TEACHER PREPARATION IN A VIRTUAL K-12 CONTEXT:
THE PERCEPTIONS OF SCHOOL LEADERS CONCERNING TEACHER
PROFESSIONAL DEVELOPMENT

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by
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ABSTRACT

Enrollment in cyber schools has increased steadily from their inception in 1996 through 2019. Despite this increase there is a limited understanding of how to train teachers to teach in virtual classrooms. Most virtual professional development is created and delivered by leaders of cyber schools. Therefore, to contribute to the literature on teacher training for online schools, this dissertation explores what school leaders of a cyber school perceive about the skills required to teach online and how they address these skills through the preparation and ongoing development of their new and veteran teachers. All 30 members of the focal school’s leadership team were invited to complete an anonymous questionnaire, and additionally, they were invited to participate in an interview. The data were analyzed via frequency calculations and coding. Conclusions were focused on the knowledge gaps of new teachers, what defines a successful professional development experience, the state of teacher training at cyber schools, and the extent school leaders are involved with the creation of professional development at their school. I found that the knowledge gaps of new teachers depend on their prior teaching experiences, with the teachers who have more experience in brick-and-mortar schools having the most gaps. The most effective professional development activities were characterized to be engaging, relevant, timely, and a good example of what teachers should do in their own classrooms. The focal school uses several forms of professional development to meet the needs of new teachers: an in-person onboarding, induction, and mentorship. At the focal school, veteran teachers are provided with grade-level weekly workshops and a content-level professional learning community. Involvement in the creation of professional development is dependent on an individual’s title and role.
ACKNOWLEDGEMENTS

I would like to thank the members of my committee for their time and expertise. Dr. Joseph Ducette has provided me with timely feedback and encouragement to keep me progressing in this research and was especially helpful in the final states with guidance and editing suggestions that has made the final manuscript much improved. Professors McGinley and Hall were part of the team that approved my proposed study in addition to reviewing these findings. Professor McGinley has also served as my advisor throughout my time in the doctoral program at Temple University and has served as a mentor to me over the years. I welcome and thank Dr. Brooks as the latest member to join this committee. I appreciate each of you for intellectual guidance and professional support.

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\textsuperscript{1} A pseudonym
DEDICATION

For my mom, who has the biggest heart I know
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CHAPTER 1: INTRODUCTION

Professional development opportunities specifically designed for K-12 online teachers are becoming increasingly important. In the last decade alone, Digital Learning Collaborative (2019) found that from 2009-2010 to 2018-2019 enrollment in full-time cyber schools in the United States increased from 200,000 to 310,000 students (37%). Additionally, Watson et al. (2013) found that every state in the United States has a program that offers online courses, and Etherington (2017) found that five states require students to complete an online course as a graduation requirement. The increasing number of K-12 students taking online courses argues for an increasing need of effective online teachers. However, teaching in a virtual environment requires new technological and pedagogical skills that most online teachers have no choice but to learn on the job through brief professional development sessions (Rice & Dawley, 2009). Due to the lack of research on training online teachers, these sessions are often based on recommendations from professional organizations, which base their recommendations primarily on their experience with face-to-face learning environments (Compton & Davis, 2010; Kennedy & Archambault, 2012). This study examines the perspectives of cyber school leaders on the needs and professional development of online teachers.

Cyber school teachers are held to the similar standards and evaluation criteria as their traditional school counterparts (Kish, 2018). At the school level, some cyber schools have taken the initiative to adjust the Danielson Framework for a virtual teaching environment and provide professional training on teaching in the cyber school environment (Swan, 2017). In order help teachers reach proficiency on these evaluations, leaders of virtual schools need to provide them with training and development opportunities.
I was interested in how school leaders at a cyber school perceive the needs and development of core subject teachers for the online environment. In my experience working in traditional and virtual schools, school leaders have the most influence on the content and delivery of teacher professional development. Given that there is little guidance on the training of virtual school teachers, it is important to understand how school leaders define effective professional development and how they describe the professional development at their school. The overarching goal is to provide insight into how to best prepare teachers for the virtual setting and how to best support them while they are there.

Statement of the Problem

There is a growing need for effective online instructors to teach the expanding population of online K-12 students. To meet this need, teachers must be provided learning opportunities to acquire the specific types of knowledge and skills necessary to teach online (Moore-Adams et al., 2016). However, most preservice educator programs do not address how to teach online, so virtual school teachers heavily rely on on-the-job training (Kennedy & Archambault, 2012). This training is heavily influenced by school leaders (Rice & Dawley, 2007). At the K-12 cyber school that is the focus of the study, the school leaders who influence teacher professional development include the principal, assistant principals, directors, professional development coordinator, master teachers, and lead teachers. The aim of this study was to better understand the current landscape of virtual teacher professional development, which in this study starts with the perspective of the people creating it.

Purpose of the Study

In this study, I analyzed what school leaders in virtual schools perceive about the requisite knowledge and skills of online K-12 teachers and what they thought could be done to
address any gaps through training and development. Given that school leaders play an important role in virtual teacher development (Khachikyan, 2015), it is helpful to have an understanding of their perspective on teachers’ knowledge gaps, the criteria for effective teacher training, how they currently train teachers, and their actual involvement in the training process. The results are meant to spark discussion among developers of training for teachers of cyber schools about how to prepare teachers for the virtual environment and develop them while they are there.

**Research Questions**

The overarching question for this study is: What do school leaders of cyber schools perceive about the requisite skills required to teach online and how do they address these skills through preparation and ongoing development of teachers? Related questions are: 1) From the perspective of selected school leaders, what training gaps do online core subject teachers have prior to teaching at their school? 2) How do school leaders define an effective professional development program for core subject virtual teachers? 3) How do school leaders describe the professional development they provide to their teachers and how does this compare to their definition of an effective professional development program? 4) To what extent are school leaders involved with the creation of professional development at their school?

**Significance of this Study**

The increase in the number of teachers who teach in online environments isn’t limited to full-time online schools and blended learning\(^2\) programs. Traditional brick-and-mortar schools are starting to offer online programs to support their students as well. In fact, some states are creating legislation that encourages brick-and-mortar schools to have virtual learning programs.

\(^2\) A style of education in which students learn via electronic and online media as well as traditional face-to-face learning.
In order to support teachers who solely work in the virtual environment as well as teachers who sometimes work in the cyber environment, it is important to have best practices for training them.

Research on best practices for teaching in the online environment is beginning to emerge. However, it is typically based on face-to-face teaching practices and derived from case studies of individual programs, exploration of programs particular to content areas, expert editorials, or self-reported research from surveys of online instructors (Moore-Adams et al., 2016). As these best practices are refined, teacher development programs need to effectively train teachers to implement them. There is gap in the research on how to do this and this study aims to help fill that gap. Since school leaders have a big influence on online K-12 teacher development, this study aims to understand their perspective on how to train these teachers.

Summary

Online education in general is developing as a field of research, policy, and practice—especially at the elementary, secondary, and undergraduate levels. One specific area lacking research is how to prepare teachers for virtual learning environments. Since school leaders have the greatest influence on teacher training, this study aimed to develop a better understanding on how this group perceives the needs and development of teachers in their schools. Specifically, analyzing leaders’ responses to a questionnaire and interview questions will further develop the body of knowledge related to the needs and quality of training teachers receive at Succeed Cyber school, a pseudonym for a charter school that enrolls students across a state in the United States.
CHAPTER 2: REVIEW OF LITERATURE

Virtual schools are playing an increasingly important role in K-12 schooling. Of the 54.8 million students enrolled in public schools in 2009-2010, 1.5 million were enrolled in an online or blended learning program\(^3\) (2.7%). This amount nearly doubled in 2013-2014 with 2.7 million students (5%) being enrolled (Watson et al., 2011, 2013). In order to better inform the training and development of online and hybrid teachers, this study addresses the perceptions of school leaders on K-12 teacher professional development, the challenges associated with operating in novel environments the tensions that arise among administrators and teachers, and the difficulty of measuring efficacy. This literature review provides an overview of online learning, the professional development online teachers receive, and research-based guidelines and theories for using digital technology to effectively manage and train adult learners.

**Conceptual Framework: TPACK**

Online instruction differentiates itself from in-person instruction in that the students and teachers are geographically separate and communicate through a computer interface. This context requires teachers to have sufficient knowledge in not just the content they teach, but also the technology they use and online pedagogical strategies. In addition, teachers need to understand how these elements interact with each other.

The technological pedagogical content knowledge (TPACK) framework presents a way of thinking about effective technology integration into learning environments (Polly & Brantley-Dias, 2009). At the heart of the TPACK framework is the complex interplay of three primary forms of knowledge: Content (CK), Pedagogy (PK), and Technology (TK).

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\(^3\) Online learning is a style of education in which students learn completely through electronic and online media, while blended learning is a style of education in which students learn through both traditional face-to-face instruction as well as electronic and online media.
The TPACK approach emphasizes the types of knowledge that lie at the intersections between these three primary forms, as opposed to viewing them in isolation (Koehler, 2011).

**Pedagogical Knowledge**

Pedagogical knowledge refers to teachers’ deep knowledge about the processes and practices or methods of teaching and learning, which include educational purposes, values, and aims. This generic form of knowledge applies to understanding how students learn, general classroom management skills, lesson planning, and student assessments (Koehler & Mishra, 2009). Pedagogy looks different in an online classroom verses an in-person one; however, there are some similarities. For example, an in-person teacher might group students into different parts of a classroom while a cyber teacher might split the students up in breakout rooms.

In general, teachers may learn some of these pedagogical skills prior to their first teaching job, most of what they learn is through experience and ongoing professional development (Carter, 2015). This is especially true for cyber schools since most cyber teachers have little or no training in online teaching prior to hire. Professional development and teacher mentorship can be the primary the responsibility of school leaders; however, because online schools are relatively new, many leaders of virtual schools come from brick-and-mortar schools and have minimal experience teaching in the online environment (Richardson et al., 2016).
**Content Knowledge**

Content Knowledge refers to the specific subject knowledge to be learned or taught, which includes concepts, theories, ideas, organizational frameworks, knowledge of evidence and proof, as well as established practices and approaches toward development of such knowledge (Koehler & Mishra, 2009). This study assumes that teachers have the content knowledge of the subject they will teach prior to being employed at a cyber school. However, this study does not assume that teachers understand the interplay between content knowledge and other types of knowledge.

**Technological Knowledge:**

Technological Knowledge refers to the understanding of specific technologies and when they are best suited for addressing learning outcomes (Koehler & Mishra, 2009). Some of this knowledge is specific to certain online schools because they develop their own technologies, so the only way to be exposed to the technology is through them.

**Intersections of Knowledge Types**

The pedagogical knowledge and technological knowledge that teachers need to be effective are different in a cyber classroom than in an in-person one. Therefore, the intersection of these knowledge types with each other and with content knowledge are also different. For example, while in-person teachers can have their student participate in activities like dissecting a frog, cyber school teachers may have their students complete this activity through a website or an app. Becoming familiar with how to navigate these technological tools is important for teaching online. Students may not always be able to physically engage in the learning, but they will need to engage in it mentally in order to acquire new knowledge (Clark & Mayor, 2016).
Professional Development of Online K-12 Teachers

Teacher Demographics

Overall, the virtual K-12 teaching workforce is relatively experienced. Using a survey of 732 public K-12 online teachers, almost three quarters of whom teach a core subject at the high school level, Rice, Dawley, and Hinck (2010) found that only 2% of them were brand new to teaching and 14% were new to online teaching. The majority of respondents (56%) have from six to fifteen years of total teaching experience, with 24% reporting more than 16 years of total teaching experience. Sixty-nine percent of online teachers have been in their role from one to five years, and this amount is increasing. These statistics are consistent with a nationwide survey conducted by Rice and Dawley (2007) of 828 K-12 online teachers.

Table 2.1 crosses the total years of teaching experience by years of teaching online. As of 2010, almost 12% of teachers new to teaching online had never taught in a face-to-face classroom. The table also shows that teachers tend to start teaching online early in their teaching career, and once they start, they tend to stick with it. To keep up with the growth of cyber schools, I expect that more teachers are being hired by online schools early in their teaching career, making these trends more pronounced today.

<table>
<thead>
<tr>
<th>Total Teaching Experience Sorted by Years Teaching Online (Rice, Dawley, &amp; Hinck, 2010)</th>
<th>0 years (just hired)</th>
<th>1 – 5 years</th>
<th>6 – 10 years</th>
<th>10+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (just hired)</td>
<td>11.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>1 – 5 years</td>
<td>28.2%</td>
<td>20.6%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>30.9%</td>
<td>34.3%</td>
<td>19.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>10 – 15 years</td>
<td>14.5%</td>
<td>25.6%</td>
<td>30.8%</td>
<td>25.7%</td>
</tr>
<tr>
<td>16 – 20 years</td>
<td>4.5%</td>
<td>9.2%</td>
<td>17.5%</td>
<td>20.0%</td>
</tr>
<tr>
<td>20+ years</td>
<td>10.0%</td>
<td>10.3%</td>
<td>32.5%</td>
<td>53.3%</td>
</tr>
</tbody>
</table>
In addition to experience, online teachers tend to have advanced degrees and credentials. Rice, Dawley, and Hinck (2010) report that 60% of online teachers have at least a master’s degree, and 99% of online teachers are certified to teach in at least one area.

**Sources of Professional Development**

There has been little focus in teacher education on pedagogy for virtual schooling (Jacka, 2015). DiPietro et al. (2010) contend that even though there are handbooks and papers addressing online teaching, they aren’t based on research, but are instead rooted in face-to-face instruction, built upon post-secondary audiences, or fail to use data from teachers themselves. Furthermore, Barbour et al. (2012) concluded that the limited published research has largely excluded the perspectives of students engaged in virtual schooling, making the research one-sided and lacking input from one of its most important constituent groups. Due to this lack of data, decision making by administrators is a process of trial-and-error (Toppin & Toppin, 2015).

Even in the absence of significant research to guide the design, delivery, and support of K-12 online learning, 87% of online teachers report receiving professional development specifically for K-12 online instruction (Rice, Dawley, & Hinck, 2010). Most teachers initially receive this training from their school or organization and seek out other training providers the longer they work in the field (Table 2.2). The types of training and development that teachers in online schools receive is related to their years of experience; the most common form of professional development for teachers with less than 10 years of online teaching experience is ongoing training sessions (80-87%), while the most common form of professional development for teachers with 10-20 years of experience is workshops (93-100%). Other sources of professional development that teachers participate in include orientation, training courses, conferences, online learning, and social networking (Rice, Dawley, & Hinck, 2010).
Table 2.2

<table>
<thead>
<tr>
<th>Training Provider</th>
<th>0 years (just hired)</th>
<th>1 – 5 years</th>
<th>6 – 10 years</th>
<th>10+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>My program, school or organization</td>
<td>95.0%</td>
<td>93.9%</td>
<td>95.5%</td>
<td>71.4%</td>
</tr>
<tr>
<td>My district</td>
<td>13.9%</td>
<td>16.7%</td>
<td>23.2%</td>
<td>21.4%</td>
</tr>
<tr>
<td>College or University</td>
<td>11.9%</td>
<td>30.7%</td>
<td>42.9%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Self-Led</td>
<td>12.9%</td>
<td>22.6%</td>
<td>33.0%</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

Recommendations for Teacher Professional Development

It is recommended that teachers receive training in an online or blended format to mirror what students experience (Pagliari et al., 2009; Pankowski, 2004; Rice & Dawley, 2007). Teachers learn more from experience than anything else, including professional development, so teacher training should provide opportunities for teachers to practice developing skills in order to be most effective. By experiencing online courses from the perspective of students, teachers better understand their students’ needs and are better able to design their online courses (Pankowski, 2004). To maximize teacher commitment, it is recommended that professional development be ongoing (Barbour et al., 2009), based on teacher needs and wants (Watson et al., 2011), and allow teachers ample time to become proficient with the technology (Kennedy & Archambault, 2012). These recommendations mirror what scholars have been saying about brick-and-mortar schools for years.

Topics Covered in Professional Development

The professional development needs of online teachers are related to their years of teaching experience (Webster et al., 2012). Majority of teachers (53%) indicated that their professional development is customized based on their prior experience. This customization
includes choosing topics of interest through conferences, workshops, online offerings, catalogs, breakout sessions, and webinars.

Online pedagogical is arguably an important area of professional development of new online teachers because techniques that are effective in brick-and-mortar classrooms do not necessarily translate to online classrooms (Kennedy & Archambault, 2012). Making this transition is not intuitive, so it is necessary to train teachers in pedagogy specific to online classrooms. Training should take place before instructors begin to teach online, so that it can be translated into better curriculum development, higher teacher morale, and increased student satisfaction with the course (Pankowski, 2004). Topics should include facilitation, how to give students critical feedback, encouraging student interaction, and “classroom management” (Yang & Cornelious, 2005).

Rice, Dawley, and Hinck (2010) asked online K-12 teachers which topics are covered in the trainings they participate in, and how those topics compare to their development needs. The topics were broken down into five categories: foundational knowledge, technology tools, facilitation strategies, online course design, and digital etiquette. Rice, Dawley, and Hinck (2010) report the following as the needs of teachers in an online environment:

**Foundational Knowledge:** The top three foundational topics that teachers have had or desire training in are knowledge of the field of online teaching and learning; principles or theories related to online teaching and learning; and psychology of online learning. Rice, Dawley, and Hinck (2010) found that while 86% of teachers receive training in knowledge of the field, only 16% want or need it. In the same vein, the most highly desired foundational topics—psychology of online learning—is the least likely to be addressed in professional development.
**Facilitation Strategies:** Responses regarding facilitation strategies are fairly consistent across the strategies examined in the study, with 64 – 88% of participants indicating that they had training in various facilitation strategies, 19 – 37% of participants indicating that they desired training in a particular strategy, and 2 – 12% indicating they neither wanted nor needed training in particular strategy. Meeting the needs of students with disabilities in the online classroom is the most desired facilitation strategy that teachers want, while management strategies are the most commonly covered in teacher professional development.

**Technology Tools:** The majority of teachers have had training in most technology skills, especially Learning Management Systems (93%) and Communications Technologies (90%). Approximately half of teachers have had training in design tools (55%) and social networking (52%). The most desired area for professional development is design tools (40%).

**Online Lesson Design and Development:** Few teachers are interested in learning about the design and development of online courses, which makes sense since more than half of teachers design less than half of the learning activities used in their online courses. In fact, only 22% of teachers design at least half of their online content. This aligns with only 34 – 64% of teachers receiving training in various aspects of course design. The highest reported area of training interest for this category is instructional design principals for online lessons (43%).

**Digital Etiquette, Behavior and Assessment:** the majority of teachers (85%) report receiving training in most areas of digital etiquette, behavior, and assessment. Student readiness (34%), interpreting online assessments (30%), and using student data to inform online instruction (29%) are the areas that teachers indicated as being in the greatest need to training.
How Adults Learn from Online Courses

In cyber schools where faculty are geographically dispersed, teacher training and development must take place through electronic and online media. To understand how this group of adults learn through a virtual environment, this section reviews adult learning through e-courses.

Overview of Online Learning

Online learning involves instruction delivered on a digital device (such as a desktop computer, laptop computer, tablet or smart phone) that is intended to support the acquisition of knowledge and skills (Clark & Mayor, 2016). Online courses are delivered asynchronously, synchronously, or through blended learning using words in the form of spoken or written text and pictures such as illustrations, photos, animation, or video. Asynchronous courses are available on demand and are designed for individual self-study. These courses are typically self-paced, allowing learners to access training at any time or any location on their own. A photo of an asynchronous classroom from Opportunity Academy is in Figure 2.2.

Figure 2.2. A Screen Capture of an Asynchronous Online Lesson (Opportunity Academy, 2018)
Synchronous courses allow students from two regions to attend an online class taught by an instructor in real time. At Opportunity Academy, teachers use Adobe Connect as a platform for the online classroom. This platform has several features including video conferencing, screen share, a white board, the ability to split students into breakout rooms, and a chat pod. A screenshot from a synchronous classroom is in Figure 2.3.

Figure 2.3. A Screen Capture of a Synchronous Online Lesson

At Succeed Cyber School, student learning is a combination of teacher-led virtual classroom sessions, asynchronous modules and activities, and targeted tutoring. These learning formats are the same as those used for the training and development of teachers at the school.

**The Premises of Online Learning for Adults**

Organizations across industries, including full-time virtual schools, have looked to online learning to save training time and travel costs associated with traditional face-to-face learning. However, cost savings are only an illusion when online training does not effectively build knowledge and skills linked to desired job outcomes. Clark and Mayor (2016) propose that the
opportunities to foster learning via digital instruction rely on five unique features; these are described below.

**Premise 1: Customized Training**

Asynchronous online courses have the potential to customize learning to the unique needs of each learner. Customized training means tailoring content, instructional methods and navigation based on the needs of individual learners.

**Premise 2: Engagement in Learning**

All learning requires engagement, regardless of the delivery method. There are two types of engagement that must take place: behavioral engagement and psychological engagement. Behavioral engagement is an overt action that the learner must take during a learning episode, while psychological engagement is the cognitive process that leads to acquisition of new knowledge and skills.

**Premise 3: Multimedia**

In online courses there is a combination of audio, text, as well as still and motion visuals to communicate content and help learners acquire relevant knowledge and skills.

**Premise 4: Acceleration of Expertise Through Scenarios**

Online courses offer opportunities to immerse learners into job-realistic environments requiring them to solve infrequent problems or complete tasks in a matter of minutes that could take hours or days to complete in the real world.

**Premise 5: Learning Through Digital Games**

An emerging theme in on-the-job training that is currently not being used for the development of virtual teachers at Succeed Cyber School, is gamification. This goal of gamification is to provide motivating, engaging, and effective learning experiences.
The Pitfalls of Online Learning for Adults

The powerful features of online trainings are a two-edged sword with many potential traps that sabotage learning. The four major pitfalls are summarized below.

**Pitfall 1: Too Much of a Good Thing**

The human cognitive system is limited and, when it comes to instruction, less is far more. Online training developers are often tempted to use an eye-catching mix of animations, sounds, audio, and printed text to convey content. However, often learners remember more when less glitz is presented (Sweller, Ayres, & Kalyuga, 2011).

**Pitfall 2: Not Enough of a Good Thing**

On the other end of the spectrum, you can find online trainings that are minimalistic and fail to make use of features proven to promote learning. Without overt engagement, most learners lose attention within fifteen minutes at best (Hattie & Yates, 2014).

**Pitfall 3: Losing Sight of the Goal**

Some technophiles gravitate towards the latest cool training trends, sometimes without considering whether and how to best leverage them in ways that support relevant learning (Clark & Mayer, 2016). In her study of three schools, Fritson-Coffmen (2007) identified the school with the most success as the one with the principal who was able to best connect the professional development of teachers to the goals and vision of the school.

**Pitfall 4: Discovery Learning**

Because the internet allows for high learner control, a tempting pitfall involves highly exploratory learning environments that give learners an unrestricted license to navigate and piece together their own learning experiences. However, over fifty years of research on discovery
learning has shown that it rarely works (Mayer, 2004). It is much more effective to have structured online trainings that provide appropriate guidance for learners.

**Definition of Learning and Instruction**

Learning is defined as a change in the learner’s knowledge due to experience. This definition has three main elements. First, learning involves change. Therefore, developers of e-training help people train. Second, the change is in what the learner knows. Changes are personal in that they take place within the learner’s information processing system, and can include facts, concepts, procedures, strategies, and beliefs. Third, the change is caused by the learner’s experience (Mayer, 2011). In the virtual school setting, school administrators are responsible for ensuring the design environment creates experiences that foster desired changes in teachers’ behaviors consistent with the goals of the school.

Instruction is defined as the training professional’s manipulation of the learner’s experience to foster learning. This definition has two parts. First, instruction is something that an instructional professional does to affect the learner’s experience. Second, the goal of the manipulation is to cause a change in what the learner knows. Importantly, the job of the training professional is more than just presenting information to the learner; the job involves guiding each learner’s cognitive processing of the material during learning (Clark & Mayer, 2016).

**Principles and Processes of Learning**

The knowledge construction view is based on three main principles from research in cognitive science:

- Dual channels: people have different channels for processing visual material and auditory material,
• Limited capacity: people can actively process only a few pieces of information in each channel at one time, and
• Active processing: learning occurs when people engage in appropriate cognitive processing during learning

Figure 2.4 presents a model of how people learn from multimedia lessons. The majority of the training and development that teachers experience at cyber schools is online, so it is important to understand how knowledge development happens for adults in this environment. Additionally, the professional development participants are being trained to deliver online lessons. Modelling how they should be doing this may help them gain a deeper understanding of how to use the technological tools and pedagogical skills being presented.

*Figure 2.4. Cognitive Theory of Multimedia Learning (Clark & Mayor, 2016)*

In the figure, the dual channel principle is represented by the two rows—one for processing words (across the top) and one for processing pictures (across the bottom). The limited capacity principal is represented by the Working Memory box, in which knowledge construction occurs. There are three important cognitive processes needed for meaningful learning indicated by the arrows in the figure:

• Selecting words and images: pay attention to the words and images in the presented material
- Organizing words and images: mentally organize the selected material in a coherent verbal and pictorial representations
- Integrating: integrate the verbal and pictorial representations with each other and with existing knowledge.

Managing Limited Cognitive Resources during Learning

The challenge for the learner is to carry out these processes within the constraints of severe limits on how much processing can occur in each channel of working memory at one time. There are three kinds of demands on cognitive processing capacity (Mayer, 2009, 2011, 2014c; Sweller, Ayres, & Kalyuga, 2011):

- Extraneous processing: cognitive processing that doesn’t support the learning objective and is created by poor instructional layout (e.g. extraneous text and pictures)
- Essential processing: cognitive processing aimed at representing the core material and is a function of the complexity of the material (mainly consists of selecting the relevant material)
- Generative processing: cognitive processing aimed at developing a deeper understanding of the core material and is a function of the motivation of the learner as well as the instructional methods that promote engagement with the material (mainly consists of organizing and integrating).

When taking the learner’s limited cognitive capacity into account, trainers can be faced with three possible scenarios: too much extraneous processing, too much essential processing, and insufficient generative processing. Approaches for managing these challenges are summarized in Table 2.3.
### Table 2.3

**Approaches to Manage Challenges of Cognitive Load (Clark & Mayer, 2016)**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Description</th>
<th>Solution</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Too much extraneous processing | The cognitive load caused by extraneous and essential processes exceeds mental capacity | Use instructional methods that decrease extraneous processing | • Use audio to describe complex visuals  
• Write lean text and audio narration |
| Too much essential processing | The content is so complex that it exceeds cognitive capacity                | Use techniques to manage content complexity   | • Segment content into small chunks  
• Use pretraining to teach concepts and facts separately |
| Insufficient generative processing | The learner does not engage in sufficient processing to result in learning | Incorporate techniques that promote psychological engagement | • Add practice activities  
• Add relevant visuals |

**How Online Instruction Affect Human Learning**

Instructional methods in online courses must guide the learners’ transformation of words and pictures in the lesson through working memory so that they are incorporated into the existing knowledge and in long-term memory. These events rely on the following processes (Clark & Mayer, 2016):

1. First, the learner must focus on key graphics and words in the lesson to select what will be processed. This selection process can be guided by instructional methods that direct the learner’s attention.

2. Second, the limited capacity in working memory must be managed to allow the processing needed for learning. It is very difficult for working memory to hold even limited amounts of information and process effectively at the same time.
3. Third, the learner must consolidate words and pictures into a coherent structure in working memory and further integrate these ideas with existing knowledge in long-term memory. Using methods that reduce cognitive load supports this integration, especially when learners are novices to the new knowledge and skills.

4. Fourth, new knowledge and skills stored in long-term memory must be retrieved back into working memory when needed later. To support this transfer of learning, e-lessons must incorporate the context of the job in the examples and practice exercises so that new memories contain job-relevant retrieval hooks.

Summary

Virtual schools and online learning programs for K-12 students are becoming increasingly popular. With the number of enrollments continuously on the rise, there is a higher demand for effective online teachers. But, in order to train online teachers for effective instruction, it is necessary to understand the unique knowledge and skill gaps of online teachers as well as how to effectively fill those gaps through training. This study examines the perceptions of school leaders on the training and development of online K-12 core subject teachers in order to develop a better understanding of how to prepare them for effective virtual classroom instruction.
CHAPTER 3: METHODOLOGY AND PROCEDURES

This research study was designed to gain information about the perspectives of leaders of virtual schools on the needs and current professional development of teachers in their schools. Specifically, information was sought from the principal, assistant principals, directors, professional development coordinator, master teachers, and lead teachers at Succeed Cyber School. Participants were prompted to share their assessment of first-year teacher needs, the state of training at Succeed Cyber School, and their level of involvement with development of teachers in order to answer the following research questions:

1. From the perspective of selected school leaders, what training do online core subject teachers have prior to teaching at their school?

2. How do school leaders describe an effective professional development program for core subject virtual teachers?

3. How do school leaders describe the professional development they provide to their teachers and how does this compare to their definition of an effective professional development program?

4. To what extent are school leaders involved with the creation of professional development at their school?

To address these research questions, the study was broken into two parts. The first consisted of a questionnaire to gather background information on research participants, to learn how school leaders’ rate the quality of training that teachers receive at their school, and to give participants the opportunity express interest in participating in the second part, interviews. The interview questions prompted school leaders to reflect on the needs of new online teachers, the domains of effective professional development, the training provided to teachers at their school,
and the extent of their satisfaction with their level of involvement in professional development of teachers at their school.

Data Collection

Site Selection

This study focuses on Succeed Cyber School, a full-time, tuition-free, virtual charter school for students in grades K-12. It is part of the Opportunity Academy program, which was founded in 2001 and is part of Pearlman’s Online & Blended Learning K-12 group. In the 2017-2018 school year, over 70,000 students were served by Opportunity Academy schools in 27 states (Pearlman, 2018), making it the second largest for-profit education management organization (EMO) in the country (Molnar et al., 2017). Therefore, Succeed Cyber School is operated by one of the most experienced and recognized EMOS in the United States.

Succeed Cyber School is a productive place to address the research questions set forth in this study because it is the best of both worlds: it is a relatively new schools that is overseen by one of the most experienced EMOS in the country. At the time of this study, Succeed Cyber School was in its third year of operation and had the freedom to experiment with new professional development strategies that were ideated from leaders with a variety of experiences. At the same time, the school leaders at Succeed Cyber School are overseen by individuals who work for an EMO that has a variety of training resources, knowledge, and insight based on prior experience. This research site is a rich source of information from a variety of perspectives.

In addition, Succeed Cyber School offers its teachers a variety of professional development opportunities throughout the school year, making it a promising site for analyzing

\[\text{\footnotesize \textsuperscript{4} A pseudonym}\]
\[\text{\footnotesize \textsuperscript{5} A pseudonym}\]

23
school leaders’ perspectives on different types of training formats. Based on my experience working with Succeed Cyber School, I know that multiple forms of training are offered to teachers in an attempt to meet the need of new hires almost every week and the variety of teaching experiences those new teachers have prior to their employment at Succeed. The school leaders are also experientially diverse, making the school rich with perspectives from a variety of backgrounds.

**Population and Sample**

The target population for this study was school leaders at Succeed Cyber School, including the principal, assistant principals, directors, professional development coordinator, master teachers, and lead teachers. At the time this study was conducted there were 30 members of the school leadership team who were invited to complete the questionnaire or participate in an interview. These individuals have a variety of teaching and leadership experience in both brick and mortar and cyber environments. The Education Management Organization and the Lead Principal at Succeed Cyber School approved this study and agreed that I could gather data from Succeed Cyber School’s leadership team.

**Survey Data**

A web-based anonymous questionnaire (Appendix A) was used to determine how leaders of virtual schools view the quality of training and development of teachers at their school. This method was chosen because of the low cost of distribution and retrieval, a short data collection period, and a very wide geographical reach (Blair & Czaja, 2013). Based upon research of characteristics and trademarks of effective professional development practices, this questionnaire was designed to elicit responses from school leaders about the opportunities for development that are available to teachers, as well as the strengths and weaknesses of those development
opportunities. The questionnaire takes into account a diverse group of teachers, training program design, and training program implementation.

In order to refine the instrument, as well as receive feedback on it, the questionnaire was sent to a group of professors at Temple University. These professors were asked to provide feedback on issues such as the types of questions asked, the ease of navigating through the survey, and how difficult it was to understand (Appendix B).

Once feedback was received from these professors, the questionnaire was edited based on the following feedback:

- Condense multiple prior teaching experience questions into a single multiple-choice grid question
- Add a multiple-choice grid question to gather information about participants’ prior leadership experience.
- Condense multiple training perception questions into a multiple-choice grid
- Add a question that asks participants how they know if a professional development is successful
- Add a question that gives participants the opportunity to opt into an interview

Once the changes were made and approved, the questionnaire was sent out to the leadership team at Succeed Cyber School in order to acquire the data to be analyzed and used to draw conclusions.

**Interview Data**

Interviews were the primary method for collecting data in this study. The aim of the interviews was to uncover how each interviewee perceived the quality of professional development provided to teachers. The interview protocol is attached as Appendix D. I began
with a small sample of the school’s leading educators based on who expressed interest in participating as indicated through the questionnaire. Then I used the snowball sampling methodology based on the references of interviewees until I reach a saturated sample. The aim was to speak with the people who design and deliver professional development to virtual school teachers. There were 11 interviews in total, lasting from 30 minutes to an hour each, that included the lead principal, directors, professional development coordinator, master teachers, and lead teachers.

**Data Analysis**

The data collected from the questionnaire were represented using frequency tables and pie graphs. The data were analyzed using percent, mean, and significance calculations to determine how members of the leadership team generally described and felt about the professional development provided to teachers at Succeed Cyber School. This analysis examined the extent to which leaders perceive teacher training to be of high quality, as determined by the types of knowledge and skills needed for each of the TPACK domains (Moore-Adams et al., 2016). The analysis also provides a description of the professional background leadership has in the education field.

Interview data were transcribed, analyzed, and coded to generate themes that provide a thorough description of how school leaders define an effective teacher training program and how that definition compares to the training program provided to their own teachers. Analysis of interview data was an inductive process, so the coded categories emerged through examination of the transcribed interview data. The data were analyzed as I collected them, using a constant comparative method. From each transcription, I generated condensed notes, reviewing these notes for trends. As noted by Blair and Czaja (2013), “Coding respondents’ answers to each
question allows us to estimate characteristics or to look for patterns among variables” (p. 37). Therefore, I highlighted insightful quotes related to the themes that emerged and arranged participants’ direct quotes into categories and from there transitioned from coding to writing. Examples of these codes include “new teacher training,” “veteran teacher training,” “prior brick-and-mortar experience,” and “mirrors effective online teaching.” A detailed description on what school leaders perceive about the preparation and needs of teachers at Succeed Cyber School emerged through these interviews.

While making generalizations from a single school may not be possible, this study was designed to generate a description of school leader perceptions on the needs and training offerings at Succeed Cyber School. The findings from this dissertation may point to implications for organizational policy and practice in other virtual schools and perhaps broaden theory on e-learning and the science of instruction in education.

**Ethical Issues**

I have been employed at the focal school since August 2017 as a full-time teacher. In May 2018, I joined the school leadership team as a department chair. In the summer of 2018, I was a summer school teacher.

I have personal and professional relationships with many of the interview subjects in this study. In my role as the department chair, I am providing more structure to the department’s weekly professional learning community (PLC) and influencing the structure of the other departments’ PLCs. I am also demonstrating to teachers what an effective online lesson looks like, creating video tutorials to educate teachers on how to navigate the school’s e-learning platform, and—in the summer of 2018—led an analysis of high school student data in order to develop a new family mentorship program for the 2018-2019 school year and beyond.
In moving from school leader questionnaire data to interviews, I followed the semi-structured interview protocol attached in Appendix D. To mitigate bias, I invited all members of the leadership team to participate in both the questionnaire and interviews. To ensure interview subjects that their participation was voluntary, they were told verbally and in the informed consent form, attached as Appendix E. However, because of my leadership position, some individuals may have felt pressured to participate. At the outset of each interview, I explained to my interview subjects that while I am part of the school’s leadership team, I will strictly be in the role of researcher through the course of this study. Appendix F is the form for permission to audiotape. After each interview, I thanked each interviewee, but no other compensation or recognition was given.

**Limitations**

There are limitations to this methodology. First, the leadership positions that were included in this study are those leadership positions that exist specifically at Succeed Cyber School. Although this reduces the variability in the student, it is important to note that there are other leadership positions at other K-12 cyber schools that are not part of this study. Although other Opportunity Academy schools may have positions with the same title, the role may be different from school-to-school. Additionally, cyber schools beyond the Opportunity Academy network may have a different school leadership organizational structure all together.

Also, this study sought the perceptions of school leaders involved, which was determined by who opted in to participate in the survey and interview. They were asked to create their own definition of a successful teacher training program, and then rate the training program provided to their teachers. Sources of participant bias include the school leaders’ ability to articulate their perceptions and their limited academic knowledge of online teacher training.
Summary

This study was designed to explore the perceptions of school leaders at Succeed Cyber School on the needs and professional development of core subject teachers. All members of the leadership team were invited to participate in an anonymous questionnaire where they shared information about their leadership experience in education as well as their perception on the quality of training provided to teachers at Succeed Cyber School. At the end of the questionnaire, participants were invited to express interest in participating in an interview. The interview participants were prompted to reflect on the needs of virtual school teachers at Succeed Cyber School, the characteristics of effective teacher professional developments in the virtual setting, the professional development provided to teachers at Succeed, and their involvement in the development and delivery of teacher training opportunities. At the end of the interview, participants were asked to share who they thought would have additional insight into the research topics. All of those individuals were contacted and invited to participate in an interview.
CHAPTER 4: PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this study was to explore what school leaders at a virtual cyber charter school perceive about the requisite skills required to teach online and how they develop these skills amongst their staff through training. To frame this study, a questionnaire was used to gather background information on the research participants and their anonymous perception on the quality of professional develop their school provides to teachers. At the end of the questionnaire, participants had the option to opt into revealing their identity and participate in an interview.

Survey Data

This chapter begins with a presentation and analysis of the questionnaire data. Twenty-one of thirty members (70%) of Succeed Cyber School’s leadership team were invited to complete the anonymous questionnaire. All individuals in this survey were prompted to consent to participate in this study and confirm that they work for a cyber school where students are 100% remote. On the survey, participants were asked to provide information about their prior experience, current experience, and perception on the quality of training and development provided to core subject teachers. At the end of the survey, participants had the opportunity to reveal their identity and indicate their interest in participating in an interview.

Prior Experience

As shown in Table 4.1 and Figure 4.2, all of the participants had some experience teaching for Succeed Cyber School prior to being promoted to a leadership position. However, seventeen (81%) of them had experience teaching for a brick-and-mortar school prior to working at Succeed Cyber School. Therefore, most members of the leadership team started their career in education working in a brick-and-mortar school; but, none of them transferred from teaching at a
brick-and-mortar school to being on the leadership team. Additionally, ten of the participants (48%) had five or less years teaching in the online environment prior to joining the leadership team. These results align with the findings of Richard et al. (2016) who concluded that many virtual leaders come from brick-and-mortar schools and have minimal experience teaching in the online environment.

Table 4.1

<table>
<thead>
<tr>
<th>Participants’ Years of Teaching Experience</th>
<th>Cyber School- Students 100% Remote</th>
<th>Cyber School- Students Partially Remote</th>
<th>Brick and Mortar</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Years</td>
<td>-</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>1 Year or Less</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5 years or less</td>
<td>6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>6 – 10 Years</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>More than 10 Years</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure 4.1. Participants’ Years of Teaching Experience

The data in Table 4.2 and Figure 4.2 provide insight into the leadership experiences participants have had prior to joining the leadership team at Succeed Cyber School.
Table 4.2

Participants’ Leadership Experience Prior to Current Role

<table>
<thead>
<tr>
<th>Years’ Experience</th>
<th>Cyber School- Students 100% Remote</th>
<th>Cyber School- Students Partially Remote</th>
<th>Brick and Mortar</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Years</td>
<td>2</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>1 Year or Less</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5 years or less</td>
<td>7</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6 – 10 Years</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>More than 10 Years</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 4.2. Participants’ Leadership Experience Prior to Current Role

Of the twenty-one participants, fourteen (67%) have not previously served on a brick-and-mortar school’s leadership team. Since all participants have taught for a cyber school before, this must mean that the remaining seven (33%) participants had either given up their leadership role to teach at a cyber school before joining Succeed Cyber School’s leadership team or had taught for a cyber school prior to joining the leadership team at a brick-and-mortar school. It is also interesting to note that ten of the participants (48%) had served on the leadership team of a cyber school for less than a year prior to their current position, making almost the majority of the participants relatively inexperienced.

**Current Experience**

Since Succeed Cyber School was in its third year of operation at the time of this study, all participants had less than three years of experience in their current position. Most specifically,
the survey results indicated that fifteen of the twenty-one participants (71.4%) had been in their leadership position for less than a year, while the remaining six participants (28.6%) had been in their position between two to three years.

The distribution of leadership team members in different contexts across the school was also determined from the survey results: 43% work only in high school, 14% work only in middle school, 19% work only in elementary school, 19% work in all contexts, and 5% work in both middle and high school (Figure 4.3).

*Figure 4.3. Participants’ Context Distribution*

![Participants’ Context Distribution](image)

The titles of the participants ranged across a variety of leadership positions in the school (see Figure 4.4). The frequency of titles is a reflection of the number of those positions filled at the school.

*Figure 4.4. Frequency of Participant Leadership Positions*
Additionally, the survey results showed that eighteen members of the leadership team were female (85.7%) and three members of the leadership team were male (14.3%).

**Perception of Current Professional Development Quality**

The third part of the questionnaire was designed to shed light on how school leaders at Succeed Cyber School evaluate the professional development provided to teachers. These data are presented in Table 4.3 and Table 4.4.

<table>
<thead>
<tr>
<th>Table 4.3</th>
<th>Perceptions of Professional Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>…is relevant to teachers’ context</td>
<td>4</td>
</tr>
<tr>
<td>…is skills-based</td>
<td>1</td>
</tr>
<tr>
<td>…is teacher driven</td>
<td>1</td>
</tr>
<tr>
<td>…is highly interactive</td>
<td>0</td>
</tr>
<tr>
<td>…values teachers’ perspective</td>
<td>1</td>
</tr>
<tr>
<td>…is organized</td>
<td>2</td>
</tr>
<tr>
<td>…is designed so that learning objectives align with activities and assessments</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4.4</th>
<th>Overall Rating of the Quality of Professional Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>Frequency</td>
</tr>
<tr>
<td>Excellent (5)</td>
<td>0</td>
</tr>
<tr>
<td>Very Good (4)</td>
<td>14</td>
</tr>
<tr>
<td>Very Good/ Good (3.5)</td>
<td>1</td>
</tr>
<tr>
<td>Good (3)</td>
<td>6</td>
</tr>
<tr>
<td>Poor (2)</td>
<td>0</td>
</tr>
<tr>
<td>Very Poor (1)</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>3.69</td>
</tr>
</tbody>
</table>

As shown in Table 4.3 the ratings are generally positive with the highest rating for “relevant to teachers’ context” and the lowest for “teacher driven”. These two means are
significantly different from each other ($t = 2.33$, $p = .038$). The overall rating (Table 4.4) is also positive although no one rated the professional development as “excellent”. These ratings closely align with how participants responded to the questions that frame training quality in terms of various domains, which were determined by what the literature review has shown to be the most important characteristics of teacher training in the virtual setting.

As an additional analysis, the various questions asking about the respondents’ experience were correlated with the perceptions data. Although there were few significant correlations, in general respondents who had been in cyber schools with students 100% remote for longer periods of time rated the professional development more positively, while respondents who had spent more time in brick-and-mortar schools rated it more negatively.

**Implications for Interview Data**

The questionnaire data provide a backdrop for the interview data. It is helpful that the majority of leadership team members participated in the survey; however, their lack of experience teaching and leading in an online school may have impacted their responses to the survey questions. Since the majority of cyber school leadership team members are inexperienced (Richard et al., 2016), this bias may impact the perception of school leaders at other cyber schools. This bias isn’t necessarily a bad thing—if members of the leadership team have experience that is more closely in touch with the teacher’s experience, they may have more accurate perceptions on what teachers need from their training. This may be especially true for members of the leadership team who have primarily teaching experience in a brick-and-mortar school.
Interview Data

At the end of the questionnaire, school leaders were invited to participate in the interview. Sixteen of the twenty-one survey participants indicated that they would like to participate in an interview. However, after being contacted directly, only eleven individuals (52%) followed through and actually participated. A large part of this lower-than-expected turnout was individuals feeling overwhelmed with the rate of growth the school is experiencing, significant changes in leadership (one of the lead principals being asked to resign), and rapid policy changes in order to meet the expectations of the state (this was a charter renewal year).

The interview data explain why school leaders of Succeed Cyber School rated their professional development as “good” or “very good” quality. In the interviews, the school leaders described a number of issues related to training gaps, their concept of quality professional development, the nature of the professional development they provide, and their level of involvement in the development of professional development that they provide.

Thus, this chapter is organized into four major sections: 1. Training Gaps of Virtual Teachers. 2. Domains of Professional Development. 3. Professional Development at Succeed Cyber School. 4. Involvement of Professional Development Creation.

A summary of the interview participants and their roles can be found in Appendix G.

Training Gaps of New Teachers

According to the leaders of Succeed Cyber School, the training gaps that core subject teachers have prior to teaching for an online school are a function of their professional background: whether they have only taught for a brick-and-mortar, whether they are a first-year teacher, or whether they have taught for a different cyber school. The training and development needs of these groups can overlap depending on the more specific experiences of individual
teachers, such as the resources provided by their prior school district, their academic training, and individual characteristics. A common theme that emerged from the interviews is that the brick-and-mortar school teachers have the largest training gaps, followed by first-year teachers, and finally cyber school teachers. However, there is overlap of training needs between the three groups: first-year teachers have the same knowledge gaps as virtual teachers in addition to their own, and the brick-and-mortar school teachers have the same knowledge gaps as first-year teachers in addition to their own. Figure 4.5 is a Venn Diagram of the knowledge gaps for three teacher groups that were discussed by the participants.

Figure 4.5. Training Needs of New Full-Time Online K-12 Teachers

In this section, I will start by describing the participants’ perspective on the training needs of teachers who only have prior brick-and-mortar teaching experience. Then I will describe the training needs shared by former brick-and-mortar school teachers and first-year teachers. Finally, I will describe the training needs shared by all teachers.

Teachers Whose Previous Experience is Only Brick-and-Mortar

There are two prominent gaps that are specific to former brick-and-mortar school teachers. The most pressing one is a change of mindset because in order learn new skills the participant needs to be open-minded to them. Brick-and-mortar school teachers are used to teaching a certain way and the longer they have been teaching that way, the more resistant they
can be to change their method of teaching. Related to this is translating their prior teaching experience to the virtual classroom, including understanding why they are now required to do non-instructional tasks. Several interviewees commented that all former brick-and-mortar school teachers need training on this, but the extent of their training is related to their prior experience with education technology.

*Adapted Mindset*

Leaders said that some of their teachers employed traditional teaching strategies and were slow to adopt new strategies specific to virtual environments. Although all teachers who don’t have experience teaching online need development in online pedagogy, brick-and-mortar school teachers need support with changing their mindset towards it. Becky Phillips, Department Chair, shared that veteran brick-and-mortar school teachers have told her “I really want to stick with my instructional strategies in this regard,” demonstrating a lack of open-mindedness towards unfamiliar teaching strategies.

According to each of the leaders interviewed, the change in mindset becomes increasingly difficult the more experience a teacher has in the brick-and-mortar setting. John Koch, Department Chair, explained why: “They have to eventually break all their knowledge of how they did things in brick-and-mortar and build knowledge about how we do things here.” The participants indicated that teaching online is very different than teaching in-person, so the longer a teacher has been in the brick-and-mortar setting, the more support they need with adjusting how they perceive what online learning should look like. Becky Phillips gave an example of veteran teachers struggling more than their less-veteran counterparts as a result of their outlook:

[The veteran teachers] just stick with the more basic skills and streamline things that way. [On the other hand.] I see the younger teachers having pedagogy that is more advanced; they are wanting to develop things, they are asking questions. […] When I do
my walkthroughs of teachers, I can see who’s more advanced in those areas and it really
does align with the years they’ve been teaching.

While research has shown that teaching experience is positively associated with increased
student achievement (Kini & Podolsky, 2016), this finding may be limited to a constant learning
environment according to the results of this study.

*Translating Prior Experience*

Another reason for the more experienced brick-and-mortar teachers having the hardest
time adjusting to online teaching is the increased difficulty with translating their teaching
knowledge to their virtual classroom. Whitney Feeney, Master Teacher, explained that “the
teachers who come to us with 30 years of only brick-and-mortar teaching experience struggle the
most with this form of teaching because they know one way so well it can be hard to translate
that into this environment.”

This translation involves instructional and non-instructional tasks. John Koch commented
on the frustration that former brick-and-mortar teachers experience when they are trained on
non-instructional tasks that they never had to do in their traditional school. In addition to training
on how to get these tasks done, teachers need training on why they are required and how they
replace brick-and-mortar responsibilities. John Koch explained:

> [They find the] clerical work very frustrating [because] they never really had to do certain
tasks that are already built into a brick-and-mortar school. They don’t understand why
they have to do that when they are used to seeing their students and making adjustments
every day without having to formally mark it down.

Danielle Bolin, Professional Development Coordinator, agreed with John Koch. She
taught for a brick-and-mortar school for almost a decade before working for her first cyber
school and explained that one of her biggest hurdles was understanding how certain tasks
translated to what she’s always done in her traditional classroom. She now knows that it helps to
have training that clarifies how brick-and-mortar daily tasks translate to cyber school ones. In our interview she gave an example of how she trains teachers based on this knowledge:

I try to help them understand the purpose of welcome calls. I think about when students enter into our brick-and-mortar classroom: we greet them, we say ‘hello,’ you don’t just let them walk in, and that’s the welcome call. It’s to let them know that they’re respected and welcome. So, I try to do a lot of comparisons.

Becky Phillips said that sometimes translating from the brick-and-mortar classroom to an online one can be so challenging that teachers feel like they have to start over. She gave an example: “One of our newest teachers who has taught in a brick-and-mortar for eleven years said, ‘I feel like I’m a first-year teacher. I feel like I’ve never taught before.’”

This misunderstanding about how to translate prior knowledge leads to a loss of resources. John Koch explained that some teachers have created many resources to support their brick-and-mortar students over the years, but don’t understand how to use those resources in the online setting, so they don’t. They don’t want to go through the effort of uploading what they have because they don’t understand how it fits into the curriculum and assessments that are required by Pearlman.

While new teachers may be a bigger asset to their new school if they can provide knowledge and instructional resources, this may only be true as long as the teacher stays in the current teaching environment. As indicated by this study’s results, former brick-and-mortar school teachers may not use their in-person teaching resources and feel like they need to start over.

**Teachers Without Prior Cyber School Teaching Experience**

The knowledge gaps that first-year and former brick-and-mortar teachers have in common are how to communicate in a remote work environment, how to adjust to the unique needs of cyber school students, and how to teach online.
Remote Communication

There are important differences between how an in-person teacher communicates and how an online teacher communicates. Perhaps the most important differences are the medium and frequency. While brick-and-mortar teachers communicate with students several times per week and sometimes multiple times per day, cyber school teachers may only communicate with students once a month over email. Joyce Covington, Department Chair, explains that “effectively communicating in the written form or through an instant messenger can be misconstrued so easily, so training on how to properly convey your ideas without offending, without being misconstrued [is important because] that’s the way of the world. […] It has much more of an impact when the only means that we can convey information is through emails or through phone calls.” Larson (2014) also found that it is important for online teachers to be able to communicate from a distance by phone, text, email and video chats.

In addition to differences in the method and frequency of communication, the participants noted that there are also important differences between how brick-and-mortar teachers and cyber school teachers communicate with. In particular, cyber school teachers generally communicate with parents (i.e. education coaches) more frequently than brick-and-mortar school teachers since parents are the ones logging attendance and helping students stay on track with their school work. This is especially true at the elementary level. At the middle and high school levels, students are more independent so communication with these parents tends to relate to how much students struggle with the curriculum. Therefore, it is important for teachers to learn how to build working relationships with parents.

While the frequency of communication with parents naturally increases in cyber schools, the frequency of communication between colleagues requires a greater effort in the online setting.
than it does in the traditional school setting. Joyce Covington explained that “the challenge of reaching out to offer support—or reaching out and ask for help—is so much more evident when you are not in the same building all the time.” As with other areas, this can be especially challenging for former brick-and-mortar school teachers, at least in the beginning. John Koch explained that former brick-and-mortar school teachers can “feel like they are on an island by themselves, but once they figure out that they can work together, they become pretty natural leaders and get right into the swing of things.” Therefore, teachers may benefit from team building activities or professional development on how to build relationships with colleagues in a remote work environment.

Differentiating for Cyber Students’ Needs

While communicating with and about students, it is important for teachers to be sensitive to the demographics of the school’s student population. Joyce Covington explains that teachers new to online instruction are “used to being in a pretty homogeneously grouped school with students who come from the same town, but in a cyber school teachers come from all corners of the state.” This is true of even teachers who only have pre-service teaching experience, since this training has most likely taken place in a brick-and-mortar school (Larson, 2014). Joyce continued to say that “an understanding of the culture differences, even just awareness of the variety of demographics and socioeconomic situations [students are in] is very, very important.”

Dora Bosse, Special Education Teacher, affirmed the importance of understanding that most families choose cyber schools because they are trying to escape something—whether it be bullying, a less attractive neighborhood school—or are trying to manage their student’s physical or mental illness. She said, “We need to look at how we can make the classrooms address the mental health piece as well as the academic piece.” In addition to shaping instruction to meet
students’ needs beyond their academics, a deeper understanding of cyber school students’ situations can inform teachers on how to best engage their students. John Koch said the students at his school “have an unwillingness to participate and the cyber environment enables them to avoid participating if they choose. Sometimes teachers find the lack of participation very frustrating, especially when they come from a brick-and-mortar environment where they could force students to participate at least to some extent.” Training on how to better engage students could lead to improved participation and less frustrated teachers.

Ryan Licon, Director of STEM Education, shared that some students avoid participating in the online environment by simply not coming to class. At Succeed Cyber School, students are not penalized for missing class because the school is designed to be flexible and accommodate all students. Students who are not able to attend class have the option of watching the LiveSession recording. Ryan Licon said, “Twenty percent of our students actually show up to LiveSession,” which implies that the majority of teaching happens asynchronously. Teachers need to be up-to-date on both virtual synchronous and asynchronous pedagogy in order to best support their students.

**Virtual Pedagogy**

Another theme that emerged from the interviews was the need to master online pedagogy. Whitney Feeney explained that most teachers new to online instruction have to be taught how to teach in a brick-and-mortar environment. She said, “They need to learn how to translate that into the virtual environment using applicable instructional technology as well as the limited tools that we have within our own management system and synchronous classroom platform.” Ryan Licon affirmed that the majority of new online teachers have minimal knowledge or experience about
virtual pedagogy. Both he and Dora Bosse agreed that universities can help close these gaps by providing students with pre-service cyber teaching experiences.

According to the participants, there are specific areas that university courses and cyber school professional developments should focus on. Max Felix, Director of Special Education, said teachers first and foremost need to learn “how to connect with each student […] [without] body language, eye contact, things like that.” Once teachers know how to make this connection, Clea Haggard, Master Teacher, said teachers need training on “how to engage students in LiveSessions and teach in the online format.” John Koch shared that it would be helpful for training to include specific tools that teachers can take back to their classrooms. In particular, he said, “A lot of teachers are interested in learning how to get students more engaged through word clouds and other forms of education technology.”

Engaging students involves meeting students where they are, but this can be a challenge when students come from such diverse backgrounds. Maximizing each students’ potential becomes harder when section sizes can be well over 100 students. Becky Phillips and Joyce Covington agree that teachers need training on how to differentiate so that they can meet each students’ individual needs. Becky Phillips said, “Differentiation is necessary, but it’s not at the forefront of what we do [in professional development].” Joyce Covington explained that teachers who only have experience in a brick-and-mortar school have a hard time with “differentiated instruction when they can’t physically move or jigsaw students.”

Another unique challenge that virtual school teachers face is that they can’t see their students or hear their students. Teachers need to develop pedagogical skills that enable them to gauge students’ understanding with limited communication. Max Felix explains:

There is a piece of cyber school that’s abstract. When you see kids in a traditional school, it’s easier for teachers to visualize their struggles within the curriculum. In the cyber
school, we don’t necessarily visually see the student’s frustration, whether [students are] acting out behaviorally because a task is too difficult. We see maybe non-attendance and missed lessons.

Joyce Covington shared that the pedagogical training first-year and brick-and-mortar teachers receive prior to working for a cyber school isn’t very helpful. Teachers need development on how to recognize when a cyber school student is struggling and how they are feeling. They also need to be aware of common pitfalls that may be helpful in-person but are not helpful online. Joyce Covington said that while training prior to teaching online advises teachers to “read the body language of their students,” cyber school teachers “don’t have the benefit of seeing their students face-to-face and using body language as a way to determine a course of action.” Ryan Licon agreed that “teachers are taught to teach a certain way but when they come into the online environment everything is completely different.”

Additionally, the participants shared that teachers need to develop classroom management skills that are specific to the online environment. John Koch explained, “You can’t see your students, but they can cause just as much trouble for you in the classroom.” His advice is to trust that when you are talking to the blank screen, students are really listening on the other side. Ryan Licon suggested that student data can also be used to inform classroom management and instruction. He said, “It doesn’t matter that you teach it, it matters that students understand it and that’s what the student data can tell us.” If students aren’t showing proficiency, teachers know that they need to do something differently.

Depending on the teacher’s prior training and experience, they may or may not have these skills sets. If they don’t have the skill sets, then the school needs to help the teacher develop them. If they do have the skill sets, the school needs to train the teacher on how to navigate the LMS so that they can gather the data needed to inform instruction. This is a skill
that all new teachers to a new school need—whether or not they are transferring from a different online school, a brick-and-mortar school, or being hired straight out of college. The next section discusses this and other professional development needs of all new teachers at Succeed Cyber School.

All Teachers New to the Cyber School

The overarching theme from the interviews that this section summarizes is that new teachers need to learn the specifics of their new school. This includes the technology that is used, the pedagogy that is expected, and any unique policies or procedures.

School Specific Technology

At Succeed Cyber School, the most important need for professional development of all teachers is learning how to navigate and use the technology specific to the school. Whitney Feeney explained that in a school that is completely online, a teacher is guaranteed to be unsuccessful if they don’t know at least the basics of the LMS and instructional tools that the school uses. Ryan Licon mentions technological skills that teachers need to know that are specific to Succeed Cyber School, including “how to navigate VirtualBoard, where to post, and how to use Adobe Connect.” Clea Haggard, Anne Riser (Department Chair), and Joyce Covington also listed the VirtualBoard and being comfortable with the LMS as the most important area of training for new teachers.

Danielle Bolin, Coordinator of Professional Development, agreed that teachers need to start out learning VirtualBoard but argued that certain components of the LMS are more or less of a priority depending on the time of year. In her role as Coordinator of PD, it is Danielle’s responsibility to onboard all the new teachers and oversee the ongoing training and development of all teachers at Succeed Cyber School. She described a training calendar for teachers doing
induction that is aligned with the “school year cycle and upcoming events each month, such as the end of the semester or other specific events.” For example, in August her trainings are “focused on navigating the VirtualBoard, welcome calls, and other start-up tasks.”

Once teachers have mastered the basics of the learning management system specific to their cyber school, they can leverage other forms of educational technology that their school may offer. Danielle explained that it is important that teachers are taught how to use these tools in a scaffolding manner, such that they have the opportunity to master one skill before moving on to developing the next.

Another form of education technology that all teachers at Succeed Cyber School need development on is how to use Apple iPads in the online classroom. Teachers were given this learning tool for the first time during the 2018-2019 school year but haven’t been given training on how to use it. Anne Riser and Whitney Feeney both stated that it would be helpful for teachers to receive training on the teaching tools that they are provided with and expected to use. Clea Haggard agreed that there is a need for iPad training, but that it has been hard to deliver because of time constraints.

There are other technological tools that teachers need to learn that are used at Succeed Cyber School but may also be used at other schools or institutions. Depending on whether teachers have been previously exposed to them will determine whether they need training on it or not. Danielle Bolin gave an example:

If they are really fluent in Google Suite, then I wouldn’t spend time explaining so much how those things work. Instead, I’d focus more on VirtualBoard. Because maybe they came from brick-and-mortar where they’ve used Google Suites and didn’t use VirtualBoard ever, so I stick to that.

Generally speaking, the more exposure a teacher has to technology prior to coming to Succeed Cyber School, the better. All teachers will need training with technology to some extent,
but the more experience a teacher has with online learning—whether it be teaching an online class or participating in an online class—the easier their transition will be. Whitney Feeney said, “I think teachers who have taken online courses at least have some understanding about how those communications work in the virtual classroom.” Therefore, these teachers will likely need less professional development than someone who has never participated in an online course.

In addition to online classes, brick-and-mortar teachers may get experience with technology from their prior school district. Teachers who come from a more technology-advanced and resourced school district tend to need less support getting up the technology learning curve. Anne Riser explained that if a teacher is “already well-versed in technology then they’ll be fine. But if they come here and don’t even know what a mouse is, they’re going to struggle like there’s no tomorrow.”

The amount of difficulty a teacher will have with adjusting to the online environment might be predicted by their age. Joyce Covington believed that comfortability with technology “doesn’t necessarily coincide with years working in education, it’s not always true to this, but sometimes it’s just an age.” John Koch agreed that “the new teachers [who are young] [...] are more tech savvy than the veteran teachers.” One might argue that younger people are generally more exposed to technology and therefore more comfortable with using it, making their transition to teaching online easier than older teachers.

Dora Bosse is one of the more senior teachers at Succeed Cyber School who has several decades of experience teaching and administering in a brick-and-mortar school. Her experience includes being a superintendent and overseeing the development of a cyber school within her district. She has a lot of experience in the education field, but when she joined Succeed Cyber School as a teacher last year, she lacked online teaching experience. She said that as a result of
her lack of technological knowledge, “I felt last year that I was so unprepared with creating my LiveSessions. [...] Teachers need to understand how a LiveSession should be performed in a cyber school. It’s not the same as teaching daily in a brick-and-mortar.”

Mastering the technology is arguably one of the most important gaps that need to be addressed by professional development for all teachers, but especially for teachers who are less exposed to it.

School-Specific Pedagogy

Once teachers have mastered the technology specific to their cyber school, they need the pedagogical skills that are also specific to their school. For example, at Succeed Cyber School teachers are expected to hold a single one-hour LiveSession every week for each section they teach. John Koch explains that as a result of this, “teachers really need to be time focused, even more so than in a brick-and-mortar school.” Dora Bosse agreed and shared that it’s very different than teaching “in a brick-and-mortar where you’re teaching daily things. Instead you need to cover a week’s worth of information in a single class and start with what they had learned the previous week.” It can be hard to balance this download of knowledge to students while making sure they are engaged on the other side of the computer.

Another pedagogical expectation of all teachers at Succeed Cyber School is to develop and deliver STEM lessons. Many new teachers aren’t hired with the skills needed to create or teach STEM lessons in online classrooms, and this can be another challenge of new teachers who are still learning how to navigate the LMS and manage their high-content weekly lessons. John Koch believes that “STEM lessons are one way to get students more involved with the classroom, but a lot of new teachers need support with incorporating STEM into their lessons.” Whitney Feeney explained that so far professional development on STEM lessons at Succeed
Cyber School has been reduced to group conversations. She said that more specific “professional development on how to create STEM lessons would be better than just having those conversations about it.” In addition to such formal professional development, Clea Haggard said, “We’re a STEM school and we need to give teachers time to collaborate and bring that into their classrooms.” Without support on how to create and implement STEM lessons, teachers will have a very difficult time meeting that expectation.

In sum, the main gaps of all new teachers described by school leaders are the specific technology, pedagogy, and processes used by their new school. Given these identified gaps, the next section describes how school leaders define a professional development program for core subject virtual teachers.

**Defining Effective Professional Development**

The overarching theme that emerged from the interviews was that teacher professional development should model what they want to see out of teachers. Whitney Feeney said that if she were to create a rubric for professional developments, “it’d be very similar to our rubric for LiveSession [teacher] observations. I think it needs to be timely, effective, and engaging.” As Whitney Feeney hints at, there were several domains of successful professional development that closely align to the domains of classroom instruction as defined by the Danielson Framework. The interviewees defined successful professional development as being engaging, relevant, organized, differentiated, and supported by data.

**Engaging**

Learning requires engagement, no matter who the audience is. The interviewees recognized this and identified engagement as being one the most important domains that make a professional development effective. Joyce Covington explained that trainers can’t take for
granted that adult learners are going to be engaged because they are just grown-up students.

During professional development, she said she “feels like I am the student that teachers hate. I’m not listening, I’m multi-tasking, we are all students in that way.” Covington explained that by multi-tasking she means grading, logging student calls, or doing other work-related tasks. It is important for teacher trainers to think about what topics and presentation strategies will engage their audience.

Making professional development engaging benefits teachers on multiple levels. In addition to helping to accomplish the learning objectives, engaging virtual training gives teachers examples and ideas on how they can engage their students in class. Anita Mann, Department Chair, highlighted the paradox of administration lecturing to teachers during professional development but expecting teachers to use engaging teaching strategies in class. She said:

I’m sure that developers of training have strategies for making connections between different concepts to make sure that learning is taking place and students are engaged. I would like to see that exemplified in the trainings in order to keep teachers engaged but also to equip teachers with strategies they can use in their own classrooms.

It is clear that engagement in professional developments is important, but the question is how trainers should engage their audience. Danielle Bolin shared several strategies:

The presenter should have energy, speak in a conversational but still professional tone, and be able to stay on task and answer questions. […] The presentation needs to be clear, concise, there’s a visual, a handout that keeps in mind that different teachers have different [needs and] meets those needs so it’s not all just words on a screen, it’s not all just pictures.

The tips that Danielle shared can be translated to the classroom. However, teacher trainings can’t model classrooms completely if they are going to be received by teachers. Joyce Covington explained that it is important to keep in mind that the audience is full of professional adults who don’t want to be talked to like they are children. She shared her own experience:
I remember sitting in a training and feeling very patronized. [...] There’s nothing worse than sitting in a room and feeling like the higher ups are treating you like you are a child. [...] You know, then for me whatever you have to say, no matter how important it’s going to be, I don’t want to hear it now.

Danielle Bolin agreed. She said, “The biggest issue I think with teachers and the professional development for them is getting things to them in a way that isn’t insulting or talking down.” She went on to explain that just like teachers need to build rapport with their students, trainers need to build rapport with their audience. She said, “If you don’t have rapport then the teachers aren’t going to listen to you.” As a presenter of teacher professional development, it is important to keep in mind the important differences between how to build rapport with adults and children. Max Felix encouraged presenters to put themselves in the shoes of teachers and ask themselves questions to gauge whether their training will be comfortably received. Some questions he recommends include:

- Was the information that I was given something that I can use to move students forward?
- Was it engaging? Was the environment comfortable? Did I feel like I could share my thoughts and feelings without being criticized or being told I was wrong?

In addition to being empathetic with teachers, Joyce Covington shared one of the most effective strategies trainers can use to build rapport with teachers is to “just keep it real.” Facilitators of professional development need to gain the trust and respect of their audience by being human and honest about what they know.

Engagement is important when it comes to creating a successful teacher professional development because without it the learning objectives aren’t going to be achieved. In order to engage teachers, it is important for trainers to earn the teachers’ trust and respect by having high-quality materials, treating the teachers like professionals, and being honest.
Relevant Topics

The purpose of professional development is to equip teachers with new knowledge or skills that improve their teaching practice. A common theme in the interviews was that this requires training to be relevant, useful, and timely. John Koch said “anything that has to do with LiveSessions, how the pods function, and how to make connections with virtual students” as relevant training topics. Participants agreed that the best trainings are not theoretical; rather, they equip teachers with tangible skills and resources that they can bring back to their classrooms.

There are several ways trainers can ensure trainings are relevant to teachers. Anne Riserl said that facilitators should use real-world situations that give teachers the opportunity to practice specific teaching scenarios. John Koch said that trainings can be made more relevant to teachers by grouping them according to their content area. Anita Mann agreed with grouping teachers by content area, but also said trainings can be made more relevant when teachers are grouped by grade level.

Joyce Covington agreed that “there needs to be a sense of making sure that the training is appropriate for the age [of the students] that are being taught [by the teachers in the training].” She suggested that facilitators put themselves in the shoes of teachers and ask themselves: “How does this relate to us as professionals? How does this help me show growth?”

Joyce Covington also suggested breaking teachers up by level of experience. Teachers who are veteran to teaching online do not necessarily need to participate in trainings that have more basic learning objectives. She said, “Often times I feel like we sit in trainings or professional developments that don’t really apply to us. Or the examples being given [in the training] are very elementary, and that works for them [other teachers], but how does that apply here [to me]?”
Sometimes the content of a training is important for several different teacher groups and levels. In these cases, the school leaders expressed that the timing of the professional development is a factor of it being relevant. Anne Riser explained that training should be “relevant for this month or this part of the year” and encouraged presenters to put themselves in the teachers’ shoes and ask, “Can I take this back and use it?” Danielle Bolin explained that in order make sure that training is timely, she follows “the school calendar and the school year and what’s needed according to what teachers at a given time.” Joyce Covington also affirmed that the timing of trainings is important for relevance. She said, “An ideal professional development is relevant and important and not burdensome, so it’s implemented when we need it. [It’s delivered] when there are areas that we need [help with]. We really have to focus on making it meaningful.”

The last strategy identified by participants for making training relevant is by leveraging teachers’ experiences. Natalie Walker, Lead Principal, explained that leadership can identify teachers’ needs when doing observations or receiving training requests from veteran teachers, department chairs, or master teachers.

A common theme from the interviews is that the most effective teacher trainings are useful and timely. The participants identified several strategies that training developers can use to ensure relevance: make it real-world; group teachers according to content area, grade level, and years of experience; align delivery with the school calendar; and use teacher input to determine training topics.

Grouping Teachers by Development Needs

As described in the last section, grouping teachers is important for making sure that a training is relevant: teachers need to attend professional developments that are meaningful to
them. This section dives deeper into what participants recommend differentiation to look like for teachers who have different levels of experience.

The essence of what participants shared is that teachers should be grouped into trainings according to their common needs. Natalie Walker shared several examples:

It’s important to cluster people. You can take people in the math department and say they are going to need this. If we have a bunch of CBAs coming in, we know we are going to need training for teachers. You have to pull the right people into those trainings. If we are starting a new program, then you have to put people in a training who need to be familiar with that program.

Five participants suggested assigning teachers to a tier according to their level of expertise. Dora Bosse said, “You’d be rotating [teachers] all the time [between tiers] because our school is growing so new teachers are continuously being hired.” Whitney Feeney described what she imagines the first two levels of this tier system to look like:

There’s level one, where everyone gets the professional development from Danielle Bolin in the beginning of the year, the professional development through what Opportunity Academy offers, and the induction program. Tier 2 is guidance from [the master teachers]. We work with people individually in the LiveSession rooms.

Natalie Walker imagines teachers being assigned to a certain tier based on their conversations with trainers. She said, “Interviews, onboarding, and induction are the three big areas where we get a pretty good sense of what the [teachers’] needs are.”

Although tiers are helpful for group trainings, Ryan Licon said that the more individualized you can make professional development, the better. He recommended an individualized learning plan for each teacher:

An individualized learning plan—an ILP—would be great to monitor [teacher progress]. It would be great for teachers to work with a mentor or an instructional coach and have walkthroughs that aren’t evaluative but instead intended for coaching. Teachers need regular feedback [to grow, and trainers need] student performance data that is quickly accessible and tagged to a teacher [so they can make trainings as supportive as possible].
Differentiation can come in several forms and the right form is related to the content of the training. In some situations, it is more appropriate to group teachers according to their content area or grade level. In other situations, it is appropriate to group teachers by their level of expertise. In all of these groups, however, it is important to support teachers on the individual level as much as possible.

**Thoroughly Planned**

In order to accomplish the goal of delivering a training that the audience will be receptive to, Danielle Bolin said, “Planning and preparation are necessary [so that] visuals are presented in a clear way that is understandable, there is a handout of some sort that attaches to their [presentation] material, and there is time for questions or checking for participants’ understanding.”

John Koch agreed that being prepared is important. His argument was that if facilitators plan ahead, they can develop resources that teachers can take back to their classrooms. Two resources that he suggested trainers prepare ahead of time are “strategies that are readily available to be copied by teachers and pre-loaded [LiveSession room] layouts.”

Becky Phillips agreed that “administrators can best accomplish their goals when they plan ahead of professional development meetings.” She also said, “Administration should also share that plan with the participants.” Planning by individual trainers is important, but Ryan Licon said it’s also important to have the team of trainers on board with whatever the plan is. He explained that it’s important for administration to communicate a “consistent message and stick to it when implementing a training strategy.”

By taking the time to prepare, participants said trainers also ensure that the professional development is organized. Danielle Bolin defined organization as there “being an agenda that is
adhered to and teachers know what is expected throughout the session.” She warned that “if a professional development is disorganized then people are going to get overwhelmed and stop listening.”

Natalie Walker affirmed the importance of communicating what teachers can “expect [from the training] and making sure teachers’ needs are being met.” In addition to having organization within each training, Clea Haggard said that it’s helpful to have “professional development on the calendar once per week, […] or at least scheduled in some way.”

Planning and preparation are important for delivering a clean training that contains tangible resources that teachers can use in their classrooms. It is helpful to have structure so that teachers know what to expect both over the course of a training series and during an individual training.

**Based on Teacher Data and Feedback**

Although there are several strategies for making a professional development successful, participants said that the only way to determine whether participants are truly achieving the learning objectives is through data. This can help the trainer gauge how successful a training was and inform future trainings. Joyce Covington shared that—just like teachers—facilitators of professional development can use “a pre-assessment and post-assessment to see what participants learned in the session.” She explained that these assessments should be aligned to the learning objectives, and the learning objectives “should allow room for change.”

Natalie Walker said that the most concise source of feedback about how a training went “comes from teachers having one-on-one conversations with department chairs and master teachers.” These forms of data can be used to make adjustments to trainings in sequence, but it’s also important to use data to make adjustments while a training is happening. Clea Haggard
shared that teachers should “have their webcams on so you can see their response throughout [the training] and their engagement level so adjustments to training can be made as needed.” She also shared that “changes to training should be based on “teachers’ feedback and responses to the training.”

Participants shared that data in the form of teacher feedback can indicate the success of a professional development. They said that the best data come in the form of teacher observations, specifically seeing teachers practice their new knowledge or skill. Whitney Feeney said, “Seeing teachers utilize what they learned would indicate a professional development was effective.” Clea Haggard agreed and said, “One of the things that I looked for after we did the instructional strategies [training] is what teachers were actually bringing into their lessons.” Along those lines, Anne Riserl said, “Administration can see if the professional development was successful by seeing if teachers can take what they’re learning, implement it, and show what they’re learning through the instructional strategies they use.”

The purpose of professional development is to create a change of behavior. Therefore, the best way to determine if a professional development is successful is to witness whether that intended change of behavior is happening. Since cyber education can be abstract for new teachers, it helps to exemplify in professional developments what teachers are expected to do. Making sure that teacher trainings are relevant, engaging, differentiated, and structured are all best practices of teaching that trainers should do in order to maximize the benefits of professional development.

Now that there is an understanding of what a successful professional development looks like, I will look at how Succeed Cyber School compares to that understanding. In the next
section I explore the third research question: How do school leaders describe the professional development they provide to their teachers?

**Professional Development at Succeed Cyber School**

At Succeed Cyber School, professional development is a function of whether teachers are new or veteran. Research participants explained that for new teachers, factors of professional development include when they are hired during the school year, what subject they teach, and how quickly they climb the VirtualBoard learning curve. The professional development specific to them comes in four flavors: onboarding, induction, mentorship program, and schoolwide training. School leaders also explain that for veteran teachers, professional development is related to what teachers communicate their needs to be and what leadership observes their needs to be. Their professional development comes in two flavors: conversations with colleagues and schoolwide training. This section describes the perspectives of Succeed Cyber School leaders on the different forms of professional development that teachers varying levels of experience receive.

**In-person Training: Beginning of the Year**

At Succeed Cyber School, the school year starts two days earlier for teachers who are hired over the summer. These two days are filled with in-person professional development at a hotel close to the Succeed Cyber School building. The professional development is created by Opportunity Academy. Danielle Bolin shared that she leverages this summer training to develop ideas for new-teacher training topics throughout the school year.

The second two days of the school year are in-person professional development for all members of Succeed Cyber School. According to Whitney Feeney, this training is delivered by an outside company of the senior leadership team’s choice:
Opportunity Academy has a lot of control over professional development in the beginning of the school year. The senior leadership team is given a menu of choices and has to choose from that menu the training they want. Then we have this person come in at the beginning of the school year and train everyone.

Everyone who attends these in-person trainings only participate in virtual trainings for the rest of the school year. The only remaining in-person trainings that happen at Succeed Cyber School are designed for new teachers who are hired after the school year has begun.

**New Teacher Training: Onboarding During the School Year**

Danielle Bolin is solely responsible for the development and delivery of the initial training of new teachers who are onboarded throughout the school year, but she is overseen by Natalie Walker. This initial training is new to the 2018-2019 school year, and Natalie Walker said that it has been helpful because it gives Danielle “a pretty good feel for what the new teachers know, what they don’t know, and what gaps they have.”

Danielle Bolin agreed that the time she spends with teachers during onboarding is where she really gets a feel for their needs. Prior to onboarding she has very little information about the new teachers. She said that sometimes, all she gets is “their name and their phone number.” If there are only two people onboarded at a time, Danielle gets to know the teachers by “just talking and taking time to get them acclimated to logging in and making sure they have access to G-mail.” But, in the rare event that she’s onboarding several people at the same time, she has them complete a survey that gathers information about their background and experience.

Danielle Bolin uses the same agenda for every onboarding session; however, she makes adjustments as she learns about the teachers and their needs (Appendix C).

Most of the time, the onboarding process gets off to a slow start because it is a challenge to get teachers access to their G-mail and VirtualBoard. Ryan Licon affirmed this challenge and
explained it can make initial training “superficial because teachers don’t have access to the LMS in the beginning.”

Even if Danielle Bolin isn’t able to get teachers access to VirtualBoard on the first day, she continues through the rest of the first day’s topics which includes “a list of things that teachers do on a daily basis [including] how to navigate the VirtualBoard, […] how to log student contacts, and how to set up their staff profile.”

Becky Phillips sometimes supports Danielle with the onboarding process by introducing new teachers to individuals and programs that are related to the special education department. Becky explained that this includes “ensuring that teachers have access to our virtual meeting rooms, the IAs that we use, and all of our students. I ensure that they are in the proper [Google] hangouts and meet with the prospective teachers and administrators that they will be working with, as well as introduce them to the families.”

The second day of onboarding transitions from daily to weekly tasks. Danielle Bolin described the second day’s agenda:

We start with a review of day one and then go through communication expectations and tools. […] Next is interventions and what a student status is, what you do in that moment, and how to get students out of it. In the afternoon on the second day we play with LiveSessions, where I am the host and have the new teachers as the students.

Research participants are satisfied with the onboarding process. Becky Phillips shared her thoughts and teacher feedback that she’s received: “The content is presented more organically depending on what teachers need. […] The teachers have said, “This is just fantastic! I really feel like I’m prepared to start moving forward.” Not one teacher has said anything negative.”

Natalie Walker was also satisfied with the onboarding process. Although she kept a growth mindset and reflected on innate challenges that still need to be addressed:
A challenge we still need to overcome is that we are literally onboarding people every week or every other week. The people range from family mentors whose role is completely different than special education teachers or reading specialists. So, we are onboarding all these different people who have different needs at the same time.

Luckily, the onboarding groups are small groups, so Danielle Bolin is able to at least partially overcome this challenge. Since she doesn’t have much information about the staff and faculty that she trains prior to onboarding, she makes adjustments on the spot. For example, she said, “If teachers are really tech savvy, we might go a little further into LiveSession and play with some of the more advanced tools than some others. […] If they’re slower and behind when it comes to technology then we might spend much more time going over processes rather than just skimming over them.”

New teacher onboarding for teachers in the beginning of the school year is created by Opportunity Academy, while new teacher onboarding for teachers hired during the school year is facilitated by Succeed Cyber School. Although teachers hired during the school year get more individualized attention during on-boarding, participants shared that it’s always a challenge to cover everything that new teachers need to know about online teaching in just two days. Therefore, all teachers, regardless of how much prior teaching experience they have, are required to complete New Teacher Induction to help close knowledge gaps.

**New Teacher Training: Induction**

Onboarding is almost always on a Tuesday and Wednesday, so that new teachers can dive right into the induction program on Thursday and Friday. On Thursday, new teachers pick a teacher of their choice to virtually shadow throughout the day. On Friday, new teachers attend relevant Professional Learning Communities (PLCs) and the school’s weekly professional development. The weekly professional development is developed and facilitated by the assistant principals.
There are several components to the induction program, including monthly meetings with mentors, monthly reflection forms, and peer observations. Whitney Feeney explained that when “teachers see some peer observations and what other teachers are doing, it enables them to self-reflect and gauge the level of support that they need for themselves.” A change to the induction program this year was including half-hour professional developments once per month. Danielle Bolin is responsible for planning the content and delivery of these meetings, and described how she does that:

I try to look at induction as not what teachers need but rather the broader needs of employees who are new to our school. A lot of the time, [to determine the content of these meetings.] I’ll reach out to people and see what they’re doing, if they have questions, what their questions are, and if there’s anything they wish they could get more information on. That informs my decision making [about induction meeting content].

Although these conversations influence what Danielle Bolin will talk about during the meetings, she shared with me an agenda of topics that she and Natalie Walker believe are important to cover at various times of the year (Appendix H). These include various daily tasks, monthly tasks, and semester tasks.

Becky Phillips agreed that it is helpful to have meetings for everyone that go over topics that all staff members need; however, she also thought that the induction meetings should be more differentiated according to different job descriptions. For example, she suggested “giving special education teachers their own onboarding.”

Although the Teacher Induction meetings can help fill knowledge gaps that a two-day onboarding isn’t able to, participants felt that the mentorship component of the induction program one way to help teachers feel less overwhelmed is by assigning them a mentor. This component of the induction program is where new teachers can get one-on-one guidance from a veteran teacher in the school who ideally teaches the same (or at least similar) topic.
New Teacher Training: Prescribed Mentorship

There are several important features to the mentorship component of induction. One of the first tasks new teachers do when they are hired is choose from a list of topics which areas they want to focus on developing. Their assigned mentor’s role is to help them develop in those areas through monthly one-on-one meetings over the course of the school year. Other features of the mentorship component of induction include peer observations and monthly reflection reports. Mentors work very closely with new teachers, so how their role in the school compares to the new teacher’s role is important. Natalie Walker said, “We count heavily on the mentors and try to have people mentor new teachers who teach the same courses because they are most familiar with the curriculum.”

Although most mentors have two or three mentees at a time, there are some individuals on the leadership team who have many more. Becky Phillips said, “I have 10 mentees, which includes two returning teachers, that I meet with one-on-one every other week and once a week as a whole group.” Joyce Covington also said that she has more than three assigned new teacher mentees. Also, just like Becky Phillips, Joyce Covington meets with her mentees very frequently even though, according to the induction handbook, the expectation is to meet with mentees only once per month. She explained, “We don’t limit our meeting times and […] there isn’t a day that goes by when we aren’t talking about something. We have our official meetings, but those official meetings are just checking off boxes. It’s not the same as being in the day-to-day trenches with them.”

During the meetings, both Becky Phillips and Joyce Covington are able to support their mentees by helping them develop a deeper understanding of the technology and how the school operates. Becky described that she does this through individual meetings and walkthroughs:
The teachers come [to our meetings] really prepared with their caseload spreadsheet and their data. We look at everything together. [...] After doing walkthroughs members of the leadership team provide feedback which lets teachers know their strengths and what they can work on.

In order to support and provide quality mentorship to new teachers, the mentors need to be knowledgeable and experienced. Because Succeed Cyber School is so new, the mentors are only required to have one year of experience. Joyce Covington said that new teachers need “a mentor who is experienced” so that they can answer teachers’ “questions that they have on a day-to-day basis.”

Ryan Licon agreed that the conversations new teachers have with mentors is most helpful for their development because it’s “more of a hands-on you try, I try, we try, you take over for me [set up]. The mentorship program is a way to really make sure that new teachers are doing the right things, not just in the LiveSession, but from their grading practices to their communication via CyberMails or answering the phone.”

Danielle Bolin affirmed that the guided practice provided by mentors is very important, especially because teachers don’t always get that during onboarding. She explained:

The issue is that new teachers aren’t sectioned until the week after onboarding. So, they don’t have students to explore and they don’t have the class materials to look through. So, we talk theoretically about logs and CBAs by pairing up and working through scenarios.

Joyce Covington affirmed that the guided practice is the reason why she finds the mentorship component of professional development so beneficial:

Nothing is going to be as effective as just getting in and playing in the sandbox. You can give new teachers theory and things to read all you want, but it’s the hands-on practice and follow up that needs to happen.

According to the participants, the biggest challenge with mentoring new teachers is a lack of time. The learning curves that new teachers have to get up in a short amount of time are large,
and the mentors have several other responsibilities that limit the amount of time that they can spend with their mentees. Becky Phillips shared the consequences:

We recently lost two teachers and they told me this [school] setting was too difficult. The one teacher said that there is just way too much to learn in the given amount of time. […] I have my own caseload and meetings, I have IEP meetings, and my own classes, but I also mentor several hours a week. It’s a lot for mentors to have to do dual roles.

Although having dual roles is a challenge, Ryan Licon thinks that having dual roles is important for mentors because “If I’m looking for a coach, I’m going to go to someone who’s doing what I’m doing. I don’t want someone who is retired from it.”

Joyce Covington suggested a compromise: mentors should be teaching but should have a smaller caseload so they can have enough time to provide an adequate amount of mentorship to new teachers. She said, “Leaders should have a little less on their plate so that could meet the needs of new teachers. Give us fewer students so we can do more with them and better support new teachers.”

Luckily, mentors who are assigned to new teachers can unofficially share their responsibility with other teachers in the school. New teachers will reach out to their assigned mentor but also reach out to the master teachers, department chairs, and other teachers that they work closely with from a content or grade level standpoint.

**New Teacher Training: Unprescribed Mentorship**

Department chairs tend to mentor the teachers on their team, even if they aren’t officially assigned as their mentors. Joyce Covington explained it’s helpful to have someone who is familiar with your content area provide you with feedback because “they will point out certain things that the other folks unfamiliar with content may not.”

In addition to mentorship from department chairs, some new teachers will seek mentorship from master teachers. Natalie Walker explained that administration “counts on the
master teachers [to help determine training needs] because they are working most closely with teachers. Danielle and the assistant principals are too far removed to monitor them.”

When new teachers don’t reach out to their master teacher, their master teacher will generally reach out to them. This is especially true when they are first hired, but also true at least once per month for supervision meetings. Whitney Feeney, the high school master teacher, shared how she supports new teachers when they are first hired:

I support new teachers based on the conversations I have with them. So, when we hire a new teacher, I meet with them within their first week and I talk with them about their other experiences and their comfort level. I also try to observe them [teaching] within their first two weeks of being here because it gives me a sense of their level of ability so I can gauge the amount of support that they need.

Clea Haggard, the elementary school master teacher, also reaches out to new teachers on her team when they were hired. However, she said, “It’s a team effort to keep all new teachers on board because […] they usually feel more comfortable reaching out to their team.”

While master teachers weren’t assigned any new teachers to mentor in the 2018-2019 school year, they were assigned mentors in the 2017-2018 school year. Although the mentorship assignment only lasts a year, some of those teachers still reach out to their master teacher for support or clarification. Master teachers also guide veteran teachers that were never officially assigned a mentor.

Mixed Level Teacher Training

In addition to one-on-one mentorship, the master teachers are also responsible for developing and delivering some of the schoolwide or school level (elementary, middle, or high school) professional developments. Danielle Bolin and some assistant principals also deliver those trainings. There is a general process that members of the leadership team follow for
developing, delivering, and assessing their teacher trainings. The first step is determining the content, the second step is scheduling, and the third step is facilitating.

**Content**

There are several ways that the content for mixed level teacher trainings are determined. Danielle Bolin said, “A lot of it is looking and seeing where—after talking to supervisors and all of that—we look at where efficiencies lag and then decide if we need to talk about that more with all the teachers.” According to Danielle Bolin, the conversations also happen with the teachers themselves. However, in order to have conversations in which teachers feel safe enough to be vulnerable and talk about their deficiencies, Danielle Bolin said it is important for members of leadership to have rapport with them.

Another method for gathering information about teachers’ needs is through surveys. Clea Haggard uses this strategy for learning about her elementary school teachers in preparation for trainings that consist of new and veteran teachers. Some questions included on the survey are: “What would you like to see in PLCs? What gives you the most stress? [and] What gives you the most joy?”

Max Felix also sends surveys out to his teachers to determine their needs and “get really good feedback about what content should be included in professional developments.”

Walkthroughs are another strategy for determining teacher training content. These walkthroughs are a source of information about both teachers’ strengths and weaknesses. Clea Haggard explained “walkthroughs help us master teachers learn what’s going on with our teachers and then prioritize what to include in trainings. […] As we are doing the walkthroughs, we see all the great stuff that the teachers are doing but they can’t see each other doing [because teachers instruct at the same time].”
Max Felix also does walkthroughs to determine how to best support his group of teachers. Some things he looks for during his observations include: “Do they have rules posted in there? How are they greeting students when they first come in?” After the walkthrough, he has “a follow-up conversation with the teacher. After formal observations, where I observe an entire lesson, I’ll have a more in-depth conversation where we are looking at each domain element of our school’s the adjusted Danielson Rubric.”

Collaboration about what to include in teacher trainings throughout the school year also happens between the leadership team and Opportunity Academy. Whitney Feeney explained:

The leadership team meets with Michelle Bull once per month to talk about the training needs of teachers based on trends throughout all the Opportunity Academy schools, what we are seeing at our own individual school and our own experiences. We develop some trainings based on those conversations. Additionally, we follow the school year cycle timeline—which is given to us by Opportunity Academy—to identify training needs of all teachers based on specific times of the school year.

There are several sources of teacher feedback that help determine the content of professional development, including teacher conversations, walkthroughs, and observations. Additionally, professional development is influenced by individuals in higher levels of administration who have a perspective on teacher training across all of Opportunity Academy.

**Scheduling**

Once the content of the training is determined, participants explained that school leadership needs to plan it. Max Felix explained “there are mechanical things, like determine when everyone’s available, getting it scheduled, how much time we’ll have with the teachers to do the training, and so on.” Clea Haggard said that teacher trainings are “usually online sessions as opposed to the beginning of the school year when we meet in-person.” Depending on the number of teachers invited to attend, the training will take place in the facilitator’s LiveSession
room or in Succeed Cyber School’s virtual auditorium. Trainings are almost always scheduled on Fridays since teachers do not have LiveSessions scheduled on this day of the week.

Facilitation

Participants shared that there are several pedagogical strategies that add value when facilitating professional development sessions. The purpose of these strategies is to keep teachers engaged, differentiate content, and make the session real-world. Danielle Bolin said that she likes to ask lots of questions to check understanding and keep participants engaged. Some questions she asks include:

What was it like when you were at this place? How did you guys handle that? That way we have that discussion too. It’s just a lot of talking with them, finding out what they know, and then double checking. I’ll ask: Does this make sense to you? Do you need extra assistance here?

As trainings increased in size, it became more of a challenge to keep everyone engaged. In reference to the larger trainings, Anita Mann thought there needs to be a shift away from lecture-based professional development because “it is important that our PD is interactive and not so PowerPoint driven.”

Danielle Bolin isn’t bothered so much by a heavy use of PowerPoint during professional developments. What bothers her is that some facilitators “have a very heavy reliance on PowerPoint and almost nobody uses it correctly.” A heavy reliance on PowerPoint and unengaging trainings is not ideal, but sometimes that’s all the facilitators are able to do given the various challenges that they face.

Challenges of Professional Development

The challenges of developing and delivering professional development fell into three categories: first, Succeed Cyber School is relatively new and is quickly growing; second, there is not enough time; and, third, training happens remotely.
New and Growing School

Although Opportunity Academy has been in operation for over a decade, Succeed Cyber School was founded in 2016. The school has been growing quickly: in its first year there was about 700 students and in the 2018-2019 school year there was more than 3,000 students. In order to support all these students, Succeed Cyber School needs to hire very frequently. This includes hiring teachers, but also hiring people on the leadership team if there are no teachers who meet the eligibility requirements to be promoted. As a result, there are several members of the leadership team who have little if any experience with virtual pedagogy, the technology used by online schools, and best practices for working remotely. Danielle Bolin believed this is “one of our biggest issues. The people who are leading these PDs are people who have not taught in our school or our setting before and were just administrators.”

She has observed several members of the leadership team struggle with the technology during a professional development. As a participant of professional developments in the 2017-2018 school year, Danielle Bolin said:

Several people on leadership don’t know how to effectively use the tools within LiveSession that help keep trainings smooth and moving. I see that stuff happening from the main people. That’s why when this position came up, I was like, “I know I don’t want to sit through anyone else’s PDs ever again.”

There is also the challenge of hiring teachers frequently. New teachers are onboarding everyone one to two weeks during the school year; all start at a slightly different level, and all progress up learning curves at a slightly different pace. Differentiation in the induction meetings and mixed teacher trainings can therefore be a challenge because there are a lot of teachers in the room who are at a variety of mastery levels. It is hard to meet every teacher where they are at.

One way to support new teachers who weren’t hired at the time a certain training took place is by
giving them access to the recording for the missed training. However, Max Felix said that sometimes repeating a training is good for everyone:

What I do like about cyber school is that if I am doing a training, it is recorded. I will refer new teachers back to a specific recording, or I’ve repeated things. Transition is a big training element this year and I’ve probably already done three training sessions about it. It’s ok because they need that repetition. I want them to truly memorize and understand these things.

The leadership team differentiates as much as they can to accommodate all teachers’ needs, but they also need to be innovative and make frequent policy or process changes to accommodate the influx of new students. When it comes to training, this is a challenge because the ground can feel like it’s always shaking: as soon as new teachers get up a learning curve, the process has changed, and they need to get up another. Ryan Licon commented on this:

So, for example, let’s just say that we’ve decided to put zeros in every quarter. Yet we realized that after the first quarter, we don’t want to do that anymore because teachers realized that they were waiting to the last minute, so we go back, and we revamp our zero policy. […] Changing something in mid-stream is not always good. […] It’s bad enough when I look up at my wall here and think about all the icons I had to learn when I started.

The challenge of being a new and growing school is augmented by the feeling of not enough time in the workday.

Lack of Time

The challenge of time is twofold: there is only so much time to create professional developments and there is only so much time to deliver professional developments. Danielle Bolin understood that “people are busy and creating teacher training isn’t the main part of everyone’s job, but if we want people to get better at it, we need to show them how it can be done.”

Max Felix admitted that he is so busy that the timing of his trainings isn’t always ideal:

There is a lot of back peddling. I remember doing one training and the teacher said, “Wow, this is a great training. You should’ve done this in the beginning of the school
year!” And I was like, “Yeah, I should’ve!” But you know I started in late August and have been making things up as I go whereas before I would’ve had the school year planned out more.

Finding time to fit more professional development in the teachers’ work day is also a challenge. While reflecting about the two-day onboarding of new teachers, Danielle Bolin touched on the challenge of not having enough time to deliver teacher trainings:

I personally want to have more conversation during those meetings. It can be hard because you get stuck in a rut where there is so much information that you need to get through all at once and you only have a certain amount of time to do it.

Natalie Walker said that time is also a challenge when planning and providing schoolwide more formal professional developments:

The biggest hurdle is time. You know teachers are grading all the time, they’re teaching, they’re in their PLCs, they’re doing all of that and we’re trying to find additional time to provide them with focused professional development—it’s a bit of a challenge. We don’t have those PD days that take the whole day like you have at a brick-and-mortar school. We don’t have time to do that.

Whitney Feeney agreed with Natalie Walker that it is hard to find time for more professional development: “I do think we need more but I also don’t think we should be ‘meeting’ people to death, but I do think that people are asking for it.” Joyce Covington suggested adding more professional development in the beginning of the school year because teachers will get more out of it:

I would say that the beginning of the school year is the natural time to start implementing a new program or new approach for looking at information, but so many times these meetings have been at the end of the year. At that time, I’m exhausted, and am like, “Tell me again in September when I’m ready to take on a new school year.”

Natalie Walker agreed that professional development at the end of the year isn’t the right time to introduce new processes and programs for the next year. However, she didn’t think the beginning of the year is the right time either:
We only have three in-person training days per year. And they aren’t all training days. Like that day at the end of the year isn’t really professional development. It’s a celebration: the school year’s over, let’s wrap it up, let’s get grading and get out of here. And then the August training is just talking about our summer vacations and figuring out where the kids are. So, they aren’t really training days.

The timing of professional development is something that Succeed Cyber School can improve on in general. Becky Phillips said it’s not best to have a training right before a break: “I would like to be honest, when Danielle did—and I love her to death—when Danielle did the Accommodations and Modification training, my thought was let’s do this again after the [winter] break.” However, Becky Phillips also agreed with Joyce Covington that it is very difficult to find time for professional development during the school year. As it is, she explained that teachers have to do other work-related tasks during existing professional developments because they are so overwhelmed with work. This is especially true when the training doesn’t apply directly to teachers. She gave a specific example:

We all have so much to do and we all have other things to take care. I know I multi-task when I’m in a STEM PLC because they are doing their projects and so forth, and I’ve asked Max [my supervisor] where do we fit in here? I don’t want to say it’s a waste of time, but we need to address how we are a part of this approach here to STEM. […] Everyone has things that they’re trying to balance so they are doing other things during the professional developments.

While everyone feels the challenge of time, some feel it more than others. The act of multi-tasking during professional developments is an example. While those who are multi-tasking say they do it because of time constraints, others say they are doing it because they struggle with working remotely.

Remote Working Environment

Most of the new teachers in the school were unfamiliar with remote working environments before they began. The school’s leaders faced a number of challenges as they
sought to provide efficient and effective training in these circumstances. Once issue that leaders discussed was getting teachers to focus when at home. Natalie Walker explains:

They want to multi-task because they can. I mean you have the dog barking; you have the load of laundry in the machine, there’s lots of distractions and you need to train yourself to shut the door and pretend that you are in the office. Some people are wonderful at that and some people are not. So, if you have training in this environment that you really need people to focus on, then you need to get them in here face-to-face.

With further probing, Natalie Walker said that a challenge for getting teachers to physically come to the school’s location is the cost of it. She explained:

When you bring everyone together it’s expensive so financially you have to determine whether it’s worth it. It’s a little different to get everyone here. Are we getting our bang for our buck? You’re not going to do it all the time for whatever comes up.

Anita Mann agreed that more in-person training would be good for teachers. However, her focus is on the new teachers. She explained:

In my ideal world, when you’re hired you are expected to come in the first month. The benefits would far outweigh the costs. Even just the vetting. If you hire someone and they start working remotely on their own, they can slip through the cracks. They may not be added to group hangouts, or they may have chosen to leave a hangout. You don’t really catch on until much later.

Having in-person trainings would be ideal, but it’s a challenge to do when faculty and staff are spread across the entire state. Although there are several other challenges that developers of training face, one of those challenges is not a lack of involvement in training and development. The next section explores the question: To what extent are school leaders involved with the creation of professional development at their school?

**Involvement with Professional Development Creation**

Through the interviews there emerged two types of influence on teaching training. The first is influence on a training that a facilitator delivers, and the second is influence on a training that a different facilitator delivers. Members of the leadership team who are at the master teacher
level or above have the most influence on both of these levels, while the department chairs have much less.

**Department Chairs**

Becky Phillips is involved with the training of new special education teachers during onboarding when time allows her to travel to Harrisburg. But that’s the problem for her: when time allows. Due to her caseload and the number of teachers she is mentoring, Becky Phillips explained that her influence on teacher training is “not much at all. […] Right now, it’s because I have so many students, so it’s been particularly difficult to dive into influencing teacher training in any particular way.”

Joyce Covington also didn’t feel like she has much influence on professional development, but doesn’t necessarily think that’s a bad thing:

I don’t know how often I impact it right now, I guess not much, but on any given day I like to throw my opinion around and see what sticks. […] I don’t know if it results in professional development as much as it might result in a change of some process or policy. Should we influence? I think it’s a good idea to get a read on what staff feel like they are missing or want more of. But sometimes too much information is daunting.

Anita Mann felt like she also had little influence on formal professional developments. However, she mentioned that she does influence the professional learning community that she facilitates:

I think I influence professional developments to a small degree. I lead a PLC on Fridays, and administrators might create trainings based on what they observe in that PLC. Also, during our meetings with administration, there is the opportunity to provide input and I think that it is heard. Sometimes what we do in PLC can be used to influence other PLCs.

Anne Riser felt like she is listened to when she makes suggestions about teacher training, but due to time constraints it is a slow process for her suggestions to come to fruition:

Our school does a good job of listening to us and training us on things we want. We said, “Hey we don’t have enough training on our iPads,” and now Danielle said is going to
start doing that. You know what I mean? So, I think they listen to us, I think sometimes it just takes time to get there.

**Master Teachers**

The group of leadership team members who have the next level of influence on teacher training is the master teachers. This group of teachers has more time to contribute to teacher development because they solely focused on their leadership role, as opposed to being split between leadership and teaching like the department chairs. Clea Haggard felt like she has a lot of influence on the professional developments she delivers to teachers:

> It is kind of up to us. Alicia and Nancy will give support and guidance, but it is usually Whitney, Cody and I asking ourselves, ‘What do we want to do?’ We have support but the planning of it is really just the three of us.

Whitney Feeney also felt like she has influence on the professional development she delivers, but doesn’t discount the influence of assistant principals:

> They definitely have specific things they like to see but we definitely have some free range as far as what we are finding through our own experiences about what teachers need. So, I’d say there’s influence from both ends.

The amount of influence that teacher leaders have on professional developments that they aren’t delivering is much less. Clea Haggard and Whitney Feeney both felt like they have influence on the content, but in different ways. Clea Haggard gave some examples of how she has influenced another facilitator’s professional development:

> I have influence and provide input—I ask the assistant principals if they can we do this or that—I try to get the iPad training in at the forefront, we are working to get that to teachers. But there are also things that we have to do per state requirements, so it’s hard to find time for everything.

Whitney Feeney felt like her influence on other facilitators’ professional developments was more focused on whether the training happened already:

> Yeah, the professional development facilitated by assistant principals are usually shared conversations. At least for the sake of not doing the same professional development
twice. Those are usually open conversations about who’s doing what. […] If someone else has done it then we don’t need to do it.

Whitney Feeney and Clea Haggard do have influence (in collaboration with the assistant principals) on the PLC content facilitated by department chairs. They are also part of the conversations with Opportunity Academy about how Succeed Cyber School student data compare with other Opportunity Academy schools, and how that may influence teacher training.

**Coordinator of Professional Development**

Danielle Bolin is the only coordinator of professional development at Succeed Cyber School. In the beginning of the year, she wasn’t satisfied with her level of influence on teacher professional development. A principal who was asked to resign in November gave many of the teacher training responsibilities to an assistant principal, which Danielle Bolin found very frustrating. She was much more pleased with her influence on professional development now:

The big difference is that I get to lead the professional development as opposed to assistant principals teaching new teachers how to teach. He kept taking my job and handing it to other people, and I was like, “Bro, this is why I’m here. Please let me do my job.” So, the first half of the year wasn’t done the way I think it should be. I trained new teachers during onboarding but that was where my job stopped.

Now, Danielle Bolin is much more involved with teacher professional development. For example, in the beginning of the year she didn’t facilitate the new teacher induction meetings because they were facilitated by an assistant principal. She is now fully responsible for those meetings. Danielle Bolin also helps to develop schoolwide professional developments and activities for teachers that are aligned with the school year cycle as well as new initiatives and programs that Succeed Cyber School has developed. Most recently, this has been a series of professional developments on how to access and analyze student data. The professional developments that involve messaging from specific departments—such as special education—
are created in collaboration with members of the leadership team who are familiar with that area.

Danielle Bolin gave an example:

For the Accommodations and Modifications training, I went to Shelia and Max first and then Karen so they could give me all the information that they wanted me to present. Then I created the PowerPoint and everything to make sure it was visually appealing. Finally, I presented it with them there.

Becky Phillips recalls Danielle Bolin reaching out to her to receive feedback on a special education training. She said, “Danielle reached out to me one night, just asking questions to firm up somethings, and I appreciate that to make sure we are all on the same page. We want to avoid misinformation being provided.”

Danielle Bolin seeks feedback on the training she develops, but also seeks to provide feedback to certain individuals before they facilitate a training. This is based on what she’s observed from being a participant in training delivered by certain individuals. Danielle Bolin explained how she influences the professional development that others create:

It’s feedback but also assistance. I’m here to help you make this what you want it to be. I try to give them those skills. Whenever I do say or bring up an idea to senior leadership about giving someone assistance with their training, they just send the person to me before the date of training.

In addition, Danielle Bolin assists other members of leadership with supporting teachers one-on-one. She explained:

It’s not always in a formal way. But some facilitators of PDs do come to me and say, “Hey, how can I communicate this the best?” Or maybe they’ll hand me a teacher to reach out to and work with. If it’s a teacher who just needs a little more assistance with something, then I’m copied right in.

Generally speaking, there is influence on professional development between adjacent levels of leadership, with the higher level of leadership having more influence on the lower level than vice versa. There also is the pattern of more formal and a higher quality of professional developments being delivered by higher levels of leadership. This is true up until we get to
Senior leadership on the career ladder, which includes lead principals, the CEO, and the director of counseling.

**Senior Leadership**

Although members of senior leadership almost never deliver training to teachers, Natalie Walker said they do have direct influence:

The only trainings that we don’t have an impact on are the trainings that come from Opportunity Academy. But as far as what we train on here at Succeed Cyber School, we have control over that. We have our leadership team meetings every Wednesday and there’s always a piece of that agenda that’s dedicated to professional development.

Max Felix felt like he has an influence on other facilitators’ professional developments through the senior leadership team meetings. He gave an example:

I will say that at the senior leadership level, we are very reflective. We had four or five days before school started to come in and reflect on the Opportunity Academy presenter’s in-person training [at the beginning of the school] and talk about how it was heavy, not really engaging, and a lot for our teachers to think through the first week of school.

In terms of satisfaction with her level of influence on teacher training, Natalie Walker said that she is satisfied. She also recognized that she is a step or two removed from the teachers and therefore counts on others to inform her of their needs:

As long as people are coming forward and asking for what they need we can work to support them. If they don’t ask, then we don’t know. We are kind of a step or two removed from the day-to-day, so we count on the master teachers and department chairs, hoping that someone feels comfortable to say, “Hey look, this isn’t happening, and we really need some help here.”

Generally speaking, most members of the leadership team are satisfied with their level of influence on teacher training. Department chairs have the least amount of influence on teacher training, followed by master teachers, assistant principals, and the professional development coordinator. Members of the senior leadership team have the final say on what professional development teacher will receive, but heavily rely on the insights of leadership team members.
who are more involved with the day-to-day operations of the school. Leadership team members generally wish there was more time to be involved with teacher training but understand that there is only so much time in the day and that they need to count on one another to support teachers through training.

**Summary**

Survey and interview data were gathered to better understand the perspectives of school leaders on training and development of cyber school teachers. Survey data provided backdrop of information about the research participants, including their prior experience and current position in the education field. It was found that all research participants had experience teaching for a cyber school before being promoted to the leadership team. In addition, the majority of research participants worked at a brick and mortar school before joining the leadership team at a cyber school. Furthermore, the participants generally felt that the quality of teacher training was good, and this rating was positively correlated with increased cyber school experience.

The interviews were the main source of data for understanding how professional development at Succeed Cyber School is developed and how effective school leaders perceive it to be. The themes regarding knowledge gaps that emerged for new hires were dependent on their prior experience: all new hires need to be training on the specific technology and pedagogy used at this cyber school; first year teachers need to be trained on the former in addition to virtual pedagogy, differentiating in the cyber setting, and communicating remotely; and former brick and mortar school teachers need to be trained on all of the above in addition to adapting their mindset and translating their prior experience. Effective professional development was defined as exemplifying was teachers are expected to do in the classroom: be engaging, cover relevant content, differentiate according to participants’ needs, and be planned according to feedback.
The leaders of Succeed Cyber School described the teacher training for different groups of teachers at various times of the year. They also shared that the individuals who are most involved with leadership are at a mid-tier leadership level.
CHAPTER 5: DISCUSSION OF DATA

The purpose of this study was to ascertain what leaders of cyber schools perceive about the requisite skills required to teach online and how they address these skills through preparation and ongoing development of teachers. The significance of this study extends beyond training cyber school teachers. It is becoming increasingly important to train brick and mortar school teachers to teacher both synchronous and asynchronous lessons as blended learning programs increase in popularity and legislatures encourage the development of in-house cyber programs.

At the higher education level, universities and faculty are experiencing pressures to offer online and hybrid courses, as well as provide pre-service education courses that train teachers on how to teach cyber classes. Beyond these two environments, online adult learning is becoming increasingly popular in corporate settings such as in compliance training.

In this chapter, the data will be discussed as it relates to the literature. The overarching question for this study is: What do leaders of cyber schools perceive about the requisite skills required to teach online and how do they address these skills through preparation and ongoing development of teachers? Similar to professional development in brick-and-mortar schools, successful professional development meets teachers where they are and exemplifies the expectations that teachers are held to (Darling-Hammond et al., 2017).

Research Question 1: Training Gaps of New Teachers

According to the participants, the training and development that new teachers need depends on their prior work experience. Namely, teachers with only prior brick-and-mortar school experience have the hardest time transitioning to cyber schools, followed by first-year teachers, and finally teachers transitioning from a different cyber school.
Teachers Whose Previous Experience is Only Brick-and-Mortar

A major challenge for transitioning brick-and-mortar school teachers is the change in job description. In a brick-and-mortar school, teachers tend to teach most of the day and lesson plan or grade during after school hours. In the school that was the focus of this study, teachers only meet with each class for an hour once per week, so teachers must learn how to fit an entire week’s worth of curriculum in a single hour session. Another major adjustment for brick-and-mortar school teachers is no longer being able to see or hear their students, unless their students choose to use their camera or microphone, which is rare (Griffen, 2014). Therefore, these teachers need training on how to read their students through chat responses or a lack thereof.

Pedagogical strategies related to engagement, class activities, communication, and delivery of information are all different in the cyber school setting—not to mention learning how to use the technology to make the magic happen (Griffen, 2014).

While teachers have control over their lessons and assessments in a brick-and-mortar school, this is not the case in the cyber school that is the focus of this study. The role of the teacher in a cyber school is to support students as they work through the asynchronous curriculum that an outside vendor creates. Therefore, teachers must learn the Pearlman curriculum and how to support students with it. This can be an adjustment and also a moral blow to some veteran teachers who are proud of the teaching materials that they have used for a long time at their former school (Griffen, 2014).

These differences and the known resistance of veteran teachers to change explain why the participants emphasized that the longer a teacher has worked for a brick-and-mortar school, the harder their transition is to the online environment (Snyder, 2017). Veteran brick-and-mortar school teachers know how to teach a certain way and when they transfer to a virtual school they
have to relearn how to teach (Griffen, 2014). For example, at Succeed Cyber School teachers are required to make Welcome Calls instead of welcoming students on their first day of school. Another example is teachers at Succeed making Content-Based Assessment calls since it can be difficult to formatively assess students. Virtual school teachers tend to learn this knowledge on the job since there are few professional development opportunities or college education programs that are available to prepare them (Larson, 2014).

Although former brick-and-mortar school teachers tend to have the hardest time transitioning to the online environment at Succeed, some have an easier time transitioning than others. This has to do with how familiar they are with technology, which tends to be the steepest learning curve for new teachers. The more a teacher’s prior school district was technology-equipped, the easier time they have transitioning to the cyber school (Griffen, 2014). Teachers who have experience taking online courses or are just tech savvy also have an easier time (Larson, 2014). There are some forms of technology that are specific to Opportunity Academy schools, such as VirtualBoard, but other forms of technology, such as Google Suite, are used in other schools and organizations, so it helps if teachers are already familiar with those.

In addition to familiarity with technology, age tends to play a role in how easily brick-and-mortar school teachers transition to online schools (Jiang, 2018). According to the research participants, one reason could be that younger teachers tend to be more familiar with technology in general. They also tend to ask more questions and have a more open mind than their older and more veteran teachers (Snyder, 2017). Some of the questions they ask are about how to use the same technology in a different way, which can lead to innovative pedagogy for even online veteran teachers.
Teachers Without Prior Cyber School Teaching Experience

There were three major knowledge gaps that first-year and brick-and-mortar school teachers shared. The first was communication in the online environment. The second was awareness of the student population and their unique needs. And, the third was mastering virtual pedagogy. Many researchers agree that there is need for training new cyber teachers on communication and pedagogy in the online environment (Ernest et al., 2012; Griffen, 2014).

Learning how to communicate in the online environment with students, parents, and colleagues is a critical skill of online teachers (Mitchell-Holder, 2016). Most communication happens in the written form through email, a LiveSession room chat, or an instant messenger. Written words naturally tend to come off as colder than speaking in-person, so teachers need to learn how to add warmth and demonstrate caring through their messages. Otherwise, their message may become misconstrued and they may unintentionally offend someone (Morgan, 2018). According to the participants, the second most common form of communication is phone calls (parents and students) or web conferences (colleagues). Although it is easier to read someone based on the tone of their voice or facial expression, it can still be more challenging than a face-to-face conversation. It may be the case that conversations and written messages have a greater impact in cyber schools than they would in a brick-and-mortar school because they are the only means of communication.

The frequency of communication is also something that new virtual teachers need to adjust to. Communication with colleagues takes a greater effort since there is no such thing as working across the hall from someone, passing in the hallway, or meeting with other teachers for lunch (Griffen, 2014). As a result, asking someone for help or offering someone help can take more effort and some getting used to, as noted by Succeed’s school leaders. The frequency of
communication with parents is also different, especially in the elementary school (Griffen, 2014). Succeed school leaders noted this increased frequency of communication with parents as well as the importance of it to support students, especially younger ones.

As noted by Succeed school leaders, another major area of growth for first-year and former brick-and-mortar school teachers is knowledge and awareness of the student population at a cyber school. When pre-service teachers are doing their student teaching or brick-and-mortar school teachers are working in the profession, they tend to work with a homogenous group of students (Larson, 2014). At Succeed Cyber School, students are enrolled from all corners of the state and come from very different backgrounds. Succeed leaders explained the need for teachers to be aware of the variety of demographics and socioeconomic situations that different students are in. They noted that teachers need to be aware that most students who enroll in a cyber school are doing so because they are trying to escape something, whether it be less-than-par quality of their neighborhood school, bullying, or a rigid school schedule (Hacke, 2017). At Succeed Cyber School, school leaders noted that students need flexibility to attend doctor’s appointment or flourish in athletics, dance, or singing. Other students have psychological disorders and mental illnesses they are not managing well in a brick-and-mortar environment. Being aware of this is the first step to supporting students in this capacity.

School leaders at Succeed noted that teachers almost never see their students, so they don’t know what is happening on the other end of the screen. Teachers don’t know if a student is crying or left the room. They don’t know if a student is frustrated and acting out behaviorally because of something that was said or because a task is too difficult. It is too easy to assume what is happening, so virtual teachers need training on how to recognize what may actually be
going on and how to respond to it (Mitchell-Holder, 2017). This way teachers can support students with their academics but also their mental health.

That last major learning gap that emerged from the interviews was mastering virtual pedagogy. Most first-year teachers and brick-and-mortar school teachers were trained to teach in a traditional classroom environment. Therefore, teachers tend to struggle with translating this knowledge to the virtual environment using applicable instructional technology as well as the limited tools the learning management system and synchronous classroom platform (Larson, 2014). They need training on how to engage their students in LiveSessions, teach in the online format, differentiate lessons for students at a variety of levels, and connect with students without body language or eye contact (Griffen, 2014).

**All Teachers New to the Cyber School**

All new teachers at Succeed Cyber School need to become familiar with the specific technology and pedagogy that are used at the school. This section discusses the technology specific to Succeed Cyber School that teachers need to master and then discusses the pedagogy.

The most important training gap that teachers have is how to navigate VirtualBoard, Succeed Cyber School’s learning management system (LMS). Larson (2014) also found that the most important learning gap of new online teachers was becoming familiar with the school’s LMS. At Succeed, the LMS is where teachers receive and grade assignments, respond to student CyberMails, log student and parent contacts, generate student data reports, and much more. Since VirtualBoard isn’t accessible outside of the Opportunity Academy network, all new teachers need training on it. In terms of working through all that VirtualBoard has to offer, the school leaders emphasized that certain features are more important than others at different times of the year. As a result, the school leaders prioritize different features of VirtualBoard in new
teacher training depending on when teachers are hired. Also, some features of VirtualBoard are prerequisite to others so it is important to prioritize those first. Davis and Benson (2012) found that knowing how to navigate the school’s LMS was the most effective topic to cover in training new teachers. Covering the most relevant components of the LMS and the prerequisite components of the LMS are critical for supporting teachers develop expertise with the technology.

Another important training gap that all teachers at Succeed Cyber School have is how to meet pedagogical expectations at Succeed Cyber School. Since Succeed Cyber School is a STEM school, teachers need to learn what a STEM lesson is and how to deliver one. Such like other virtual schools face the need to train teachers on the school’s LMS, they likely face the need to train teachers on any pedagogy, processes, policies, and best practices, depending on their foci. Also, similar to how certain elements of an LMS are worth prioritizing over others, there are certain pedagogical strategies that need to be prioritized over others (Larson, 2014). For example, at Succeed Cyber, teachers need to be able to teach a week’s worth of information in an hour before leveling the lesson up to a STEM lesson.

**Research Question 2: Characteristics of Effective Professional Development**

The school leaders at Succeed Cyber School emphasized that the most important criteria for making professional developments effective was for the facilitators to model the expectations that leaders have for teachers. The participants explained that this means professional development is:

1. Engaging
2. Relevant Topics
3. Grouping Teachers by Development Need
4. Thoroughly Planned

5. Based on Teacher Data and Feedback

Compton et al. (2010) also found this modeling crucial for the development of online teachers, and Larson (2014) found that the most effective teacher trainings are engaging and apply active learning strategies. Teaching in an online classroom can feel abstract, especially for new teachers, but by modeling this practice in professional development teachers can gain a clearer understanding on how to do an excellent job (Compton et al., 2010).

These themes aligned with two of the three principles and process of learning that Clark and Mayor (2016) identify: limited capacity and activity processing. Because people can only process a few pieces of information at a time, it is important for facilitators of teacher professional development to thoroughly plan their trainings to minimize extraneous processing. Part of this planning and facilitation is being mindful of what Clark and Mayor (2016) have identified as dual processing channels. For example, Danielle Bolin, the Coordinator of PD, explained that having a slide deck that has too much text or irrelevant media can make it hard for participants to retain all the information.

The remaining themes are all aligned with the active processing principle. In order for learners—in this case online teachers—to acquire new knowledge or skills, they need to be engaged in appropriate processing during the learning process (Clark & Mayor, 2016). School leaders shared multiple facilitation strategies for keeping teachers engaged in a training, but one of the most important strategies were making sure that the training exemplifies what teachers should be doing in their own classrooms. This is an example of generative processing which is aimed at helping participants develop a deeper understanding of the core material—in this case,
implementing specific strategies that are not less abstract because the participants have experienced the strategies firsthand (Clark & Mayor, 2016).

Additionally, all the participants shared that it is much easier to keep teachers engaged when training is timely and training topics are relevant. Clark and Mayor (2016) would argue this is because participants are engaged in essential processing, which is aimed at representing the core material that teachers need to learn to meet the training objectives. One way to ensure trainings are both timely and relevant is by grouping teachers according to their development need, which participants said could be by content area, grade level, or time of hire.

**Engaging**

There is one important difference that school leaders at Succeed noted between training teachers and delivering a lesson to students, and that is tone. Although in both situations the presenter wants to build rapport with the audience, the way to build that rapport is going to look different. If trainers speak to teachers the same way teachers speak to children, no matter how important the training is, the teachers are going to be less engaged. Some ways that trainers can gain the trust and respect of their audience is by being open, honest, and real. If they don’t have the answer to a question, they should admit it and find the answer after the session. Presenters should also bring positive energy, speaking in a conversation but professional tone, and stay on task (Morgan, 2018). Although both teachers and teacher trainers should create a positive connection with their respective audiences, the ways they do it look different during sessions.

The school leaders at Succeed Cyber School noted a second way professional development is similar but different to classroom instruction: the content. The research participants emphasized that content needs to be relevant in order for the training to be effective. Just like the content covered in a class should development knowledge and skills that prepare
students for an assessment, training needs to develop knowledge and skills that prepare teachers for online instruction. Just as in brick-and-mortar schools, the professional development content needs to be timely and based on teacher needs (Bayar, 2014). The leaders at Succeed said that the knowledge and resources shared during professional development should be usable right away and teachers should feel supported with implementing them. At the end of the day, effective trainings are useful trainings.

**Relevant & Planned**

To make sure trainings are relevant to teachers, the school leaders at Succeed said planning and preparation need to happen. There were two levels of planning that emerged in the interviews: the individual presenter needs to plan, and the training team needs to plan. It is not helpful for different presenters to give teachers conflicting information or repetitive information. The best trainings share this plan with teachers: they know when to expect what training and what is going to happen in each of those trainings (Axner, 2018). It also helps to have some consistency such as having training schedules on a certain cycle, such as once every two weeks at a certain time (Davey, 2016). The more organized and streamlined a training is, the lower the cognitive load on the participants, and the more they are going to be engaged.

Preparation also involves making sure that the training is differentiated so that all members of the audience have at least one meaningful takeaway. This could mean having multiple trainings for teachers at different levels (Davey, 2016). The leaders of Succeed Cyber School suggested organizing the teachers into different tiers based on their level of cyber school proficiency. Level 1 would be the brand-new teachers who attend the school orientation, participate in induction, and focus on the basic skills of online teaching. Tier 2 would be teachers would be those who are a bit more experienced than their Tier 1 counterparts. This group would
be starting to experiment with more advanced technological knowledge and pedagogical knowledge in their online teaching practice. Tier 3 teachers would be the highest tier and would consist of teachers who are the most veteran and advanced at the school. Almost all pre-service teaching training programs follow a scaffolded model, where certain courses are prerequisite for others, in order to build on, deepen, and develop new teaching skills. This tiered training practice aligns with the tiered licensure practiced by several states, which were designed to limit barriers into the teaching profession (Aragon, 2016).

**Differentiated**

According to the leaders of Succeed Cyber School, there are several ways to determine how teachers should be grouped for professional development. If teachers are to be grouped by tiers, placement of brand-new teachers would be determined by interviews, onboarding, and induction since these are three big areas where leadership can get a good sense of what a teacher’s needs are. Placement of teachers who are already working for the school can be determined through their conversations with members of the leadership team, walkthroughs, and the professional develop requests a teacher makes. In addition to tiers, teachers can be grouped according to content area or grade level. Just as in pre-service teacher preparation programs, sometimes it may make sense to combine certain content areas together for a professional development; for example, if the conversation is about state testing, it doesn’t make sense for social studies teachers to attend, however English and math teachers should be there. In a grade level professional development, teachers could have the opportunity to compare notes on certain students, make sure curriculum is horizontally aligned, or develop interdisciplinary projects for students to complete. Other times, it may be appropriate to group teachers who will be rolling out a new program since they will be the only group who needs to be familiar with it. If there is a
training that is relevant to the other school, then the entire school should attend. Generally speaking, in order to meet the needs of teachers, it is important to think about which group of teachers the training will be relevant to and only invite that group to attend.

Sometimes it is helpful to offer training one-on-one, especially for novice teachers. By having an individualized learning plan instructional coaches or mentors can build strong working relationships that support teachers in a way that is more closely aligned to their development needs (Dias-Lacy & Guirguis, 2017). Many members of the Succeed Cyber School leadership team agreed that these relationships are most effective for supporting new teachers. At Succeed Cyber School, these forms of professional development involve frequent walkthroughs and regular feedback that has a mentorship as opposed to evaluative feel. This form of professional development also involves looking at a teacher’s student performance data and guiding them to make appropriate decisions. The teachers in Larson’s (2014) study agreed with the school leaders at Succeed Cyber School about one-on-one mentorship being a critical training element for online teachers because it allows for individualization of training.

**Based on Data**

Just as teachers are trained to use data to inform instruction, teacher trainers should use data to inform professional development (Harris, 2011). Since novice teachers are more perceptive to the effectiveness of a teacher training, it is especially important to make sure trainings keep this audience in mind (Takacs, 2017). The leaders at Succeed Cyber School agreed that data on teachers can help determine their needs prior to training and help determine whether a training was effective. Some practices used in classrooms, such as having a pre-assessments and post-assessments, can be practiced in teacher trainings to gauge how much teachers learned as well as model a teaching strategy. Harris (2011) found that it is very
important for teachers to influence the professional development they receive, and the leaders of Succeed Cyber School said some ways of doing this include gathering teacher feedback in the form of questions, body language, an exit ticket, or an end-of-session survey.

**Research Question 3: Training Topics and Delivery at Succeed Cyber School**

Rice, Dawley, and Hinck (2010) identified several forms of training and development that characterize the professional development of Succeed Cyber School teachers. These include orientation, social networking, and online training sessions. At Succeed Cyber School, there is an in-person orientation for all teachers at the beginning of the school year. There is also an in-person orientation specifically for new teachers, either right before the orientation for all teachers in the beginning of the school year or—if they were hired during the school year—at their time of hire. The topics covered are among those that Rice, Dawley, and Hinck (2010) found to be common in cyber school teacher trainings: facilitation strategies, technology tools, as well as assessment.

Several forms of social networking were noted by the school leaders. New teachers are assigned a mentor upon hire and informal mentorship happens amongst various teacher groups. These include weekly professional learning communities within departments or grade levels. Also, during professional development sessions, teacher may be introduced to others through group activities.

Ongoing training sessions are designed for new teachers or a mixture of new and veteran teachers. New teachers participate in monthly induction meetings that cover topics relevant to that particular time of the school year. These can include a more detailed discussion the facilitation strategies, technology tools, and assessments that Rice, Dawley, and Hinck (2010)
identified. Veteran teachers most often participate in weekly school-level training sessions that cover more advanced strategies in these same categories.

**Research Question 4: School Leadership Involvement**

Members of Succeed Cyber School’s leadership team want to be more involved with developing training for teachers but are accepting and understanding of why they are less involved than they would like. Department chairs facilitate professional learning communities in their school (elementary, middle, or high school) for their content area. It is a challenge for them to be more involved with professional development because they also have to balance their teaching responsibilities and the teachers they mentor.

Master teachers have the greatest influence on the professional development they facilitate and have some influence on the professional development that other members of the leadership team facilitate. Their involvement is greatly appreciated by administration because they generally work very closely with teachers and are therefore familiar with their training needs. This insight is the major source of their influence on professional developments across the school. This group has recognized that their level of influence has decreased in the 2018-2019 school year with the addition of Danielle Bolin as the professional development coordinator. However, they are satisfied with their current level of involvement and the improvements Danielle Bolin has made to teacher training this school year.

The professional development coordinator’s satisfaction regarding her involvement with professional development has increased since the beginning of the school year. After the lead principal was asked to resign, the professional development coordinator was able to have influence on teacher training beyond new teacher onboarding. Her renewed autonomy and increased happiness has enabled her to be more efficient and effective (Chapelain, 2014;
Williams et al., 2015): since then she has guided leadership team members on how to develop and deliver excellent teacher training, been more involved with the development and facilitation of her own trainings and has had a greater voice in leadership meanings when determining the professional development to be created. She believes that she rightfully now has the appropriate level of influence on teacher training and is happy about that.

The senior leadership team oversees professional development of teachers and is somewhat involved with determining what trainings should be developed. They participate in team meetings to discuss the needs of teachers and how to address them, but they heavily rely on members of leadership who are more involved with the day-to-day operations of the school and teachers. The senior leadership team has a lot of trust in their colleagues and depends on them to inform the best decisions regarding teacher training. Because the senior leadership team is involved in so many other school operations, they are satisfied with their current involvement of teacher professional development.

**Challenges of Professional Development**

Almost all of the challenges identified by leaders at Succeed Cyber School were cited by research. These include the challenge of schools growing and changing quickly, teacher training having to take place on-the-job, and the limited amount of time to get new teachers up to speed on pedagogical and technical knowledge (Barbour, 2011; Kennedy & Archambault, 2012). The one challenge that was not found in the literature was that of training taking place in a remote working environment. School leaders found this to be a challenge because teachers can more easily be distracted by non-work or work-related tasks during trainings.
Limitations of the Study

Although a non-random, purposeful sample was used to reach the appropriate audience and gather information-rich cases, there are still some limitations and validity issues with the approach of a survey and interview methodology. Not all administrators chose to participate in the study and not all participants opted into the interview, which may have skewed the results. Additionally, even though participants were allowed to express themselves in their survey responses anonymously, self-report bias could have been introduced with the manner in which data were collected. Efforts were made to eliminate any ambiguity from the survey questions; however, after the results were in it, it became apparent that the wording of Question 2 could have been more precise. This question asked the school leaders to share how they know whether a professional development was successful. The term “successful” is fraught and it would have been better to operationalize so that respondents had a similar understanding of it.

The results of the study are also limited to the development of teachers at Succeed Cyber School since the participants only came from this resource. Although the results may be generalized to other cyber school leaders, additional research would need to demonstrate this. Additionally, the perceptions of school leaders who work for a full-time cyber school may not be the same as school leaders who work for a school that offers a blended learning program or a traditional brick-and-mortar school that offers supplemental cyber learning opportunities.

Topics for Future Studies

This dissertation focuses on the perspectives of leaders of virtual schools on the training and development of cyber school teachers. To understand the full picture of training and development, future studies should investigate the perspectives of leaders of virtual schools who work for a variety of cyber schools. This would extend the conclusions of this study beyond
those that are specific to Succeed Cyber School. Understanding the full picture of training and development also calls for the perspectives of teachers on the training that they are receiving. In this dissertation, some members of the leadership team commented on conversations that they’ve had with teachers regarding training, and some of members of the leadership are also teachers themselves. However, individuals who are solely cyber school teachers were not participants. A comparison on how teacher perspectives compare with leadership perspectives on the training gaps of online teachers, criteria for evaluating the effectiveness of professional development, and the state of current training opportunities would be insightful. It would also be helpful to understand how the training of full-time online teachers compares with the training of blended learning teachers and the training of traditional brick-and-mortar teachers who offer supplemental virtual learning opportunities. In order to get timely data from a large number of participants in multiple schools, a quantitative study that gathers information through a questionnaire is recommended.

**Recommendations**

In order to acquire new knowledge, the learner needs to be engaged with the material. Engagement in a face-to-face environment can involve touching and manipulating physical objectives or moving about a room. This physical engagement isn’t possible when training happens online, so the training developers and facilitators need to engage participants only in a mental capacity. In order to keep the learners’ attention, the facilitator need to consider the training’s demand on cognitive load (Clark & Mayor, 2016). As in any training, the goal is to minimize extraneous processing while maximize essential and generative processing. In order to minimize extraneous processing, it is recommended that trainings are thoroughly planned to have presentation materials that avoid extraneous text pictures and music. Additionally, the facilitator
should have a lean audio narration that doesn’t repeat what is on the slides. In order to maximize essential processing, only relevant material should be in slides and teachers should be grouped into trainings that are relevant and timely to them. In order to maximize generative processing, training materials should be organized and integrated into the presentation.

When training brick and mortar school teachers, university faculty, or pre-service teachers how to teach online it is recommended that courses take place online and the facilitator follows the same best practices that are used to teach cyber school teachers. Through the generative processing principle, this will help training participants develop a deeper understanding of the learning objectives.

Summary

The data collected through this study reveal how leaders of virtual schools at Succeed Cyber School perceive the requisite skills required to teach online to be:

1. Utilize VirtualBoard, Adobe Connect, Google Suites, and other technology to develop and deliver a high-quality learning experiences for students.
2. Teach a week’s worth of material in an hour to a diverse group of students who mostly communicate through chat.
3. Be open-minded to new curriculum, policies, and procedures that replace traditional teaching practices.
4. Build meaningful relationships with students and parents through written and phone communication.
5. Practice school-specific pedagogical practices.

These results show that the leaders of Succeed Cyber School think that virtual school teachers mostly need to develop their technological and virtual pedagogical knowledge. School leaders at
Succeed Cyber School have created the following four professional development opportunities to ensure teachers have this knowledge:

1. New Teaching Onboarding: Two-day in-person training that is designed to equip teachers with basic technological knowledge and an understanding of the school’s highest impact policies and procedures.

2. New Teacher Induction: Ongoing training and support for new teachers to further develop their technological and virtual pedagogical knowledge through monthly meetings, mentorship, and guided reflection activities.

3. Professional Learning Communities: Mixed level teacher collaboration on prescribed topics such as student data, benchmark exams, and increasing student engagement.

4. Mixed Level Teacher Training: Large group trainings that are usually lecture-based and review topics that are relevant to either the elementary, middle, or high school faculty and staff.

Taken together, these professional development opportunities provide training for all teachers at Succeed Cyber School in differing capacities, such that there is more intense training for newer teachers. With the diversity of trainings offered, teachers receiving those trainings, and experience of those developing those trainings, this research offers a rich perspective to initiate new conversations about the training and development of adult learners.
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APPENDIX A: QUESTIONNAIRE

Teacher Preparation in the Virtual K-12 Context

By clicking “go on,” you agree to take part in this study and survey. If you would like additional information or have questions regarding the study, you may contact the researcher, Jennifer Berman, at (215) 834-5719, or via email at jenberman@temple.edu. The risks involved in this survey are extremely minimal, and all correspondence and responses will be kept private and confidential.

- Go On
- Don’t Take Survey

Section 1: Background Information

1. How would you classify the type of school in which you currently work?
   - Cyber School, students are 100% remote
   - Cyber school, students are partially remote
   - Other

2. How many years of teaching experience do you have in the following school types? Check the appropriate box.

<table>
<thead>
<tr>
<th>School Type</th>
<th>0 yrs</th>
<th>1 yr or less</th>
<th>5 yrs or less</th>
<th>6 – 10 yrs</th>
<th>More than 10 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber School Student 100% remote</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber School Student partially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>remote</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brick and Mortar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. How many years of **experience do you have on the leadership** team in the following types of schools **prior to your current role**? Check the appropriate box.

<table>
<thead>
<tr>
<th>School Type</th>
<th>0 yrs</th>
<th>1 yr or less</th>
<th>5 yrs or less</th>
<th>6 – 10 yrs</th>
<th>More than 10 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber School Student 100% remote</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyber School Student partially remote</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brick and Mortar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. What is your current position?
   - o Lead or Department Chair
   - o Master Teacher
   - o Assistant Principal
   - o Lead Principal
   - o Other: __________

5. What is your daily workplace? Select all the apply.
   - Elementary School (K-5)
   - Middle School (6-8)
   - High School (9-12)
6. How long have you served in your current position?
   o 1 year or less
   o 2-5 years
   o 6-10 years
   o 11-15 years
   o 16 or more years

7. What is your gender?
   o Male
   o Female
   o Other

Section 2: Perception of Current Professional Development Quality

1. The professional development provided to the core subject teachers are your school is:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant to teachers’ context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills-based</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher driven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly interactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustained over time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values teachers’ perspective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designed so that learning objectives align with activities and assessments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. How do you know if the professional development session was successful? Check all that apply.

   Teachers’ response to activities during the session
   Teachers’ response to assessments after the session
   Observing teachers in action while they are on the job
   Observing teachers in a mentoring session
   If the teachers don’t ask questions, I assume they got it
   I’ve never evaluated whether my session was successful or not

3. In general, how would you rate the quality of the professional development for teachers provided in your school?
   ○ Excellent
   ○ Very good
   ○ Good
   ○ Poor
   ○ Very poor

**Next Steps**

Are you willing to be interviewed to further discussion your perspective on the training and development of teachers in the virtual setting?
   ○ Yes (Questionnaire goes to next question, if selected)
   ○ No (Questionnaire ends, if selected)

Thank you! What is your email address?

____________________________________________
APPENDIX B: QUESTIONNAIRE DEVELOPMENT QUESTIONS

In order to validate the questionnaire, the following questions that were asked of the Temple University professors who took the survey:

1. How long did it take you to complete the survey?

2. On a scale of 1-5, please assess the degree to which you were able to understand the survey and the questions.

3. Which question(s), if any, was the vaguest? Why / (Please specify)

4. Which question(s), if any, was the most difficult to answer? (Why)

5. Are there any recommendations that you would make in order to improve the survey? If so, what are they?

6. As a former K-12 school leader, were you able to understand all the terminology that was used in the study?

7. Is there a question(s) in this survey that you feel would not be able to be answered by a school leader?
## APPENDIX C: ONBOARDING AGENDA FOR NEW TEACHERS
### AT SUCCEED CYBER SCHOOL

<table>
<thead>
<tr>
<th>Day 1 Time</th>
<th>Activity/Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 10:00 am</td>
<td>Welcome and induction</td>
</tr>
<tr>
<td>10:00 – 10:30 am</td>
<td>Teacher daily tasks</td>
</tr>
<tr>
<td>10:30 – 11:00 am</td>
<td>VirtualBoard navigation sandbox and icons</td>
</tr>
<tr>
<td>11:00 – 11:10 am</td>
<td>Break</td>
</tr>
<tr>
<td>11:10 – 12:00 pm</td>
<td>Icon match answers</td>
</tr>
<tr>
<td>12:15 – 1:00 pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:00 – 1:30 pm</td>
<td>Split spec. ed and general ed. Special ed overview with Becky. Gen ed logging with Danielle</td>
</tr>
<tr>
<td>1:30 – 2:30 pm</td>
<td>Break</td>
</tr>
<tr>
<td>2:30 – 2:45 pm</td>
<td>Teacher start up tasks/staff profile/message board contact thread</td>
</tr>
<tr>
<td>2:45 – 3:45 pm</td>
<td>Q &amp; A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 2 Time</th>
<th>Activity/Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:30 am</td>
<td>Review of day 1</td>
</tr>
<tr>
<td>9:30 – 10:30 am</td>
<td>Communication expectations</td>
</tr>
<tr>
<td>10:30 – 11:30 am</td>
<td>CBAs</td>
</tr>
<tr>
<td>11:30 – 12:00 pm</td>
<td>Welcome calls</td>
</tr>
<tr>
<td>12:00 – 12:45 pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:45 – 1:30 pm</td>
<td>Class lists, grading, feedback</td>
</tr>
<tr>
<td>1:30 – 4:00 pm</td>
<td>LiveSession rooms</td>
</tr>
</tbody>
</table>
APPENDIX D: INTERVIEW PROTOCOL

Teacher Preparation in the Virtual K-12 Context

Interview Guide

I’m interested in learning about the perceptions of leaders of K-12 virtual schools on the preparation and needs of the core subject teachers in their schools. What is your name, your position in the school and your role in teacher professional development?

(Everyone) What do you perceive to be the needs of the new teachers at your school? How do you know?

(Everyone) What does the process of developing effective professional development sessions for teachers look like?

(Everyone) What is observed during effective professional development sessions for teachers?

(Everyone) What should school leaders do to improve professional development sessions for teachers over time?

(Everyone) How often do you design and implement professional development sessions for the teachers at your school? Are you satisfied with this frequency? Why or why not?

(Everyone) How often do you influence the professional development designed by someone else on the leadership team? What does this influence look like? Would you change anything about this? Why or why not?

(For principals and assistant principals only) How do you ensure that members of your leadership team are creating and delivering effective professional development sessions to teachers? Are you satisfied with your level of involvement with this? Why or why not?

(For lead principals and assistant principals only) Do you provide professional development to members of your leadership team on how to train teachers? If yes, please describe in detail what this training of trainers looks like. Are you satisfied with the professional development that your leadership team receives? Why or why not?

Is there anything about teacher professional development for the online setting that you feel is important that I have not asked about?

Do you have any suggestions as to other people with whom I should be talking to better understand school leaders’ perception about the preparation and needs of virtual core subject school teachers?
APPENDIX E: PARTICIPANT INFORMED CONSENT FORM

Participant Informed Consent Form
Teacher Preparation in the Virtual K-12 Context

Jennifer Berman, Doctoral Candidate, Principal Investigator

The objective of this dissertation is to better understand what school leaders in virtual schools perceive about the preparation and needs of teachers in their schools. The three major areas that this study examines are teacher training prior to employment, the definition of effective professional development and how this compares to current training programs, and school leaders’ satisfaction with their level of involvement of teacher development. The ultimate goal of this study is to determine how and to what extent leaders of cyber schools train and development their teachers.

I am interviewing school leaders in one cyber school. This interview will be about an hour long and will be audio recorded. No real names, including the school’s name, will be used in future publications or talks on the research. The identity of each participant and your answers will be kept confidential. We hope that these interviews will benefit the participants by giving them a chance to talk about their experiences and perspectives on this important issue.

While your participation is highly valued, it is, of course, voluntary. You are free to participate or not, leave the study at any time without penalty. You can refuse to answer any question that is asked of you. If you would like to have further information regarding your rights as a research subject, you may contact Dr. Michele Masucci, Vice President for Research, Temple University, 1801 N. Broad Street, Conwell Hall – Suite 401, Philadelphia, PA 19122, or by phoning (215) 204-6875. Questions regarding the study may be addressed to the doctoral candidate Jennifer Berman, 1302 S. 22nd Street, Philadelphia, PA 19146, (215) 834-5719. The dissertation chair for this study is Joseph Ducette, Ph.D., 243 Ritter Hall, 1301 Cecil B. Moore Avenue, Philadelphia, PA 19122, (215) 204-4998.
Participant Informed Consent Form (Page 2)
Teacher Preparation in the Virtual K-12 Context

Signing your name below indicates that you have read and understand the contents of this Consent Form and that you agree to take part in this study.

_____________________________________
Participant’s Name (Please Print)

_____________________________________
Participant’s Signature

_____________________________________
Date: _____________________
Investigator’s Signature

_____________________________________
Date: _____________________
APPENDIX F: PERMISSION TO AUDIOTAPE FORM

Permission to Audiotape

Jennifer Berman, doctoral candidate
Teacher Preparation in the Virtual K-12 Context

Participant’s Name: ______________________________ Date: ____________

I give Jennifer Berman permission to audiotape me.

This audiotape will only be used for the following purpose:

RESEARCH
This audiotape will be used as data for the dissertation listed above at Temple University. I have already given consent for my participation in this research project. At no time will my name be used.

I understand that I may withdraw my permission at any time. Upon my request, the audiotape(s) will no longer be used.

I understand that I will not be compensated for being audiotaped or for the use of the audiotapes.

I understand that the audiotape(s) will be archived for a period of three years. If I want more information about the audiotape(s) or I have questions or concerns at any time, I can contact:

Jennifer Berman

__________________________________________________________________________ Date: ________________
Signature

__________________________________________________________________________ Date: ________________
Signature

This form will be placed in my records and a copy will be kept by each participant.
# APPENDIX G: FICTICIOUS NAMES

<table>
<thead>
<tr>
<th>Fictitious Name</th>
<th>Workplace</th>
<th>Title</th>
<th>Time in Position</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielle Bolin</td>
<td>High School</td>
<td>Professional Development Coordinator</td>
<td>1 year or less</td>
<td>Female</td>
</tr>
<tr>
<td>Becky Phillips</td>
<td>High School</td>
<td>Department Chair</td>
<td>1 year or less</td>
<td>Female</td>
</tr>
<tr>
<td>Ryan Licon</td>
<td>Middle School &amp; High School</td>
<td>STEM Education Manager</td>
<td>2 – 5 years</td>
<td>Male</td>
</tr>
<tr>
<td>Natalie Walker</td>
<td>Elementary School, Middle School, &amp; High School</td>
<td>Lead Principal</td>
<td>2 – 5 years</td>
<td>Female</td>
</tr>
<tr>
<td>Clea Haggard</td>
<td>Elementary School</td>
<td>Master Teacher</td>
<td>2 – 5 years</td>
<td>Female</td>
</tr>
<tr>
<td>Anne Riser</td>
<td>Elementary School</td>
<td>Department Chair</td>
<td>2 – 5 years</td>
<td>Female</td>
</tr>
<tr>
<td>John Koch</td>
<td>High School</td>
<td>Department Chair</td>
<td>1 year or less</td>
<td>Male</td>
</tr>
<tr>
<td>Whitney Feeney</td>
<td>High School</td>
<td>Master Teacher</td>
<td>2 – 5 years</td>
<td>Female</td>
</tr>
<tr>
<td>Dora Bosse</td>
<td>High School</td>
<td>Special Ed. Teacher</td>
<td>1 year or less</td>
<td>Female</td>
</tr>
<tr>
<td>Anita Mann</td>
<td>Middle School</td>
<td>Department Chair</td>
<td>1 year or less</td>
<td>Female</td>
</tr>
<tr>
<td>Max Felix</td>
<td>Elementary School, Middle School, &amp; High School</td>
<td>Director of Special Education</td>
<td>1 year or less</td>
<td>Male</td>
</tr>
<tr>
<td>Joyce Covington</td>
<td>High School</td>
<td>Department Chair</td>
<td>2 – 5 years</td>
<td>Female</td>
</tr>
</tbody>
</table>
APPENDIX H: INDUCTION MEETING TOPICS AT SUCCEED

Succeed Cyber Charter School: Induction Topics  
2018-2019

August
- Welcome calls
- CBAs: topics, logging
- Message boards
- Welcome letters
- Parent communication: best practices
- Hangouts

September
- Grading calibration
- Planning for instruction: lesson plans, collaboration
- Student data: small group instruction
- Homeroom model
- PLC schedule

October
- Progress reports
- Benchmark data
- CBAs: best practices, assertive communication

November
- STEM infusion
- Lesson planning: Best practices
- Field trips

December
- Breakout rooms
- Mid evaluations review

January
- Semester 1 grades
- Closing out courses

February
- Concur
- Travel rules/expectations

March
- State testing
- Preliminary retentions
April
• State testing expectations

May
• Student contacts: Finish strong
• Final Retention: calls, IAs, etc
• Summer School/ Course Recovery

June
• Semester 2 grades
• Closing out courses
• Report cards/ Progress reports
• Retention: calls, IAs, etc
APPENDIX I: DEFINITIONS

The following definitions are relevant to the school setting and the research reported in this dissertation. To protect the confidentiality of the school, terms that can be traced back to the school have been made pseudonyms.

**Blended Learning:** Also known as hybrid learning, it combines online curriculum and instruction with on-site teaching in a brick-and-mortar setting. In blended programs, online and face-to-face learning may be blended within the same classroom, provided at different times of the school day, or set up in a flexible combination of times and settings.

**Breakout Rooms or Breakout Sessions:** The breakout rooms feature in LiveSessions allows the host to facilitate small group collaboration or one-on-one work within a larger group.

**Brick-and-Mortar School:** A term used to describe a traditional organization with a physical location, as opposed to an online organization.

**Calendar:** This is the VirtualBoard tool that is similar to an electronic data book, showing and providing access directly to a student’s scheduled lessons.

**Connected Cyber School (CCA):** This cyber school split from Opportunity Academy in 2016, which initiated the founding of Succeed Cyber School.

**Content-Based Assessment (CBA):** Required contacts between teachers and their students in which the teacher asks a series of comprehension or critical-thinking questions designed to gather formative information on students’ understanding of concepts. There are two main types:

**Verified Content-Based Assessment (VCBA):** These gauge authentic student learning of concepts previously graded as successfully completed.
**Diagnostic Content-Based Assessment (DCBA)**: These help teachers determine where deficits lie in relation to a specific concept, develop strategies for remediation, and determine what future instructional support is necessary.

**CyberMail**: This secure, internal electronic mail system within VirtualBoard is used by school-based staff to communicate with students and Education Coaches.

**Data View**: An internal term for an electronic form in VirtualBoard used to gather, calculate, and display clear user (student, parent, employee) information.

**Education Coach**: This term describes the role that a parent/guardian plays in the student’s educational experience. The only difference between the Education Coach and Guardian role is the Guardian’s authority to make decisions regarding enrollment and withdrawal.

**Guardian**: The student’s parent or caregiver in VirtualBoard.

**Grade Book/Section Grade Book**: This tool in VirtualBoard is used to capture and record students’ scores and teachers’ feedback on assessments. The Section Grade Book allows teachers to view assessment metric and perform various tasks pertaining to their sections such as send a CyberMail, create a log entry, mark attendance, and create a custom assessment for all students in the section.

**Homeschool, Homeschooling, Homeschooler**: A generic term used to describe the education of children at home, typically by parents, rather than in other formal settings of public or private school. Although Opportunity Academy programs and homeschooling have some similar attributes, Opportunity Academy is not homeschooling.

**IssueAware (IA)**: The tool VirtualBoard uses to document, assign, and track employee tasks across all department and schools.
**LiveSession**: This is Pearlman Online & Blended Learning’s branded term for the Adobe Connect software that is used as virtual meeting space where users create and lead interactive, real-time classes or web-based meetings.

**Log**: The tool in VirtualBoard that records and stores a variety of communications about a specific user.

**Onboarding**: The process through which new members of an organization acquire the necessary knowledge, skills, and behaviors to become effective contributors to the organization.

**Opportunity Academy**: The division of Pearlman Online & Blended Learning (OBL) that operates publicly funded, full-time schools.

**Pearlman Online & Blended Learning**: The division of Pearlman Education that oversees Opportunity Academy.

**Professional Learning Community (PLC)**: A group of educators who meet to collaborate regularly and accomplish shared objectives related to students’ learning.

**Response to Intervention (RTI)**: A multitiered approach to meeting the needs of all students by providing interventions as needed and monitoring student progress through data analysis to assess the effectiveness of assigned interventions.

**Sample User Account**: A set of fictitious VirtualBoard users for which *Sample* is the family’s last name (e.g., Jen Teacher, Anita Counselor, Kay Special, Sandy Principal). All sample accounts are created and maintained for staff training purposes.

**Special Education (SpEd)**: The practice of educating students with special needs in a way that addresses their individual differences and needs, including those in an Individualized Education Program (IEP) for 504 Plan.
**Student Status:** One of three possible statuses (On Course, Getting Off Course, Off Course) displayed on a student’s home page in VirtualBoard, based on escalation criteria determined by Virtual Cyber School.

**VirtualBoard:** The registered term that describes Pearlman OBL’s original online education management systems that “connects us.” It is the virtual system that contains all resources necessary for its various types of users to complete their daily tasks and responsibilities.