Theses, Dissertations and Capstones

2022

An Examination of Teacher Perceptions of the Effectiveness of Online, On-Demand Professional Development for West Virginia Educators

Anna Shreve
rubenstein9@marshall.edu

AN EXAMINATION OF TEACHER PERCEPTIONS OF THE EFFECTIVENESS OF ONLINE, ON-DEMAND PROFESSIONAL DEVELOPMENT FOR WEST VIRGINIA EDUCATORS

A dissertation submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Doctor of Education
In
Leadership Studies
by
Anna Shreve
Approved by
Dr. Bobbi Nicholson, Committee Chairperson
Dr. Ronald Childress
Dr. Marc Ellison
Dr. Jim Harris
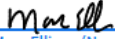
Marshall University
December 2022

APPROVAL OF DISSERTATION

We, the faculty supervising the work of **Anna Shreve**, affirm that the dissertation, **An Examination of Teacher Perceptions of the Effectiveness of Online, On-Demand Professional Development for West Virginia Educators** meets the high academic standards for original scholarship and creative work established by the EdD Program in **Leadership Studies** and the College of Education and Professional Development. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.

Bobbi Nicholson	*Bobbi Nicholson*	11/8/22
Leadership Studies	Committee Chairperson Major	Date
Ronald Childress	Ronald Childress (Nov 8, 2022 11:17 EST)	11/8/22
Leadership Studies	Committee Member Major	Date
JimHarris	Jim Harris (Nov 9, 2022 15:50 EST)	11/9/22
External	Committee Member External	Date
Marc Ellison	Marc Ellison (Nov 9, 2022 15:53 EST)	11/9/22
External	Committee Member External	Date

Dedication

I dedicate this dissertation to my parents, who pushed me to be Dr. Rubenstein-Shreve for so long, as well as my husband, who provided so much assistance and support as I worked through my educational endeavors (even though he won the race to be Dr. Shreve first).

Acknowledgements

An extra special thanks to Dr. Barbara Nicholson, who consistently supported and encouraged me through my studies. After spending my childhood playing in the hallways outside her office, it was an honor that I was able to have her as my dissertation chairperson. I also would like to thank my committee members who supported me through the process: Dr. Ron Childress, Dr. Marc Ellison, and Dr. Jim Harris. An additional thanks to all of the professors I had during my studies for providing the foundational knowledge to get me to this point.

I want to acknowledge all the people in my life who helped me through this journey:

- My husband, Christopher Shreve

- My parents, Dr. Bob and Sue Rubenstein

- My siblings, Jonathan, Mikaela, and Jess

- My nieces, Sunni and Ani

- All of my friends who constantly heard me stress out (David, Anna, Nathan, Cameron, Tyler, Ben, Kayla, Billy, Ski, Matt, Mary, The Dwellers, and so many, many others)

- My coworkers who helped spread the word for my study and supported me along the way

- The Board Room for providing me a place to work while also providing libations

- My cats, Rengoku and Roy Mustang, even if they did like trying to sit on my computer while I worked

I also want to thank all of the participants of Keynotes for Key People, especially those who participated in my study. I could not have done this without them.

Table of Contents

List of Tables

Abstract

This research investigated West Virginia teachers' perceptions of online, on-demand professional development. The researcher used a mixed-methods, nonexperimental study that utilized a 16-item survey and a six-item follow-up survey to examine teacher perceptions. A convenience sample was used and was comprised of participants of the West Virginia Behavior/Mental Health Technical Assistance Center at Marshall University's 2021 online, on-demand professional development, Keynotes for Key People. The purpose of the study was to determine if effectiveness characteristics of in-person professional development could be embodied by online, on-demand professional development. The premise of the study was that if the effectiveness characteristics of in-person professional development could not align to online, on-demand professional development, additional studies might need to be conducted in order to develop an effectiveness characteristic framework specific to online, on-demand professional development offerings. The study found that West Virginia teachers had an overall positive opinion of online, on-demand offerings and felt that Keynotes for Key People embodied effectiveness characteristics derived from traditional professional development research, however, more research needs to be done to determine whether the results are generalizable to other online, on-demand professional development offerings and other populations.

Chapter 1: Introduction

In March 2020, schools and businesses around the world shut their doors and adopted online forms of delivery and communication due to the COVID-19 pandemic. Organizations and individuals who offered professional development to educators and administrators were no exception. Although there were a number of professional development offerings available online prior to March 2020, new contextual factors led to a drastic increase in the number of educators participating in online professional development. Nearly a year and a half after some education-focused professional development organizations moved to an online format, schools have begun to open their doors again to live, in-person professional development; however, the structures for online options are now in place for many of these organizations, so they have to make a decision as to the extent to which online modalities will continue to be utilized.

There is a variety of formats and delivery methods that can be considered "online" professional development, some being synchronous via video conferencing software such as Zoom, and others asynchronous and self-paced. This study aims to specifically examine online, on-demand professional development offerings without synchronous meetings. With these types of trainings, educators have an opportunity to learn material at times that fit their own schedules or when their schools' administrators schedule times for professional development to be conducted. Just as with traditional, in-person professional development, online, on-demand professional development offerings often have activities to supplement the information; however, a major difference is that participants can oftentimes revisit the material as needed with the asynchronous, online format.

Literature Review and Framework

There is an extensive history of professional development research within academic journals, with some articles dating as early as 1912 on EBSCO Host. Oftentimes researchers focus on professional development within specific fields, with a large number of researchers focusing on professional development within education. Research on professional development has focused on what makes professional development effective (e.g., Darling-Hammond, Hyler, & Gardner, 2017; Gaumer Erickson, Noonan, & McCall, 2012; Garet, Porter, Desimone, Birman, & Yoon, 2001; Guskey, 2002; Guskey, 2003), the impacts of professional development (e.g., Owen, Whalley, Dumill, & Eccles, 2018; Rock, 2017; Shaha, Glassett, Copas, & Ellsworth 2015; Yunjo, 2018), and teacher perceptions of the different modalities of professional development (e.g., McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2012), among other topics. Although there was a relatively large number of studies within the context of online professional development offerings, a majority of research is based around traditional, in-person trainings.

A consistent focus of professional development research has been what makes professional development effective. A study by Garet et al. (2001) concluded that there are three main characteristics of effectiveness: content focus, active learning, and coherence. Guskey (2003) included other characteristics of effectiveness, such as sufficient time and resources, collaborative exchange between participants, an evaluation process, and a collaboration between the educators in schools and district-level personnel. Darling-Hammond et al. (2017) had a list of seven characteristics of effective professional development, which included many of the previously mentioned characteristics but also included the necessity of collaboration within job-embedded contexts, the use of models and modeling effective practices, providing coaches and

expert supports, and offering opportunities for reflection and feedback. Each of these research articles expressed that effective professional development offerings are ultimately ones that increase teacher knowledge and lead to changed practice.

There is a significant amount of research on the different impacts of professional development on both teachers and students. In addition to increased teacher knowledge and changing practice, Forte and Flores (2014) expressed that professional development helps build relationships between teachers and allows teachers to learn from their peers. With respect to students, research has shown that professional development can improve student performance and overall learning outcomes (Darling-Hammond et al., 2017).

The themes of what makes professional development effective as well as its impacts have also been explored in the context of online modalities. Sahr (2016) explored the correlations between perceived effectiveness and concluded that geographic location as well as age could predict the preference of professional development modality. Additionally, studies have shown that online professional development can change educators' attitudes toward specific teaching practices and provide a space where teachers could feel safe expressing their thoughts and feelings about their schools (Owen et al., 2018; Yunjo, 2018). As with in-person professional development, student impacts also included improved performance (Shaha et al., 2015).

Other studies evaluated educator perceptions to compare in-person and online professional development offerings. McConnell et al. (2012) stated that teachers believe online professional development has the same benefits as in-person professional development and that the online option would serve as an effective alternative if in-person meetings were not practical. Scott, Feldman, and Underwood (2016) determined that educators' knowledge increased regardless of the modality of the training.

There have been very few studies that focus on specifically online, on-demand offerings. With so many studies based on traditional, in-person professional development and the current rapid increase in availability and participation of online, on-demand professional development offerings, further research is necessary to evaluate which theories and frameworks developed from studies focusing on traditional, in-person professional development can be utilized to research, change, and/or improve online, on-demand professional development.

Based on prior research regarding the online, on-demand model, this form of professional development has led to increased school performance, with even better results when engagement was beyond simply viewing videos (Shaha & Ellsworth, n.d.; Shaha et al., 2015;). Rizzuto (2016) examined online, on-demand professional development in higher education as well, also concluding that online, on-demand professional development increased learning of the participants with many participants expressing that they would participate in further on-demand professional development opportunities while recommending future offerings to their colleagues. Riel, Lawless, and Brown (2018) began evaluating certain aspects of on-demand professional development, such as timing, in order to determine ways to make trainings more effective; however, the study simply provided measures utilized to examine optimum timing and specific results were not provided.

One of the key pieces of literature, which was used as the framework for this study, is an article by Guskey and Yoon (2009) that provides a framework for the common elements of professional development that are considered effective. The characteristics are to allow teachers to adapt the research-based practices to their unique classroom situations; the use of outside experts; adequate time to engage with the material; "just-in-time, job embedded" (p.497)

assistance; context specific activities; and learning that enhances teachers' content and pedagogical content knowledge (Guskey & Yoon, 2009).

Problem Statement

During the COVID-19 pandemic, there was an unprecedented move toward online work in the education environment. According to the United States Census Bureau, 93% of households with school age children reported that their children engaged in some form of distance learning, with 80% of children utilizing online resources (McElrath, 2020). Just as students' learning moved to online platforms, teachers' learning did the same. Online teacher professional development offerings ranged in their method of delivery from synchronous trainings using video-conferencing software such as Zoom or Skype to asynchronous methods such as YouTube videos and online quizzes. The importance of teachers' ongoing professional development cannot be understated because it is linked to improved student outcomes, increased teacher knowledge and skills, and improved skill-level practices (Opfer & Pedder, 2010).

According to Guskey and Yoon (2009), effective development offerings have several characteristics in common. They offer opportunities for teachers to reflect on adapting the research-based practices to their own classroom situations; use outside experts to present information; give educators adequate time to engage with material; provide "just-in-time, job-embedded" (p.497) assistance as they try to adapt the new practices to their own classroom contexts; and rely on activities that have been adapted for the specific content, context, and participants' needs. Studies have shown that online professional development can achieve most of those goals and can be just as effective as in-person professional development (McConnell et al., 2012; Sahr, 2016; Scott et al., 2016), if not more so. Can they, however, meet Guskey's (2009) criterion for "just-in-time, job-embedded" (p.497) programming?

Research on online professional development offerings, is limited compared to the scope of research on professional development in general. For example, searching "professional development" on EBSCO yields almost 60,000 academic journal results, compared to searching "online professional development," which yields just under 400. Even less research has been performed on the topic of online, on-demand professional development. A search of EBSCO for "on-demand" and "self-paced" professional development yielded around three relevant academic journal articles.

As online, on-demand professional development becomes an increasingly viable option for educators, it will be important to examine educators' perceptions of the advantages and disadvantages associated with the process. Given that school districts now have the option to return to in-person professional development after having adjusted to online delivery, an examination of the effectiveness of online delivery to aid in this decision making is due.

Purpose

Many of the frameworks and models for effective professional development were formed from studies on traditional, live trainings. With advancements in technology, however, online, on-demand professional development has become a viable option for educators. The purpose of this study was to examine educators' perceptions of the effectiveness of online, on-demand professional development within the framework of Guskey's (2009) characteristics of effective professional development (i.e., workshops that focus on research-based instructional practices, the use of outside experts, adequate time for teachers to engage in learning, follow-up assistance that is "just in time" and "job-embedded," activities that match the content and context, and a focus on increasing teacher content or pedagogical content knowledge). Such an exploration can

perhaps catalyze an emerging body of research into online, on-demand professional development.

Research Questions

This study was guided by one overarching inquiry: What do educators participating in an online, on-demand professional development offering perceive as the advantages and disadvantages of the modality? To answer this question, five specific research questions – developed from the existing literature regarding the characteristics of effective professional development – were explored:

RQ1. To what extent does on-demand professional development function as a workshop experience?

RQ2. To what extent does on-demand professional development use outside experts specializing in the topic?

RQ3. To what extent does on-demand professional development allow for time to engage with the material?

RQ4. To what extent does on-demand professional development allow for activities that are adapted to the content and context?

RQ5. To what extent does on-demand professional development focus on increasing teacher content or pedagogical content knowledge?

An additional question was investigated based on the demographics of the respondents:

RQ6. Are there differences in participants' responses based on a selected list of demographic/attribute variables (e.g., age, years of teaching experience, subject taught, etc.)?

Theoretical Framework

One of the key pieces of literature, which was used as the framework for this study, is an article by Guskey and Yoon (2009) that provides a framework for the common elements of professional development considered effective. The identified characteristics were derived from research of over 1,300 studies on professional development and include allowing teachers to adapt the research-based practices to their unique classroom situations; the use of outside experts; adequate time to engage with the material; "just-in-time, job embedded" (p. 497) assistance; context specific activities; and learning that enhances teachers' content and pedagogical knowledge (Guskey & Yoon, 2009).

Many traditionally delivered professional development offerings provide teachers time to work on adapting the practices to fit their unique classroom contexts. Guskey and Yoon (2009) explain that while this has often been "criticized as the epitome of ineffective practice," (p. 496) this does not have to be the case. Providing this time to teachers can be explained as an activity that "focused on the implementation of research-based instructional practices, involved active-learning experiences for participants, and provided teachers with opportunities to adapt the practices to their unique classroom situations" (Guskey & Yoon, 2009, p. 496).
All of the studies analyzed showed a positive relationship between teachers being given the opportunity to adapt the content to their unique contexts and student outcomes, therefore making workshops an important characteristic to effective professional development.

Another effectiveness characteristic posited by Guskey and Yoon (2009) is the incorporation of outside experts. A debate in professional development research involves whether professional development should be conducted by "in-house staff members" (p.496) or outside experts. Those who believe that those in the school should be the ones to conduct

professional development often argue that it is more effective if professional development relates to common problems that are determined by those within the school (Guskey & Yoon, 2009). The counterargument to this is that instead of focusing on new, research-based practices for professional development, in-house staff-led professional development often focuses on practices they are already doing that they believe are "good" (Guskey & Yoon, 2009, p. 496). It should be noted, however, that none of the studies analyzed by Yoon and his team used in-house staff to present professional development content.

An additional effectiveness characteristic discussed is adequate time. Educators need enough time to engage with the material to enhance their understanding, to think of how the practices from the professional development session relate to student work, and to determine how they can use the content to "develop new approaches to instruction" (Guskey & Yoon, 2009, p. 497). Simply providing more time does not make the professional development offering more effective; the time must be dedicated to effective practices (Guskey & Yoon, 2009). In the studies examined, positive effects were seen in studies with 30 or more contact hours (Guskey & Yoon, 2009).

Effective professional development opportunities also often incorporate follow-up activities after the initial session. Follow-up is crucial: "Educators at all levels need just-in-time, job-embedded assistance as they struggle to adapt new curricula and new instructional practices to their unique classroom contexts" (Guskey & Yoon, 2009, p. 497). Guskey and Yoon noted that each of the studies analyzed that had adequate follow-up were correlated with improved student outcomes.

Many of the discussions around professional development center around "best practices" (p. 497) and the activities involved in those practices. Although there are no

specific activities associated with positive student outcomes, those activities that were linked to "the specific content involved, the nature of the work, and the context in which that work took place" showed some benefit (Guskey & Yoon, 2009, p. 497). For the professional development to be considered effective, the activities should be adapted to the context and the other variables surrounding that specific professional development offering.

Often debated is the topic of what the content of professional development should be. In each of the studies analyzed, the studies focused on "specific subject-related content or pedagogic practices. In addition, most also emphasized teacher discretion in implementing that content and those pedagogic practices, justified by how students learn" (Guskey & Yoon, 2009, p. 497). Therefore, based on the studies analyzed, having content that enhances pedagogical content knowledge is an effectiveness characteristic of professional development as well.

There are other studies that could have been used as frameworks for effective professional development practices. Smith, Ralston, Naegele, and Waggoner (2020) proposed a framework based on team teaching, collaborative learning, content knowledge, active learning, coherence, collective participation, and duration. Other studies (Darling-Hammond et al., 2017; Garet et al., 2001; Guskey, 2003) also proposed lists of characteristics that are correlated with effective professional development offerings.

The Guskey & Yoon (2009) characteristics were ultimately selected as the framework for this study for several reasons. First, the characteristics they identified were based on an in-depth analysis of professional development research. Many of the characteristics that were proposed in

the other studies were similar to the characteristics proposed by Guskey and Yoon (2009). Furthermore, the characteristics proposed by Guskey and Yoon (2009) are detailed enough that instruments could be designed around the characteristics, while also being broad enough that online, on-demand professional development characteristics are not conflicting to the practices and ideas proposed.

Methods

This nonexperimental, mixed-method study utilized a nonrandom, convenience sample of educators registered for the West Virginia Behavior/Mental Health Technical Assistance Center at Marshall University's summer 2021 online, on-demand professional development offering. The data collection took place in two phases. For the initial survey, all participants were asked to complete a survey several weeks after the conclusion of the professional development activities. The survey was created using online survey software (i.e., Qualtrics) and was sent after other online resources, activities, and evaluations that educators were asked to review and complete were distributed; however, survey participation was optional. Survey results were be kept confidential.

The survey questions featured demographic questions in addition to Likert-type and open-ended questions related to what participants perceived as the advantages and disadvantages of online, on-demand, online professional development.

A second, follow-up questionnaire was distributed to the same sample as the first survey. The follow-up questionnaire included a series of open-ended questions designed to further illuminate the responses from the initial survey. As with the first questionnaire, the follow-up survey was created using online survey software. The questionnaire featured six open-ended

questions so teachers could elaborate on whether or not the professional development embodied the Guskey and Yoon (2009) effectiveness characteristics.

Sample/Population

The population consisted of a non-random, convenience pool of West Virginia educators enrolled in the West Virginia Behavior/Mental Health Technical Assistance Center's summer online, on-demand professional development offering during the summer of 2021. With the nature of registration, it is impossible to get an exact number of educators that participated in the professional development; however, it is estimated that there were over 1,000 participants. The responding participants constituted the sample.

Limitations

There were a number of limitations due to the design and contextual restrictions of the study. First, the data was collected via a convenience sample, so a majority of the educators surveyed are in PBIS schools. PBIS, standing for Positive Behavior Instructional Supports, is a flagship project of the West Virginia Behavior/Mental Health Technical Assistance Center. Therefore, many of the teachers and administrators who were on the email list, have regular contact with center staff members, attend programs and conferences offered by the center, and are employed at a PBIS school. Since educators shared this characteristic, the results may not be generalizable to educators who work outside of PBIS schools. Second, due to the nature of online, on-demand professional development, it was impossible to have a standardized environment. Teachers completed the survey in their own unique contexts.

A third limitation existed with regard to the study design. The results are based on participant-reported data which may be affected by preferences either in favor of or against the online, on-demand modality; bias was therefore a possibility.

Significance of the Study

The research done in this study will help contribute to the relatively small body of knowledge on online, on-demand professional development offerings, which is an increasingly useful attribute due to the growing popularity of this professional development modality. With greater amounts of online, on-demand professional development being offered and utilized, especially since the COVID-19 pandemic, this study can help guide future research in this expanding field. For example, the results of this study have the potential to affect whether future studies should focus on modifying online, on-demand professional development offerings to better match existing frameworks of effective professional development or if new frameworks need to be created to reflect the different modality and its characteristics.

The results of this study also hold the potential to have a significant effect on the creation of online, on-demand professional development offerings themselves. The results will highlight teachers' perceptions of online, on-demand professional development, allowing adjustments to be made to the structure, content, and/or delivery based on these educator responses.

Chapter 2: Review of the Literature

Professional development has been a long-studied topic with an extensive number of studies related to professional development within education. In the online database EBSCO Host there are some articles on professional development dated as early as 1912, with record of education-based professional development research becoming abundant in the 1950s. Research on professional development has focused on what makes professional development effective (e.g., Darling-Hammond, et al., 2017; Gaumer Erickson et al., 2012; Garet et al., 2001; Guskey, 2003; Guskey, 2002), the impacts of professional development (e.g., Owen et al., 2018; Rock, 2017; Shaha et al., 2015; Yunjo, 2018), and teacher perceptions of the different modalities of professional development (e.g., McConnell et al., 2012), among other topics. Although there was a relatively large number of studies within the context of online professional development offerings, a majority of research is focused on traditional, in-person trainings.

This review of literature examines the characteristics of effective professional development for both on-demand and in-person trainings, the impact of effective professional development, online-professional development modalities, a comparison of in-person and online professional development, and specifically online, on-demand professional development.

Effective Professional Development

A consistent focus of professional development research has been what makes professional development effective. Studies have examined what professional development offerings have been considered effective and determined various common characteristics of these effective trainings. Determining effectiveness characteristics is important to education research for it can help guide those who design professional development opportunities to embody similar characteristics in their own work.

A study by Garet et al. (2001) concluded that there are three main features of effective professional development: content focus, active learning, and coherence. Content focus is defined by a focus on improving an individual's content knowledge on a subject (Garet et al., 2001). Content focus can be important regardless of the type of training or modality. As Lappan (1999) explained, content focus or knowledge is crucial for understanding and can influence learning goals, the way teachers understand and respond to questions, and can affect how well teachers explain the material and form quality questions for their students. Therefore, professional development that has content focus could be a major factor in improving teaching practice. Prince (2004) described active learning as a process wherein individuals are participating in meaningful activities and is often described as the opposite of a traditional lecture. Coherence, defined as the learning activities of a professional development having a common goal, also aligns with other emerging research in education. Hammerness (2006) describes the importance of all activities, content, and practices aligning, which can enhance learning and ensure that information is consistent, both of which could aid in teacher learning during professional development opportunities.

Guskey (2003) included other effectiveness characteristics, such as sufficient time and resources, collaborative exchange among participants, an evaluation process, and a collaboration between the educators in schools and district-level personnel. Although time and resources might be limited due to finances and other factors, as State, Simonsen, Hirn, and Wills (2019) express, it is still important for administrators and professional development creators to utilize time and resources strategically. Collaboration is another common theme found in a number of professional development research studies, in addition to Guskey's (2003). In a study on health teacher professional development trends, Brener, McManus, Wechsler, and Kann (2013) noted

the dramatic increase in the opportunities for collaboration, including opportunities for collaboration between teachers with experts in the field. Musanti and Pence (2010) also noted the increase in collaboration, especially within professional learning communities; however, they also noted reservations educators had about their peers critically examining their teaching. Even though these reservations might exist, the collaborative aspect is crucial for the exchange of and challenging of ideas that is central to effective professional development (Guskey, 2003; Musanti & Pence, 2010).

Darling-Hammond et al. (2017) had a list of seven characteristics of effective professional development, which included many of the previously mentioned characteristics but also included the necessity of collaboration within job-embedded contexts, the use of models and modeling effective practices, providing coaches and expert supports, and offering opportunities for reflection and feedback. These findings are supported by the research done by Forte and Flores (2014), which highlighted the importance of job-embedded collaboration, including department meetings as well as projects centered around policy and initiatives. Brock, Seaman, and Gatsch (2018) examined the use of modeling via videos and coaching with special educators as part of effective professional development practices, and they found that all teachers were able to implement the evidence-based practice with fidelity and had noticeable improvements in progress toward student goals. In addition to the research done by Darling-Hammond et al., the importance of reflection echoed elsewhere in professional development research. In research performed by Saric and Steh (2017), the importance of reflection in professional development was explored in addition to potential challenges and considerations that should be made when incorporating critical reflection into professional development. In order to implement critical reflection adequately in professional development, contextual factors and the individual

characteristics of the teachers in the professional development need to be considered, constructive and nonconstructive thoughts need to be discerned, and teachers need to recognize the importance of emotions within their reflection (Saric & Steh, 2017).

Each of these research articles expressed that effective professional development offerings are ultimately ones that increase teacher knowledge and lead to changed practice. As society changes, new technologies are developed, and new research is conducted, the characteristics of professional development offerings will change, and most likely what is considered effective practice will change as well.

Impact of Effective Professional Development

There is a significant amount of research on the different impacts of professional development on both teachers and students. In addition to increased teacher knowledge and changing practice, Forte and Flores (2014) expressed that professional development helps build relationships between teachers and allows teachers to learn from their peers. It was found that teachers' relationships built through professional development allowed for sharing stories, providing mutual support, and sharing work (Forte & Flores, 2014). Teachers felt that these collaborative relationships would increase their motivation and job satisfaction (Forte & Flores, 2014). Additionally, there are several factors that affect the formation of these collaborative relationships, including school leadership, teacher motivation to change, and communication (Forte & Flores, 2014).

With respect to students, research has shown that professional development can improve student performance and overall learning outcomes (Darling-Hammond et al., 2017). Darling-Hammond et al. examined 35 studies on professional development offerings that are considered effective, and many of these studies had a positive correlation with student outcomes. Of the 35

studies, the studies that failed to show a positive correlation between effective professional

development and student outcomes, a majority were subject to poor controls within the

respective studies. Only six had adequate controls and methods, and the authors of those studies

discussed that the potential lack of improved outcomes could have stemmed from lack of

implementation fidelity, teachers not being given the opportunity to implement the practices

from the professional development, and teacher turnover (Darling-Hammond et al., 2017).

Although most articles focus on effects on students in a general sense, there has been

some research done on professional development and its effects on specific groups of students.

State et al. (2019) examined the importance of effective professional development as a tool to

help teachers learn and implement research-based practices in their classrooms in order to better

support students with emotional and behavioral disorders. Variants in current practices within

professional development research are discussed, including conferences and workshops, in-

service training, online modules, professional learning communities, coaching, and self-

management supports (State et al., 2019). Single professional development activities can increase

teacher knowledge and have positive outcomes on students; however, intensive, ongoing

professional development is required (State et al., 2019). State et al. provide a framework for a

multi-tiered system of support with coaching embedded to implement evidence-based practices

in schools. With the multi-tiered system of reports, coaches can identify and provide more

individualized support to teachers who need it, which can help ensure that research-based

practices are being implemented with fidelity in the classroom, which can help increase positive

outcomes for students with emotional and behavior disorders (State et al., 2019).

Online Professional Development

The previously mentioned sources referred to professional development that took place in-person, where educators were in the same location as the individuals leading the professional development. As technology developed and was further integrated in education, opportunities to participate in professional development online became more readily available for teachers. Burns (2011) discusses the various modalities for educating teachers at a distance, both technology-enhanced as well as print-based. Technology includes audio enhanced (e.g., two-way audio, broadcast radio, and interactive audio instruction), televisual-based (e.g., television, video, and videoconferencing), multimedia-based (e.g., CD/DVD, group teaching and learning software, and digital learning games), and web-based (e.g., computer mediated communication, online coaching and mentoring, virtual schools, telecommunication, online learning communities, webcast/webinars, online courses, Web 2.0 applications, virtual worlds, multi-user virtual environments, and portals). Online learning provides access to information whenever or wherever is convenient. It also provides teachers access to new instructional practices, access to new content knowledge, access to new curriculum ideas, and helps engage teachers in reflection and dialogue with others while providing a model for instructional practices (Burns, 2011).

Burns posited that while online and in-person professional development offerings can be equally effective, there are three main barriers to online learning: the need for access to high-speed internet and up-to-date technology, the instructors and participants need to be proficient with the technology, and the need for there to be real people available for support through the professional development process for teachers to be successful (Burns, 2011). The concerns for teachers and participants having adequate knowledge of technologies and access to those technologies has been echoed in other research (National Research Council, 2007). Additionally,

other barriers include the lack of support from administrators and students' parents due to skepticism regarding online offerings, lack of financial support, the lack of support from teacher education programs, and the difficulties in utilizing technology to make the connections needed to change teacher beliefs and practices (National Research Council, 2007).

The themes of what makes professional development effective as well as its impacts have also been explored in the context of online modalities. Sahr (2016) explored the perceptions of effectiveness of online professional development offerings for English educators. Data from the TESOL International Association Member Needs Survey were collected from educators from 106 countries (Sahr, 2016). The investigator attempted to find correlations between perceived effectiveness of online professional development and the demographics of the respondents, including geographic location, age, and level of education, and they concluded that there was a relationship between perceived effectiveness and both geographic location and age (Sahr, 2016).

Additionally, studies have shown online professional development can change educators' attitudes toward specific teaching practices and provide a space where teachers could feel safe expressing their thoughts and feelings about their schools (Owen et al., 2018; Yunjo, 2018). Yunjo (2018) examined how an online professional development offering changed teacher perceptions of digital games as learning tools. Yunjo (2018) designed and taught an online, graduate-level course to teachers and used pre- and post- surveys to measure the change in attitudes and perceptions of the teachers in the course. Teachers' interest and self-efficacy, intention to use games in their classroom, beliefs about games' roles in education, and intent to continue including digital games in the classroom were all positively affected by the online course (Yunjo, 2018). While this study focused specifically on perceptions of digital games, the

conclusions and data could prove relevant to additional research in the area of online professional development in education.

Owen et al. (2018) examined the social impacts that online professional development can have on educators. The phenomenological study focused on online professional development in the form of mentoring. The researchers, who were all participants in the study, were mentors to anywhere between eight and 24 students. Using multiple online surveys, recorded discussions and notes from mentor meetings, materials and other contributions from participants that are stored online (such as emails, and webinar session recordings), the researchers noted a number of skills required for effective virtual mentoring, ways to encourage participation among mentees, the benefits of conducting mentoring in an online platform, how online mentoring can aid in reducing teachers' anxiety compared to alternative mentoring forms, and how online mentoring can help mentors feel more valued as educators. Overall, in participating in online mentoring, the participants felt that they had the opportunity to achieve self-actualization, they felt that they had a social impact, they felt a sense of hope and belonging within their groups, and that they had access to other people, skills, and different strategies to help increase their motivation. Additionally, the participants expressed that the online format helped ensure they could be flexible in meeting the needs of their mentees and therefore feel they were having the social impacts to which the researchers referred.

Comparison of In-Person and Online Professional Development

Most studies focus on the impacts, effectiveness, or other aspects of either in-person professional development or online professional development individually; however, there are some studies that evaluated educator perceptions to compare in-person and online professional development offerings. McConnell et al. (2012) examined how teachers viewed a virtual

professional learning community in comparison to a face-to-face version. By comparing case studies, the researchers determined that teachers believe online professional development has the same benefits as in-person professional development and that the online option would serve as an effective alternative if in-person meetings were not practical.

Other researchers who sought to compare face-to-face professional development and online offerings also concluded that face-to-face and online professional development have similar outcomes. For example, Scott et al. (2016) looked to compare online and in-person professional development through comparing the delivery and outcomes of a suicide prevention training for secondary school teachers and staff. Using pretests and posttests, the researchers determined that educators' knowledge increased regardless of the modality of the training (Scott et al., 2016). Both modalities proved to substantially increase teacher knowledge on the subject area, with the online group achieving a higher knowledge score than the in-person group. Additionally, those above the age of 40 who took the online course experienced higher posttest scores than those under the age of 40; however, all age groups experienced significant knowledge increases (Scott et al., 2016). The authors supported this finding by citing previous literature which stated that most individuals who choose online learning are older, motivated, and have specific learning goals for themselves, which all could have an effect on knowledge growth.

Online, On-Demand Professional Development

There have been very few studies that focus specifically on online, on-demand offerings. As is the case with in-person and online modalities, online, on-demand professional development can be conducted in a variety of ways with varying formats; however, it is usually self-paced. Shaha et al. (2015) explained the format of the on-demand professional development offering:

The PD (professional development) offering is best defined as an on-demand, Internet-accessible product suite through which educators can participate in capabilities ranging from viewing instructional videos on teaching techniques, participation in communities, and posting and downloading PD-related materials from other PD users. (p. 228)

Shaha et al. examined the effects on students after teachers in Title I schools participated in a commercially delivered, online, on-demand professional development session. The reading and math scores of the participating schools were compared with schools in their respective districts that did not participate, and the Title I schools that engaged in the on-demand professional development offerings saw mathematics and reading scores that were significantly higher than those of the Title I schools that did not participate. Since this study focused entirely on Title I schools, the author recommended additional studies to be completed to determine if the results would be comparable to other schools. The specific demographics of the schools involved could also have affected the outcomes.

Bauer (2010) examined the different tools and platforms available for music teachers to participate in on-demand professional development. Bauer (2010) specifically focused on Web 2.0 tools that can be used to achieve sustained, individualized learning opportunities. Web 2.0 can be described as applications and pages that allow for flexible designs, updates, interactive interfaces, applications that facilitate collaboration and content creation, establish social networks, and can be used to create new applications (Murugesan, 2007). One of the types of technology Bauer (2010) described is Really Simple Syndication (RSS), which is a subscription that will alert individuals when there is new information or materials available. The RSS can be used to determine when blogs, news sites, and podcasts have released new material that is relevant to education and teacher practice. Other technologies that can be used for online, on-

demand professional development include Wikis, which are easy-to-edit webpages; Folksonomies, which are sites where individuals can categorize and tag resources; and Twitter, which is a social media site that allows individuals to engage in conversations, follow other people, and use hashtags to find related materials (Bauer, 2010).

Based on prior research regarding the online, on-demand model, this form of professional development has led to increased school performance, as measured by student academic performance and standardized test scores, with even better results when engagement was beyond simply viewing videos (Shaha & Ellsworth, n.d.; Shaha et al., 2015). Rizzuto (2016) examined on-demand professional development in higher education by conducting a study of an online course where university faculty completed modules and self-reflections. The faculty participants expressed that they enjoyed the course and would take another self-paced course as well as recommend the course to a peer (Rizzuto, 2016). Additionally, the faculty participants expressed in their self-reflections that that they felt they had increased their knowledge because of the course (Rizzuto, 2016). The faculty participants also communicated that they found the content related to their work and that the content would change their grading practices (Rizzuto, 2016).

Riel et al. (2018) began looking at certain aspects of on-demand professional development in order to determine ways to make trainings more effective, specifically in regard to timing. In online, on-demand professional development, participants can often choose which portions of the course they spend more or less time with, which led the researchers to question what sort of timing patterns emerged as participants completed the course. By examining the timing, Riel et al. (2018) were able to suggest two measures to represent timing in courses to aid in future analysis and provide examples of how they could be used. The first measure the authors determined was the timing index, which was described as the point at which a participant has

completed 50% of the coursework. The second measure was the spacing count, which was

defined as how frequently participants worked on the content over the duration of the course.

Chapter 3: Methods

This chapter will focus on the methods that were used to conduct this study, including the context and rationale, the research questions that guided the study, the survey, the population asked to complete the survey, the data collection, and analytical processes used, as well as the limitations.

Context and Rationale

In March 2020, the COVID-19 pandemic led schools and businesses around the United States and world to shut their doors. Although the physical locations of these entities closed, schools moved to a virtual format and employees began working from their homes. Organizations that design and lead professional development for teachers were no exception. Although online, and more specifically on-demand, professional development already existed prior to the pandemic, the need for and utilization of these offerings understandably increased. Additionally, groups and organizations that offered traditional professional development services prior to the pandemic added structures and technologies that enabled them to provide online and on-demand professional development to teachers. Even as schools reopened and professional development is conducted face-to-face again, it is likely that some of these groups continued conducting some of their offerings using online, on-demand structures.

With the increase in online, on-demand professional development, it is crucial that the professional development offerings be effective. Effective professional development offerings are ones that increase teacher knowledge while also leading to positive student outcomes (Darling-Hammond et al., 2017). Even though the opportunities and modalities of professional development are expanding, ultimately the goal should revolve around positive outcomes for both educators and students. Research on online, on-demand professional development offerings,

however, is relatively limited compared to the scope of research for professional development in general.

Most of the studies that focus on effective professional development characteristics have been conducted within the context of traditional, face-to-face professional development offerings. Since these characteristics were developed using these modalities, it raises the questions of whether the characteristics are applicable to online, on-demand professional development offerings, or whether a new framework needs to be developed that is specific to online, on-demand professional development.

One such group that offers professional development services is the West Virginia Behavior/Mental Health Technical Assistance Center. The West Virginia Behavior/Mental Health Technical Assistance Center is funded by the West Virginia Department of Education and is housed at the West Virginia Autism Training Center at Marshall University. The organization specializes in helping schools meet the behavior and mental health needs of students, teachers, and administrators around the state. As part of these services, the West Virginia Behavior/Mental Health Technical Assistance Center conducts professional development and training sessions in a number of areas, including Positive Behavior Structural Supports (PBIS), classroom management strategies, self-care, and trauma among others, as well as creating training opportunities as requested by schools around the state of West Virginia.

Once a year, the West Virginia Behavior/Mental Health Technical Assistance Center offers a statewide professional development opportunity in the area of behavior and mental health. In light of the COVID-19 pandemic, the West Virginia Behavior/Mental Health Technical Assistance Center made the decision that the 2021 professional development offering would be online and on-demand. A portion of the West Virginia Behavior/Mental Health

Technical Assistance Center's website was dedicated to housing the professional development modules. There were four different modules, each containing a video presentation, a facilitated viewing guide for the video, a professional development packet containing activities, and folders and links to additional resources. The activities and resources were designed so that they could be completed regardless of whether it was an individual or a school team engaging with the material cooperatively. By completing the professional development activities, those who participated had the opportunity to earn continuing education credits. To do so, participants were required to register for the course through Marshall University, view the videos and facilitated viewing guide for each module, complete the professional development assignments, and submit the assignments to the Technical Assistance staff via Blackboard.

Research Questions

This study was guided by one overarching inquiry: What do educators participating in an online, on-demand professional development offering perceive as the advantages and disadvantages of the modality? To answer this question, five specific research questions – developed from the existing literature regarding the characteristics of effective professional development – were explored:

RQ1. To what extent does on-demand professional development function as a workshop experience?

One of the effectiveness characteristics presented by Guskey and Yoon (2009) is that participants have an opportunity during a professional development session to engage with material in a way so that they can adapt it to their own school and classroom contexts. This research question was used to help determine to what extent participants felt they had this opportunity during the online, on-demand professional development.

RQ2. To what extent does on-demand professional development use outside experts specializing in the topic?

Another effectiveness characteristic is using outside experts. This research question was used to aid in determining to what extent participants believed the online, on-demand professional development used outside experts that specialized in the content presented.

RQ3. To what extent does on-demand professional development allow for time to engage with the material?

Providing time to engage with material is also an effectiveness characteristic determined by Guskey and Yoon (2009). This research question was used to help determine to what extent participants believed they were given time to engage with the content presented as well as time after the professional development to engage in follow-up.

RQ4. To what extent does on-demand professional development allow for activities that are adapted to the content and context?

Guskey and Yoon (2009) also concluded that activities being adapted to content and context is an effectiveness characteristic for professional development. This research question was used to aid in determining whether the online, on-demand professional development content has activities that meet this requirement.

RQ5. To what extent does on-demand professional development focus on increasing teacher content or pedagogical content knowledge?

Lastly, increasing teaching content or pedagogical content knowledge is also an effectiveness characteristic. This question was used to help determine whether the participants believed the online, on-demand professional development increased their content or pedagogical content knowledge.

An additional question will be investigated based on the demographics of the respondents:

RQ6. Are there differences in participants' responses based on a selected list of demographic/attribute variables (e.g., age, years of teaching experience, subject taught, etc.)?

Sample

A convenience sample was used for this study. All the participants of the West Virginia Behavior/Mental Health Technical Assistance Center's 2021 Keynotes for Key People online, on-demand professional development offering were invited to participate in the study. Participants included administrators, teachers, and paraprofessionals who registered for the professional development via Eventbrite, an online event scheduling platform. Participants could register either as individuals or groups. Those who registered for a group were asked to forward the links, emails, surveys, and other relevant information that were part of the professional development to the group with which they were registering.

With the nature of registration, it was impossible to know precisely how many individuals participated in the professional development activities. After registration closed, there were 197 registrants, with 45 of those registering for groups. Knowing the size of some of the schools that registered as groups, however, it was estimated that the population featured over 1,000 participants.

This population was selected for multiple reasons. First, the participants work in schools all over West Virginia, including schools located in urban, suburban, and rural areas. Although the sample is limited to West Virginia, having teachers from a variety of settings will increase the potential generalizability of the results. This pool of teachers was also chosen due to the alignment of the professional development offering with the Guskey & Yoon (2009) framework.

Outside experts were the ones presenting the information; since the offering is online and on-demand, participants had the *time* to engage with the material as they see fit; *follow-up* was available including on-demand Behavior Support Specialists assigned to different regions of West Virginia (i.e., south, north, mountain, and panhandle) who were available to answer questions, conduct additional sessions, provide resources, or provide any other support schools and educators might need to meet the behavior and mental health needs of their students; the *activities* will be reflective in nature; the *content* will be research-based, focusing on increasing teacher knowledge.

Survey

This study is a mixed-methods, nonexperimental study that utilizes a 16-item survey (located in Appendix B) and a six-item follow-up questionnaire (located in Appendix C) to examine teacher perceptions of online, on-demand professional development. In the initial survey, nine of the items align with the Guskey and Yoon (2009) framework, one examines perceived advantages, one examines perceived disadvantages, and five are demographic questions. The nine items that align with Guskey and Yoon (2009) were used to collect quantitative data. The perceived advantages and disadvantages questions in the initial survey, as well as the follow-up questionnaire were used to collect qualitative data. The questions on the characteristics use a Likert-type scale, the advantages and disadvantages questions use a select-all-that-apply format with the option to provide additional responses, and the demographic questions are multiple choice.

Prior to administering the survey, pilot testing was conducted to help ensure reliability and validity. Ten teachers who had participated in online, on-demand professional development before were asked to volunteer to complete the survey and provide feedback. Volunteers were

sent the initial survey and asked to complete it as though they were reviewing online, on-demand professional development offerings in general since those reviewing were most likely not participants in the West Virginia Behavior/Mental Health Technical Assistance Center's Keynotes for Key People professional development.

Those participating in the pilot testing were sent a link to take the survey online through the Qualtrics survey program. Participants were asked to complete the questions while also taking note of the question wording, the format of the survey, clarity of instructions and goals, and any other feedback they felt was relevant for the betterment of the survey. Pilot test participants were asked to submit their feedback via email after they have submitted the survey. Arithmetic means, frequencies, and standard deviations were calculated to determine the quality of the questions and answers. The goal of the pilot test was to obtain a range of responses, and based on the responses and the feedback, make any necessary adjustments to the survey prior to sending it to the study population.

After the initial survey was distributed, a follow-up questionnaire was distributed to the original population. The follow-up questionnaire was distributed via a Qualtrics link. The follow-up questionnaire was comprised of six open-ended questions (Appendix C) where participants could elaborate on whether or not Keynotes for Key People contained the Guskey and Yoon (2009) effectiveness characteristics and suggestions for how they felt the professional development could have better incorporated the characteristics.

Data Collection

Registration for the professional development session took place between May 6th and August 2nd, 2021. When registering, those signing up were asked whether they were registering for a group or as individuals and were instructed that if they were registering for a group, they

would be asked to send any information or surveys individually to those they were registering. During this time, each registrant was asked to provide an email address, which was the primary means of inviting participants to complete the survey.

On August 11th and August 12th, two emails were sent providing instructions, the links to the videos, question guides, activities, resources, a program with presentation information, and a meet-and-greet presentation that introduced the West Virginia Behavior/Mental Health Technical Assistance Center staff and provided their contact information. All of these components were housed on the West Virginia Behavior/Mental Health Technical Assistance Center's website. The areas of the website where the materials were housed were password protected, and the passwords were provided in the emails. The passwords were removed in November 2021, when the contracts with the video creators ended and the videos were required to be removed from the website and replaced with general, public presentations by the speakers that could be found on YouTube.

Participants who provided their email as part of registration were asked to volunteer to complete the survey for this study. If they registered for a group, they were asked to forward the survey invitation to the other educators who were part of that group. The email contained a link to the Qualtrics-based survey and instructions that explained that survey participation was voluntary and was not required as part of the professional development, and that those seeking graduate credits would not be penalized for not participating in the survey. Upon pressing the link, participants were taken to Qualtrics where the informed consent was explained. The survey was not sent until the beginning of February, over five months after the release of the professional development session links, to give ample time for people to complete the professional development and associated activities. Additionally, since follow-up was a

characteristic being examined, adequate time was required so that teachers could adequately gauge whether there were follow-up opportunities and assess the quality of those opportunities. The survey window was opened for six weeks, during which three reminders were sent. After the six-week window and reminders, the initial survey was closed.

As the initial survey submissions were received, the responses were automatically stored in the Qualtrics database. Once the first data collection window was closed, the data was downloaded from Qualtrics into SPSS 26 to remove unneeded information (e.g., data and time stamps, time it took to complete the survey, etc.) and the necessary analyses were conducted.

Three weeks following the closing of the initial survey window, the follow-up questionnaire was sent to the same sample via email. The email contained a link that directed participants to an additional Qualtrics survey. Participants who registered as part of a group were asked to forward the survey link to others who participated in the professional development. The email explained that survey participation would be voluntary and was not required as part of the professional development. Upon pressing the link, participants were taken to Qualtrics where the informed consent was explained.

Analysis

Quantitative

Once data was collected and cleaned, data analysis was conducted using SPSS 26. Descriptive statistics were determined for the Likert-type and demographic items. Measures of central tendency (e.g., means, medians, frequencies, etc.) were calculated. Pearson's *r* scores established whether relationships exist between effectiveness perceptions and the selected demographic variables (i.e., age, years of teaching, number of on-demand professional

development offerings participated in, self-described proficiency with technology, and school setting).

Qualitative

For the questions asking for perceived advantages and disadvantages, as well as the six-item follow-up questionnaire, content analysis was conducted in order to identify themes or patterns. Once the common themes were determined, those themes were compared to the list of effectiveness characteristics to determine whether the perceived advantages are similar to the list of effectiveness characteristics, or if there were some effectiveness characteristics that are unique to online, on-demand professional development that need to be further explored.

Chapter 4: Results

After the survey window closed, the qualitative and quantitative data were analyzed using a variety of methods. As previously stated, the quantitative data (e.g., Likert-type and demographic questions from the initial survey) were analyzed with SPSS 26 to determine the measures of central tendency, frequencies, standard deviation, variance, minimums, and maximums. These numbers helped provide a single number to describe the dataset, so the teachers' perceptions of the Guskey and Yoon (2009) effectiveness characteristics could be more effectively and succinctly analyzed and summarized.

Crosstabulations were also calculated between the effectiveness characteristics and demographics from the initial survey. As with the frequency charts and measures of central tendency, crosstabulation charts were used to determine numbers to describe the dataset and to establish patterns that emerged between the effectiveness characteristics and the demographic variables. To further conclude what patterns emerged between variables, Pearson correlation coefficients (r) were calculated to determine the relationship between the teachers' perceptions of the effectiveness characteristics and the demographic question responses. Additionally, Pearson correlation coefficients were calculated to examine potential relationships between and among the dependent variables and demographic variables.

Qualitative data were collected from the initial survey as well as the follow-up questionnaire, with content analysis being used to determine the themes and patterns that appeared. For the initial survey, qualitative data were collected from the two questions asking teachers' perceptions of advantages and disadvantages of online, on-demand professional development. There were options that respondents could choose from as well as a text box for adding additional advantages and disadvantages. On the follow-up questionnaire, all questions

were qualitative for they were open-ended, and designed to be more interview-like in nature. The themes identified via content analysis were compared to the Guskey and Yoon (2009) effectiveness characteristics to determine whether the perceived advantages and disadvantages aligned with the effectiveness characteristics. Additionally, responses helped determine which specific aspects of the professional development sessions the participants perceived as aligning with the Guskey and Yoon (2009) effectiveness characteristics and what characteristics they felt were lacking.

Sample

The sample was decided by choosing participants of professional development programs the researcher's place of employment hosts annually. In previous years, the professional development offering had followed the more traditional, in-person structure. Due to the COVID-19 pandemic, however, the West Virginia Behavior/Mental Health Technical Assistance Center transitioned so that their annual professional development offering was virtual. Instead of a synchronous professional development training, it was determined that it would be an online, on-demand offering that educators could watch, completing associated activities at their leisure or as assigned by administrators.

Registration information was shared with schools across West Virginia. Employees at West Virginia Behavior/Mental Health Technical Assistance Center shared the registration links with schools with whom they worked with directly via email, on Facebook, and on the center's website. Registration closed a week before the videos, activities, and resources were released. Participants provided their names, emails, the counties and schools in West Virginia in which they worked, their job titles, and whether they were registering as individuals or as part of a group. Individuals who registered as part of a group were tasked with sharing the links and

activities necessary to participate in the professional development programming. The survey was sent to the email address of each person who registered.

There were 174 individuals from 35 counties in West Virginia who registered for Keynotes for Key People in 2021 (Keynotes), as well as a number of registrants who worked in multiple counties and state-wide. Registrants were also employed in a variety of settings, including elementary, middle, and high schools, county boards of education, the state board of education, the Birth to Three program, and Marshall University where the West Virginia Behavior/Mental Health Technical Assistance Center is housed, among others. Thirteen of the registrants registered for groups which ranged in size from individual schools to entire counties. Based on the sizes of the different groups, it was estimated by the West Virginia Behavior/Mental Health Technical Assistance Center administration that Keynotes reached over 1,000 participants.

All of the participants, even those who did not register themselves, were eligible to complete the survey. The survey was sent to all 174 registrants with the instructions that those who registered for groups should forward the email to others who participated in the professional development sessions. Twenty of the 174 registered individuals ultimately responded to the initial survey, with an additional two who responded explaining that they had registered for the professional development program, but did not end up watching the videos, completing the activities, or utilizing the resources. Since the survey was anonymous, there was no way to match the responses with the registration information.

Initially, this study was going to be comprised of only the initial survey; after determining the return rate, however, it was decided that a follow-up, qualitative focused questionnaire be administered to reinforce or expand the data that had already been collected.

Since most West Virginia Behavior/Mental Health Technical Assistance Center staff members are assigned to specific geographical regions and work with certain schools within those regions, the registration data were sent to each staff member so they could send the follow-up emails. If more than three registrants from the staff members' respective regions responded to the invitation to participate in the follow-up questionnaire, it was believed there would be sufficient responses.

Because only two responses were received via the staff members' email requests, it was decided that the follow-up questionnaire should also be sent to the entire initial population of 147 registrants to try to increase the number of responses that were received. As with the initial survey, registrants were asked to forward the questionnaire to individuals who were part of the group they had registered for. This increased the number of follow-up survey responses to five.

Demographic Results

The ages of the survey respondents varied, with most ($n = 8$) falling between the ages of 41 and 50, and the fewest ($n = 1$) falling between 19 and 30 or 61 to 70. These data are reported in Table 1.

Table 1

Respondent Age

Age	n	Percent
19-30	1	5.0%
31-40	6	30.0%
41-50	8	40.0%
51-60	4	20.0%
61-70	1	5.0%

A high standard deviation (*SD* = .968) showed that the ages were widely distributed overall (i.e., a potential low of 19 to a potential high of 70). Similarly, the number of years the respondents worked in education were also widely distributed (*SD* = .999); however, 80% of respondents had worked in education for over 10 years. These data are shown in Table 2.

Table 2

Years Worked in Education

Years Worked in Education	*n*	Percent
0-3	2	10.0%
4-6	1	5.0%
7-9	1	5.0%
10+	16	80.0%

All of the participants had participated in at least three online, on-demand professional development offerings, with a majority (*n* = 16) participating in seven or more professional development offerings. These data are reflected in Table 3.

Table 3

Number of Online, On-Demand Professional Development Offerings Participated In

Number of PDs	*n*	Percent
0-3	0	0.0%
3-4	1	5.0%
5-6	3	15.0%
7+	16	80.0%

Eight ($n = 8$) of the respondents described themselves as having intermediate proficiency with technology with the remainder ($n = 12$) describing themselves as proficient. Table 4 reflects these figures.

Table 4

Self-Described Proficiency with Technology

Proficiency with technology	n	Percent
Novice	0	0.0%
Intermediate	8	40.0%
Proficient	12	60.0%

Finally, eight ($n = 8$) participants noted that they teach in a rural setting, while 12 respondents reported that they teach in a suburban setting. These data can be seen in Table 5.

Table 5

School Setting

School Location	n	Percent
Rural	8	40.0%
Suburban	12	60.0%
Urban	0	0.0%

Description of Initial Survey Results

The initial survey consisted of 16 questions, including nine Likert-type questions based on the Guskey and Yoon (2009) effectiveness characteristics, two questions regarding perceived

advantages and disadvantages of professional development, and five demographic questions. The survey is available in Appendix B.

Twenty participants responded to the initial survey, for which measures of central tendency, standard deviation, variance, minimums, and maximums were determined. The number 1 represented respondents' strong disagreement with the response, while 4 denoted that participants strongly agreed with the response. The measures of central tendency were compared to these numbers to summarize the perceptions of West Virginia teachers for each Guskey and Yoon (2009) effectiveness characteristic.

The first characteristic covered by Guskey and Yoon (2009) is workshop opportunities, which include three components: incorporating research-based practice, active-learning opportunities, and the chance for educators to learn to adapt the research-based practices to their own unique classroom contexts. The initial survey asked about these three components separately, asking participants to indicate the extent to which they agreed each was included in the professional development session.

Based on the responses ($n = 20$), the highest level of agreement was seen in response to Keynotes focusing on research-based instructional practices. The mean fell just below four, which was the highest possible response ($M = 3.95$). Of the 20 respondents, 19 selected "strongly agree" while only one respondent chose "somewhat agree." The median was close to the mean ($Mdn = 4.00$). The standard deviation was low ($SD = .224$) meaning that most of the respondents were at a high level of consensus.

Table 6

Q1 Inclusion of Research-Based Instructional Practices

Survey Question #1	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
The online, on-demand professional development offerings I have participated in are focused on research-based instructional practices.	0	0	1	19

Active learning experiences had a slightly lower average ($M = 3.55$) than research-based practices. The mean fell almost directly between the options of somewhat agree and strongly agree. Of the 20 respondents, 12 answered that they strongly agreed that Keynotes contained active-learning experiences, seven ($n = 7$) somewhat agreed with the statement, and one ($n = 1$) disagreed. As with research-based practices, the median was exactly four ($Mdn = 4$). In addition to mean, the active learning experiences and research-based practices also varied with their standard deviation ($SD = .605$). With the higher standard deviation and the distance between the median and mean values there was less consensus among the respondents regarding active-learning opportunities.

Table 7

Q2 Active Learning Experiences

Survey Question #2	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 offered active-learning experiences for the participants.	0	1	7	12

Whether Keynotes offered educators the opportunities to adapt practices to their unique classroom situations had the same mean ($M = 3.55$) as active learning experiences. Of the 20 respondents, 11 reported that they strongly agreed that Keynotes provided opportunities to adapt the presented practices while nine ($n = 9$) somewhat agreed. The median for opportunities for adaptations was also four, however, the standard deviation ($SD = .510$) was slightly smaller than it was for active learning experiences.

Table 8

Q3 Opportunity to Adapt the Practices to their Unique Classroom Contexts

Survey Question #3	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 offered teachers the opportunities to adapt the practices to their unique classroom situations.	0	0	9	11

The mean for whether Keynotes was facilitated by outside experts was equal to that of the research-based instructional practices questions ($M = 3.95$), meaning it tied for the highest ranking among the effectiveness characteristics. This means that the average was just below strongly agree, the maximum possible score. Of the 20 respondents, 19 selected that they strongly agreed that Keynotes was facilitated by outside experts and one ($n = 1$) selected that they somewhat agreed. As with research-based practices, the median was close to the mean (*Mdn* = 4.00), meaning the distribution of responses was fairly symmetrical. The standard deviation was low ($SD = .224$) meaning that most of the respondents were at a high level of consensus.

Table 9

Q4 Facilitated by Outside Experts

Survey Question #4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 was facilitated by outside experts (e.g., program experts, program authors, education researchers, etc.).	0	0	1	19

The next effectiveness characteristic explained by Guskey and Yoon (2009) was whether there was sufficient time for educators to engage with the material. There was one question on the initial survey asking respondents whether there was enough time for them to deepen their understanding of the practices and ideas being presented. Based on the 20 responses, the mean was 3.60 making sufficient time rank in the lower half of effectiveness characteristic scores. Although it was one of the lower scores, it still fell between somewhat agree and strongly agree. Twelve ($n = 12$) of the respondents selected that they strongly agreed there was enough time to deepen understanding and eight ($n = 8$) somewhat agreed. As with the previously mentioned effectiveness characteristics, the median was ($Mdn = 4.00$) The standard deviation ($SD = .503$) was moderate, meaning there was a moderately high level of consensus among the respondents.

Table 10

Q5 Enough Time to Deepen Understanding

Survey Question #5	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 provided enough time to deepen my understanding of the practices and ideas being presented.	0	0	8	12

The next Guskey and Yoon (2009) characteristic is "just-in-time, job-embedded assistance" (p. 497) and follow-up activities. There was one question on the initial survey regarding whether Keynotes offered opportunities for assistance if educators struggled to adapt the new curricula and strategies to their unique classroom contexts. Of the effectiveness characteristics analyzed, sufficient follow-up was rated lowest based on mean. Based on the 20 responses to the question, the mean was 3.40, putting the average between somewhat agree and strongly agree, but closer to somewhat agree. A majority of respondents ($n = 10$) reported that they strongly agreed that Keynotes provided opportunities for assistance and follow-up, eight ($n = 8$) responded that they somewhat agreed, and two ($n = 2$) responded that they somewhat disagreed. Sufficient follow-up was the only effectiveness characteristics that had a median below 4.00 at 3.50. The standard deviation was also the highest among all of the questions ($SD = .681$) meaning there was a moderately low level of consensus among participants.

Table 11

Q6 Opportunities for Assistance if I Struggled

Survey Question #6	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 offered opportunities for assistance if I struggled to adapt the new curricula/strategies/etc. to my unique classroom context.	0	2	8	10

Guskey and Yoon (2009) described activities as experiences that were adapted to the specific context of the training and the audiences' specific contexts. There were two questions on the initial survey regarding the activities for Keynotes, specifically whether the activities were aligned to the content of the presentations and whether the activities helped educators reflect on how they could use the content in their schools and classrooms.

When asked whether the activities of Keynotes 2021 were aligned to the content of the presentations, based on the 20 responses, activity aligned ranked as one of the highly scored effectiveness characteristics with a mean of 3.85. Of the respondents, 17 answered that they strongly agreed that the activities provided aligned with the content while three ($n = 3$) responded that they somewhat agreed. As with a majority of the effectiveness characteristics, the median of the scores was ($Mdn = 4.0$), the highest score possible. The standard deviation was relatively low ($SD = .366$), which means there was a moderately high level of consensus among the respondents.

Table 12

Q7 Activities Were Aligned to Content

Survey Question #7	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
The activities of Keynotes 2021 (i.e., the facilitated viewing guide questions) were aligned to the content of the presentations.	0	0	3	17

The survey second question that focused on whether the activities helped educators reflect on how to use the content, ranked slightly lower than the previous activities questions with a mean of 3.75. Of the 20 respondents, 15 that they strongly agreed that Keynotes' activities helped them reflect on how they could use the content in their school and classroom while five (n = 5) responded that they somewhat agreed. The standard deviation was moderately low (SD = .444), which means there is a moderately high level of consensus among the respondents.

Table 13

Q8 Activities Helped Me Reflect on How I Could Use the Content

Survey Question #8	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
The activities of Keynotes 2021 (i.e., the facilitated viewing guide questions) helped me reflect on how I could use the content in my school/classroom.	0	0	5	15

The last Guskey and Yoon (2009) characteristic is content. The major component of the content characteristic is that the professional development focused on subjects that increase teacher's content knowledge or pedagogical content knowledge. In the initial survey, there was one question related to content that inquired whether respondents believed that Keynotes increased their content knowledge. Based on the 20 responses, increased content knowledge was rated as one of the highest effectiveness characteristics with a mean of 3.85. Of the 20 respondents, 17 answered that they strongly agreed that Keynotes increased their content knowledge, while three ($n = 3$) responded that they somewhat agree. The standard deviation was moderately low, so there was a moderately high level of consensus among the respondents.

Table 14

Q9 Increased my Content Knowledge

Survey Question #9	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Keynotes 2021 increased my content knowledge.	0	0	3	17

Description of the Follow-Up Questionnaire Results

Initially, the data collection was going to include only the initial survey; however, due to low return rates, it was decided that a qualitative component would be added to supplement the survey findings. The plan was to conduct either interviews or a focus group, but due to the researcher's employment with the West Virginia Behavior/Mental Health Technical Assistance Center it was determined that the qualitative component should be anonymous to mitigate the potential for social desirability bias. Grimm (2010) described social desirability bias as the research subjects providing responses that they believe the interviewer will view as more

favorable or acceptable instead of providing a response that is closer to what they believe. To help account for this possibility, it was decided that the follow-up should instead be done as a questionnaire administered via Qualtrics featuring open-ended questions with no limitations to response length and preserving anonymity.

Content analysis, one of the most common methods of analysis in qualitative research, was conducted on the responses of the follow-up survey. Margolis and Zunjarwad (2018) explained that content analysis is the process of using a reduction technique in order to determine themes that appear throughout the data. Key words and ideas were highlighted, then the highlights were examined, and key themes identified. Themes continued to be reduced until a list of multiple unique themes was determined.

Responses were initially divided into positive and negative categories. Within those categories, responses were further reduced and divided into responses focusing on whether Keynotes embodied the effectiveness characteristic and examples of practice that they felt embodied that characteristic. Responses were further reduced, and similar themes were combined and summarized.

The connotation of the responses varied based on the effectiveness characteristic in question. For example, with regard to whether there was sufficient follow-up, three ($f = 3$) responses were classified as positive responses, meaning that the respondents felt that Keynotes embodied that effectiveness characteristic, while two ($f = 2$) felt that there were some changes that needed to be made in order to fully embody the sufficient follow-up effectiveness characteristic. When questioned about whether Keynotes was sufficiently adaptable to each respondent's specific context, four ($n = 4$) respondents expressed that it was, while one ($n = 1$) abstained from answering.

Effectiveness Characteristics and Themes

The following results are divided into the effectiveness characteristics as presented by

Guskey and Yoon (2009).

Workshops

In the follow-up survey, the question regarding research-based instructional practices,

active learning experiences, and the opportunity to adapt the practices to their unique classroom

context combined the concepts. There were four responses on the question regarding active

learning opportunities for research-based practices. Two responded positively, with one

elaborating saying that what they had taken away was "easily transferable." Two respondents

responded negatively, however, and their reasoning for not believing there were active learning

opportunities was different. One respondent expressed that there "was not much time to have

workshop opportunities," while the other respondent explained that they were easily distracted

and were "not as invested" as they are during "in-person" workshops. Additionally, that

respondent felt that they tended to "multitask" to the point of "not engaging," Although the

reasoning for respondents negatively differed, the respondents had similar suggestions for

practices that could be included to help increase the presence of active learning opportunities.

Both respondents suggested incorporating a collaborative component in order to help make the

professional development embody active-learning opportunities to help them learn to adapt the

research-based practices to their own unique classroom contexts. One of the respondents further

elaborated and explained that having a cooperative component would help increase

accountability so that they would be more focused on the activities, thus making it more active.

Outside Experts

On the follow-up questionnaire, there were five (*n* = 5) responses to the question regarding the use of outside experts to present information in online, on-demand professional development. All five of the respondents reacted positively to the use of outside experts in Keynotes. One respondent expressed that it is "reenergizing to hear from different types of people." Another respondent expressed that "experts from various backgrounds were a part of the professional development," and went on to express that "it is important to involve a variety of individuals, especially out of network to gain new perspectives." Others expressed that outside experts are "beneficial," and that there were no suggestions for improvement or other presenters who should have been used.

Time

There was one question regarding whether there was sufficient time during Keynotes and whether changes to the amount of time should have been made to render the effectiveness of the professional development. Two respondents expressed positive thoughts on whether there was sufficient time, two expressed negative thoughts, and one was relatively neutral. The respondents who responded positively described the time as "ample" and "adequate." The neutral respondent explained that during in-person trainings, they might have had "more face time with presenters," but that it did not negatively affect whether they thought of the amount of time Keynotes provided was adequate. There were two who respondents who expressed negative thoughts regarding the amount of time that was provided; their reasonings, however, differed. One respondent expressed that there was too much information for the amount of time given, and suggested more time be provided to "process and create plans to implement the information." The other respondent said it was not so much the amount of time provided that was problematic,

but instead how the time was used. They expressed that they spent much of the time working on other tasks, so they were not engaged enough to know whether the amount of time was adequate.

Follow-Up

Although the initial survey had the level of the follow-up ranked the lowest, the responses on the follow-up questionnaire were overwhelmingly positive. Three respondents expressed that they believed there was sufficient follow-up, or that they "could follow-up as needed," while one expressed that "adding more check-ins could always be a positive thing for support." The fifth respondent expressed that it was not necessarily a lack of follow-up activities, but instead their own lack of commitment that kept them from utilizing any follow-up opportunities.

Activities

There was one question on the follow-up questionnaire that inquired whether participants believed the activities of Keynotes were sufficiently adaptable to their specific contexts and how the activities could have been improved to be more relevant to their contexts and practice. There were four responses to this question, three of which were positive and one neutral. One respondent expressed that they found it "easily transferable," and another said that they had "no suggestions" for how the activities could be improved. The neutral respondent provided a suggestion for activities by stating "all things are situational, which also means situations change. So, context has to be more adaptable to generalizations but also specific enough to apply."

Content

There was one question on the follow-up questionnaire that asked participants if Keynotes increased their content knowledge and asked for suggestions as to how it could have

been more effective in doing so. There were four responses to the question, one with a positive view, one with a neutral view, and two with negative views. The one respondent who felt their content knowledge increased expressed that, "it was an easy way to increase my knowledge without taking away from my important day to day work." The respondent with the neutral stance expressed that the professional development "somewhat increased" their content knowledge. The two who responded that they did not feel Keynotes increased their content knowledge, had two different explanations. One respondent explained that their "content knowledge" was not lacking, so it was not a matter of learning new material, instead they wished there had been more focus on "how to implement the knowledge given." The last respondent expressed that they went through the motions to try to learn such as "printing off the slides," but since they were not engaged, they did not feel that they increased their content knowledge. That respondent then went on to provide a suggestion of having "small accountability groups" which would have led them to have "more meaningful engagement with the content" and would have aided with increasing their content knowledge.

Disadvantages

The initial survey included a check-all-that-apply question to help determine what educators considered the main disadvantages of online, on-demand professional development. Respondents had a list of potential disadvantages from which to choose, but they could also select "other" and provide their own disadvantage options. The most common disadvantage selected was the lack of collaboration with fellow participants (45% or $n = 9$). The second most commonly selected disadvantage was that it is difficult to ask questions online, which was selected by 35% of participants ($n = 7$). The other two options provided ties for the lowest number of participants' choices, with 10% ($n = 2$) answering that they believed that difficulty

using technology was one of the main disadvantages of online, on-demand professional development. An equal number responded that ineffective activities were one of the main disadvantages.

In addition to the provided options, participants also had an opportunity to report their own disadvantages if they selected "other." Three respondents opted to provide additional disadvantages, with one citing the lack of "networking opportunities before and after presentations." While similar to the "lack of collaboration" option, "networking" is a more specific term and was therefore counted separately. Another respondent listed time restrictions as one of the main disadvantages, although it is difficult to determine whether the response meant time restrictions in the participants' workday to participate or whether they were referring to the fact that Keynotes was available only for a limited time. The third response provided was "distractions at job" as a disadvantage of online, on-demand professional development.

Table 15

Q10 Main Disadvantages of Online, On-Demand Professional Development

Disadvantages	Lack of Collaboration	Difficulty in using the technology	Ineffective activities	Difficult to Ask Questions	Other
	9	2	2	7	3

Advantages

As was the case with the disadvantages, there was also a check-all-that-apply survey question to help determine what educators consider the main advantages of online, on-demand professional development. Respondents had a list of potential advantages from which to choose, but they could also select "other" and provide their own. The most common advantage selected by respondents was that they were able to participate in the professional development on their

own time (80% or $n = 16$), Another advantage option provided was accessibility, meaning that online, on-demand professional development offerings are easier to find and participate in than in-person offerings. Sixty percent ($n = 12$) of respondents reported they found accessibility to be one of the main advantages, making it the second most common response. Additionally, 45% of respondents ($n = 9$) answered that both the option to re-read the materials and having a broader variety of professional development topics available were some of the major advantages of online, on-demand professional development. Only 30% ($n = 6$) of respondents reported that they considered lower costs to be one of the major advantages of online, on-demand professional development. Although respondents were given the option to provide additional advantages, no additional advantages were provided.

Table 16

Q11 Main Advantages of Online, On-Demand Professional Development

Advantages	Accessibility	Participating on your own time	Option to re-read materials	Wider variety of professional development topics	Cost	Other
	12	16	9	9	6	0

Correlations

To see whether any relationships existed between the dependent (i.e., effectiveness characteristics) and independent (i.e., demographic attribute) variables, Pearson correlation coefficient scores were determined, and scores are reported for the 0.01 level of significance. None of the relationships between demographics and effectiveness characteristics were significant.

Pearson correlation coefficients were also calculated based on comparing two demographic characteristics. All demographics were compared. There were no Pearson *r* scores that were statistically significant at the 0.01 level of significance, except for one pair: the number of online, on-demand professional development offerings participated in and the participants' self-described proficiency with technology was statistically significant with a significance (2-tailed) value of 0.009.

Table 17

Bivariate Correlation Between the Number of Online, On-Demand Professional Development

Offerings Participated in and Self-Described Proficiency with Technology

	Number of online, on-demand professional development offerings participated in	Proficiency with Technology
Number of online, on-demand professional development offerings participated in	--	.517*
Proficiency with Technology	.517*	--

*. Correlation is significant at the 0.01 level (2-tailed).

Summary

Through the analysis of the data presented in this chapter, the researcher was able to determine perceptions of individuals in a particular online, on-demand professional development program as they relate to the professional development effectiveness criteria developed by Guskey and Yoon (2009). Further, the researcher found one statistically significant relationship between the number of online, on-demand professional development in which respondents had

participated and their self-described proficiency with technology. Discussion of these findings,

their implications, and recommendations for future study are found in the following chapter.

Chapter 5: Summary, Conclusions, Discussions, Implications, Recommendations

Purpose

The purpose of this non-experimental, descriptive study was to examine the perceptions of West Virginia teachers in regard to online, on-demand professional development to determine whether frameworks based on traditional, in-person professional development could be used to evaluate and design effective asynchronous offerings. The professional development participants that were selected as the population for the study were those who participated in the West Virginia Behavior/Mental Health Technical Assistance Center online, on-demand professional development offering, Keynotes for Key People (Keynotes), during the summer and fall of 2021.

The topic of this study was chosen due to the unprecedented move to online offerings of professional development during the COVID-19 pandemic. Even as in-person professional development opportunities were offered again, the structures for online, on-demand professional development remained in place. With the options to either move back to in-person sessions or continue with online options, professional development providers had to determine whether time and resources should be spent to continue offering the online, on-demand options. There was a marked lack of research on online, on-demand professional development when compared to the number of studies on traditional, in-person offerings, and determining teachers' perceptions of online, on-demand professional development could provide ideas for improving offerings as well as determining whether an existing framework of effectiveness characteristics (i.e., Guskey & Yoon, 2009) could be applied to online, on-demand offerings.

The research questions used to guide the study fell under one main overarching inquiry: What do educators participating in an online, on-demand professional development offering

perceive as the advantages and disadvantages of the modality? To answer this question, six

specific research questions were explored:

RQ1. To what extent does on-demand professional development function as a workshop

experience?

RQ2. To what extent does on-demand professional development use outside experts

specializing in the topic?

RQ3. To what extent does on-demand professional development allow for time to engage

with the material?

RQ4. To what extent does on-demand professional development allow for activities that

are adapted to the content and context?

RQ5. To what extent does on-demand professional development focus on increasing

teacher content or pedagogical content knowledge?

RQ6. Are there differences in participants' responses based on a selected list of

demographic/attribute variables (e.g., age, years of teaching experience, subject taught,

etc.)?

Methods

The primary method for collecting data for this study was surveying the participants of

Keynotes, both with an initial survey and a follow-up questionnaire. The initial survey was

comprised of Likert-type items (using a four-point scale), select-all-that-apply choices, and open-

ended questions. The follow-up questionnaire included solely open-ended questions. Measures of

central tendency (e.g., frequencies, means, etc.) were calculated for the Likert-type items,

frequencies were determined for the select-all-that-apply choices, and content analysis was

conducted for the open-ended questions. The questions on the survey were created and analyzed

by using the Guskey and Yoon (2009) framework, which presented a list of effectiveness characteristics based on the analysis of over 1,300 professional development studies.

Results

Overall, the educators in this study had generally positive perceptions of online, on-demand professional development. When asked whether the professional development embodied each Guskey and Yoon (2009) effectiveness characteristic, the average for each response was greater than three on a four-point scale, which means the average responses fell between agree and strongly agree.

RQ1. To what extent does on-demand professional development function as a workshop experience?

The first research question asked to what extent the online, on-demand professional development functioned as a workshop experience. The workshop experiences include research-based instructional practices, active learning experiences, and the opportunities to adapt the practices to the participants' unique classroom context. Since almost all participants agreed that the practices examined were research based ($M = 3.95$), there were active learning opportunities ($M = 3.55$), and that they were given the opportunity to adapt their practices to their unique contexts ($M = 3.55$), it can be concluded that online, on-demand professional development can effectively incorporate workshop experiences. Based on the qualitative data, however, there were some who felt the workshop opportunities were limited and others who reported that if there were workshop experiences, they were not engaged enough to know they were available.

RQ2 To what extent does on-demand professional development use outside experts specializing in the topic?

The next research question focused on whether participants believed Keynotes utilized outside experts to present the information. Even though the experts interacted virtually rather than face-to-face with the participants, the survey participant overwhelmingly agreed that the professional development content was delivered by outside experts ($M = 3.95$). On the initial survey, everyone strongly agreed that outside experts facilitated the presentations except for one participant, who somewhat agreed. Even on the follow-up questionnaire, all of the respondents agreed that outside experts were used, and many provided positive reasons as to why using outside experts was beneficial to them.

RQ3. To what extent does on-demand professional development allow for time to engage with the material?

Another effectiveness characteristic explored was sufficient time for engagement. All respondents on the initial survey either somewhat agreed or strongly agreed that there was sufficient time to deepen their understanding ($M = 3.60$). Although the responses of the initial survey were overwhelmingly positive, there were some concerns brought up on the follow-up survey. One expressed that they wished there was time that could have been used to meet face-to-face with the presenters, but otherwise the time was sufficient. There were two who felt negatively about the amount of time available, one believing there was too much information to cover in the allotted time and the other expressing that they were not engaged during the time that was given. This seems less an issue with the amount of time provided than with how the time is used. With the Keynotes professional development sessions, participants had the option to rewatch content if they felt they needed more time to engage with the material to learn, an

option to mitigate participants being overwhelmed with the amount of material. If, however, the participants simply felt disengaged, then the amount of time is less relevant than the material itself, so online, on-demand professional development offerings need to be engaging during what time the participants are interacting with the materials.

In addition to the actual amount of time allotted to engage with the actual professional development module, time given for follow-up after the professional development session is also to be considered when determining whether there is sufficient time for interaction. Follow-up had the lowest mean score of any of the effectiveness characteristics ($M = 3.40$) and there were also two participants who answered that they somewhat disagreed that there was sufficient follow-up. Half of the respondents, however, strongly agreed that just-in-time follow-up was an option. As with the item focusing on time available to engage with the modules, the follow-up opportunities can be available, but whether participants chose to engage with the follow-up opportunities could affect their perceptions of this effectiveness characteristic.

RQ4. To what extent does on-demand professional development allow for activities that are adapted to the content and context?

For Keynotes, activity packets designed to allow an opportunity for participants to reflect on the content and how they could use it were provided to participants, and information as to whether participants believed the activities were adapted to their content and context was collected. All of the participants of the initial survey either somewhat agreed or strongly agreed that the activities were adapted to their content and contexts ($M = 3.85$) and that the activities helped them reflect on how they could use the content ($M = 3.75$). The follow-up survey responses supported this finding since all but one of the respondents agreed that the activities

could be adapted. The activities were all designed to be reflective in nature, so considering contexts was crucial in completing the activities.

RQ5. To what extent does on-demand professional development focus on increasing teacher content or pedagogical content knowledge?

The adaptation was also tied to the idea of increasing content knowledge. Guskey and Yoon (2009) expressed that to meet the content effectiveness criterion, activities should be designed and adapted specifically to participants' work environments to increase content knowledge. Whether or not the professional development increased content knowledge was one of the higher scoring questions with regards to mean ($M = 3.85$). The follow-up questionnaire responses varied more, with two explicitly expressing that their content knowledge increased, while two others reported that their content knowledge had not increased. Since the background knowledge of teachers varied, it is understandable that the level of learning for each of the participants would be different. Another respondent expressed that their learning was hindered by their lack of engagement, so even if the activities are adapted, the outcomes can be influenced by the participants' chosen engagement levels.

RQ6. Are there differences in participants' responses based on a selected list of demographic/attribute variables (e.g., age, years of teaching experience, subject taught, etc.)?

Correlations were examined to see whether there were relationships between the respondent demographics and their perceptions of effectiveness characteristics. There was no statistically significant relationship between any of the demographic attributes and any of the effectiveness characteristics. Correlations between selected independent variables were also examined, returning one statistically significant response between the number of online, on-

demand professional development offerings participated in and the respondents' self-described proficiency with technology.

Overall Advantages and Disadvantages

The above research questions were designed to answer this overarching inquiry: What do educators participating in online, on-demand professional development offerings perceive as the advantages and disadvantages of the modality? All of the effectiveness characteristics had mean scores that fell between somewhat agree or strongly agree (i.e., 3 and 4 on a 4-point scale); therefore, on average the participants felt that the online, on-demand professional development opportunities offered via Keynotes did conform to the positive characteristics posited by Guskey and Yoon (2009). Additionally, there were other characteristics and features of online, on-demand professional development that participants felt were distinct advantages as compared to in-person options. Over half of the respondents believed that accessibility and being able to participate on their own time were significant advantages; accessibility directly related to the participants' not having to make travel plans, which require time, energy, and money to arrange. Participating on their own time was the most commonly cited advantage, an item that also came up in the qualitative responses. In-person professional development is usually offered on only specific days, times, and places, so being able to participate on their own time can be extremely beneficial to participants. Other reported advantages included the options to reread materials, access to a wider variety of professional development topics, and cost.

While fewer than half of the participants reported disadvantages to the online programming, two commonly reported disadvantages were the lack of collaboration and difficulty asking questions. These were both brought up in the qualitative responses as reasons participants felt some of the effectiveness characteristics were not represented in Keynotes.

Although there are advantages and disadvantages to all modalities for professional development, the perceived advantages were more numerous than the perceived disadvantages for online, on-demand professional development among the participants in this study.

Recommendations and Limitations

This study supports a finding that the West Virginia educators who participated in the Keynotes series had overall positive perceptions of online, on-demand professional development. Most respondents reported that Keynotes embodied the same effectiveness characteristics presented by Guskey and Yoon (2009). The study, however, relied on only one online, on-demand professional development for the comparison. It is recommended that examinations using other online, on-demand professional development offerings be explored to see whether other trainings embody the same characteristics. The Guskey and Yoon (2009) study examined over 1,300 studies to determine the effectiveness characteristics that were tied to positive outcomes. Although, in this study, the in-person effectiveness characteristics appeared to transfer for online, on-demand professional development, it is possible that there are effectiveness characteristics that are more appropriate for assessing online, on-demand professional development. A large-scale study similar to Guskey and Yoon's (2009) is recommended to determine effectiveness characteristics specific to online, on-demand opportunities. This can create a framework that would be relevant for future studies.

When correlations were calculated, there was one statistically significant relationship between the number of online, on-demand professional development offerings participated in and participants self-described proficiency with technology. It is recommended that this relationship be explored further. It is unclear whether the perceived increased proficiency is happening as a result of participating in more online, on-demand professional development, or

whether people who are already proficient with the technology are more likely to participate. A study to gain further insight into this relationship may be able to better determine this relationship.

A major limitation with this study was the sample size. While over 1,000 individuals were estimated to have seen the professional development modules, only 197 emails to send the surveys were available from registration data and only 20 individuals elected to participate in the study. This lack of respondents ultimately harms the generalizability of the results, which is why it is recommended that similar studies are done with additional professional development offerings and a larger sample.

Another limitation relates to the composition of the sample itself. A majority of the educators surveyed work in Positive Behavior Instructional Supports (PBIS) schools; therefore, since many educators shared this characteristic, the results may not be generalizable to educators who work outside of PBIS schools. A similar limitation to this study was the fact that only a single professional development offering was conducted, and the study was limited to West Virginia educators. Similar studies should be conducted in more settings (e.g., different states, more urban areas, etc.) and with different people in order to increase the generalizability of findings.

An additional limitation existed with regard to the study design. The results are based on participant-reported data which may be affected by pre-existing preferences either in favor of or against the online, on-demand modality; bias was therefore a possibility. Since participants were completing both the professional development and the surveys in their own unique settings, the absence of a standardized environment also leads to the possibility that different variables and factors may have affected participant responses that would be unknown to the researcher.

Implications

Based on the results of this study, the effectiveness characteristics presented by Guskey and Yoon (2009) were perceived to have been embodied in the online, on-demand professional development option under study. Therefore, it can be suggested that designers of online, on-demand professional development can utilize both research-based and in-person studies in order to create more effective professional development offerings. This study used the Guskey and Yoon (2009) framework, so it is suggested that additional studies be conducted with different effectiveness characteristic frameworks.

This study also highlighted the lack of effectiveness characteristic frameworks based specifically on online, on-demand professional development. It is therefore suggested that additional studies be done on the effectiveness of such offerings. Once a sufficient number of studies are done, common characteristics can be determined and a new framework be created.

Conclusions

The participants of the study had overall positive perceptions of online, on-demand professional development with most participants reporting that Keynotes for Key People embodied the Guskey and Yoon (2009) effectiveness characteristics. Additionally, participants believed that there were more advantages than disadvantages to the online, on-demand modality. These results do not imply that one modality is better than the other, but they do highlight that there are distinct advantages unique to the online, on-demand professional development environment.

Due to the limitations of this study, particularly the small sample size and the fact that only one professional development offering was studied, the results cannot be generalized to

different settings or other groups of educators. Conducting more in-depth studies can help

strengthen the results reported herein while broadening their generalizability.

References

Bauer, W. I. (2010). Your personal learning network: Professional development on demand. *Music Educator's Journal, 97*(2), 37-42. https://doi.org/10.1177/0027432110386383

Brener, N. D., McManus, T., Wechsler, H., & Kann, L. (2013). Trends in professional development for and collaboration by health education teachers – 41 states, 2000-2010. *Journal of School Health, 83*(10), 734-742. https://doi.org/10.1111/josh.12088

Brock, M. E., Seaman, R. L., & Gatsch, A. L. (2018). Efficacy of video modeling and brief coaching on teacher implementation of an evidence-based practice for students with severe disabilities. *Journal of Special Education Technology, 33*(4), 259-269. https://doi.org/10.1177/0162643418770639

Burns, M. (2011). *Distance education for teacher training: Modes, models, and methods*. Education Development Center, Inc. https://www.edc.org/sites/default/files/uploads/Distance-Education-Teacher-Training.pdf

Darling-Hammond, L., Hyler, M., & Gardner, M. (2017). *Effective teacher professional development.* Palo Alto, CA: Learning Policy Institute.

Forte, A. M., & Flores, M. A. (2014). Teacher collaboration and professional development in the workplace: A study of Portuguese teachers. *European Journal of Teacher Education, 37*(1), 91-105. https://doi.org/10.1080/02619768.2013.763791

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945. https://doi.org/10.3102/00028312038004915

Gaumer Erickson, A. S., Noonan, P. M., & McCall, Z. (2012). Effectiveness of online

    professional development for rural special educators. *Rural Special Education Quarterly,*

    31(1), 22-32. https://doi.org/10.1177/875687051203100104

Grimm, P. (2010). Social desirability bias. In J. Sheth & N. K. Malhotra (Eds.), *Wiley*

    International Encyclopedia of Marketing (2011 ed.).

    https://doi.org/10.1002/9781444316568.wiem02057

Guskey, T. R. (2002). Does it make a difference? Evaluating professional development.

    Educational Leadership, 59(6), 45-51.

Guskey, T. R. (2003). What makes professional development effective? *Phi Delta Kappan,*

    84(10). https://doi.org/10.1177/003172170308401007

Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? *Phi Delta*

    Kappan, *90*(7), 495-500.

Hammerness, K. (2006). From coherence in theory to coherence in practice. *Teachers*

    College Record, 108(7), 1241-1265. https://doi.org/10.1111/j.1467-9620.2006.00692.x

Lappan, G. (1999, November). Knowing what we teach and teaching what we know. *NCTM*

    News Bulletin. https://www.nctm.org/News-and-Calendar/Messages-from-the-

    President/Archive/Glenda-Lappan/Knowing-What-We-Teach-and-Teaching-What-We-

    Know/#:~:text=Our%20own%20content%20knowledge%20affects,and%20to%20ask%2

    0good%20questions

Margolis, E., & Zunjarwad, R. (2018). Visual research. In N. K. Denzin & Y. S. Lincoln (Eds.),

    The sage handbook of qualitative research (pp. 600-626). Sage Publications.

McConnell, T. J., Parker, J. M., Eberhardt, J., Koehler, M. J., & Lundeberg, M. A. (2012).

    Virtual professional learning communities: Teachers' perceptions of virtual versus face-

to-face professional development. *Journal of Scientific Education and Technology, 22*(3), 267-277. https://doi.org/10.1007/s10956-012-9391-y

McElrath, K. (2020, August 26). *Schooling during the COVID-19 pandemic: Nearly 93% of households with school-age children report some form of distance learning during COVID-19*. United States Census Bureau. https://www.census.gov/library/stories/2020/08/schooling-during-the-covid-19-pandemic.html

Murugesan, S. (2007). Understanding Web 2.0. *IT Professional Magazine, 9*(4), 34-41. https://doi.org/10.1109/MITP.2007.78

Musanti, S. I., & Pence, L. (2010). *Collaboration and teacher development: Unpacking resistance, constructing knowledge, and navigating identities* (EJ872650). ERIC. https://files.eric.ed.gov/fulltext/EJ872650.pdf

National Research Council. (2007). *Enhancing professional development for teachers: Potential uses of information technology: Report of a workshop.* Washington, DC: The National Academies Press. https://doi.org/10.17226/11995

Opfer, V. D., & Pedder, D. (2010). Benefits, status and effectiveness of continuous profession development for teachers in England. *Curriculum Journal, 21*(4), 413-431. https://doi.org/10.1080/09585176.2010.529651

Owen, H., Whalley, R., Dumill, M., & Eccles, H. (2018). Social impact in personalized virtual professional development pathways. *Journal of Educators Online, 15*(1). https://doi.org/10.9743/JEO2018.15.1.9

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education, 93*(3), 223-231.

Riel, J., Lawless, K. A., & Brown, S. W. (2018). Timing matters: Approaches for measuring and

    visualizing behaviors of timing and spacing of work in self-paced online teacher

    professional development courses. *Journal of Learning Analytics, 5*(1), 25-40.

    https://doi.org/10.18608/jla.2018.51.3

Rizzuto, M. (2016). Design recommendations for self-paced online faculty development courses.

    TechTrends, 61(1), 77-86. https://doi.org/10.1007/s11528-016-0130-8

Rock, H. M. (2017). The effect of face-to-face versus online pedagogy-based professional

    development on student learning outcomes (Publication No. 10608386) [Doctoral

    dissertation, Grand Canyon University]. ProQuest Dissertations and Theses Global.

Sahr, S. (2016). A quantitative look at the perceived effectiveness of online professional

    development in English language teaching (Publication No. 10076367) [Doctoral

    dissertation, George Washington University]. ProQuest Dissertations and Theses Global.

Saric, M., & Steh, B. (2017). Critical reflection in the professional development of teachers:

    challenges and possibilities. *Center for Educational Policy Studies Journal*, 7(3), 67-85.

    https://doi.org/10.26529/cepsj.288

Scott, M., Feldman, B. N., & Underwood, M. (2016). Delivering professional development in

    suicide prevention: A comparison of online versus in-person training. *Pedagogy in*

    Health Promotion: The Scholarship of Teaching and Learning, 2(4), 266-275.

    https://doi.org/10.1177/2373379916658667

Shaha, S. H., & Ellsworth, H. (n.d.). Predictors of success for professional development:

    Linking student achievement to school and educator successes through on-demand,

    online professional learning. *Journal of Instructional Psychology, 40*(1), 19-26.

Shaha, S., Glassett, K., Copas, A., & Ellsworth, H. (2015). Title I schools: The student-based

    impact of online, on-demand professional development on educators. *Contemporary*

    Issues in Education Research, 8(4), 227-234. https://doi.org/10.19030/cier.v8i4.9430

Smith, R., Ralston, N. C., Naegele, Z., & Waggoner, J. (2020). *Team teaching and learning: A*

    model of effective professional development for teachers (EJ1276114). ERIC.

    https://files.eric.ed.gov/fulltext/EJ1276114.pdf

State, T. M., Simonsen, B., Hirn, R. G., & Wills, H. (2019). Bridging the research-to-practice

    gap through effective professional development for teachers working with students with

    emotional and behavior disorders. *Behavior Disorders, 44*(2), 107-116.

    https://doi.org/10.1177/0198742918816447

Yunjo, A. (2018). The effect of an online professional development course on teachers'

    perceptions, attitudes, self-efficacy, and behavioral intentions regarding digital game-

    based learning. *Educational Technology Research and Development, 66*(6), 1505-1527.

    https://doi.org/10.1007/s11423-018-9620-z

Appendix A: Approval Letter

M MARSHALL UNIVERSITY®

www.marshall.edu

Office of Research Integrity   FWA 00002704
Institutional Review Board
One John Marshall Drive   IRB1 #00002205
Huntington, WV 25755   IRB2 #00003206

February 16, 2022

Barbara Nicholson, Ph.D.
Leadership Studies Department

RE: IRBNet ID# 1871962-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Nicholson:

Protocol Title:	[1871962-1] An Examination of Teacher Perceptions of the Effectiveness of Online, On-Demand Professional Development for West Virginia Educators

Site Location:	MUGC	
Submission Type:	New Project	APPROVED
Review Type:	Exempt Review	

In accordance with 45CFR46.104(d)(2), the above study was granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee. No further submission (or closure) is required for an Exempt study **unless** there is an amendment to the study. All amendments must be submitted and approved by the IRB Chair/Designee.

This study is for student Anna Shreve.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Lindsey Taylor at (304) 696-6322 or l.taylor@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Sincerely,

Bruce F. Day, ThD, CIP
Director, Office of Research Integrity

Appendix B: Initial Survey

An Examination of Perceptions of the Effectiveness of Online, On-Demand Professional Development

---

Anonymous Survey Consent   You are invited to participate in a research project entitled "An Examination of Teacher Perceptions of the Effectiveness of Online, On-Demand Professional Development for West Virginia Educators" designed to analyze how teachers perceive on-demand professional development and how it compares to traditional face-to-face professional development. The study is being conducted by Dr. Barbara Nicholson and Anna Shreve from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). This research is being conducted as part of the dissertation requirements for Anna Shreve.

This survey is comprised of seven questions that you to express your level of agreement with different statements, two short answer questions, and five multiple choice demographic questions. Your replies will be anonymous, so do not type your name anywhere on the form. Your IP address will not be collected, and once you complete the survey, you can delete your browsing history for added security. Your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether you participated in the study.

There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate you can leave the survey site. You may choose to not answer any question by simply leaving it blank. Completing the on-line survey indicates your consent for use of the answers you supply. If you have any questions about the study, you may contact Anna Shreve at 304-419-0574.

If you have any questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey, you are also confirming that you are 18 years of age or older.

Please print this page for your records.   Please press the next button to proceed to the survey.

Consider your experience from the Keynotes for Key People 2021 online, on-demand professional development sessions and respond to the following statements based on your level of agreement.

In the context of this study, online, on-demand professional development are trainings/lectures/etc. where participant(s) and conductor(s) are not in the same physical location; however, there are no live or synchronous meetings. Teachers are able to engage with the professional development materials and resources when they are available or as determined by their administrators. These offerings are self-paced so that participants can choose the speed at which they compete professional development.

Q1 The online, on-demand professional development offerings I have participated in are focused on research-based instructional practices.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q2 The online, on-demand professional development offerings I have participated in have active-learning experiences for the participants.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q3 The on-line, on-demand professional development offerings I have participated in give teachers the opportunities to adapt the practices to their unique classroom situations.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q4 The online, on-demand professional development offerings I have participated in were facilitated by outside experts (e.g., program experts, program authors, education researchers, etc.).

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q5 The online, on-demand professional development offerings I have participated in have provided enough time to deepen my understanding of the practices and ideas being presented.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q6 The online, on-demand professional development offerings I have participated in have opportunities for assistance whenever needed when there are struggles to adapt the new curricula/strategies/etc. to my unique classroom context.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q7 The activities of the professional development (i.e., the facilitated viewing guide questions) were aligned to the content of the presentations.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q8 The activities of the professional development (i.e., the facilitated viewing guide questions) helped me reflect on how I could use the content in my school/classroom,

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q9 The online, on-demand professional development offerings I have participated in increased my content knowledge.

○ Strongly disagree (1)

○ Somewhat disagree (2)

○ Somewhat agree (3)

○ Strongly agree (4)

Q10 I consider the main two disadvantages of online, on demand professional development offerings to be:

1.

▼ Lack of collaboration (1) ... Other (5)

Q10a If you selected other, what do you feel are the main disadvantages of online, on-demand professional development?

_____

Q10a

▼ Lack of collaboration (1) ... Other (5)

Q10a If you selected other, what do you feel are the main disadvantages of online, on-demand professional development?

_____

End of Block: Block 2

Start of Block: Block 3

Q11 I consider the main two advantages of online, on-demand professional development offerings to be:

1.

▼ Accessibility (1) ... Other (6)

Q11a If you selected other, what do you feel are the main advantages of online, on-demand professional development?

_____

Q11a.

▼ Accessibility (1) ... Other (6)

Q11a If you selected other, what do you feel are the main advantages of online, on-demand professional development?

_____

Q12 Select the option that best describes your age.

○ 19 - 30 (1)

○ 31 - 40 (2)

○ 41 - 50 (3)

○ 51 - 60 (4)

○ 61 - 70 (5)

○ 70+ (6)

Q13 Select the option that best described the number of years you have worked in education.

○ 0 - 3 (1)

○ 4 - 6 (2)

○ 7 - 9 (3)

○ 10+ (4)

Q14 Select the option that best describes the number of online, on-demand professional development offerings you have participated in.

○ 0 - 1 (1)

○ 1 - 2 (2)

○ 3 - 4 (3)

○ 5 - 6 (4)

○ 7+ (5)

Q15 How would you describe your proficiency with technology?

○ Novice (1)

○ Intermediate (2)

○ Proficient (3)

Q16 How would you describe your school's setting?

○ Rural (1)

○ Suburban (2)

○ Urban (3)

End of Block: Block 4

Interview - Examination of the Perceptions....

Informed Consent You are invited to participate in a research project entitled "An Examination of Teacher Perceptions of the Effectiveness of Online, On-Demand Professional Development for West Virginia Educators" designed to analyze how teachers perceive on-demand professional development and how it compares to traditional face-to-face professional development. The study is being conducted by Dr. Barbara Nicholson and Anna Shreve from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). This research is being conducted as part of the dissertation requirements for Anna Shreve.

This follow-up survey is comprised of six questions open-ended questions and will take no more than 15-20 minutes of your time. Your replies will be anonymous, so do not type your name anywhere on the form. Your IP address will not be collected, and once you complete the follow-up survey, you can delete your browsing history for added security. Your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether you participated in the study.

There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate you can leave the survey site. You may choose to not answer any question by simply leaving it blank. Completing the follow-up survey indicates your consent for use of the answers you supply. If you have any questions about the study, you may contact Anna Shreve at 304-419-0574.

If you have any questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey, you are also confirming that you are 18 years of age or older.

Please print this page for your records. Please press the next button to proceed to the interview.

Q1 1.   Workshops are described as opportunities where training participants are involved in active-learning experiences that focus on research-based practices. During these times, educators should have the opportunity to work on adapting the practices to their unique classroom situations. Were there workshop opportunities during Keynotes for Key People? If yes, in what

ways? If no, in what ways could workshop opportunities have been included/more effectively include.

_____

_____

_____

_____

_____

Q2 2. How do you feel about outside experts being used to present information during online, on-demand professional development? Do you have a preference for who delivers the content? For example, do you prefer people you know (e.g., people from your own school or district) over experts who are unfamiliar to you? Can you suggest people who would be effective presenters for the kind of content covered by Keynotes for Key People?

_____

_____

_____

_____

_____

Q3 3.   How did you feel about the amount of time you had to interact with the content for Keynotes for Key People? Are there changes to the amount of time you were given that would have made the professional development more effective?

_____

_____

_____

_____

_____

Q4 4. Did you feel there was sufficient follow-up with Keynotes for Key People? Did you feel as though you could readily ask for assistance if you struggled when adapting the content to your own contexts? How could follow-up be better incorporated into online, on-demand professional development?

_____

_____

_____

_____

_____

Q5 5.   Were the activities for Keynotes for Key People sufficiently adaptable to your specific context? How could the activities been improved to be more relevant to your context/practice?

_____

_____

_____

_____

_____

Q6 6. Do you feel Keynotes for Key People increased your content knowledge? Are there ways Keynotes could have been changed to more effectively increase your content knowledge?

_____

_____

_____

_____

_____

Anna Elise Shreve

•rubenstein9@marshall.edu•

EDUCATION

Marshall University, South Charleston, WV August 2019 – Present
Doctor of Education in Leadership Studies
GPA: 4.0/4.0
Predicted Graduation Date December 2022

West Virginia University, Morgantown, WV August 2018 – May 2019
Master of Arts in Elementary Education with Certificate in Grades 5-9 Mathematics
GPA: 4.0/4.0

West Virginia University, Morgantown, WV August 2013 – May 2019
Bachelor of Arts in Multidisciplinary Studies
GPA: 3.93/4.0

EXPERIENCE

The West Virginia Autism Training Center
Behavioral/Mental Health Technical Assistance Center August 2020—Present
Program Evaluator

Marshall University, Department of Leadership Studies August 2019—August 2020
Graduate Assistant

Girl Scouts of Black Diamond Council June 2019—August 2019
AmeriCorps VISTA

Marion County Board of Education, WV January 2019—June 2019
Substitute Teacher

Rivesville Elementary-Middle School, Rivesville, WV August 2018—December 2018
Student Teacher, Fourth Grade

Rivesville Elementary-Middle School, Rivesville, WV August 2016—May 2018
Field Placement, Practicum Student

West Virginia Governor School for Math and Science, Morgantown, WV July 2016—July 2018
Mentor

Multiple Individuals, Morgantown, WV September 2017—January 2018
PRAXIS Tutor

ACTIVITIES
Attended the West Virginia Center for Budget and Policy Summer Policy Institute 2020
4-H Volunteer 2019-Present
Marshall University School of Nursing Exam Proctor 2019-2020
Student Member of NASPA 2019-Present
Assessor for Energy Express 2019
Member of WVU Chapter of Alpha Phi Omega Community Service Fraternity 2013-2019
Member of the WVU Honors College 2013-2019
Girl Scouts of America 2004-2013
Program Assistant for the Girl Scouts of America 2007-2013
Volunteer at the Clay Center for the Arts & Science 2009-2011

HONORS
President's List for 8 semesters
Dean's List for 1 semester
PROMISE Scholarship Recipient
WVU Rhododendron Scholarship Recipient
WVU Valedictorian Scholarship Recipient
Harvard Book Award Recipient
Selected as Nitro High School representative for Ambassador of Justice

SKILLS
Over 1,000 hours of in-classroom experience, proficient in Microsoft Office Suite (Word, Excel, PowerPoint, Outlook and Access), basic written and spoken French language skills, type 70 WPM, skilled in basic graphic design, Safe Zone trained, Arts and Bots certified, Lego Robotics Certified, Project WET certified, Star Labs trained, trained as an "Autism Ally," Certified Teacher in West Virginia.