”*: *Improving Mentoring in Higher Education through Ongoing Training*. This qualitative study analyzed interview responses from 20 mentors from 13 international locations in a global higher education initiative. The study investigated how ongoing training impacted mentors helping higher education students achieve their educational goals. Mentors were interviewed for approximately 45 minutes by the researcher in a Zoom (Version 3.6.5; Zoom Video Communications, Inc., 2019) online interview and were asked a series of semi-structured questions related to mentoring training received. The study results showed the benefits from ongoing mentoring training, including mentors better understanding their roles and responsibilities, mentors gaining knowledge, and mentors receiving ongoing support. Results also provided data about volunteer mentoring needs and mentoring training creativity. The study also showed that ongoing training positively impacted mentors, ongoing training identified contributing mentor volunteers, and that ongoing training advanced effective mentoring practices. Contributions to the literature include findings that mentors themselves contributed to best training practices, volunteer mentors may need more mentoring training, and ongoing mentoring training showed global transferability.

Each article provided the references cited at the end of the submission, in addition to a Dissertation Reference. The Appendices at the conclusion of the dissertation contain the survey instrument, the interview questions, and the Brigham Young University Institutional Review Board for Human Subjects study approval. Article 1 has already been submitted to a journal for review; it is expected that Articles 2 and 3 will be submitted to journals in the near future.

ARTICLE 1

Improving Mentoring in Higher Education in the Age of Online Learning

Camey L. Andersen

Richard E. West

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Abstract

This article is a literature review of mentoring and higher education academic literature from 2008-2018. The review analyzed what makes an effective mentor and what are the implications of practice for those strategies. This article is for higher education leaders, mentoring programs, and mentors who want to improve their traditional and online mentoring programs and mentoring practices. After narrowing the search terms, the researcher searched EBSCO and ERIC databases and this search produced a combined total of 256 results. These articles were further narrowed to 34 articles that met the keyword search and exclusion criteria. The remaining articles are the focus of the literature review analysis for mentoring and higher education literature. The review produced three major themes of impact of mentoring, role of mentor, and mentoring programs, as well as implications for practice for each theme. The researcher further examined the themes in detail and provided information about retention, persistence, long-term benefits of mentoring, student interaction, student support, role models, types of mentoring programs, platforms for mentoring, and mentor training. The review concludes with suggestions for further research, including recommendations for mentor training and online mentoring.

Keywords: higher education, mentor, online education, retention, role model, training

Introduction

There is a greater awareness of the emotional needs of today's higher education students as universities seek to increase student retention and persistence and minimize attrition. Mentoring supports students in their academic and emotional well-being as they work towards their educational goals. Providing student access to quality mentors is regarded as a responsibility of higher education institutions. Ragins and Kram (2007) described the impact of such effective mentoring: "At its best, mentoring can be a life-altering relationship that inspires mutual growth, learning, and development. Its effects can be remarkable, profound, and enduring; mentoring relationships have the capacity to transform individuals, groups, organizations, and communities" (p. 3).

The potential for transformative growth in individuals is one of the defining characteristics of mentoring and one reason it is a valuable field of study today. In addition, mentoring has been shown to have long-lasting benefits for students for up to two years after mentoring has ended (Bettinger & Baker, 2014). This article is for higher education leaders, mentoring programs, and mentors who want to improve their mentoring program and practices. In this literature review first, we will frame the general mentoring context and field of mentoring in higher education. Then we will review the latest findings from the literature (2008-2018) about prominent themes within mentoring in higher education and implications for practice. We will also discuss future implications for research in mentoring and higher education.

What is Mentoring in Higher Education?

Mentoring can have multiple purposes and objectives and can achieve those through various methods (Hobson, Ashby, Malderez, & Tomlinson, 2009). A mentoring definition by Lev, Kolassa, and Bakken (2010) clarifies the approach used for evaluating mentoring literature in this

literature review, “Mentoring occurs when a senior person or mentor provides information, advice, and emotional support to a junior person or student over a period of time” (p. 1). Definitions for mentoring often depend on the field of literature being cited. In higher education, one of the most descriptive assessments of mentoring is provided by Shandley (1989):

First, it is an intentional process of interaction between at least two individuals

Second, mentoring is a nurturing process that fosters the growth and development of the protégé Third, mentoring is an insightful process in which the wisdom of the mentor is acquired and applied by the protege Fourth, mentoring is a supportive, often protective process. The mentor can serve as an important guide or reality checker in introducing the protege to the environment he or she is preparing for. Finally . . . an essential component of serving as a mentor is role modeling. (as cited in Jacobi, 1991, p. 507).

Mentoring is a process, not an event. The Council of Graduate Schools provided additional insight into how these mentors assist students, using a definition by Zelditch (1990):

Mentors are advisors, people with career experience willing to share their knowledge; supporters, people who give emotional and moral encouragement; tutors, people who give specific feedback on one's performance; masters, in the sense of employers to whom one is apprenticed; sponsors, sources of information about and aid in obtaining opportunities; models, of identity, of the kind of person one should be to be an academic. (as cited in Gaffney, 1995, p. 1)

Mentors fill many roles and their ultimate success depends on how those roles are understood and applied in a mentoring program and more importantly, by mentors in the lives of individual students.

Nora and Crisp (2007) further expand these definitions to better explain the depth of support mentors can provide to students:

[Mentoring] must include a sense of a support system provided by the mentor and . . . this support system focuses on creating an emotional safety net as well as a psychological perspective. Students perceived that words of encouragement and support provided a sense of attentiveness and nurturing that encompassed a mentoring experience. Undergraduates also perceived mentoring involved a sense of exploration and focus on goal setting. (p. 350)

To be successful, both mentoring participants need to show trust and respect for each other, understand expectations, be committed to the partnership, and interact regularly (Bierema & Merriam, 2002). Sponsoring organizations also need to support the mentoring relationship, its process, and ongoing training.

Theoretical Approaches

Theoretical approaches to mentoring have traditionally been more focused on different characteristics of mentoring than on all-inclusive theories or approaches (Jacobi, 1991). There were three significant reviews of undergraduate mentoring programs from 1991-2012 (Crisp & Cruz, 2009; Gershenfeld, 2014; Jacobi, 1991). In over 20 years of research, use of theoretical foundations for studies have increased in the literature and 70% of undergraduate mentoring program articles in the latest literature review (2008-2012) cited a theoretical framework (Gershenfeld, 2014). While some mentoring studies cited classic theories as a foundation for mentoring such as Bandura's (1977) social learning theory or Vygotsky's (1978) zone of proximal development, these principles or other classic theories cannot fully explain the many dimensions of mentoring (Jacobi, 1991; Kramer-Simpson, 2018; Renn, Steinbauer, Taylor, & Detwiler, 2014).

Without a classic theoretical foundation, mentoring studies often refer to established or original mentoring models. Mentoring models are the foundation for all structured mentoring programs in determining academic achievement (Jacobi, 1991). Jacobi (1991) cited four categories of mentoring models: “(a) involvement in learning, (b) academic and social integration, (c) social support, and (d) developmental support” (pp. 523-525). What is the mentor role in each of these models? For “involvement in learning,” the mentor recommends that the student identify ways to increase their learning and suggests specific ways that learning could be applied (e.g., internship) (Jacobi, 1991). The mentor role in “academic and social integration” is to consider student behavior with the perspective of student feelings and combine these concepts to determine mentoring outcomes. For “social support,” mentors provide different types of support to students to improve their learning experience, including emotional and knowledge support, and this support helps students manage stress in their college experience. Mentors facilitate “developmental support” for students as they help them go beyond information sharing to improving skills in mentoring areas such as study skills or persistence.

These models need to be considered in relation to how mentoring interfaces with academic achievement. Tinto’s (1975, 1993) social integration theory is the most often cited theory in undergraduate mentoring studies in the Gershenfeld (2014) review. This theory suggested that as students are assimilated into the campus environment, they are more likely to be persistent in their academic studies and ultimately graduate from the university. Other theories cited in the Gershenfeld (2014) review represented a range of outcomes from social networks to social supports to methods of learning. Because mentoring studies have so many differences in focus, from better understanding student mentoring benefits (Baier, Markman, & Pernice-Duca, 2016; Hu & Ma, 2010; Liu, Xu, & Weitz, 2011) to mentor quality assessment (Bowser, Hux, McBride,

Nichols, & Nichols, 2014; Shaffer, Zalewski, & Leveille, 2010) to how mentoring is affected by demographic and cultural issues (Castellanos, Gloria, Besson, & Harvey, 2016; Cox, Yang, & Dicke-Bohmann, 2014; Villaseñor, Reyes, & Muñoz, 2013) they are unlikely to be unified in a theoretical position in the near future.

Another theoretical classification is mentoring domains cited by Nora and Crisp (2007):

1. Psychological or emotional support
2. Support for setting goals and choosing a career path
3. Academic subject knowledge support aimed at advancing a student's knowledge relevant to their chosen field
4. Specification of a role model (p. 342)

These mentoring domains are further examined in literature reviews by Crisp and Cruz (2009) and Gershenfeld (2014). In the studies reviewed by Gershenfeld, it is significant that 60% had mentors who acted in multiple roles for student support, showing that mentoring programs can use this framework to better outline mentor responsibilities. Other studies also used this model to show how mentoring helps students achieve success (Henry, Bruland, & Sano-Franchini, 2011; Hu & Ma, 2010). For mentoring studies and mentoring programs, selecting a theory is not automatic and required understanding different mentoring models and student dynamics, and then choosing the best approach for the designated mentoring.

Research remains limited on which theoretical approaches are most effective for online mentoring in distance education. Differences in online-only and blended mentoring programs will impact the theoretical approach used (Neely, Cotton, & Neely, 2017). Research has shown that traditional models can be adapted for online use. For example, Hamilton and Scandura (2003)

configured four mentoring models—network mentoring, multiple mentoring, team mentoring, and mentoring and learning—to internet-conducive versions that take into account online affordances and constraints (p. 398). Other research has provided potential online models for use, such as Leneer’s (2007) Mentor Initiation Model and Protégé Collaboration Model, which provide recommendations for online mentor/protégé interaction, but generally, online mentoring theory has been insufficient to keep up with the expanding field of online learning. The available online mentoring research has struggled to show effective online mentoring process and its impact on students (Gravel, 2012; Sanyal & Rigby, 2017).

Developing Effective Mentors

In addition to the gaps in the theoretical framework, the path to developing effective mentors remains somewhat elusive. A student’s enrollment in a college mentoring program should not automatically equate with the student being mentored (Lunsford, 2011). Mentors need to learn how to mentor effectively or have mentoring skills reinforced through training. Training is often cited as an important requirement for effective mentoring, but the characteristics of those trainings are often vague (Anderson, Motto, & Bourdeaux, 2014; Neely et al., 2017). In a review of mentoring programs, Ehrich, Hansford, and Tennent (2004) explained, “Administrators must . . . consider the issue of training, commonly cited in the literature as a key to the success of mentor programs” (p. 535). Who trains the mentors, what training they receive, and how often they receive training, including follow up training, are important aspects of mentor development, but are personalized to individual programs and could be difficult to generalize. Putsche, Storrs, Lewis, & Haylett, (2008) gave an example of how mentor training was facilitated in one program:

Training sessions were held separately for mentors and mentees, during which the coordinator discussed the purposes of the program; the benefits of mentoring related to

psychosocial support, academic and career planning, and student retention and graduation rates; the various roles mentors take (i.e. friend, advocate, advisor, supporter, role model, sponsor, listener, and coach) Participants were also asked to express their mentoring expectations through metaphor. (p. 519)

The purpose of this metaphor exercise was to help mentors think about and share their mentoring expectations before beginning a mentoring relationship.

Depending on the students mentored, training may need to incorporate additional cultural, ethnicity, or gender-related training (Jensen, 2017; Putsche et al., 2008). In a 2017 study, a student shared how their mentor had helped them, “[My mentor] has really helped me break down professional barriers and if I’m having a meltdown, I know I can call [my mentor] and [my mentor] is usually pretty good to talk to and has been flexible” (Jensen, 2017, p. 642). While programs may have provided basic mentor training on how to assist students in similar situations, many mentors are left on their own to self-train through the mentor process, learning as they go along.

The Challenges of Mentoring

For the many benefits of mentoring, there are challenges in addition to training challenges. In higher education, it can be difficult to find and provide mentoring for all students who need mentoring, including identifying available or volunteer mentors and what methods will be most successful in establishing a quality mentoring relationship (Johnson, 2015). How to select the most effective mentor is disputed. Some research showed a higher degree of satisfaction with the mentoring relationship from students who found their own mentors, as opposed to being assigned a mentor (Bear & Jones, 2017). However, without help from mentoring program matching, students may lack information on how to find a mentor or may be complacent in finding a mentor on their

own. Other studies reported that mentoring relationships were more successful when mentors and students were matched based on common perspectives (Allen & Eby, 2003; Hernandez, Estrada, Woodcock, & Schultz, 2017).

Mentors need to have specialization in specific educational or professional fields or be of a specific demographic category to provide the best mentorship opportunities for certain groups of students (Poor & Brown, 2013). Mentors may or may not have a long-term commitment to students or to the mentorship organization. Mentor time or flexibility and availability to meet with mentees may be limited. A 2004 review of more than 300 mentoring articles from the education, business, and medical fields from 1986-2002 showed challenges that are consistent with challenges still being faced in mentoring (Ehrich et al., 2004). The review explained, “The difficulties associated with mentoring were similar for both mentors and mentees The two most frequently cited outcomes were (a) lack of time and (b) professional expertise and/or personality mismatch” (Ehrich et al., 2004, p. 525).

There are many different types of and criteria for mentoring programs. Formal mentoring programs are generally not standardized in goals and objectives, so it is difficult to categorize them or accurately compare them (Ehrich et al., 2004; Gershenfeld, 2014; Jacobi, 1991; Nora & Crisp, 2007). Since many mentoring programs assist specialty groups (a certain demographic or particular field), they may also have unique characteristics that are more challenging to generalize to a less-specialized mentoring programs (Butz, Spencer, Thayer-Hart, Cabrera, & Byars-Winston, 2018; Castellanos et al., 2016; Putsche et al., 2008; Shultz, Colton, & Colton, 2001). Also, while many mentoring programs are assumed to lead to improved student outcomes, these programs lack evaluations to show how the program works (Ehrich et al., 2004; Gershenfeld, 2014; Jacobi, 1991; Rees Lewis, Easterday, Harburg, Gerber, & Riesbeck, 2018). In addition, mentoring programs that

are not volunteer-based may face funding issues that affect that number of mentors available or how the program functions.

Even the best mentor programs can face challenges from mentee students. Students may not understand what mentor opportunities are available to them (Black & Taylor, 2018; Ehrich et al., 2004). They may not feel a connection with their mentor, they may prefer a different mentoring style than is offered to them, or they may want more time with the mentor than the mentor has available and consequently become dissatisfied with the relationship. Many mentors are now connecting with students online, instead of, or in addition to in-person contacts, and that interface can create potential challenges with student interaction.

Online mentoring provides benefits to students who may not otherwise have had access to mentors, but it also creates mentoring challenges. Only interacting online can make it more difficult to develop an effective mentoring relationship between mentors and students (Bear & Jones, 2017; Purcell, 2004). Without face-to-face, in-person communication between mentors and students, the mentor relationship may seem impersonal and other tools may need to be used to keep the mentor/student relationship progressing forward (Purcell, 2004; Rees Lewis, Harburg, Gerber, & Easterday, 2015; Sanyal & Rigby, 2017). We use the term *in-person*, rather than *face-to-face*, to be more accurate since online synchronous video discussion technically provides some of the benefits of non-verbal communications present in in-person communication. Online mentoring interaction also means it can be difficult to interpret physical gestures and mannerisms which are normal parts of an in-person encounter. Also, effective in-person mentors may struggle with mentoring online (Shrestha, May, Edirisingha, Burke, & Linsey, 2009). Training, practice, and other accommodations may need to be made to match the quality of in-person mentoring.

Lack of training for mentors and support and evaluation of mentoring programs can also be problematic (Ehrich et al., 2004; Henry et al., 2011). The literature is also limited in perspectives on how to develop effective mentors. We need to understand what makes a successful mentor. We need to know more about the experience of becoming a mentor. We need to better understand mentor concerns and what best practices will help them better fulfill their roles as mentors and support students, particularly underrepresented and nontraditional students.

Research Question

Mentoring in higher education is still a developing field where there are many questions to be answered that will strengthen the quality of mentors and improve the student experience with mentoring. In this literature review, we were guided by the research question: What makes an effective mentor in higher education?

Methods

Search Strategy

Two databases were searched, ERIC and PsycINFO, to identify articles that examined the effects of mentoring students in higher education environments (see Table 1). Topics for inclusion when selecting articles included “mentoring” and “higher education.” Keywords from these topics included “college, adult education, tertiary education, e-learning, distance learning, coach or advisor.” Other keywords were used for exclusion terms, including K-12, peer mentoring, graduate mentoring, graduate student mentoring, teacher mentoring, sports coaching, disability research, and specialty fields. Topics for inclusion and exclusion were selected based on the criteria that a senior (nonacademic) mentor provides mentoring support for a junior mentee (undergraduate student) over time (Lev et al., 2010). The search included peer-reviewed journals, but excluded books, reports and dissertations. All searches were limited to English publications and to the

timeframe of 2008-2018. This timeframe was examined because the last decade has seen advances in the Internet that affect mentoring practices (Dawson, 2014; Sanyal & Rigby, 2017; Xu & Jaggars, 2013). Also, this review updates our understanding of mentoring practices in higher education since Gershenfeld's (2014) literature review.

Study Screening and Data Extraction

The search process allowed for a review of both databases simultaneously, so any duplicate articles were eliminated in the search. From the search results, a two-part screening further narrowed the search for articles. First, citation titles and abstracts were examined for inclusion keyword matches. Articles that did not meet inclusion keyword criteria of search terms or included exclusionary keyword terms were eliminated from the search. Second, in reviewing the remaining articles, full texts of the articles were read and reviewed based on exclusion criteria. For articles that met both screening requirements, data was excerpted for additional review based on the combined search topics.

Study Selection

The search provided 256 records. After screening titles and abstracts, 88 eligible full-text articles were evaluated for inclusion search terms ("mentoring" and "higher education" keywords), and those that contained exclusionary terms were eliminated from the search. Fifty-four articles were ultimately excluded based on additional screening for articles about mentoring and higher education. I excluded articles that did not meet inclusion keyword criteria, including articles about students who were not undergraduates, or articles about peer mentoring, faculty mentoring of students, graduate student mentoring, graduate student-to-undergraduate student mentoring, and nonstudent mentoring. After this process, 34 articles remained that were examined as part of this analysis.

Table 1

Developing Search Terms

	Subject	Keywords
	Mentoring	“mentor” or (“coach” not “sports”) or “advisor”
and	Higher Education	“higher education” or “college student” or “adult education” or “tertiary education” or “postsecondary” or “post secondary” or “undergraduate”
not	K-12	“K-12” or “K12” or “primary” or “secondary” or “children” or “elementary” or “youth”
not	Peer Mentoring	“peer”
not	Graduate Mentoring	graduate or doctoral or postgraduate
not	Graduate Student Mentoring	“graduate student*” or “doctoral student*” or “master* student*” or “postgraduate student*”
not	Teacher Mentoring	faculty or instructor or professor or “college teacher” or teacher or principal
not	Sports Coaching	athlete or sport* or athletic* or “physically active”

Note. The summary of initial results was: ERIC 156 articles; PsycINFO 100 articles for a total of 256 articles. The articles were further reviewed and narrowed to 34 articles.

(continued on next page)

	Subject	Keywords
Not	Disability Research	disability or disabilities or disabled or impairment or impaired or special or special needs
Not	Specialty Fields	nursing or medical or veteran

Note. The summary of initial results was: ERIC 156 articles; PsycINFO 100 articles for a total of 256 articles. The articles were further reviewed and narrowed to 34 articles.

Abstract Analysis

The abstract analysis consisted of identifying the most common two-word combinations in the article abstracts using an online tool, *WriteWords*. Abstract combinations that were not descriptive such as “of the” or “this study” were eliminated. Categories were sorted and combined based on the most common two-word combinations (see Table 2).

Table 2

Key Phrases in Article Abstracts

Phrase	Times Listed
higher education	28
mentoring program/s	18
academic advising	13
mentoring relationship/s	10

This abstract analysis emphasized higher education and showed that much of this mentoring research was targeted towards increasing mentoring for undergraduate students in college and university settings, particularly as online education becomes more widespread in higher education. The subsequent theme of mentoring programs shows there is also a research contribution of these articles to mentoring program practice and the expected use of study findings to improve mentoring skills. Another abstract theme was academic advising as mentoring for

students. While scholastic focus has long been an important part of mentoring, this theme only identified a primary mentoring skill. The final abstract analysis finding shows the significance of the mentoring relationship between mentors and students and the value of that connection for mentoring to have a lasting impact. Improving the mentoring relationship and going beyond academic advising was an emphasis the literature highlighted in mentoring practice. The abstract analysis of this literature review illustrated a focus towards mentors and higher education administrators identifying mentoring research that will provide increased understanding, the most effective mentoring opportunities for students and mentors, and the most impactful mentoring practices in mentoring programs moving into the next decade.

Impact of Mentoring

While mentoring generally presumes positive effects for the mentored student from the relationship with the mentor, the literature shows that there are tangible benefits that go beyond the relationship itself. One reason mentoring is so valuable in higher education is the lasting advantages to students who participate in mentoring relationships. Benefits include improved student retention, student persistence, and long-term benefits that reach beyond the college experience.

Student Retention

One of the most frequently cited areas of mentoring benefits was student retention. In these review studies, retention was generally increased by student participation in mentoring or in a mentoring program (Allen & Lester, 2012; Gravel, 2012; Letkiewicz et al., 2014; Poor & Brown, 2013; Villaseñor et al., 2013), and often significantly improved. Mentoring provided both long-term and short-term retention benefits. One study showed student retention rates of 94% from students involved in a mentoring program (Poor & Brown, 2013). Another study found that

semester completion retention rates were improved by students' participation in a mentoring program after previous semesters of poor retention without the program (Allen & Lester, 2012). The most significant lack of retention was in the first two college semesters (freshman year), which has further implications for the importance of encouraging and providing mentoring from the beginning of the college experience. Retention was particularly important for online students, who are more likely to drop out of college than students who attend in-person classes (Gravel, 2012).

Student retention provides significant challenges for mentors. It can be impacted by lack of mentoring opportunities or a mismatch with mentors. Retention could be negatively affected from struggles faced by minority students, and unless the mentoring is effective mentoring, one study showed no impact from mentors for these or any students studied (Schultz et al., 2011). Online students have increased higher education retention challenges and while developmental advising is recommended for these students, mentors may not be aware of the need for specialized attention for them (Gravel, 2012). There are also educational obstacles that affect retention such as lack of family support and financial struggles (Letkiewicz et al., 2014; Villaseñor et al., 2013). A study by Baier et al. (2016) showed that dropout rates could be minimized by incorporating mentoring with an approach for student self-efficacy. Mentors can overcome retention difficulties through increased awareness and training.

Student Persistence

Closely related to retention are mentoring benefits to student persistence. Participation in a field-specific mentoring program can increase student persistence in that program through a semester as well as through the entirety of the college years (Allen & Lester, 2012; Butz et al., 2018; Hinds & Shultz, 2018; Poor & Brown, 2013). As students near the end of their college

experience, mentoring has been shown to also help persistence in job searches (Renn et al., 2014). Mentors were able to help empower students with the ability to overcome negative employment-seeking behaviors, such as procrastination, unpredictable job searches, and lack of networking, through support and by providing them with tools to overcome these self-destructive behaviors for finding a job. One study contradicted the majority of findings on student persistence and mentoring by claiming that student persistence in a given field was not affected by mentoring interaction (Schultz et al., 2011). These results may be more indicative of quality of mentoring instead of the role of the mentor (Hernandez et al., 2017). A more representative study showed that all students with mentor relationships showed increased persistence in college studies, with the probability for persistence associated with student interaction and perceived value of the mentor relationship (Hu & Ma, 2010). Hu and Ma (2010) further explained the impact of quality mentoring, “The frequency of contact with college mentors does not affect student persistence whereas the extent to which students turn to their mentors for support does” (p. 338). Effective mentors play an important role as cheerleaders for students as they move ahead in their studies.

Long-Term Benefits of Mentoring

Mentoring benefits have the potential to be long-lasting and impact students beyond their time in higher education. Mentor programs that foster social connections increase their possibility to have long-term impact on students. Programs could encourage and plan alumni interaction that connects students with future opportunities, sponsor online social networks where participation connects students to possible support, and plan activities that engage student spouses or significant others where additional contact and social interaction is created that extended past the mentoring opportunity (Liu et al., 2011; Mondisa & McComb, 2018). Mentoring programs also strengthened students’ future opportunities by helping them see a vision for their careers and post-college plans

(Barbuto, Story, Fritz, & Schinstock, 2011; Poor & Brown, 2013; Smith-Ruig, 2014). As student talents and potential are validated by mentors, they are able to envision a successful future in their career beyond their college experience. One mentoring study on engineering students explained how this happens, “The mentoring program may help those students that have the technical capability to be an engineer but are just not sure of their choice. Having a mentor can reinforce the confidence a student already has about her capabilities in engineering” (Poor & Brown, 2013, p. 426). Effective mentors help students see beyond their college experience to a successful future where what they are doing now has benefitted them.

Implications for Practice

Mentors can have a lasting effect on students in retention, persistence, and long-term outcomes. Quality mentoring for students impacts how they view the sponsoring organization or the mentor’s career field (Liu et al., 2011). With this understanding, mentors can frame mentoring experiences to emphasize retention and persistence at the university or possibilities in a job field and provide encouragement for students to achieve their own ambitions in those areas.

Recognizing that undergraduate mentoring relationships tend to be shorter than graduate school or professional mentoring relationships, mentors should aim for quality rather than quantity mentoring interactions (Hernandez et al., 2017). Mentors can recognize that they do not have to make a significant time commitment to make a difference for students if they will invest in the quality of the mentoring relationship (Poor & Brown, 2013). Mentors can further extend the benefits of mentoring by emphasizing the social community and promoting connections in the mentoring relationship and helping students find others who can also offer support (Mondisa & McComb, 2018). Effective mentors look to broaden the scope of mentoring.

Role of Mentor

The role of mentor and how it is applied was the most-often cited mentoring characteristic in this literature review. A mentor's responsibilities and impact or lack of impact on students is shaped by a variety of factors, including mentoring program objectives and constraints, how he or she defines her role, mentor knowledge or expertise, the amount of time spent mentoring a student and for what duration, perceived quality of mentorship, and how a mentor connects with student mentoring goals (Bear & Jones, 2017; Bowser et al., 2014; Hernandez et al., 2017; Kramer-Simpson, 2018). Healy, Lancaster, Liddell, and Stewart (2012) argued that mentors do not need to know everything or answer all student questions. Instead, the mentor's objective should be to help students discover the most effective learning path and have a meaningful university experience, guided by a trusted advisor. While expertise in an area can strengthen mentoring capabilities, for some students their mentor's professional skill was not as critical as their commitment to mentoring and helping the student to achieve their academic and professional goals (Kramer-Simpson, 2018; Lockett & Lockett, 2009). The literature showed three main areas of focus for the role of mentor: student interaction, student support, and the mentor as a role model.

Student Interaction

How a mentor interacts with their mentee student is fundamental to the mentorship relationship. Interaction may be prescriptive, where the mentor provides help in specific areas or developmental, where advice on a broader spectrum of topics is offered (Anderson et al., 2014; Braun & Zolfagharian, 2016; Kramer-Simpson, 2018; Rees Lewis et al., 2018). Kramer-Simpson (2018) explained how a personalized mentoring interaction can empower students, "Students were given tasks that they felt very independent in completing, but were closely monitored, albeit unobtrusively. Most importantly, these industry mentors gave [students] the opportunities to learn,

and even make mistakes in the course of making decisions” (p. 92). In the most effective student interactions, mentors offered ongoing suggestions or assignments, provided corrective help as needed, and assisted the student in staying focused on and meeting their goals.

Mentor contact and frequency of interaction is another important element of the mentor student interaction. In one study, student registration improved with advisor contact, and if the student received email and phone contact, their registration was greater than with only one contact (McClure, 2017). The frequency of mentoring contact as the mentoring relationship developed and evolved may also reflect the quality or design of the mentoring relationship (Braun & Zolfagharian, 2016; Sanyal & Rigby, 2017). As the mentoring relationship matured, the specific number of interactions may be less important than the quality of the interaction (Hu & Ma, 2010). These interactions could have occurred in-person, by telephone, by email, or by online medium (e.g., Skype [Version 8.37.0.98; Microsoft, Inc., 2019]). A mentor’s ease in using the designated communication method could have affected mentoring interactions. Additional training may be needed if the mentor had technology concerns that affected the mentoring interactions.

Student Support

Another important role mentors provided is that of student support. Mentors often provided social and emotional support for undergraduate students who may have been new to college experiences, entering young adulthood, living on their own and away from home and their support network for the first time, and dealing with the increased academic pressures of higher education (Baier et al., 2016; Barbuto et al., 2011; Hu & Ma, 2010; Letkiewicz et al., 2014). The need for mentor student support increased when the student demographic expanded (Bear & Jones, 2017; Hernandez et al., 2017; Mondisa & McComb, 2018). Mentors needed to provide additional support to students in different demographics, including students of different racial and ethnic

backgrounds, economically disadvantaged students, and older students beginning school for the first time or returning to school after an absence. In one study, even students who did not want mentor support were positively influenced by it, possibly due to low expectations for mentoring (Cox et al., 2014).

Supportive mentors look for opportunities to build trust with mentees. For example, Bear and Jones (2017) studied undergraduate students' relationships with online advisors and found "a positive relationship between the level of protege trust in a mentor and the protege's satisfaction with the mentoring relationship" (p. 158). Particularly where there are racial, ethnic, cultural, or gender differences, mentors who were willing to acknowledge and discuss these topics with students created more open and honest mentoring relationships where students feel comfortable discussing questions or concerns (Butz et al., 2018; Villaseñor et al., 2013).

The literature showed that mentors need to create a supportive connection with the individual student, regardless of mentoring program format or individual circumstances. Another study reporting the top three mentor activities listed "feeling respected as an individual," was the most frequent mentor activity, followed closely by "being a role model," and "providing empathy for the concerns and feeling of the students" (Castellanos et al., 2016, p. 93). Mentors' support skills are clearly important student concerns but may be more challenging to provide training for or develop and in the expected time frame of both mentors and mentees (Shaffer et al., 2010).

Role Models

In the literature, mentors served as role models, both formally and informally, for the students they mentored. Simply described, role modeling in mentoring is "everyday habits demonstrated through the example of . . . behavior that [provides] guidance to students" (Healy et al., 2012, p. 89). Most mentoring programs expected some degree of role modeling by mentors for

their student proteges (Bear & Jones, 2017; Bowser et al., 2014; Healy et al., 2012; Poor & Brown, 2013). How explicitly this expectation is stated or reinforced varied by program. In several studies, effective mentor role models positively affected the how the students viewed mentoring (Bear & Jones, 2017; Castellanos et al., 2016; Smith-Ruig, 2014). The mentor role model also positively influenced how the student viewed the higher education institution or the sponsoring organization of the mentor (Allen & Lester, 2012; Castellanos et al., 2016; Liu et al., 2011; Poor & Brown, 2013). This positive influence can encourage student persistence and retention in education or may point a student towards a company or career where the mentor has affiliation. One study suggested that undergraduate students may appreciate role modeling and its related impact more than graduate students since they are generally younger, and because of the stage of life and level of academics they are pursuing (Smith-Ruig, 2014).

Having a role model also provides a vision for students of what they can become. In a Washington State University study on women in engineering, having professional volunteer female engineers who had graduated from the program as mentors and role models for students “[provided] a direct role model and example of how a woman can succeed in her field of study” (Poor & Brown, 2013, p. 426). In multiple studies, mentors who helped students gain a clearer perspective of their academic and professional future fostered a positive mentoring relationship with students (Barbuto et al., 2011; Poor & Brown, 2013).

Implications for Practice

In considering implications for practice, the role of mentor could be strengthened in the following ways: First, mentors should establish a personal connection with mentee students as a highest priority (Lockett & Lockett, 2009). Lockett and Lockett’s (2009) analysis concluded, “Most undergraduate first generation students . . . are in the process of developing their personal

and social identities. This may explain why the majority of students responded better to those mentors who could offer them recognition, affirmation and some intimacy, as opposed to those who offered only professional expertise” (p. 480). Second, mentor roles can be strengthened as mentors better understand who is being advised. With improved feedback from students on the role they want mentors to play, mentors will know who wants prescriptive feedback and who wants developmental feedback (Braun & Zolfagharian, 2016). Anderson et al. (2014) explain, “Advisors should be equipped to provide either developmental or prescriptive advising based on student needs” (p. 36). Better insights on demographics and cultural needs will also assist mentors in meeting mentoring objectives and fulfilling mentor roles. Mentors can also seek to improve trust with mentees by being direct in discussing racial or ethnic issues (Bear & Jones, 2017; Butz et al., 2018). Being upfront in addressing protegee background can show understanding and respect and lead to improved communication. As mentors catch the vision of their role as mentor and understand their responsibilities, they will be better able to help students.

Mentoring Programs

As the literature shows, one of the challenges in defining mentoring is the variety in mentoring programs and how they are applied in higher education settings. Some mentoring programs have an organized structure and recruit students for mentoring assistance. Other mentoring takes place informally or as part of a larger educational benefit within the higher education context. Ambrose and Williamson Ambrose (2013) explained additional differences: “All methods of advising involve two elements: space and time. Students and advisors interact either synchronously (same time) or asynchronously (different time). Similarly, students might engage with their advisors on campus (same place) or online (different place)” (p. 79). These differences in mentoring models result in many different mentoring examples and possibilities.

Types of Mentoring Programs

Mentoring programs can be classified into structured and unstructured programs. Structured mentoring programs may be focused on general students or around a specific college major, internship or career path, gender, or racial or ethnic group. These programs may have a formal mentoring selection process, specific guidance on how mentors and mentees should interact, and follow up at the end of the program. Structured programs can help lessen concerns for mentors and mentees as new partnerships begin because expectations are established based on the program outline (Ambrose & Williamson Ambrose, 2013; Halupa & Henry, 2015). Particularly when there may be racial or cultural differences, these structured programs such as featured in the Dahlvig (2010) study, could facilitate a positive meeting experience and as one study participant described, “force people to get uncomfortable” (p. 39).

In the research, structured programs also provided a standard for mentoring that is useful in working with unknown backgrounds and beliefs of mentors (Martin & Bok, 2015). One aspect of establishing a mentoring program standard is clearly identifying the roles of the individuals involved in the program, including mentors, students, administrators, and other volunteers (Black & Taylor, 2018). In a Black and Taylor (2018) study that reviewed 187 higher education mentoring program websites at Texas four-year public colleges and universities, only approximately one-third of programs (37%) identified these roles. More explanation of responsibilities in a mentoring program can improve the experience for all involved by establishing expectations for program participation and benefits.

The structured mentoring program provides additional benefits to mentors by assisting them in the mentoring process. The program could provide guidelines of how the mentor assists the mentee in their academic or career-planning process. These guidelines may take the form of

mentor discussion, interaction, or written communication with students. For example, some programs provided suggestions about setting goals. How the mentor and mentee chose to follow the mentoring program determined the satisfaction of the mentoring relationship. According to Halupa and Henry (2015), in a small study of four mentor teams, “Only one mentee/mentor pair established formal goals; the remainder did not even though this was outlined in the mentor guide all participants received. It is interesting to note the group that established the goals were more satisfied overall with the mentor/mentee relationship” (p. 110). Without formal mentoring goals in place, mentors and mentees may agree to different types of interaction (e.g., in person meetings or online contact) but lack of structure may keep them from consistently following through on mentoring plans (Rees Lewis et al., 2018).

Another study described how “regulation tools” such as a system to read mentee email reports benefitted mentors:

In interviews, coaches described how reading the stand-reports [a structured report written by students about their daily and weekly goals] helped them gain awareness of team actions. All coaches reported that they regularly (minimum every 2 days) read the emails with the stand-reports All coaches reported that reviewing stand-reports helped them gain awareness of team behavior and cognition. (Rees Lewis et al., 2018, p. 12)

In this study, prior to the communication regulation, mentors may have not read student messages (Rees Lewis et al., 2018). This research showed that formalizing the mentoring communication process improved mentors’ understanding of student issues and their ability to support students. Structured mentoring programs provided confidence to mentors and students of roles and expectations for mentoring relationships.

Unstructured mentoring or mentoring programs provide mentoring services but may be part of a larger collection of student services or may provide more limited mentoring services than a structured mentoring program. Unstructured mentoring could also be mentors self-selected by students to help them academically or professionally and students could benefit from the informality of this process and what it provided (Hernandez et al., 2017). In one study where students met with a financial mentor in an unstructured mentoring program, “the predicted odds of taking more than 4 years to complete the undergraduate degree is 17% lower for students who have met with a financial counselor or advisor” (Letkiewicz et al., 2014, p. 365). Without a formal plan, unstructured mentoring programs could require more effort on the part of mentors and students to achieve desired results. Effective mentors become familiar with their designated mentoring program and learn how to use it for the student’s benefit.

Platforms for Mentoring

The literature discussed three platforms for mentoring: in-person, online, and blended. While in-person has been the traditional mentoring approach, with the increase in online communication, there has been a trend towards online and blended mentoring approaches. Even predominantly in-person approaches are still frequently influenced by online contact through email or other electronic communication.

In-person mentoring allows mentors and students to connect in person. Unless otherwise stated, most articles in this review examined a face-to-face mentoring approach (Allen & Lester, 2012; Braun & Zolfagharian, 2016; Hernandez et al., 2017; Lockett & Lockett, 2009; Shaffer et al., 2010). In-person mentoring requires the mentor and mentee to identify a mutually agreeable time and place to visit with each other and a location to meet, and may be limited to school or working hours. Because in-person interaction has been the mentoring standard, the literature

generally has not focused on it as a separate method. However, the method highlights particular mentoring skills discovered in studies and manifested in in-person mentoring (Cox et al., 2014; Healy et al., 2012; Hu & Ma, 2010; Poor & Brown, 2013). Many of these skills are discussed in the previous section on Role of Mentor. The in-person interaction with internship students provided additional details about how that mentoring that took place in work environments. For internship students, the mentor worked in person with them in connection with their job to help them understand protocol and perspectives of an employment environment (Smith-Ruig, 2014). Other mentors for student interns served in supervision and collaboration roles as they interacted together (Bowser et al., 2014). The characteristics of in-person mentoring are more fully understood when considered in relationship to online and blended mentoring.

Online mentoring allows for mentoring to extend beyond location and time constraints and provides greater access to a variety of mentorship traits and skills. It also provides flexibility for scheduling mentoring opportunities that may not be available with in person mentoring. If a mentor or student is able to provide these mentoring requests for an online mentoring program, there could be greater likelihood for success for the relationship. Online mentoring articles referenced two scenarios. First was the online interaction between mentors and mentees. Most online mentoring interactions required minimal or no additional cost from mentors and students (Halupa & Henry, 2015). Online mentoring could occur through email, texting, free web services such as Zoom (Version 3.6.5; Zoom Video Communications, Inc, 2019) or Skype, and document sharing such as Google Docs.

Second, online mentoring referred to organized online mentoring platforms that provided information about mentors and mentees and arguably provided more effective mentoring matches than random selection. These programs could require fees from the higher education organizations,

students, or both. In one study of an online mentoring program, “all mentors agreed it was better to do mentor/mentee matches based on a system that actually looks at personal and professional characteristics” (Halupa & Henry, 2015, p. 111). Other studies also showed a positive effect from using an online tool to match mentor and student characteristics (Martin & Bok, 2015; Rees Lewis et al., 2015). In another study, mentors were not persuaded of the benefits of the specific online mentoring platform they were using but were in favor of a similar mentoring matching process through another site such as LinkedIn, Skype, or a university-created mentoring program (Halupa & Henry, 2015).

A blended platform combines both in-person and online mentoring components. In the literature several programs that are defined as online programs are actually blended programs (Rees Lewis et al., 2018; Sanyal & Rigby, 2017). Ambrose and Williamson Ambrose (2013) argued that the blended format combines the best of all mentoring practices:

[From] the benefits of synchronous, on campus advising—“same time, same place” experiences that enable human connection and spontaneity—while simultaneously taking advantage of the asynchronicity and computer-mediated environment of online advising—or “different time, different place” experiences that afford more opportunities for flexibility and accessibility, thereby leaving out any weaknesses from either method. (p. 79)

With the increase of online education in higher education, online and blended mentoring has become increasingly prevalent. The most effective mentors will understand the benefits and constraints of each platform and be able to mentor in any of them.

Mentoring Training

Mentoring programs and mentors’ ability to be effective will be significantly impacted by how training is incorporated into the mentoring program. These literature review articles show that

mentor training is lacking (Bear & Jones, 2017; Bowser et al., 2014; Kramer-Simpson, 2018). For mentors to be most effective, they need training in how to best interact and communicate with students. Mentors need to be trained that from the beginning of the mentoring relationship, they should clearly express goals for students and what they can anticipate accomplishing with the guidance of the mentor and the mentoring program (Mondisa & McComb, 2018). They also need training on how to personalize the mentoring experience for individual students within that framework of program goals (Gravel, 2012). Mentors need to convey why the mentoring program activities are valuable to student learning. Mentors may need diversity and cultural training to improve understanding of issues facing minority students (Butz et al., 2018; Castellanos et al., 2016; Dahlvig, 2010). Mentors also need training in how to best assist students in career planning (Renn et al., 2014). Empowering students with career-planning skills can give them confidence that they can find and succeed in future employment. Effective mentors seek out initial and ongoing training to increase their learning and mentoring skills.

Implications for Practice

This review shows that mentoring programs can be improved by better organization to their structure and format. First, unstructured or less structured mentoring organizations can add more structure to their programs. Higher education institutions can refer to literature reviews such as this for recommendations on which mentoring approach is right for their organization. For structured programs, mentoring programs can improve contact and website information to provide better information to both students and possible mentor candidates. One study in the review showed that almost 10 percent of mentoring program websites did not provide a method of contact (Black & Taylor, 2018). Without current website information, students may not seek further mentoring help

and mentors may not find it worth their time to make a call to an organization seeking additional information about mentoring. Organizations can better identify program mentoring expectations and goals to both mentors and students (Cox et al., 2014; Martin & Bok, 2015). These goals can be discussed in the first meetings between mentor and mentee and should be incorporated with mentee and mentor goals in the mentoring relationship.

Mentoring programs can also be improved by more evaluation. As mentors and students provide more feedback on the program itself and their mentoring relationships they invest in the organization and contribute to its long-term success. Creating an evaluation plan to assess student perceptions of advising can improve mentoring services (Anderson et al., 2014). Evaluations will also help mentors and mentees feel valued and let mentoring programs know what areas need improvement (Black & Taylor, 2018). Mentoring program structure creates the foundation of mentoring that students receive. Evaluation of the program structure can lead to improved mentoring.

Implications for Future Research

This review shows that more research on mentoring and higher education is needed and is not keeping pace with the increase in students enrolled in higher education institutions, particularly online. More studies are needed on the long-term effects of mentoring and how students benefit after their college graduation (Mondisa & McComb, 2018). Such studies would encourage institutions to place a higher priority on mentoring programs, as well as business who hire their graduates. It would be helpful to better understand how much mentoring do students need to maximize their academic potential and what is the role of mentors in this process? Do students need all four years of college mentoring or is quality mentoring by mentors the first year or two adequate to set students on the path of persistence and long-term success (Hernandez et al., 2017)?

The literature is significantly lacking in studies on mentor training. What training methods are most beneficial for mentor learning (Martin & Bok, 2015)? What follow up mentor training is needed to maintain quality mentoring over time? What are the mentor concerns? There is very little provided in the literature on the perspective of mentors.

Additional studies might include: With the increase in online mentors, what additional training do they need? How is mentor technology training impacting ability to mentor online (Gravel, 2012; Sanyal & Rigby, 2017)? How can institutions maximize volunteer mentoring to minimize mentoring costs to their organizations (Coles, 2011)? How can colleges and universities minimize mentor attrition to maximize training benefits? How can mentors best understand and maximize their role as mentors to impact students (Healy et al., 2012)? An updated comprehensive review of mentoring literature that includes an examination of traditional and online mentoring methods would extend the research of Jacobi (1991), Crisp and Cruz (2009), and Gershenfeld (2014), and would be helpful for mentoring scholars and provide additional insight into effective mentoring.

Conclusion

Mentors have the opportunity to make a meaningful difference in student lives at a critical learning moment that can change their futures for the better. This research can help those who want to improve their mentoring program and practices, and their mentor skills professionally or personally. This review of mentoring and higher education literature has added to the academic discussion by providing research insights into mentoring while showing gaps in missing information. This literature review shows that effective mentoring occurs as mentors recognize their contribution to long-term student success and the impact of mentoring, understand their role as mentors, and have the benefit of an organized mentoring program design to assist them in their

mentoring. The literature analysis showed the impact of mentoring through student retention, student persistence and long-term benefits for students that extend beyond the college experience. The analysis also showed how mentors come to better understand their role as mentors through student interaction, supporting students, and serving as role models. In addition, the review presented characteristics of effective mentoring programs and emphasized the importance of mentor training. More research in all of these areas is needed in academic studies, but research is particularly needed regarding online mentoring, the design of mentoring programs, and mentor training.

Mentoring is a key factor in undergraduate students' potential for academic success (Baier et al., 2016; de Janasz & Godshalk, 2013). Institutions of higher education can lead the way in providing mentoring services, particularly for first year students and students with underrepresented demographic and cultural backgrounds, but all students can benefit from mentoring. Training mentors in quality mentoring practices for students can improve the academic outcomes higher education desires and can give mentors the tools they need to feel confident in helping students succeed.

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ARTICLE 2

**“We Overwhelm Them with Hope”: How Online Mentors Can Support
Online Learners**

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Abstract

The article examined mentoring in online learning environments. This survey research study analyzed responses from 143 mentors from around the world in a global higher education initiative. The study results confirmed the effectiveness of three Nora & Crisp (2007) mentoring domains, (a) psychological or emotional support, (b) setting goals and choosing a career path, and (c) specification of a role model, and added an additional domain of (d) technology challenges. The results also showed that of the four mentoring domains studied, online mentors reported they were most successful at providing emotional and psychological support for students. Study results also provided strategies for effective mentoring in student goal setting, identified characteristics of an online role model, and showed the importance of online mentor confidence in gaining technology skills. The study also contributed findings to the literature about online mentoring benefits for nontraditional students, how technology challenges influence mentoring challenges, and online mentoring role adoption. Additionally, the study provided a literature review of the background of online mentoring and mentoring practices, the benefits and challenges of online mentoring, and lessons learned from research. The study showed how online mentors and mentoring can be a powerful force for good in the lives of higher education students.

Keywords: best practices, higher education, mentors, online education, social support, technology

Introduction

As online communication has become more prevalent in society, universities have continued to expand their online presence with online courses and even exclusive online programs. These online students have as much or even more need for mentors as students in traditional university classrooms because of the additional challenges of online education, including higher dropout rates (Boston & Ice, 2011; Gravel, 2012; Xu & Jaggars, 2013). While students remain responsible for their own learning experience, online mentoring in higher education provides academic support, a personal connection, and direction for the future as these students navigate their online educational experience. This mentoring connection is critical for the success and retention of online higher education students. Receiving academic mentoring online is often a natural transition for millennials, who believe, as Houck (2011) stated, “technology is the core to their way of life and thinking” (p. 28), and incoming Generation Z students who expect the latest technology to be an integral part of their educational experience. However, despite their ease with technology, students can be challenged by feeling alone in their online learning experience and by the absence of in-person interaction with teachers and classmates (Bolliger & Inan, 2012).

Mentoring is recommended by researchers in studies about online learning and online education (Boston & Ice, 2011), however online mentoring research has been limited in reporting its impact on students and how this online mentoring should occur (Gravel, 2012; Sanyal & Rigby, 2017). Research affirms that online mentors can play an important role for students to have a rewarding online learning experience. A traditional definition of mentoring was provided by Shandley (1989),

First, it is an intentional process of interaction between at least two individuals

Second, mentoring is a nurturing process that fosters the growth and development of the

protégé Third, mentoring is an insightful process in which the wisdom of the mentor is acquired and applied by the protege Fourth, mentoring is a supportive, often protective process. The mentor can serve as an important guide or reality checker in introducing the protege to the environment he or she is preparing for. Finally . . . an essential component of serving as a mentor is role modeling. (qtd. in Jacobi [1991], p. 507)

With the increase in online learning in higher education, online mentoring is expanding the roles and responsibilities of the traditional mentor, changing existing mentoring models, and adding new models (Hamilton & Scandura, 2003; Leneer, 2007; Neely, Cotton, & Neely, 2017). Bierema and Merriam (2002) defined online mentoring as “a computer mediated, mutually beneficial relationship between a mentor and a protege which provides learning, advising, encouraging, promoting, and modeling that is often boundaryless, egalitarian, and qualitatively different than traditional face-to-face mentoring” (p. 219). Those differences further include the absence of traditional mentoring’s geographic constraints and the equalization of the communication platform for mentors and mentees, where mentees feel less fear about mentoring dynamics and can speak more openly than they might in in-person interactions. We use the term *in-person* rather than *face-to-face* for greater accuracy since online synchronous video discussions technically offer many of the advantages of non-verbal communication available in in-person communication. Williams, Sunderman, and Kim (2012) provided additional insight into the online mentor, “E-mentors function more like wise counselors rather than trainers or educators, yet this electronic counselor role has not been completely prescribed” (p. 112). Online mentors face challenges in navigating their responsibilities but have the possibility to positively impact students through online interaction.

Benefits of Online Mentoring

Online mentoring offers important benefits to students that may not be provided by traditional mentoring, but the breadth and extent of these benefits are still being uncovered in research. Benefits include expanding mentoring possibilities and available mentors for students, minimizing demographic and cultural challenges of mentoring, offering asynchronous as well as synchronous mentoring and providing more available times for mentoring and improved access to mentors, and creating an environment where students may be more willing to share information, thus creating improved trust and more effective mentor/mentee relationships (Boston & Ice, 2011; Bowers & Kumar, 2015; Sanyal & Rigby, 2017). Because online mentoring programs may be more or less structured from an organizational perspective, how these benefits are implemented will depend on the formality and management of the mentoring program.

Online mentoring gives university students more access to mentoring opportunities, as well as to a larger, even limitless, and more diverse pool of mentors than would be accessible in in person exclusive mentoring (Dawson, 2014). There are no geographic limitations in online mentoring and mentors with a variety of backgrounds and skills can be recruited. Online mentoring may also minimize some of the demographic challenges faced in traditional mentoring as gender, racial, and cultural differences may be mitigated in electronic communication (Bierema & Merriam, 2002; Xu & Jaggars, 2013). For example, women and minority populations may find more help in fields where they have previously been minorities in the workforce.

Communication flexibility is another significant benefit of online mentoring. Through asynchronous communication, mentors can communicate with mentees through email, text, and online messaging (e.g., Facebook [Version 232; Facebook, Inc., 2019] or WhatsApp [Version 2.19.51; WhatsApp, Inc., 2019]) at any time (Thompson, Jeffries, & Topping, 2010). They can

also communicate through synchronous online video such as Zoom (Version 3.6.5; Zoom Video Communications, Inc., 2019) or Skype (Version 8.37.0.98; Microsoft, Inc., 2019) at times that would not be convenient to meet in person and they have the flexibility to meet in any location where they have access to a computer or mobile device, and internet service. These communication services generally incur minimal or no additional costs other than an individual's network provider service fees, and often free versions of the communication tools are available (Halupa & Henry, 2015).

Personal connection between mentors and mentees is fundamental to the mentoring relationship. Online mentoring supports and strengthens this interaction as students connect with mentors in an online space. Bear and Jones (2017) found that students' trust in their mentor was related to how positive they felt about their mentoring relationship. In the study, trust was built through mentors participating in at least five interactions with students, and in these interactions, students discussed topics that strengthened their mentoring connection, including managing difficulties, business culture, and career possibilities. Because students are familiar with and used to communicating about themselves with peers and others through online communication, it may be easier for them to develop a personal relationship with mentors online than it would be in person and they may be more willing to express themselves honestly and openly to the online mentor (Homitz & Berge, 2008). These benefits of online mentoring add to other student benefits of taking classes online such as flexibility, convenience, and availability of courses.

Challenges of Online Mentoring

Online mentoring challenges are also identified in the research, but solutions for these challenges are lacking. These challenges include the absence of in-person interaction, mentors' technology skills and abilities in an online mentoring program, ability to communicate effectively,

and the potentially time-consuming nature of online interaction for mentors compared to in-person interaction. One of the greatest challenges for online mentoring is that there is no in person interaction between mentors and students (Bear & Jones, 2017; Purcell, 2004; Rees Lewis, Harburg, Gerber, & Easterday, 2015; Sanyal & Rigby, 2017). Only interacting online can make it more difficult to develop an effective mentoring relationship between mentors and students. Online mentoring interaction also means it can be difficult to interpret verbal signs or other physical cues that are normal parts of an in-person encounter (Hamilton & Scandura, 2013). In mentoring, an effective in-person mentor may not be as successful in an online setting, so practice and training may be needed, and adjustments may need to be made to have the same quality mentoring as in-person interaction (Shrestha, May, Edirisingha, Burke, & Linsey, 2009).

There are challenges with mentors having adequate skills to use the technologies needed to provide online mentoring. Technology can be an obstacle to online mentoring and mentor technology knowledge cannot be assumed (Ensher, Heun, & Blanchard, 2003; Shrestha et al., 2009; Williams et al., 2012). More formal mentoring programs may use specific student software programs or additional technology that require mentor training for effective mentor/mentee interaction. It can take time for mentors to master the technology skills needed. If mentors do not have the necessary skills or feel comfortable using the technology system in place, their lack of confidence can be detrimental to the mentoring interaction (Williams et al., 2012).

Research indicated that if not designated by the academic program, mentors and mentees need to agree on which online communication to use and how to use it for the relationship to be most effective (Houck, 2011; Tyran, & Garcia, 2015). Emails, Zoom calls, and other communication will vary in quality depending on individual engagement and ability to adapt to the communication style (Sanyal & Rigby, 2017). Ambrose and Williamson Ambrose (2013)

explained, “Even in instances in which technology is more commonly deployed in advising (through e-mail ... and websites) the problem of transactional, surface-level interactions remains. In other words, technology expedites information access, but it fails to transform advising practice” (p. 76). When technology does not extend beyond practicality in mentoring, understanding and learning in mentoring relationships suffers.

Online mentoring relationships may require more time to maintain than in-person mentoring relationships. Students may engage in more online communication with mentors when online is the only interaction than might normally occur when meeting in person on a regularly scheduled basis (Rees Lewis et al., 2015). Technology challenges such as poor internet connections may cause a video conference to last longer than scheduled or have to be rescheduled when an improved connection can be secured. Mentors may be more concerned about emails or messages they send and how they might be interpreted than they would be about verbal conversation, so they spend longer composing the email or message. Some of these challenges may also be present in in-person and blended mentoring programs. Research needs to provide more ideas for mentors, students, and mentoring program administrators, so these difficulties can be mitigated and become less obstructive to the online mentoring relationship success.

Lessons Learned from Research

In reviewing the benefits and challenges of online mentoring in the research, some recommendations were provided on how to improve the process for mentors and students, but there remains more to understand about improving the online mentoring process. First, to counteract the absence of in-person interaction, in-person video conferencing is critical to providing familiarity between mentor and student. One e-mentoring study (Sanyal & Rigby, 2017) found that video conferencing in online mentoring (e.g., Skype or Zoom) was almost as beneficial

as meeting in person, and initial in-person video conferencing was an important aspect to online mentoring success as it provides a necessary human connection to mentoring. However, the study does not tell us how much video conferencing is needed.

Multiple methods of online communication can be used to improve the mentor relationship (Sanyal & Rigby, 2017). By combining video conferencing with email and for example, a social media interaction, such as Facebook or WhatsApp, the mentor and student are able to create a multi-dimensional relationship as they interact using different communication tools. Murphy (2011) found that combining email with in-person mentoring interaction increased career discussions for mentees. In a study of undergraduates in online degree programs (Gravel, 2012), students described their most important quality of the mentoring relationship as “a prompt, but also personalized type interaction” (p. 63). Online mentors need to provide an individualized experience for their students if they are to create the most effective mentoring experience. The research does not give us specific suggestions for the best ways to provide that personalized experience.

Research does not provide many specifics on technology training for mentors. If mentors do not feel confident with their technology skills, they may be more hesitant to participate in other mentoring practices (Williams et al., 2012). When mentors begin the mentoring program, they should receive technology training in the mentoring program technology used. After the mentoring relationship is established, ongoing training should occur to ensure the mentor’s questions are answered and they feel confident about their technology skills. Mentors can also benefit from the technology skills learned through the mentoring process (Homitz & Berge, 2008).

Additionally, mentors need more research-based recommendations on managing mentoring time. Mentoring programs can assist mentors in providing more structured guidelines and

following up on interactions (Thompson et al., 2010). To maximize proactivity and minimize time wasting, where possible, mentors should schedule a minimum number of interactions per time period (e.g., semester) and designate what type of interactions these will be (e.g., video conference, email, messaging) (Bear & Jones, 2017; Tyran & Garcia, 2015). A mentoring schedule could also include topics to discuss to improve mentor proactivity and help students set current goals, as well as look towards future goals and career plans, which is one of the most important functions of mentoring (Ambrose & Williamson Ambrose, 2013; Halupa & Henry, 2015; Houck, 2011). Research needs to provide additional recommendations for how to maximize time and student development in the mentoring relationship.

Implications for Current Research and Research Questions

There is still much to be learned about how online mentors can be most effective in supporting students and further the goals of their higher education institutions. With the increasing number of online classes available, online mentoring will only become more important in higher education environments (Allen & Seaman, 2013). Online mentors should be as effective as in-person mentors, and possibly more effective because they have additional technology tools available to them that are not as available for in-person mentors. Better understanding the dynamics of online mentoring can promote more support for mentoring in higher education and can improve the online mentoring experience for both mentors and students. This study contributes to our current understanding of online mentoring and investigates online mentors and mentoring practices, and how they can be most effective in supporting students. The research questions for this study are:

1. How can online mentors provide emotional and psychological support in an online environment?

2. How can online mentors help students set goals and plan for their future studies and work in an online environment?
3. How can online mentors establish themselves as role models in an online environment?
4. How can online mentors negotiate technological challenges associated with online mentoring?

Methods

Research Context and Study Design

To answer these research questions, the authors studied BYU-Pathway Worldwide (“Pathway”). Their educational program, PathwayConnect, is a rapidly expanding low-cost higher educational initiative that assists individuals in beginning or returning to college (retrieved at <https://www.byupathway.org/pathwayconnect>). PathwayConnect is located in 530 locations (as of December 2019) in 134 countries and all 50 states within the United States. It currently enrolls more than 26,000 students worldwide. Once students have completed three semesters (one year) of PathwayConnect, they are eligible to receive a certificate and then progress to an online degree at a college or university, or leave higher education but with improved job opportunities. In the last two years, the program has grown by 9% (2017), and 18% (2018) respectively. A key to the retention and success of Pathway students are the volunteer service mentors who support, encourage, and empower students and who facilitate the weekly Pathway meetings.

Pathway’s innovative approach of using volunteer teams of service mentors for students helps foster a positive learning environment where students feel connection, support, accountability, and safety. Pathway service mentors are volunteers and much of their learning about mentoring depends on self-training. They participate in self-directed onboarding training

online that consists of a handbook and other online reading and videos. They also participate in a live training with a Pathway office contact or a local Pathway training representative to answer additional questions. Throughout the year, they also participate in additional training sessions in person or online, depending on their location.

Pathway relies on an established volunteer program in its sponsoring religious organization to identify full-time and part-time volunteers to serve as Pathway service mentors across the world. This volunteer program has a known value system for mentors as they begin Pathway mentoring service such as shared faith with many students (but not all students) and expectations of service and commitment to “shepherding” or watching over students. This religious context to the Pathway mentoring program has, at its foundation, a focus on the individual needs of students.

What distinguishes the Pathway program from other online learning programs is the weekly academic *gathering* event (student meetings). Every Thursday (or once a week), in Pathway locations worldwide, volunteer service mentors facilitate the Pathway weekly gatherings, where students meet together, in person or online depending on their group, teach each other, and discuss their weekly learning. Pathway service mentor locations include domestic groups, international groups, and online groups. There are two versions of PathwayConnect: a *standard version* for students who speak English fluently and a *language version* for students who have intermediate English skills. The classes are sometimes separated into age groups 18-30 and over 31 years old.

Of the approximately 2,500 Pathway service mentors worldwide, less than 15% (300-350) currently serve as online mentors, however Pathway expects this number to expand exponentially as they open more virtual locations to students around the world. Current in-person service mentors are anticipated to serve in both capacities as in-person and online service mentors.

The Pathway context is an excellent opportunity to study online mentoring for several reasons. First, it is a large-scale online learning initiative affecting more than 26,000 students with the help of 2,500 mentors. Second, the population being targeted for this education is especially in need of mentoring as the Pathway program is designed to help people prepare for college who are otherwise not yet ready for it or who would not otherwise be participating in a higher education program.

A qualitative survey approach was appropriate for this study because although my research questions are qualitative in nature, the population to be studied was large and the breadth of information is available to be collected was significant. According to Stake (2010), qualitative research studies are “interpretive, experience based, situational, and personalistic” (p. 31). In addition, Jansen (2010) explains, “the qualitative survey is the study of diversity (not distribution) in a Population” (para. 7). Qualitative surveys are beneficial for when studying a population’s ideas and concerns and when literature does not provide adequate survey examples (Fink, 2003). This survey study reflects a qualitative process based on theoretical assumptions to examine a designated social phenomenon, in this case online mentors and mentoring practices (Creswell & Creswell, 2017). The depth and breadth of study research can also provide insight and themes regarding the benefits and challenges of online mentoring and how online mentors can be most successful in supporting students.

Participants

The participants were volunteer service mentors (“mentors”) in the Pathway program. They serve as mentors for an average of a period of two years or longer. The Pathway mentors in this study had served as mentors since at least April 2019. Most mentors served with a spouse, but some served with another mentor in a mentoring team.

Mentors vary in their permanent residence location. Some mentors were from the local areas they served in. Other mentors had been asked to volunteer in locations far from their homes. They are expected to contribute approximately two to three hours a week to Pathway service, although mentoring time may vary depending on class size and needs, and location circumstances. Some mentors were previously PathwayConnect students themselves. All participants spoke English for the Pathway program requirements. Some mentors spoke English as their second language.

For this study, there were 143 online mentor participants who mentored student groups in each of the 12 Pathway domestic and international areas. Mentors also lived in each of the 12 global areas, but not necessarily the same area where they provided online mentoring. The majority of mentors surveyed were new online mentors, with 65% beginning mentor service in 2019. More than 60 percent of mentors had previously served as in-person mentors in the PathwayConnect program.

Data Collection

Data collection consisted of a descriptive Qualtrics survey conducted in August-September 2019. First, the researcher conducted a pilot study survey in January 2019 with approximately 500 Pathway mentors to better understand organization training practices. For the current study, all online Pathway mentors were emailed a 19-question open-ended/closed-ended survey to complete and return. The survey was available for two weeks and a reminder email was sent mid-way through the survey. The purpose of the survey was to understand online mentoring practices in the Pathway Worldwide online educational program and how mentors help students achieve their educational goals.

Data Analysis

At the completion of the survey, the data was collected and analyzed using a holistic and interpretive stance with an emphasis on key themes (Braun, Clarke, Hayfield, & Terry, 2019; Spradley, 1979; Stake, 2010; Yin, 2017). Based on the Stake (2010) coding method, data was sorted and categorized by major topics and themes related to the research questions. In additional analyses of the data, themes emerged from the categories, and topics and subtopics were identified. Key themes were further identified from this analysis. The Nora and Crisp (2007) mentoring domains—(a) psychological or emotional support, (b) support for setting goals and choosing a career path, and (c) specification of a role model (p. 342)—were used as an interpretive framework for sorting and coding topics by designated major themes, as well as an additional domain (d) technological challenges, was added to the framework to provide another key insight into mentoring. The discussion and findings resulted from further analysis of the combined synthesis of key themes.

Trustworthiness

This study relied on Guba and Lincoln (1994) recommendations for trustworthiness for increased credibility of data analysis. First, the researcher surveyed a diverse sample of approximately 143 mentors from locations around the world. This provided diversity for participant response data. Survey checking, peer debriefing, and negative case analysis were used to minimize bias and improve validity. For survey checking, survey responses were reviewed and verified with Pathway executives for meaning and clarity using verbal confirmation. This review ensured that information presented was correct in light of the broader context of the Pathway organization and goals, without biasing the research by too much management involvement. These administrators have the strongest understanding of the

Pathway program and were best positioned to provide insight into whether the researcher fully understood the participants. For peer debriefing, findings were reviewed and discussed with colleagues and other peer scholars. An academic colleague also reviewed and coded some of the interview data for comparison with researcher results. Based on the peer debriefing coding outcomes, adjustments were made to the study analysis to bring unity to the overall assessment of responses.

For negative case analysis, survey responses were compared to existing Pathway data, including a January 2019 Pathway pilot study conducted by the researcher, for potential differences in results. After completing the analysis, the researcher coded approximately 20% (325) of the text responses from the submitted pilot data, specifically seeking to find areas of disagreement with the study framework. The researcher recorded all disagreements and contrary evidence in a research journal. Next, findings and categories were evaluated in consideration of any contrary evidence. Then the researcher provided the contrary evidence and overall findings to a peer for debriefing in order to better understand the overall fit of the conclusion to the data.

Limitations

While survey responses are representative of the sample group, online mentoring experiences may differ among mentors. There are more than 2,500 mentors in both in-person and virtual Pathway, resulting in a diversity of mentoring experiences. Online mentoring experiences may be different depending on the mentoring area, method of mentor participation (in-person or virtual), mentor background including past mentoring experience, training received, and students mentored.

Online mentoring experiences were different depending on age, location, gender, nationality, ethnicity, educational and professional background, mentor partner, and other factors. While many Pathway student needs were common to the responsibilities of a higher education mentor and could be standardized in online mentoring, some needs were unique to the areas where the students lived, and individual student needs were different in every online class.

This higher education program has religious principles as part of its core values and training. Similar values may not apply to other higher education programs. The mentoring commitment that results from mentors' volunteer service to the Pathway program as part of their religious service also may not be transferable. Similarly, there may be a connection between mentors and students because of shared religious values that strengthens the mentoring relationship. Although not all Pathway students would share the religious values of the Pathway organization and mentors, most do.

Limitations also included that the survey was conducted by email and was available over a limited 2-week period. Because Pathway mentors received weekly email updates from the organization, they may have disregarded additional Pathway emails as too much contact and did not open or respond to the survey. Also, because many program mentors served with their spouse, only one person may have responded for both spouses, limiting responses.

Results

This study examined how online mentors can be most effective in supporting students in higher educational systems. Study results showed the impact of four mentoring domains: mentors' abilities to provide psychological and emotional support for students, abilities in helping students set goals and see future options, abilities to be role models (Nora & Crisp,

2007), and abilities to navigate technology challenges. Based on the survey results and text response coding and analysis, four main themes emerged that showed how online mentors and mentoring practices benefit higher education online environments and support students: (a) supporting individual students outside the virtual classroom; (b) strategies for student goal-setting; (c) characteristics of online role modeling; (d) confidence in technology skills. These themes are described in the subsequent results.

Support for Individual Students Outside the Virtual Classroom

For research question 1, *How can online mentors provide emotional and psychological support in an online environment?*, mentors reported this skill as their most effective skill of the four surveyed, with 44% reporting themselves as being “very effective” at providing this support. Depending on their response to the survey question, participants were also able to share an experience when they were able or not able to provide student support needed and why. Mentors provided this support through email, phone calls, online in-person conversations through Zoom, online conversations through messaging such as WhatsApp, and in-person contact when available. Mentors provided essential emotional and psychological support to Pathway students as they faced personal concerns, family challenges, and academic difficulties, and their support helped students continue ahead in their educational program through these difficulties, whereas they otherwise might not have completed the program (see Table 1).

Table 1

Rate (1-5) Your Ability to Provide Emotional Support for Students in the Virtual PathwayConnect Program

	Percentage
Extremely effective (5)	19.38
Very effective (4)	44.19
Moderately effective (3)	31.78
Slightly effective (2)	3.10
Not effective at all (1)	1.55

A mentor explained how they helped a student resolve his individual concerns related to attending the weekly student online class (*gathering*),

I had a student that traveled for work and had to climb cell towers on adjacent islands in the Caribbean. He was worried that he could not make the gathering on Wednesdays.

[My mentor partner and] I had a Zoom conference so he could explain the issues that he faced. I provided several solutions for him. He went to his boss and discussed these solutions and they customized one for him. He was diligent coming to class [online] and would sometimes be riding his motorcycle home when we started, but he would still login and the [class] loved it when we were able to ride along with him as he listened.

Another mentor shared how they supported a student through her family difficulties,

One of my students, who has panic attacks and is very introverted, also got a divorce during the semester and lost custody of her kids. The emotional strain was heavy, and she lost her job because of it. She kept coming to Pathway but spent much of her time with the video off. We were not sure if she would be back. [I] spent a lot of time on the phone with her and [emailed] with her [religious leader] She will be back the second semester. She still has a lot of baggage, but she has made it this far.

Mentors also encouraged students to continue their studies as they faced the serious illness or death of family members during the semester, which was often reported in mentor comments. Mentor support allowed students to maintain educational progress through a major life tragedy, as illustrated by the following experience,

One of our students had her father die during the semester and we contacted her multiple times, talked with her about his death, talked to her about the days she needed to miss, and tried to help her in any way we could We . . . arranged to meet with [students] in Zoom whenever they need us for support.

Mentors were able to monitor students' academic progress and intervene with additional support when they saw difficulty arise. One mentor shared this experience,

I have a student who barely graduated from high school and was really worried about going to college. She also had a baby right before the first semester and has no support at home from husband or extended family. Many times during the first semester she wanted to give up. She fell behind frequently and got frustrated. I was able to provide emotional support and encouragement and she completed the semester!

Mentor awareness and support was particularly important for struggling students. Another mentor explained how he supported a failing student,

I have a student who has an F currently. I called him and dealt with his issues and what I can do to help him bring his grade up. He was reassured and registered for [second] semester where he will hopefully improve his scores.

In this study, mentors' experiences showed how they were successful in supporting students emotionally and psychologically in an online environment. Student challenges were always

present in the mentoring experience, but the online environment did not hinder mentors from connecting with students when needed support.

Strategies for Student Goal Setting

For research question 2, *How can online mentors help students set goals and plan for their future studies and work in an online environment?*, mentors reported their skills almost equally split in efficacy between “moderately effective,” at 43.31%, and “very effective,” at 39.37% (see Table 2).

Table 2

Rate (1-5) Your Ability to Help Students Set Goals and See After-Pathway Options

	Percentage
Extremely effective (5)	7.87
Very effective (4)	39.37
Moderately effective (3)	43.31
Slightly effective (2)	7.87
Not effective at all (1)	1.57

Depending on their response to the survey question, participants were able to provide a response about an experience when they were able to help students set goals and see after-Pathway options and why or when it was difficult to help students set goals and see after-Pathway options in the virtual PathwayConnect experience and why.

Two types of goal setting were identified by mentors as most effective: (a) setting goals with students at the beginning of the semester, prior to or as the semester was starting, and (b) situational goal setting as the mentor perceived a need arose with a student. A mentor explained the benefit as well the rationale for students in setting goals at the beginning of the semester,

[In] my first personal conversation with each one, I asked what their goal was in taking Pathway, that way I have that knowledge to refer back to as we go through the semester.

I can use the information to give added strength to what I am saying or when a new certificate is available can let them know about it.

Another mentor shared what they had learned about helping students with the goal setting process,

This is the second time we [have] started a Pathway cohort and we [have] learned some things we [are] going to do differently this time around. We [are] going to do more to keep students focused on the future and the goals they need to set to get there. Students who experience difficulties lose focus on their goals first. They get overwhelmed and they get behind and they don't finish. If we can incorporate some aspect of goal setting and achievement into each week's gathering . . . students will experience greater success and complete their Pathway education.

Mentors were also able to observe student needs that occurred through the semester, particularly with low-performing students and as previously successful students suddenly encountered difficulties and identified strategies for them to continue in their educational progress. One mentor shared this process of assisting a student,

One of my students was a waitress and was provided Wednesdays off so she could attend our gatherings. All went well for the first semester. Then she missed three [meetings] in a row. I contacted her via WhatsApp, and we talked about what the issues were and how she found herself stuck. Apparently, one of her co-workers [had a] baby. The boss decided not to replace her, but to ask my student to work overtime and extra days. She didn't know what to do. We . . . revisited her priorities and goals. She then was inspired, after talking with her husband and boss, to quit her job and pursue her

education dream. [She has done] that and other single-day jobs have popped up along the way to help her achieve those goals.

Mentors helped students with small goals to finishing a math unit or language goals to improve in English, in addition to encouraging them to set larger goals to finish the educational course. Mentors were also able to help students understand and set goals for their after-Pathway plans and realize how those options would help them meet their career or life goals.

Characteristics of Online Role Modeling

For research question 3, *How can online mentors establish themselves as role models in an online environment?* Almost forty-two percent of mentors felt it was “somewhat easy” to be a role model in an online environment. Depending on their response, participants were able to share an experience when they were a role model in the virtual PathwayConnect experience or when they found the virtual PathwayConnect experience made it difficult to be a role model. Even in a virtual environment where they did not interact in person, mentors felt that they were able to act as a role model to students and positively influence them by demonstrating beneficial educational and life practices. They did not feel that the online environment significantly detracted from their ability to be a role model to students (see Table 3).

Table 3

Rate (1-5) Your Ability to Be a Role Model for Students in the Virtual PathwayConnect Program

	Percentage
Extremely easy (5)	29.13
Very easy (4)	41.73
Neither easy nor difficult (3)	23.62
Somewhat easy (2)	4.72
Extremely difficult (1)	0.79

Mentors were able to show students examples of service, professionalism, and positive attitude. One mentor shared an example of how they role modeled behavior for their students in class interaction,

By frankly admitting weaknesses in a general manner and how we managed those shortcomings . . . we worked through times [in] our class when [things] did [not] go quite as they were supposed to. The class members were able to see how imperfect [mentors] can still . . . strive to reach the goal of a successful . . . class.

For most mentors, being a role model was enhanced by advanced preparation for the class. One mentor explained, “I review the gathering lesson before it is given and think about what life experiences I have had that might help my students. I then share as appropriate during the lesson.”

Sharing their own personal experiences was also important to mentors supporting students. One mentor provided an experience she had shared,

During one of the lessons, I talked about a personal experience as a mother during a busy time in my life. It affected several students who had children and felt they weren't doing a good job. I helped them understand simple ways to make time for their families and meet their needs. A few students really needed to hear that . . . They are easily affected by any encouragement we give them.

Mentors were also able to share their own experiences of struggling to earn academic degrees and how they had succeeded in their own education, careers, and personal life. They were able to provide academic, professional, and life encouragement that supported students through the semester. One mentor described a typical student/mentor interaction and its perceived impact, “I don't know for sure if those discussions were instrumental in being seen as a ‘role model,’

but they seem to influence many of [the students] in a positive way, even to the point of keeping three of them in the program when they were contemplating quitting for various personal reasons.”

Confidence in Technology Skills

For research question 4, *How can online mentors negotiate technological challenges associated with online mentoring?*, almost 38% of mentors considered their ability to use technology in an online educational program “somewhat easy” (see Table 4).

Table 4

Rate (1-5) Your Ability to Use Technology Effectively in the Virtual PathwayConnect Program

	Percentage
Extremely easy (5)	21.26
Somewhat easy (4)	37.80
Neither easy nor difficult (3)	18.90
Somewhat difficult (2)	19.69
Extremely difficult (1)	2.36

Depending on their response, mentors were able to share an experience about how they were able to use technology to help virtual students achieve their educational goals or what additional training would help them resolve any technology challenges. Mentors in this study were most successful when they felt confident in their understanding of the program technology platform, Zoom, and could use it effectively to engage students. Mentors needed to learn and stay current with technology skills to successfully navigate the online system. One mentor explained how she continued to learn about the technology so she could best help the students,

We have been able to find ways to improve our ability to collaborate using Zoom. For example, we learned how to split the screen to see math problems on one side/copy/paste them to the other side, work out the problems on a Word document and

all see it/work at it as though we were in a face-to-face classroom The breakout room allows us total privacy with the students when doing our observation and feedback sessions [The virtual program] is as good and in some ways even better than a face-to-face group.

In the study, mentors reported the importance of training students in Zoom before the semester started so they would be ready to use the technology.

In a review of all four question categories and mentoring domains, mentors seemed the most unsure about their ability to use technology. In rating their ability to use technology effectively, this question had the largest percentage of category 2 responses, “somewhat difficult,” with almost 20% responses and the lowest percentage of category 3 responses, “neither easy nor difficult,” with almost 19% responses (see Table 4). These differences in comparison to the other mentoring areas appear to reflect mentors’ challenges with technology in the online educational program as they tried to assist students. Difficulties seemed to be a result of inexperience with the technology, perceived or actual lack of training, system difficulties, and connection problems. One mentor explained the challenges,

I rated my use of technology as “somewhat easy” (now) (see Table 4), but it was simply awful at first. I struggled to use Zoom, a lot. I felt really dumb in front of the students, making all kinds of mistakes. Maybe that is why I endeared myself to them because they could see if it was hard for me, and I refused to give up but kept trying in something I did not understand, I suppose they thought they could do hard things too. Now, of course, it is very easy, after two semesters, but in a virtual classroom, it was very challenging to learn technology on one's own.

In the study, mentors reported their technology skills improved with time and practice, and when they had challenges, students in the class helped them find solutions to technology problems. As one mentor shared, “I know I could be a lot better at technology. The students help each other and teach others how to use excel and other technology They learn even more by teaching each other.” Even when mentors struggled with technology, they used their challenges to benefit students’ learning experiences.

Discussion

Comparison and Interpretation of Findings

The central purpose of this study was to examine online mentors and online mentoring practices, and how they could most effectively support students. The study examined four mentoring domains (three domains from Nora & Crisp, 2007) in connection with online mentoring. The findings showed support for each of the domains. The results of the study also showed that mentors believe their most effective mentoring skill is providing emotional and psychological support to students. They reported that their least effective skill is navigating technological challenges. Mentoring is essential for online higher education students who may face more challenges than traditional university students (Bolliger & Inan, 2012). This discussion will explain the benefits and challenges of Pathway’s online mentors and mentoring program in helping students achieve their educational goals as supported by mentoring literature. The results of this study are consistent with mentoring literature on the benefits of online mentoring for higher education students (Boston & Ice, 2011; Bowers & Kumar, 2015; Dawson, 2014; Sanyal & Rigby, 2017). From the results, four additional themes emerged: (a) creating student connection, (b) personalizing goals for the online student, (c) differentiating

online role modeling, (d) overcoming technology challenges. The analysis of these themes is examined ahead.

Creating student connection. One of the greatest challenges in online mentoring is replicating the mentor/mentee relationship that exists in an in-person learning environment (Bear & Jones, 2017; Purcell, 2004; Rees Lewis et al., 2015; Sanyal & Rigby, 2017). For research question 1, the results showed that mentors identified themselves as “very effective” at providing emotional and psychological support to students and this was perceived as the most effective skill of mentors in this survey and supporting this area as a Nora and Crisp (2007) mentoring domain. For mentors in this study, providing emotional and psychological support for students occurred through many Zoom communication interactions. This study showed how Zoom was an effective tool for mentors to create personal connections online with students as it allowed mentors to provide guidance and instruction with online tools, as well as the mentoring relationships students needed to be successful in their educational program. Many mentors shared that using Zoom was as effective for creating positive mentor/student interaction as meeting in person. A mentor explained the benefits of using Zoom to connect with online students,

The ability to meet with our virtual student on Zoom . . . was superior (than a phone conversation) because we were able to see each other as we met, which added an important component to our ability to communicate with each other. She . . . could have been in the same room with me as far as the communication was concerned . . .

Because of Zoom, our ability to connect with our students and communicate with them is actually enhanced.

Zoom interaction removed the distance between mentors and students that sometimes exists in online mentoring.

Zoom provided mentors with a tool to connect with a student who needed program support. One mentor shared,

There was a [student] who was about 70 years old. She didn't know how to use the web apps. Using the Zoom tool, I guided her to solve her questions. I did it twice. Then she did the rest of the semester by herself.

With Zoom, mentors also engaged with students as they practiced their skills online, including presentations so they could gain confidence. Mentors reported how struggling students were able to share their difficulties with them in Zoom after class meetings or in other Zoom calls (Homitz & Berge, 2008). As one mentor described the interaction, “[The student was willing to open up virtually after everyone left the group. That would not have happened in a face-to-face environment.” Accessibility was another Zoom benefit, as mentors were also able to arrange to meet with students in Zoom whenever they needed support (Thompson et al., 2010). While some students did require more mentor time, this study validated other mentoring research that quality, rather than quantity interaction matters most in mentoring relationships (Hernandez, Estrada, Woodcock, & Schultz, 2017; Poor & Brown, 2013).

Personalizing goal setting for the online student. Mentors have a more difficult challenge in personalizing goals for the online student because they do not have in-person interaction or observation to assist them in supporting students with goal setting. The resulting online interaction likely contributes to the results of research question 2 that 43% of mentors rated themselves “moderately effective” at setting goals and planning for after-Pathway options. Although the results were not as high as research question 1, the study results support this Nora and Crisp (2007) mentoring domain for establishing support for setting goals and choosing a career path in online mentoring. While a mentoring program may have recommended goals for its

students—in Pathway’s case, students receive a certificate of completion after three semesters of study and are encouraged to advance to university studies—this study showed the importance of mentors encouraging institutional goals while also supporting individual goals. Research suggests that goal setting and planning for a student’s future are some of the most important mentoring responsibilities (Ambrose & Williamson Ambrose, 2013; Halupa & Henry, 2015; Houck, 2011). In this study, mentors worked to understand and support individual goals while also encouraging the larger goals of the educational system in their online mentoring role.

One mentor explained the individualized nature of the goal setting process, “I meet with them personally in Zoom outside of the gathering to discuss what goals they have [and] their plan, [and] if there is anything I can do to help One thing [I learned my first year was,] people [come] to Pathway for many reasons.” Mentors reported that their encouragement of students regarding goals and follow up was important for the students to accomplish the goal. While mentors reported that many of their Pathway students had advanced to full-time university studies through goal-planning, one of the objectives of the Pathway program, mentors were equally enthusiastic about sharing students’ interim goals including strengthening their confidence, learning to use the computer, improving their English skills, finding better employment, and earning Pathway certificates. Mentors also relied on class support to help students set and keep goals. Mentors reported individual student goals were strengthened as they had discussions about goals and future options in the online gathering class and in social media groups (e.g., WhatsApp) with their students where they discussed goals and future options for their students in a group setting. One mentor shared a mentoring philosophy they used to help their students, “We overwhelm them with hope and the idea that everything is possible. Excellence is the road we’re on—not the destination.”

Differentiating online role modeling. In research question 3, almost 42% of mentors said this responsibility to be an online role model was “somewhat easy,” while 29% said it was “extremely easy,” the highest number of category 5 responses in the survey. These results also corroborate the Nora and Crisp (2007) mentoring domain of being a role model in an online setting. While there is significant research on the importance of role modeling in mentoring (Bear & Jones, 2017; Bowser, Hux, McBride, Nichols, & Nichols, 2014; Healy, Lancaster, Liddell, & Stewart, 2012; Poor & Brown, 2013), little research exists to differentiate role modeling in online mentoring. From the results of this study, the function of role modeling in online mentoring is similar to traditional mentoring, to provide guidance to students, to encourage students to be successful in academic pursuits, and to help students see a vision for their academic and professional future (Barbuto, Story, Fritz, & Schinstock, 2011; Poor & Brown, 2013). However, this study showed that online mentors must have additional technical and planning skills to effectively provide these mentoring roles for students in the virtual environment, which meant they learned Zoom technology, logged on early to have informal Zoom conversations with students before the weekly student class, participated in the breakout Zoom sessions so they could share personal experiences, and were open to meeting with students outside of class through Zoom as needed. They may have also connected with students by using additional contact methods such as WhatsApp groups or by more traditional email or telephone calls, which research shows further strengthens mentoring relationships (Thompson et al., 2010). One mentor described their online role model experience,

On occasion we have to be out-of-town. With the on-site groups that requires a substitute. . . . The virtual option, in contrast, allows us to attend the gathering from

anywhere. We have convened the meeting while in India, Virginia, and Alaska. . . . We have promoted that “can do” attitude and we’ve seen [the students] follow suit.

As online role models, Pathway mentors had the benefit of being able to be consistently engaged with their students throughout the semester, regardless of location or circumstances. Improved access to and ease of student interaction for role models (Braun & Zolfagharian, 2016; Sanyal & Rigby, 2017) is another important advantage for online mentors.

Overcoming technology challenges. Mentors in this study cited technology challenges as their greatest area of difficulty, with almost 20% rating their ability to use technology to help students as “somewhat difficult.” In research question 4, mentors shared mixed messages about the benefits and challenges of online mentoring as they navigated technological tools. The results supported the fourth mentoring model of technology challenges in online mentoring and the need for mentors to overcome those challenges to be successful in assisting students. While there were many affordances for online mentoring, mentors also struggled with technology as they tried to fulfill their mentoring roles.

There is limited research on online mentoring technology training, with available research claiming that mentors need to feel skilled in technology practices or they may not encourage participants (Ambrose & Williamson Ambrose, 2013; Williams et al., 2012). Pathway mentors who were not confident in their skills requested additional training to teach them the technology skills they were lacking. In contrast to the research findings where mentors did not encourage participants due to inadequate technology skills, in this study, when mentors needed help with technology in class, they asked students to assist them in finding solutions to technology problems. By asking for help and engaging students, they improved the unity in the class and the relationship between mentor and students. Research showed that this confidence

in students also builds trust in the mentoring relationship (Boston & Ice, 2011). This study also validated previous research that mentors benefit from technology skills learned through the mentoring process (Homitz & Berge, 2008). While some mentors had previous experience with online tools, many learned to use Zoom and other tools as mentors and then were able to teach students what they had learned so they could successfully participate in the online learning experience. The data shows that the online experience, including the challenges, provided mentors with significant mentoring opportunities to help students in ways that they would not have experienced similarly in in-person mentoring environments.

Contributions of Findings to Literature

Online mentoring benefits for the nontraditional student. In this study, the mentors' greatest perceived strength was providing emotional and psychological support for students, so for students who might have difficulty in a traditional in-person university classroom, the potential benefits of online mentoring support in an online learning environment are significant. One mentor shared how their support for a student with emotional challenges in their online class made a difference in his educational and personal life,

We have one student who suffers from extreme anxiety and had not left his house for over two years. He felt stuck and trapped and he was, literally and emotionally. The Pathway program even in virtual form, allowed him to come and be accepted by our group of students. They reached out to him, accepted him and his limitations, as did we as [mentors], [caring about] him, conversing and building a strong relationship of support over WhatsApp and the gathering. He has since obtained counseling and being successful in the program has spurred him on in his personal life as well. He is doing very well, has left his house on some adventures, and is a contributing part of our group,

although he still cannot show his face and uses only the audio part to communicate with us.

Another mentor shared how their personal awareness for a nontraditional student's individual needs helped her maintain her educational progress,

One of our students was a refugee from Iran. She saved her own life by escaping to Turkey. However, the scars from that experience made her very cautious and suspicious of people, especially those she did not yet know. This was evident from the start as she held back in the gatherings and was not as engaged as she needed to be to do well with the academic assignments. About three weeks into the semester, she was late joining a gathering. As the gathering was starting, [I asked her to share her experience in the group]. As we talked about her experience, it was amazing how many of our students had had similar experiences with an oppressive regime in their respective countries and how it had affected them. When she did come online that night, the group collectively encouraged her in her efforts both in and outside the gathering. She became a wonderful member of the group, eventually coming out of her shell and taking a most impressive lead role in much of what the group did from that time on.

In the online environment, often known for anonymity, mentors may actually become more cognizant of individual students' needs. These needs may be more visible in individual profiles in the online environment and in online interaction, providing mentors with opportunities to help and engage students that are not available in a traditional classroom.

Technology challenges influence mentoring challenges. In this study, technology challenges were the highest rated lowest category for mentoring skills in the survey. The study results showed that in addition to the expected online class problems that lack of technology skills

caused, the absence of those skills also could cause challenges in other mentoring areas. For example, in online role modeling, mentors who reported that they were effective needed good technical skills to establish that relationship with online students, which meant that they were proficient in Zoom, successfully held Zoom meetings with students before, after, and outside of class, and knew how to participate in class breakout Zoom sessions. Even if mentors still rated themselves highly in other mentoring areas, lack of technical skills would minimize their overall effectiveness (Neely et al., 2017). Mentors reporting significant technology challenges in this study shows that mentoring programs, and particularly online mentoring programs, cannot disregard the importance of effective and consistent technology training to the overall efficacy of their mentoring program.

Online mentoring role adoption. An important finding of this study is how quickly online mentors can learn mentoring responsibilities. Sixty-five percent of mentors in this study had been online mentors for eight months or less. While more than 60% of study mentors had previous experience as in-person mentors, a significant part of online mentoring, as shown by the research questions in this study, is understanding how to interact with students online and navigating the technological challenges of an online class. While study results indicated that mentors would benefit from more technology training (Homitz & Berge, 2008; Williams et al., 2012), 59% reported that their ability to use technology in an online environment was “somewhat easy” or “extremely easy.” One mentor said, “When I know how to use the tech tools effectively, the students trust they have a resource at their disposal to help them be successful in their assignments.”

As online higher education programs continue to expand worldwide, this study showed that education leaders can have confidence in online mentors’ abilities to quickly engage in a

mentoring program and learn the mentoring and technology skills necessary to support students. Mentor responses from this study showed their confidence in their online mentoring skills and desire to learn along with their students. A mentor described online mentoring, “You simply use the tools you have.”

Implications for Future Research

This study provides valuable insights about how online mentoring can be improved for higher education mentors and more research is needed to provide quality mentoring for students. This was a small study of 143 mentors in a specific online higher education program. A larger quantitative survey of more mentors in multiple higher education programs could provide more data regarding mentor practices. This study also did not collect any student data. In future studies, student data could be collected and compared with mentor responses on mentoring effectiveness. Sixty-five percent of the mentors in this study began their mentor service at the beginning of 2019 or afterwards. Future studies could compare how long-term mentoring affects mentor skills. Because this study was survey research, responses provided brief insights into mentoring practices. Additional qualitative research on online mentoring would provide more in-depth insights into how mentors help students in these areas. As online education programs continue to increase in higher education (Bettinger, Fox, Loeb, & Taylor, 2017; Seaman, Allen, & Seaman, 2018), the need for mentoring in these programs and more research like this study is needed (Purcell, 2004).

Implications for Practitioners

This study provides specific recommendations for online mentoring programs as they identify potential mentors and develop mentoring policy and training. It also provides ideas for online mentors on how they can improve their skills. Mentoring literature advocates the

importance of online mentoring but does not provide many specifics (Allen & Seaman, 2013; Krause et al., 2015). This study provides beneficial guidelines about how online mentors can most effectively interact with students and provide mentoring assistance. Mentors need to identify ways to support students outside the virtual classroom, particularly where there are personal, family, and academic concerns. They need to proactively help students set goals at key moments in the educational process, but also find opportunities to assist the student in setting interim goals. Online mentoring provides even more opportunities for role modeling through technology, so mentors need to take advantage of those affordances, such as easier access to students, to share their personal experiences and to be a role model to students. Mentors can request technology training to improve technology skills. Also, research shows that students are more engaged with mentors who are involved with them through more than one communication tool (Rees Lewis et al., 2015), so mentors can identify which communication methods connect best with students and use that technology to improve their mentoring relationships.

Conclusion

Online learning opportunities in higher education continue to expand across the globe. In the future, students will have more possibilities to take some or all of their university classes online and expect a continuing increase in course quality, ease of access, and improved technical standards (Seaman et al., 2018). Online mentoring will become increasingly important to higher education institutions who want to retain students in their online programs. While online mentoring has been discussed in previous literature, it has not been described adequately for mentoring programs who are looking for guidance in their online mentoring programs. Online learning opportunities in higher education continue to expand across the globe. In the future,

students will have more possibilities to take some or all of their university classes online and expect a continuing increase in course quality, ease of access, and improved technical standards (Seaman et al., 2018). Online mentoring will become increasingly important to higher education institutions who want to retain students in their online programs. While online mentoring has been discussed in previous literature, it has not been described adequately for mentoring programs looking for guidance in their online mentoring programs. With the advances in online education, online mentoring is changing the definition of effective mentoring and needs to be reexamined. In addition to removing geographic boundaries and synchronous constraints on communication, online mentoring adds multiple interactions as the standard for successful mentoring. Online mentors and students will expect to interact through Zoom, email, and social media platforms as multi-faceted media choices provide greater opportunities for enhanced mentoring relationships. More studies on the impact of these multiple mentoring interactions and the changing definition of mentoring are needed. A more comprehensive understanding of online mentoring provides support for mentors who are seeking for direction in improving their performance and recommendations for creating mentoring programs or improving their organizations.

This research study provided a literature review of the background of online mentoring and mentoring practices, the benefits and challenges of online mentoring, and lessons learned from the research. This survey research study analyzed descriptive responses from 143 mentors from around the world in a global higher education initiative. The study results supported three Nora and Crisp (2007) domains, (a) psychological or emotional support, (b) setting goals and choosing a career path, and (c) a role model (p. 342), and added an additional domain of (d) technology challenges in online mentoring. In addition, this study provided support to other studies that have used the Nora and Crisp (2007) model to show that mentoring leads to

improved student success (Henry, Bruland, & Sano-Franchini, 2011; Hu & Ma, 2010). The results also showed that of the four mentoring domains studied, online mentors reported they are most successful at providing emotional and psychological support for students. Study results provided strategies for effective mentoring in student goal setting, established characteristics of an online role model, and showed the importance of online mentor confidence in gaining technology skills. The study also contributed findings to the literature about online mentoring benefits for nontraditional students and online mentoring role adoption.

More research is needed on the long-term benefits of online mentoring. Online mentoring is still a relatively new field of study, but more research is needed to document its benefits for students. More research is also needed on in-person mentors compared to online mentors and what they can learn from each other as higher education transitions to more online classes. In regard to mentor retention, are in-person or online mentors more likely to continue as mentors and why? Mentoring research and the results of this study show an emerging trend that where once student support came solely from the teacher, effective mentoring in higher education now encompasses several sources from instructors who provide content support, to advisors who provide academic support, to mentors who provide emotional support (Gravel, 2012). Higher education institutions must be able to meet the range of student needs both in traditional classroom settings and online. Providing students with effective mentoring is important to ensure students have the emotional support they need for improved retention and persistence on college campuses. More research is needed on online mentor technology training and online mentor training. The research is lacking in providing information about what training would be most helpful to online mentors. Online mentoring can be a powerful force for good in the lives of online higher education students. Online

mentors will continue to make a difference in supporting students as their higher education institutions provide them with the tools and opportunities they need to succeed.

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ARTICLE 3

**“We Are Teaching and Learning with Each Other”: Improving Mentoring
in Higher Education through Ongoing Training**

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Abstract

This article examined ongoing mentoring training. This qualitative study analyzed interview responses from 20 mentors from 13 international locations in a global higher education initiative to determine how ongoing training affects mentors' abilities to assist higher education students in achieving their educational goals. The study results showed the benefits from ongoing mentoring training, including mentors better understanding their roles and responsibilities, mentors gaining knowledge, and mentors receiving ongoing support. Results also showed the importance in ongoing mentoring training of volunteer mentoring needs and mentoring training creativity. Furthermore, the study showed that ongoing training positively impacted mentors, that it identified contributing mentor volunteers, and that ongoing training advanced effective mentoring practices. The study also contributed findings to the literature including that mentors themselves contributed to best training practices, volunteer mentors may need more mentoring training, and ongoing mentoring training showed global transferability. As institutions of higher education take greater initiative in providing structured ongoing training for mentors, mentors can be more knowledgeable and confident in their mentoring skills and students will have increased opportunities for success.

Keywords: best practices, higher education, mentor, training, volunteers

Introduction

Mentoring for higher education students continues to be a priority for colleges and universities as they seek to increase retention and improve the student experience at both traditional and online institutions. Mentors fill an important role for college students as they provide opportunities for transformational learning with long-lasting benefits that impact their lives beyond college (Bettinger & Baker, 2014; Ragins & Kram, 2007). The Council of Graduate Schools provided Zelditch's (1990) definition of mentors and how they contribute to the student experience,

Mentors are advisors, people with career experience willing to share their knowledge; supporters, people who give emotional and moral encouragement; tutors, people who give specific feedback on one's performance; masters, in the sense of employers to whom one is apprenticed; sponsors, sources of information about and aid in obtaining opportunities; models, of identity, of the kind of person one should be to be an academic. (as cited in Gaffney, 1995, p. 1)

As they seek to help students in these roles, mentors also serve as role models for students and provide encouragement as they navigate their educational experience (Jacobi, 1991; Nora & Crisp, 2007). As educational advisors instead of educators, they do not provide academic instruction, grades, or scholastic evaluations for students, so they are able to support students' progress and development without pressures related to academic performance (Rees Lewis, Harburg, Gerber, & Easterday, 2015). Mentors play an important role in the lives of students, but just as they help students achieve greater possibilities in their academic experience, mentors also need help to reach their own highest potential and effectiveness in their mentoring role.

Mentor Training – The Key to Success

Mentor training has been referred to in academic literature as “the key to success of mentoring programs” (Ehrich, Hansford, & Tennent, 2004, p. 535). That success or failure depends on what training is given, how often, and how it is received by mentors. Mentor training can cover a range of goals depending on the program, including familiarization with the sponsoring organization, technology training, and improving overall mentoring skills. Cultural and diversity training provides mentors with a better understanding of and empathy for all students (Butz, Spencer, Thayer-Hart, Cabrera, & Byars-Winston, 2018; Castellanos, Gloria, Besson, & Harvey, 2016). Mentor training should also help students plan for the future through professional development and establishing a vision for their post-college life (Poor & Brown, 2013; Renn, Steinbauer, Taylor, & Detwiler, 2014; Smith-Ruig, 2014).

As valuable as mentor service can be to student success, tools for effective mentor training are not well researched in academic literature. In a study of over 300 academic articles across three disciplines, more than 15% of articles cited lack of training as a concern (Ehrich et al., 2004). Without necessary training, mentors may not fully understand their role or how they can best help students (Bear & Jones, 2017; Bowser, Hux, McBride, Nichols, & Nichols, 2014; Kramer-Simpson, 2018). They may not know where to go when they need help. They may need to learn new skills of mentoring technology (Homitz & Berge, 2008). Without resolution to their problems and concerns, they may not choose to remain as mentors for a long period of time. Mentor training can minimize some of these challenges as they arise. Training prior to or in the beginning of the mentoring process can help establish common understanding and goals between mentors and students as they start to work together (Anderson, Motto, & Bourdeaux, 2014; Behar-Horenstein,

Roberts, & Dix, 2010; Sanyal & Rigby, 2017). Mentor training may occur in person or online, synchronously or asynchronously, or individually or in groups to optimize the learning experience.

Research offers several possibilities for what mentor skills to teach, but mentoring instruction could include basic student advising or skill specific advising, providing understanding about educational programs and helping students learn where to find school resources when they have questions, and student goal setting and future planning (Henry, Bruland, & Sano-Franchini, 2011). In addition to teaching traditional mentoring skills, more structured mentoring programs may add to mentoring by teaching skills such as student acceptance, support, and empathy (Lunsford, 2011; Martin & Bok, 2015; Mondisa & McComb, 2018). Providing training skills may also help advisors better understand individual student needs and how mentoring approaches can support those needs (Braun & Zolfagharian, 2016). Diversity and gender training were also recommended to improve mentor understanding of and interaction with students (Butz et al., 2018; Castellanos et al., 2016; Dahlvig, 2010).

Mentoring and Ongoing Training

Even less researched than initial mentor training is the topic of ongoing training for higher education mentors. What this ongoing training provides and how often the training occurs depends on the program and on mentor and student needs. However, what seems clear from the research literature is that ongoing training is very rare. In Jacobi's (1991) foundational article on mentoring, she identified eight authors who had provided original definitions on mentoring. Of those articles, six of the eight authors had referenced training, but not specifically ongoing training. Over 20 years later, Gershenfeld (2014) categorized published academic studies from 2008-2012 that identified mentoring support in undergraduate mentoring programs. Of these 20 program study descriptions (Gershenfeld, 2014, Table 3), only two studies cited "ongoing support" in the study

(Gershenfeld, 2014, pp. 378-379). However, the ongoing or follow up training in these studies referred to peer mentoring, and not the classic senior mentor/junior protege mentoring definition (Lev, Kolassa, & Bakken, 2010).

In another article, Dawson (2014), reviewed how 16 mentoring concepts are explained in the literature and reviews two mentoring models: Supplemental Instruction and Peer Assisted Teaching Scheme. Although both models recommended an initial training session, Dawson stated, “Neither model incorporates ongoing training, although this is present in some other models” (p. 142). Dawson (2014) did not reference additional information about the other models. These most recent literature reviews seem to show that academic studies have not made significant progress in advocating for ongoing mentor training practices and documenting any effective change or successful practices resulting from mentor training.

There is a large body of literature regarding ongoing mentor training and youth mentoring (DuBois, Holloway, Valentine, & Cooper, 2002; Karcher, 2008; Miller, 2007; Osterling & Hines, 2006; Rhodes, Liang, & Spencer, 2009), but the ongoing mentoring training studies seem to end when the students leave for college. While not explicitly stated, these articles provide additional support for the important need for ongoing mentor training in higher education, but other than age of students, the research is silent on why there is such a significant difference in discussion of the topic once the students have moved from high school to university studies.

The Value of Ongoing Mentoring Training

Despite the lack of research on the topic, it is clearly important for mentors to have regular, ongoing training after an initial training (Butz et al., 2018; Mondisa & McComb, 2018; Raposa, Dietz, & Rhodes, 2017). Butz et al., (2018) advocated the importance of ongoing cultural and diversity training so that mentors can better understand why they may or may not discuss certain

issues with minority mentee students. In contrast, Martin and Bok (2015) argued that ongoing training for racial and cultural issues may be too costly for mentor programs when the outcome is not likely to positively influence mentor approaches. They suggested selection of more open-minded mentors was a better alternative. Training can help advisors adjust their advisement style to student needs and expectations, increasing student satisfaction with the mentoring experience (Anderson et al., 2014).

As mentors begin their interaction with students, they will have questions arise and may find themselves in scenarios not covered by the training. However ongoing training benefits still outweigh the potential negatives (Henry et al., 2011). Ongoing training provides an opportunity for mentors to ask questions, resolve concerns, receive direction from mentor program coordinators (if applicable), and share experiences with other mentors. Ongoing training allows mentors to stay current with any program or university changes. Ongoing training also helps program representatives develop a relationship with the mentor and provide feedback. This relationship can encourage mentor retention as mentors feel valued and appreciated by the mentoring organization, resulting in an increased commitment to their volunteer mentoring positions (Raposa et al., 2017).

Types of Mentors and Ongoing Training

Types of mentors can influence what kind of ongoing training is most needed. Types of mentors in a mentoring program could include volunteer mentors, paid mentors, peer mentors, senior mentors, internal mentors and external mentors, among other possible mentor types. Volunteer mentors, in particular, are in need of training as they are often less experienced or familiar with the mentoring environment. Many volunteers do so because they asked (Nesbit, 2013). Volunteer mentors may need to be recruited to participate as mentors in a mentoring program. In a study conducted by Poor and Brown (2013), the mentoring program invited all

alumni to volunteer and participate as mentors, and many did. While there may have been some oversight by the university mentoring program, these were self-selected volunteers and the study did not indicate additional mentoring training.

Training can also contribute to volunteer retention. As much as universities focus on student retention, organizations are more likely to retain volunteers as they look to recognize and value the volunteer experience (Hager & Brudney, 2008). Training and efforts to help volunteers develop career skills can improve their experience in the organization and encourage them to continue in their volunteering efforts. Hager and Brudney (2008) explained an effective way to keep volunteers: “Our study shows that [organizations] that adopt the practices most directly concerned with satisfying volunteers reap the highest rates of retention” (p. 26). In addition, as an organization, volunteer programs can support volunteer retention by providing necessary funding for volunteer programs, encouraging a culture that supports volunteers, providing meaningful experiences for volunteers, and fostering recruitment for new service mentors (Hager & Brudney, 2008).

Program administrators need to carefully consider how training will be conducted for both maximum efficiency and cost effectiveness. For example, who will be the most successful in training the mentors with the skills and tools they need to learn? Program leaders must ask if an internal coordinator is best qualified to train mentors or if an outside trainer would provide better instruction (Ehrich et al., 2004). Cost is also a consideration in training mentors and may be one of the reasons research studies show initial training, but not follow up training (Martin & Bok, 2015).

Challenges of Ongoing Training

There are logistical challenges to ongoing training for mentoring organizations. After conducting an initial training, it may be difficult to organize mentors for ongoing training

meetings. If mentors are satisfied with their interactions with mentees, they may not feel the need for additional training. Volunteer mentors may feel like they are already giving their extra time to the mentees and may not want to spend additional time in training.

There is also the consideration of who will train the mentors. Mentor programs and universities can face turnover that makes it challenging to manage training processes (Putsche, Storrs, Lewis, & Haylett, 2008). Turnover can also lead to a lack of documentation for mentoring training that has taken place (Putsche et al., 2008). If program administration is not consistent, paperwork on who has been trained, what training they have received, and training plans for the future may be compromised.

Ongoing technology training can also be problematic. Mentors may have to learn new technology or program-specific technology for which they need regular training (Ensher, Heun, & Blanchard, 2003; Shrestha, May, Edirisingha, Burke, & Linsey, 2009; Williams, Sunderman, & Kim, 2012). If ongoing training does not occur, the mentors may not use the technology and may not be able to help their mentees receive all possible mentoring benefits. If mentors lack confidence in their technology or other skills due to lack of ongoing training, they may also be less likely to be fully participative in their mentoring role (Williams et al., 2012).

Implications for the Current Research and Research Question

Throughout mentoring literature, training is identified as important to mentor success (Braun & Zolfagharian, 2016; Renn et al., 2014; Smith-Ruig, 2014). Current research does not provide enough data or recommendations for how ongoing mentor training should occur. Without a research foundation for ongoing mentor training, more research studies like this study need to be conducted to show the effects of ongoing training on mentoring practices and to provide practical implications for facilitating this additional training for mentors. This study will add to the research

on ongoing mentor training and will provide additional insights about how mentors use their training to help students. The research question for this study is:

How does ongoing training affect mentors' abilities to assist higher education students in achieving their educational goals?

Methods

Research Context and Study Design

To answer this research question, the authors studied BYU-Pathway Worldwide ("Pathway"). Their educational program, PathwayConnect, is a rapidly expanding low-cost higher educational initiative that assists individuals in beginning or returning to college (retrieved at <https://www.byupathway.org/pathwayconnect>). PathwayConnect is located in more than 530 locations in 134 countries and 50 states of the United States (as of December 2019). It currently enrolls more than 26,000 students worldwide. Once students have completed three semesters (one year) of PathwayConnect, they are eligible to receive a certificate and then progress to an online degree at a college or university, or leave higher education but with improved job opportunities. In the last two years, the program has grown by 9% (2017), and 18% (2018) respectively. A key to the retention and success of Pathway students are the volunteer service mentors who support, encourage, and empower students, and who facilitate the weekly Pathway student meetings.

Pathway's innovative approach of using volunteer teams of service mentors for students helps foster a positive learning environment where students feel connection, support, accountability, and safety. Pathway service mentors are volunteers and much of their learning about mentoring depends on self-training. They participate in self-directed onboarding training online that consists of a handbook and other online reading and videos. They also participate in a live training with a Pathway office contact or local Pathway training representative to answer

additional questions. Throughout the year, they also participate in additional ongoing training sessions in person or online, depending on their location.

Pathway relies on an established volunteer program in its sponsoring religious organization to identify full-time and part-time volunteers to serve as Pathway service mentors across the world. This volunteer program has a known value system for mentors as they begin Pathway mentoring service such as shared faith with many students (but not all students) and expectations of service and commitment to “shepherding” or watching over students. This religious context to the Pathway mentoring program has, at its foundation, a focus on the individual needs of students.

What distinguishes the Pathway program from other online learning programs is the weekly academic *gathering event* (student meetings). Every Thursday (or once a week), in Pathway locations worldwide, volunteer service mentors facilitate the Pathway weekly gatherings, where students meet together, in person or online depending on their group, teach each other, and discuss their weekly learning. Pathway service mentor locations include domestic groups, international groups, and online groups. There are two versions of PathwayConnect: a *standard version* for students who speak English fluently and a *language version* for students who have intermediate English skills. The classes are sometimes separated into age groups 18-30 and over 31 years old.

The Pathway context is an excellent opportunity to study ongoing training. First, it is a large-scale online learning initiative affecting more than 26,000 students with the help of 2,500 mentors. Second, the population being targeted for this education is especially in need of mentoring, as the Pathway program is designed to help people prepare for college who are otherwise not yet ready for it or who would not otherwise be attending a higher education program.

Third, the mentors are volunteers, and thus not typically educational professionals with a background in educational tutoring/counseling, and thus training is very important for them.

Because my research questions are qualitative in nature, and because the population being studied is diverse, and has perspectives and experiences to share that will inform the research question, a qualitative interview approach was appropriate. According to Stake (2010), qualitative research studies are “interpretive, experience based, situational, and personalistic” (p. 31). This research study reflects a qualitative process based on theoretical assumptions to examine a designated social phenomenon (Creswell & Creswell, 2017), in this case ongoing training and mentoring practices in higher education. The richness of qualitative research and interview data (Dahlvig, 2010; Rabionet, 2011) can also provide insight and themes regarding the benefits and challenges of ongoing training.

Participants

The participants were volunteer service mentors (“mentors”) in the Pathway Worldwide program. They serve as mentors for an average of a period of two years or longer. The Pathway mentors in this study had served as mentors since at least April 2019. Most mentors in this study served with a spouse, but some served with another mentor in a mentoring team. In some circumstances Pathway mentors served alone.

Mentors vary in their permanent residence location. Some mentors were from the local areas they served in. Other mentors had been asked to volunteer in locations far from their homes. They are expected to contribute approximately two to three hours a week to Pathway service, although mentoring time may vary depending on class size and needs, and location circumstances. Some mentors had been previous PathwayConnect students themselves. In this study, 50% of

mentors were previous Pathway students. All participants spoke English for the Pathway program requirements. Some mentors spoke English as a second language.

For this study, there were at least two participants from each of the seven international Pathway areas (see Table 1). Twenty mentors, 10 women and 10 men, were interviewed in 13 countries. Mentors were almost evenly divided in length of service. Thirty-five percent had served more than two years, 35% had served at least one year, but less than two years, and 30% had served less than one year as mentors. Of the mentors interviewed, 80% received some form of ongoing training after their mentoring service began. For the purposes of this study, ongoing training was defined as one or more instances of training after the initial training. The researcher continued to interview additional mentors until theoretical saturation was achieved.

Table 1

Study Mentors

Pathway International Area	Area Number	Mentors Interviewed
Africa, Southeast Africa West, Middle East Africa, North Area	Area 1	2
Asia, Asia North Philippines Area	Area 2	4
Brazil	Area 3	2
Caribbean and South America, South Area	Area 4	2
Europe and Pacific Area	Area 5	4
Mexico Area	Area 6	3
South America Northwest and Central America Area	Area 7	2

Data Collection

Data collection consisted of qualitative interviews conducted from August-October 2019. First, the researcher conducted a pilot study survey in January 2019 with approximately 500 Pathway volunteer mentors to better understand organization training practices. For the current study, the Pathway organization provided the researcher with contact information for the potential study participants. The mentors were randomly selected and emailed regarding participation in the interview. Mentors who agreed to be interviewed arranged a time to speak with the researcher by Zoom call (Version 3.6.5; Zoom Video Communications, Inc.; 2019). The purpose of the interviews was to understand how ongoing training affected mentors' abilities to assist higher education students in achieving their educational goals.

In the interview, all participants were asked questions in a semi-structured format. Some married mentors were interviewed together and one or both participants had the opportunity to respond to each question that was asked. Interviews were recorded on the researcher's computer. Interview data was professionally transcribed by a third party for analysis and stored on the researcher's personal computer. The researcher continued to interview mentor participants until the data reached theoretical saturation.

Data Analysis

After the data was collected and transcribed, data was analyzed using a holistic and interpretive stance with an emphasis on key themes (Braun, Clarke, Hayfield, & Terry, 2019; Spradley, 1979; Stake, 2010; Yin, 2017). Based on the Stake (2010) coding method, data was sorted and classified by major categories related to the research question. In repeated analyses of the data, additional themes emerged from the categories. As themes emerged, they were sorted and resorted for additional understanding, and topics and subtopics were identified. These topics and

subtopics were organized into key themes. The comprehensive analysis and study discussion and findings resulted from further analysis and synthesis of all the interview data.

Trustworthiness

This study relied on Guba and Lincoln (1994) recommendations for trustworthiness for increased credibility of data analysis. First, the researcher interviewed a diverse sample of service mentors from locations around the world. This sample provided diversity for participant response data. For member checking, interview themes were reviewed and verified with Pathway administrators for meaning and clarity using verbal confirmation. This review ensures that information presented is correct in light of the broader context of the Pathway organization and goals, without biasing the research by too much management involvement. These administrators have the strongest understanding of the Pathway program and were best positioned to provide insight into whether the researcher fully understood the participants. The findings and the participants' responses were also sent to the original participants to determine if they agreed with research interpretations. For peer debriefing, findings were reviewed and discussed with colleagues and peer scholars. An academic colleague also reviewed and coded some of the interview data for comparison with researcher results. Based on the peer debriefing coding outcomes, adjustments were made to the study analysis to bring unity to the overall assessment of responses.

For negative case analysis, interview responses were compared to existing Pathway data, including the January 2019 pilot study conducted by the researcher, for potential differences in results. After completing the analysis, the researcher coded approximately 20% (325 responses) of the text responses from the submitted pilot data, specifically seeking to find areas of disagreement with the study framework. The researcher recorded all disagreements and

contrary evidence in a research journal. Next, findings and categories were evaluated in consideration of any contrary evidence. Then the researcher provided the contrary evidence and overall findings to a peer for debriefing in order to better understand the overall fit of the conclusion to the data.

Limitations

While a random selection of international in-person mentors has been interviewed for this study and the ongoing training examples are representative of the sample group, in a rapidly expanding global education program, ongoing training experiences for mentors will be different. With more than 2,500 mentors in both in-person and virtual Pathway, many different mentor experiences existed in the program. Ongoing training experiences may be different depending on the mentoring area, method of mentor participation (in-person or virtual), mentor background, training received, and students mentored.

Mentor training experiences were different depending on age, location, gender, nationality, ethnicity, educational and professional background, mentor partner, and other factors. While many Pathway student needs were common to the responsibilities of a higher education mentor and could be standardized in ongoing training, some needs were unique to the areas and countries where the students lived, and individual student needs were different in every class. Pathway mentors were expected to serve through two one-year cycles of three Pathway semesters, but circumstances did not always accommodate that expectation. The Pathway course structure was regularly being revised to better meet the needs of students and mentors around the world. With course and technical changes from one semester to the next, regular ongoing training for all mentors was critical, but that same type of mentoring training might not have been as important to an educational program with fewer changes.

Also, this higher education program has religious principles as part of its core values and training. Similar values may not apply to other higher education programs. The mentoring commitment that results from mentors' volunteer service to the Pathway program as part of their religious service also may not be transferable. Similarly, there may be a connection between mentors and students because of shared religious values that strengthens the mentoring relationship. Although not all Pathway students would share the religious values of the Pathway organization and mentors, most do.

Limitations for this study also included that the interviews were conducted in seven international areas in 13 different countries. Poor internet connections to remote areas of the world did not always allow for as clear communication in a Zoom interview as would have been available in an in-person interview. Although all mentors spoke English—a Pathway requirement with all classes conducted in English—some spoke English as a second language. While all mentors were able to express their opinions, their ability to fully express opinions in English or understand and answer questions may also have limitations in the study. Language expression concerns were mitigated by restating or clarifying questions and answers.

Results

This study examined how ongoing training affected mentors' abilities to assist higher education students in achieving their educational goals in an international educational program. Study results showed what percentage of mentors received training, what training was received, why the mentors liked or disliked training, and how the training helped them mentor students. Based on the results of the interview coding and analysis, three main themes emerged that showed the benefits of ongoing training for mentors: (a) benefits from ongoing mentoring training, (b)

volunteer mentoring needs, and (c) mentoring training creativity. These themes are described in the subsequent results.

Benefits from Ongoing Mentoring Training

Eighty percent of the mentors in the study had participated in ongoing training since beginning their service in the mentoring program. While the content, delivery, methods, and frequency of training differed from area to area, 90% of mentors requested additional ongoing training opportunities. The results showed that mentoring training benefits included: (a) mentors better understood their roles and responsibilities, (b) mentors gained knowledge, and (c) mentors received ongoing support.

Mentors better understood their roles and responsibilities. One outcome of the training was that the mentors better understood their role as a mentor. The ongoing training helped them realize their role was to encourage and support the students, including to help them find the program resources they needed. A mentor from Area 2 said, “I am not supposed to be enabling them. I am supposed to be helping them become more self-sufficient.” Training helped the mentors understand what their responsibilities were with the students and gave them tools to provide better guidance for them. Another mentor explained how critical the mentoring training was to understanding her role to support students,

[I have] been a mentor to the students in encouraging . . . them and making sure that . . . they felt safe in . . . the class What I took from the training [was] my role because I didn't want to lose any of the students.” (Area 5 mentor)

Having training also helped mentors feel valued in their mentor role as they supported students.

Mentors gained knowledge. Another purpose of the ongoing training was to update mentors on curriculum or program changes, or to provide them with important program

notifications for their students. With a constantly expanding and evolving educational program, regular updates were important to help mentors and students feel confident about student progress and mentor responsibilities in the program. These updates were shared through the live Zoom group or one-on-one training that depended on the area, and also through weekly email updates that were sent to mentors worldwide. Mentor reviews on the program update training meetings were mixed. One Area 2 mentor described the ongoing training meeting as “[an] update on policies . . . to me it's not counted as training.” However, this same mentor recognized the importance of having program updates, “If there is some interesting feature or something that can help a future student to be attracted to . . . Pathway . . . [or] it's the latest policy about Pathway . . . those kinds of changes, I should know about through training” (Area 2 mentor).

An Area 1 mentor described the informational training positively in that it “gives . . . knowledge and helps you . . . [know] . . . new information.” This mentor felt like a 6-month update was appropriate for new information. The weekly email updates that were sent to all mentors also received positive and negative feedback. An Area 6 mentor said, “The updates needed more explanation and information.” An Area 5 mentor suggested that the weekly updates should contain information that applies to mentor training in addition to the student issues that would benefit the mentors as well as the students.

Mentors received ongoing support. Ongoing training provided an opportunity for Pathway mentors in this study to ask questions and have their questions answered. These question/answer ongoing training opportunities occurred in Zoom and in-person group meetings with other mentors. They also occurred in formal and informal interactions between mentors and their supervisors. A program support line was also available for all mentors to ask questions.

In the group training sessions, mentors could ask each other questions and “[if] we needed questions answered, [program representatives] were there to answer” (Area 6 mentor). Ongoing training sessions that allowed mentors to ask questions and answer the questions mentors want to know helped mitigate concerns. One Area 3 mentor said, “I was very anxious [about my responsibilities]. So when I got the training, I had my questions, and I [had] my worries, [but] everything was solved during that conversation.” In another training, the trainers showed the mentors where to find the information they needed, “and then we were able to go and do it by ourselves” (Area 4 mentor).

Mentors were provided with organization or local representatives as a resource, and mentors who referenced them as a training resource indicated that they were helpful at answering their questions. These training contacts provided support and answers for additional questions that occurred between trainings as a mentor in Area 2 shared, “There are some things that I don't understand, but I . . . emailed my . . . [representative] right away and then [asked] them whatever I need to do . . . They . . . [answered] my question right away when I asked them.” An Area 4 mentor expressed appreciation that the representatives were available to answer questions mentors didn't find online and an Area 7 mentor said his area manager was able to answer his questions “1000%.” It was important for mentors to have resource support to answer their questions and especially the many questions from students.

Volunteer Mentoring Needs

Pathway volunteers were similar to volunteers in other organizations and they needed the program background provided by the ongoing training. While 50% of participants had been previous Pathway students, improving their understanding of the program, their role as a Pathway missionary was a volunteer position. An Area 7 mentor explained, “Training is [very] important.

[Pathway is] a volunteer job—not something you get paid for It would be very problematic if there [was] no training.” Mentors wanted to feel prepared for their mentoring responsibilities and how to most effectively help students. An Area 5 mentor said, “[As volunteers,] we want to feel confident.”

Several of the volunteer mentors had opened new chapters of the Pathway program in their cities, and for some it was the first chapter in their country. Training was particularly important for these mentors because they were establishing the program in their area and setting the pattern for how the program would run. An Area 5 mentor explained the difference in being a volunteer and being an employee as he established a new Pathway educational program in his area, “If you're an employee, you're in a formal structure and so you would probably have a manager or you have someone you report to If you've got problems, you know who to report to. Whereas here, as volunteers, we report to other people who are volunteers who eventually report to someone who is an employee. You might not have formal links [in place so] . . . maybe the information doesn't come.” An Area 3 mentor further explained the challenges of being a volunteer, “[Some] may think, if] you're a volunteer, do your best and that's enough. I don't think that's enough. I think if we [had] a formal training . . . we could be better because we would know exactly what is expected of us.”

Volunteers juggled responsibilities as they tried to balance their mentoring assignment to students with personal responsibilities. Another mentor shared his experience as a volunteer opening a new area,

For the senior mentors [of my Pathway group] when I was a Pathway student, Pathway was everything [to them]. For me, I have a job [and other responsibilities] . . . but even through

those challenges, we're trying to keep the program as best as [we] . . . can be running it.

(Area 7 mentor)

The combination of being a volunteer, becoming a mentor, and establishing the Pathway program in a new area made the need for additional training particularly valuable to mentors. One Area 4 mentor explained,

The online training was good, and I think that it covered pretty much everything, but as we were starting the program here, there were a lot of things that we didn't know about logistics and all the things that were not on the online training We [did] not know where to go [for help].

Mentors reported that they frequently learned to be a mentor through the process of mentoring.

Although some mentors disliked the repetitive nature of some of the training, one mentor explained how the same principles that had helped her as a nurse, applied to mentor training,

Whether or not I'm a volunteer, I need training You always need ongoing reminders. In my former career, I was a nurse, and we had training every year that went over the same things. Things we did not do often, we retrained on those every year. We had to be retrained on those things every year so that we'd remember how to do it if we did need to use it That would be on equipment . . . on processes, procedures And the [skills] that you [used] all the time, you don't really need to be trained on because you know how to do it. So it's the [skills] you don't use all the time that you need the yearly updates on.

(Area 2 mentor)

Even repetitive training added value to a volunteer mentor program if mentors understood the purpose of the training and how it could help them assist students. Mentors also felt ongoing training added accountability and goal-setting opportunities for their work with students.

Mentor volunteers were also self-sufficient. While many mentors in this study wanted more training, whether or not they received it, they acted independently based on the knowledge they did have to provide the best educational experience for their students. One mentor described her experience: “We’re . . . the kind of people that if we needed help . . . [we’re] not afraid to ask for it . . . We haven’t [had] a lot of hand holding . . . but I don’t think we’ve really [needed] it” (Area 5 mentor). An Area 6 mentor explained that as mentors, “Every week we learn something different . . . Sometimes I [wish] I knew a little bit more, but on the whole, I think the doing brings on more of the knowing.” Mentors were proactive in reading the training manual or seeking out the training website as an Area 2 mentor explained, “I’ve had lots of questions that have come up since [the initial training] that I just . . . went on the [website] and tried to look for.” If they did not receive training, they sought out the answers they needed. They expected training that supported their autonomy.

Mentoring Training Creativity

Mentoring in the Pathway organization helped establish effective mentoring practices. Pathway used a creative, informal training approach in its ongoing training in several groups through the social media app, WhatsApp (Version 2.19.51; WhatsApp, Inc., 2019). WhatsApp is a messaging application where the user sends messages, pictures, video, and other communication by internet communication instead of by telephone connection. It is used worldwide, but it is especially popular outside of the United States. A mentor in Area 3 described how WhatsApp worked for mentors, “It’s not formal training, [but] we can write questions and our [training] leaders can answer them.” Another mentor in Area 6 explained, “We can ask . . . [questions] on our WhatsApp . . . and someone always responds . . . We can get an answer . . . usually within minutes.” An Area 3 mentor explained the WhatsApp training, “In this group we can exchange

information among the [mentors] that [are] serving all around Brazil. We have [mentors] in many places. So it's a way of giving some information . . . it's not any specific training, but it's to share the information.” An Area 6 mentor described this training as “the most helpful [training].”

Mentors reported that most WhatsApp questions were shared at the beginning of the semester and became less frequent as the semester went on.

As previously discussed, one of the most important mentor training concerns was knowing how to find answers to their questions and student questions, and having those questions answered. One mentor explained how mentors are able to have these questions answered through WhatsApp,

The group in WhatsApp is helpful for us because when we have some questions from the students, we can write these questions there. Then, the leaders can answer these questions . . . For example, [someone writes], “I cannot get into my site. Can somebody send me the link, please?” Then, our manager in the area sends the link. The manager . . . tells us, “Are you talking about your Pathway location in [city in Mexico]? To look at who is enrolling, you need to [gives specific instructions].” [And he] sent another site [on] the web.” (Area 6 mentor)

Local Pathway representatives provided mentors with a creative way to find the answers they needed as they needed them through immediate training in the WhatsApp group. They could then share this information with students. Study results showed that ongoing training occurred for the majority of mentors in the Pathway program. Even with ongoing training occurring, most mentors wanted additional training.

Discussion

The central purpose of this study was to examine how ongoing training affects mentors’ abilities to assist higher education students in achieving their educational goals. The results of the

study showed that the majority of mentors had received ongoing training, that mentors reported that the training received was beneficial to them in their mentor service, and that they desired additional training. This discussion explains the benefits and the challenges of Pathway's ongoing training for its mentors in assisting students as supported by mentoring literature. From the results, three additional themes emerged, (a) ongoing training positively impacts mentors, (b) ongoing training identifies effective volunteer mentors, (c) ongoing training advances effective mentoring practices. The analysis of these themes is examined below.

Comparison and Interpretation of Findings

Throughout mentoring literature, training is cited as fundamental to mentoring success (Bland, 2003; Braun & Zolfagharian, 2016; Ehrich et al., 2004). The results of this study are consistent with mentoring literature on the topics of ongoing training and mentor perspectives on training as they seek to assist students in learning.

Ongoing training positively impacts mentors. Ninety percent of mentors in this study requested additional training to supplement training they had already received at the time they were interviewed. These results showed details about how ongoing training occurred in a higher education mentoring program, which is unique in mentoring literature because there are few specifics about the ongoing training experience for mentors (Butz et al., 2018; Mondisa & McComb, 2018; Raposa et al., 2017). These results provided details of the ongoing mentor training in the Pathway higher education program.

In this study, ongoing training was important to mentors understanding their roles and responsibilities. Without adequate training, many mentors do not understand their role and how they can most effectively help students (Bear & Jones, 2017; Bowser et al., 2014; Kramer-Simpson, 2018). This study showed the value of clarifying mentor roles (Black & Taylor, 2018). In

this study, it was important that mentors understood that one of their roles was to watch over and guide students, not to teach program content. The training helped them understand that the students were responsible for their individual learning and the mentor role was to support the students in that learning. This explanation of their supportive role alleviated concern for mentors that they needed more content knowledge of subject materials to mentor students. Ongoing training benefits from including role clarification as part of mentoring support.

Mentors also valued staying informed through ongoing training program updates. Research has emphasized the importance of sharing program information and goals with both mentors and students (Cox, Yang, & Dicke-Bohmann, 2014; Martin & Bok, 2015). For mentors in this study, ongoing training updates contributed current information they needed to feel successful in facilitating their classes. Although many mentors found the ongoing training for program updates less important than other training, they recognized that the updates were necessary information they needed to know. While weekly emails were sent to mentors with certain information, there had not been a reliable schedule for ongoing training program updates. The study showed a need for a predictable schedule for program updates, specifically at the beginning of program semesters. Pathway's ongoing training schedule differed from area to area across the world, but consistency in ongoing training provided security for mentors to know they could count on receiving new information or changes to share with students.

Formal and informal trainings were most helpful for mentors when they provided opportunities for mentors to ask questions and have their questions answered. Some mentoring areas had found efficient methods to answer mentor questions by asking for questions in advance of training sessions and by providing opportunities for the WhatsApp groups to answer questions almost instantly (Kutzik, 2005). For mentors in the study, whether or not the training was helpful

or not was directly related to whether or not they were able to quickly and efficiently find answers to their questions and student questions. There were more mentor and student questions as the program began each semester and as new students entered the program. The results showed that ongoing training needed to occur on a regular schedule so that questions could be answered consistently. Ongoing training that resulted in questions being answered was one of the most beneficial types of training for mentors in this study.

Greater confidence for mentors was another benefit of ongoing training the study highlighted. Mentors who understood program expectations for them and their students could act confidently in their roles and responsibilities (Rees Lewis, Easterday, Harburg, Gerber, & Riesbeck, 2018). In this study, in times of doubt or fear about skills, mentors have returned to the ongoing training they had received for encouragement in the mentoring process. Ongoing training also seemed to give mentors additional credibility with their students. An Area 4 mentor said, “[Training helps students] feel I can help them They feel confidence in me.” Mentors felt more empowered to explain procedures and processes to their students with answers from the training to support them.

Identifying contributing mentor volunteers. Ongoing mentoring training programs need to be aware of and support the unique needs of volunteer mentoring, including providing support for mentors so they understand how to most effectively interact with students and be cognizant of student needs (Brudney, 2016; Rees Lewis et al., 2015). All of the participants in this study were volunteers. This study identified important characteristics for volunteer mentors in higher education and qualities mentor programs can use to identify potential volunteers who can best support students. Mentors needed to be service-oriented with a strong desire to encourage student success. As one mentor said of her desire to help and empower students, “I wanted to make sure

that they felt . . . they could do this” (Area 5 mentor). Mentors needed to be self-sufficient, including self-motivated and self-reliant since minimal training is a concern for many mentoring programs (Ehrich et al., 2004). An Area 6 mentor described how she perceived the Pathway mentors in her area contributing their part to the mentoring program, “Everyone is putting forth the effort to make this program work well.”

Volunteer mentors also needed to be willing to learn. For some mentors, this meant they had been previous Pathway students and could share their program experience learning to help students. A mentor in Area 5 said, “Being in their shoes before [as a student], it really helps me to help them.” Other mentoring programs have also shown success in recruiting alumni volunteer mentors (Poor & Brown, 2013). For mentors who were not previous Pathway students, much of the training information was new. With 90% of mentors requesting additional training, this program has selected volunteers who want to actively learn more. The ongoing training provided in this study has shown the importance of balancing the need for information and social needs in volunteer learning opportunities (Edwards, 2012).

Ongoing training advances effective mentoring practices. Research has provided little information about the details of successful ongoing mentoring training, so identifying effective ideas in this area is an evolving process. Several Pathway areas, taking their own initiative, have instigated and developed mentoring training through WhatsApp social media groups for informal ongoing training opportunities. In addition to training on how to use the Pathway program, WhatsApp was also used for just-in-time training for student needs as they occurred to provide solutions for common problems. An Area 6 mentor explained how this training takes place,

Sometimes when . . . students [have questions] in that moment, and the student is asking us about something, we don't know the [answer]. We ask quickly in the WhatsApp group . . .

The questions appear in any moment from the students, especially when the enrollment is open or when the program is in the beginning.

The creation of the WhatsApp group reflected what is described in other learning scenarios as “just-in-time” training. In a corporate setting the difference between ongoing training and just-in-time training was described by Kutzik (2005). Ongoing training was basic skills training for new team members or for team members who have new responsibilities. Ongoing training is usually “delivered one-on-one (trainer to employee) or taught in small classes scheduled frequently through the year” (Kutzik, 2005, p. 8). Just-in-time training is for needs that develop quickly and for answers that are needed in a short time period. Kutzik (2005) explained, “The function of just-in-time training is to rapidly provide instruction for emerging . . . needs” (p.10).

For Pathway mentors who had immediate training needs that required quick answers, the WhatsApp group fulfilled that need for instruction that could not be fulfilled in the traditional ongoing training setting. The mentors’ willingness to seek out new ways to learn and participate in their mentoring practices created training that one Area 6 mentor described as “so effective.” As an Area 3 mentor explained, “[The WhatsApp group is] good because . . . like the Pathway students, [we] are teaching and learning with each other.” This ongoing training development met an important training need for Pathway mentor groups and, based on their feedback, became an effective practice.

Contributions of Findings to the Literature

The findings on ongoing training strengthen existing research on the importance of mentor training (Butz et al., 2018; Castellanos et al., 2016; Ehrich et al., 2004; Poor & Brown, 2013; Renn et al., 2014; Smith-Ruig, 2014). There are very few specifics in the literature about what type of content is most beneficial for mentoring training. This study adds to the literature about specific

training resources that are beneficial to mentors, including reference resources, training contacts, group training, social media sites for questions, and regular training updates. The findings on volunteer mentoring add to the literature on volunteer mentoring characteristics and their ongoing training needs (Brudney, 2016; Edwards, 2012; Hood, 2012). There is little available research on creativity in mentoring training and best practices. This study shows how an educational program identified effective training methods for mentors to better connect to each other to improve training knowledge and to meet mentor needs to benefit students.

Mentors contribute to best training practices. For the mentors in this study, some of the most effective training came as they answered each other's questions in the WhatsApp group. Similarly, mentors appreciated the opportunity to share ideas in group Zoom training with other mentors. Those who did not have group training opportunities to share with other mentors wanted more of those training opportunities. Mentors themselves may be a program's best resource for ongoing training instruction as more experienced mentors share lessons learned with newer mentors, and mentors discuss in a group how they solved a specific mentoring problem or what mentoring ideas worked for them to best help students. For volunteer mentoring programs such as the program in this study, these mentor-to-mentor training sessions require organization, but could also minimize training costs from additional staff, which is often a concern for mentoring programs (Martin & Bok, 2015).

Volunteer mentors may need more training. The Pathway mentors in this study were all volunteers, as are all Pathway mentors worldwide. Volunteer mentors may need more training because they are volunteers and need organization support. Depending on their global location, some Pathway mentors reported an absence of structured training opportunities to help them establish and run their classes. Some reported feeling challenged by significant personal

responsibilities in their locations as they tried to organize the Pathway program and mentor students. Others reported not knowing where to go for help when they needed it. Twenty percent of volunteers in the study reported not receiving ongoing training, so more could be done to reach out to all volunteers. Mentoring organizations with volunteers need to understand the needs of their volunteers and show them they are valued and important to the success of the organization (Hood, 2012). This finding shows the importance that regular training evaluations can provide with feedback to the organization of how they are doing at meeting volunteer training needs and providing needed support (Black & Taylor, 2018).

The transferability of mentoring training across the world. This study was conducted in 13 of the 134 countries Pathway served in in 2019. Mentors did not feel that their international location significantly affected the organization's ongoing training process, compared to the benefits of ongoing training and being supported as a volunteer. This finding suggests that a mentoring ongoing training program potentially could be successful across cultures and countries. This finding can also provide support to educational institutions with diverse populations of students and mentors that even with financial constraints, an effective mentoring program can be advocated and implemented (Coles, 2011; Martin & Bok, 2015).

Implications for Future Research

While this study provided beneficial insights into improving ongoing training for higher education mentors, more research is needed to continue to improve mentors' ability to help students. This was a small qualitative study of 20 mentors in a specific higher education program. The most significant improvement to this study would be a larger qualitative or mixed methods study of more mentors in multiple higher education programs who could provide a greater source of data for analysis regarding their ongoing training experience. The mentors studied in this

research were serving in international locations outside the United States, which may have affected their perspective of mentoring. Additional studies could examine mentors in other areas. To broaden the scope of this study, all mentors were interviewed through Zoom. Conducting in-person interviews would eliminate connection problems and could provide additional insights into mentoring. Interviewing mentors in their native language could produce greater clarity and depth of response by mentors.

This study did not collect student data to compare with the mentor data collected. Student data could be collected as part of the study to compare student perceptions of mentoring with mentor perceptions and how ongoing training affects those views. Also, the mentors in this study were volunteers. Research should be done to compare volunteer mentors to paid mentors and how ongoing training affects their ability to help students meet their educational goals. The mentors in this study had served as mentors for less than three years. Additional studies could focus on lessons learned from long-term mentoring and how higher educational programs can better retain mentors. As mentoring needs continue to increase for higher education students (Allen & Lester, 2012; Gravel, 2012; Letkiewicz et al., 2014; Poor & Brown, 2013; Villaseñor, Reyes, & Muñoz, 2013), more research like this study are needed.

Implications for Practitioners

This study provides specific recommendations for higher education mentoring programs as they develop ongoing training practices. Mentoring literature suggests ongoing training but is very vague about specific ongoing training that will be most helpful to higher education mentors (Butz et al., 2018; Castellanos et al., 2016; Dahlvig, 2010; Henry et al., 2011; Lunsford, 2011; Martin & Bok, 2015; Mondisa & McComb, 2018). This study provides more specific guidelines for ongoing training for mentors, including regularly scheduled training meetings and types of ongoing training

for consideration. It also provides information about what content is most helpful to mentors in ongoing training—understanding their role and responsibilities as mentors, informing mentors about program updates and changes, providing answers to mentor and student questions, and strengthening mentor confidence.

For volunteer mentors, this study provides additional insight into better understanding volunteer needs in ongoing training. This study also showed important characteristics of volunteer mentors that can be used in recruiting mentors who will best meet student needs. We recommend identifying opportunities for developing creative and improved best practices in mentoring as Pathway did with its mentor-to-mentor training sessions and just-in-time WhatsApp training.

Conclusion

Ongoing training has the potential to have a significant impact on mentors and the students they guide through the educational process. While ongoing mentoring training has been recommended in previous literature, it has not been explained in sufficient detail to provide meaningful assistance for mentoring programs who want to use ongoing training to improve mentor/student interaction. Ongoing training provides direction, support and validation for mentors, a continuing connection to the mentoring organization, and assistance with student needs.

This research study provided a literature review of the background of mentoring and ongoing training, the value of ongoing mentoring training, and the challenges of ongoing training. This qualitative study analyzed interview responses from 20 mentors in international locations in a global higher educational initiative. The study results showed the benefits from ongoing mentoring training, including mentors better understanding their roles and responsibilities, mentors gaining knowledge, and mentors receiving ongoing support. Results

also showed volunteer mentoring needs and mentoring training creativity. Furthermore, the study showed that ongoing training positively impacts mentors, that it identifies contributing mentor volunteers, and that ongoing training advances effective mentoring practices. The study also contributed findings to the literature including that mentors themselves contribute to best training practices, volunteer mentors may need more mentoring training, and ongoing mentoring training has global transferability.

More research is needed on the student perspective of mentoring ongoing training and how ongoing training affects the student/mentor interaction. More research is also needed on the comparison of mentor types, including paid mentors compared to volunteer mentors and peer mentors. Ongoing training and mentor retention should also be studied in greater depth and continued research is needed into how well training can move across cultures. Research shows that undergraduate mentoring is a significant factor in student achievement possibilities (Baier, Markman, & Pernice-Duca, 2016). In addition to ongoing training for mentors, this study of Pathway mentors has shown the value and importance of prioritizing mentors in higher education learning environments because they can provide critical support for students that compensates in the absence of an in-person instructor (Velasquez, Graham, & West, 2013). Pathway mentors in this study provided an example of mentoring that could possibly be replicated in other mentoring programs. More can be done throughout higher education to channel the possibilities of mentoring to make a difference in the lives of students and to help them achieve their educational and career goals. As institutions of higher education take greater initiative in providing structured ongoing training for mentors, mentors will be more knowledgeable and confident in their mentoring skills and students will have increased opportunity for success.

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DISSERTATION CONCLUSION

More than ever before, mentoring in higher education is viewed as a path for helping students find success in college. With challenges to retention, persistence, and the emotional well-being of students, the support and encouragement of a dedicated mentor can make all the difference in students' university experience. Whether in an in-person classroom or online, mentoring has the potential to help students face academic and personal challenges, set goals and plan for their future career, and discover role models who can be positive influences at a formative time in their lives. While the greatest impact of mentoring is in the individual lives of students, this study has also shown the collective power of mentoring across a global education initiative and the possibilities for transferability of mentoring training across countries and cultures.

As a foundation for this dissertation, in my first article I reviewed mentoring literature from 2008-2018 to better understand what research had recommended for successful mentoring. There were gaps in the literature on mentoring theories and what theoretical approaches were most effective for online mentoring. There were also gaps on how to develop an effective mentor and while mentor training was suggested, specific recommendations for training were lacking. My literature review added to the research by showing that mentors will be most effective as they recognize their contribution to student success, understand their role as a mentor, and participate in a mentoring program that supports their efforts to help students succeed. The review also showed that research is lacking in online mentoring, mentor training, and the design of mentoring programs, and for mentors to be most successful, more research is needed in these areas. Online mentoring is increasing as many higher education programs move online and merits an increased focus in research.

The second article sought to provide more research for the gap in online mentoring as I conducted a survey research study on 143 online mentors from around the world in a global educational initiative to better understand effective mentoring practices. Of the four mentoring domains studied, the study showed that online mentors reported they were most successful at providing emotional and psychological support for students. This research showed particular online mentoring benefits for the nontraditional student, meaning assistance for students who would have difficulty being successful in a traditional, in-person classroom. As higher education administrators seek to increase enrollment, they can use online mentoring as a method to enroll and retain students who might otherwise not participate in higher education. This research also showed that mentors could learn their mentoring roles and responsibilities quickly. In this study, 65% of volunteer mentors had served as online mentors for eight months or less, but they felt they were able to mentor effectively. More research is needed in in this developing area of online mentoring.

The purpose of the third article was to contribute research to an area where there was also a gap in mentoring research—that of mentor training, specifically ongoing mentor training. In this qualitative study, I interviewed 20 mentors from 13 international locations in a global higher education initiative to determine how ongoing training affected mentors' abilities to assist higher education students in achieving their educational goals. The study results showed benefits from ongoing mentoring training, volunteer mentoring needs, and mentoring training creativity. While mentoring training is often recommended in mentoring literature, specific research recommendations for training are missing. This study provided specific suggestions for ongoing training for mentors, including findings that mentors themselves contribute to best training practices. Mentoring programs will benefit from the mentoring practice suggestions of their

mentors. This study was also conducted in an international educational program among international mentors in more than a dozen countries. The study found that mentoring training practices have the potential to be transferred across countries and cultures, which can benefit increasingly global educational organizations in higher education who hope to establish effective mentoring programs.

Improving mentoring in higher education is a challenging but attainable goal. Previous interest in online education has suddenly become a global priority and a necessity for higher education, resulting in a collective shift to online learning as a result of COVID-19 (“Interim Guidance for Administrators of U.S. Institutions of Higher Education,” 2020). More mentoring research is needed, and more mentoring tools and training will provide guidance in helping students reach their potential in as they navigate anticipated or unexpected educational paths. As educators and mentors work together to improve mentoring in higher education, they can create a partnership that will benefit students and help them achieve success, as they overcome obstacles now and in the future.

DISSERTATION REFERENCES

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APPENDIX A

Survey Instrument

1. What area are your students located in? (multiple choice)
 - Africa Southeast, Africa West, Middle East and Africa North Area
 - Asia, Asia North and Philippines Area
 - Brazil Area
 - Caribbean & South America South Area
 - Europe, Europe East and Pacific Area
 - Mexico Area
 - North America: Central or Idaho Area
 - North America: Southeast or Northeast Area
 - North America: Southwest Area
 - North America: West or Northwest Area
 - North America: Utah Area
 - South America Northwest and Central America Area

2. What area are you located in? (multiple choice)
 - Africa Southeast, Africa West, Middle East and Africa North Area
 - Asia, Asia North and Philippines Area
 - Brazil Area
 - Caribbean & South America South Area
 - Europe, Europe East and Pacific Area
 - Mexico Area
 - North America: Central or Idaho Area

- North America: Southeast or Northeast Area
 - North America: Southwest Area
 - North America: West or Northwest Area
 - North America: Utah Area
 - South America Northwest and Central America Area
3. When did you begin your first term as a virtual Pathway missionary? (multiple choice)
- April 2019
 - January 2019
 - September 2018
 - April 2018
 - January 2018
 - 2017 or earlier
4. Did the virtual environment restrict or enhance your ability to assist students in virtual PathwayConnect in any way? (text response)
5. What has helped you overcome any online student interaction challenges? (text response)
6. Have you served previously as a face-to-face missionary? yes/no
- 6a. If yes, please explain the differences between mentoring in virtual PathwayConnect and face to face mentoring. In particular, how is it different in terms of your ability to provide students support, help them reach their goals, be a role model for them, or use of technology to support them?
 - 6b. If yes, please share an experience about the unique challenges of the PathwayConnect virtual group compared to the face-to-face group in one of 4 areas: emotional student

support, assisting in student goal setting or career paths, being a role model for students, or use of technology

7. Please rate (1-5) your ability to provide emotional support for students in the virtual PathwayConnect program.

- 7a. (responses 1-2) Please share an experience when you were not able to provide student support needed and why.
- 7b. (responses 4-5) Please share an experience when you were able to provide student support needed and why.

8. Please rate (1-5) your ability to help students set goals and see after-Pathway options.

- 8a. (responses 1-2) Please share an experience when you found the virtual PathwayConnect experience made it difficult to help students set goals and see after-Pathway options and why.
- 8b (responses 4-5) Please share an experience where you were able to help students set goals and see after-Pathway options in the virtual PathwayConnect experience and why.

9. Please rate your ability to be a role model for students in the virtual PathwayConnect program?

- 9a. (responses 1-2) Please share an experience when you found the virtual PathwayConnect experience made it difficult to be a role model.
- 9b. (responses 4-5) Please share an experience where you were able to be a role model in the virtual PathwayConnect experience.

10. Please rate your ability to use technology effectively in the virtual PathwayConnect program.

- 10a. (responses 1-2) What additional training would help you resolve any technology challenges? (Be specific)
- 10b.(responses 4-5) How were you able to use technology to help virtual students achieve their education

APPENDIX B

Interview Questions

- Did you receive any initial training when you began your service as a Pathway missionary?
- What training did you receive prior to beginning your service as a Pathway missionary?
- What part of the initial training was most important to your learning?
- How would you describe the Pathway ongoing training?
- What part of the ongoing training was most important to your learning?
- What parts of the ongoing training did you not understand?
- What parts of the ongoing training needed additional explanation?
- What was the most effective part of the ongoing training?
- What was the least effective part of the ongoing training?
- What additional training would you like to receive?
- After the ongoing training, did you better understand your role as a Pathway missionary?
- How does being a volunteer affect your need for ongoing training?
- How does being in an international location affect your need for ongoing training?
- Please share any additional comments on the ongoing training process?

APPENDIX C

IRB Study Approval**Memorandum**

To: Professor Richard West
Department: IP&T
College: EDUC
From: Sandee Aina, MPA, IRB Administrator
Bob Ridge, PhD, IRB Chair
Date: August 7, 2019
IRB#: E19216

Title: *“Improving Mentoring in Higher Education”*

Brigham Young University’s IRB has approved the research study referenced in the subject heading as exempt level, category 2. This category does not require an annual continuing review. Each year near the anniversary of the approval date, you will receive an email reminding you of your obligations as a researcher and to check on the status of the study. You will receive this email each year until you close the study.

The study is approved as of **August 7, 2019**. Please reference your assigned IRB identification number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements:

1. A copy of the informed consent statement is attached. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
2. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
3. All recruiting tools must be submitted and approved by the IRB prior to use.
4. In addition, serious adverse events must be reported to the IRB immediately, with a written report by the PI within 24 hours of the PI's becoming aware of the event. Serious adverse events are (1) death of a research participant; or (2) serious injury to a research participant.
5. All other non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB. Please refer to the IRB website for more information.

IRB Secretary
A 285 ASB
Brigham Young University
(801)422-3606