Lessons Learned in Teacher Mentoring:

Supporting Educators in K–12 Online Learning Environments

Edited by:

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iNACOL
International Association for K-12 Online Learning

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For Brian and Sarah, the next generation of critical thinkers, and for our own outstanding mentors, Cathy, Kara, and Kent.

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Foreword

Online learning is rapidly growing and evolving in K–12 classrooms around the world, providing new educational possibilities and pathways beyond the confines of a physical classroom. Students in all 50 states have access to online learning options, and districts and states are beginning to require students take at least one online course as a graduation requirement in order to better prepare them for college and the 21st Century workforce.

Online learning is expanding access to advanced courses and highly qualified teachers that were not previously available to all students (or schools), allowing teachers to personalize learning for each child through the use of real-time data and giving each student additional opportunities to master concepts through the use of interactive, engaging digital content.

As online learning becomes more available and accessible, the need to prepare our teachers to support students in new ways has become a necessity. Very few universities offer courses and/or programs that prepare future teachers to educate students in an online environment. In an online setting, role of "teacher" moves from one who lectures at the front of a classroom to that of a learning facilitator; interacting with, guiding, and empowering students to engage with digital content in order to master the curriculum.

Lessons Learned in Teacher Mentoring: Supporting Educators in K–12 Online Learning Environments provides an overview of the current research and promising models of teacher mentoring programs for K–12 online teaching and learning. The majority of K–12 online programs are beginning to develop their own mentoring programs, while a handful are beginning to collaborate with forward-thinking universities. These programs are highlighted here and are supported by the body of research focused on this topic.

In K–12 online learning environments, the teacher is still the most essential component impacting student learning and achievement. Providing educators with the new skills and knowledge necessary for them to be successful is key. We are grateful to the authors and editors of this book for sharing current and promising practices to move the field forward as more students access these innovative learning environments.

— *By Dr. Allison Powell*
Vice President, State & District Services
International Association of K–12 Online Learning

Preface

All 50 states and the District of Columbia have supplemental or full-time K–12 online programs, while some states have both (Watson, Murin, Vashaw, Gemin, & Rapp, 2011). Teacher mentoring structures exist in many of these programs, including ones that were highlighted in the iNACOL report entitled *Online Teacher Support Programs: Mentoring and Coaching Models* (Wortmann, Cavanaugh, Kennedy, Beldarrain, Letourneau, & Zygouris-Coe, 2008). This report provides a detailed look at how mentoring occurs in various virtual school business models. Differences between these models is best described in the *Keeping Pace* reports that are published on an annual basis (see kpk12.com). The differences in business models include their placement on various continuums that are illustrated in Figure FM-1 below:

The Defining Dimensions of Online Programs

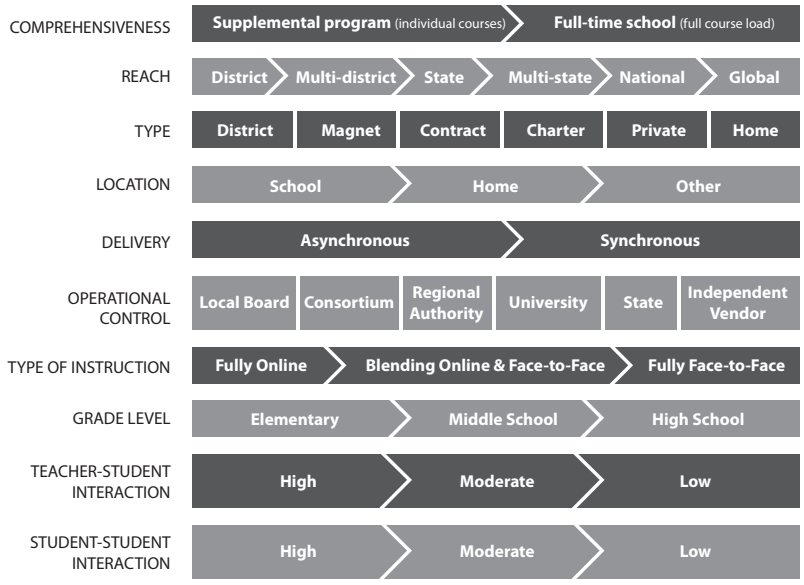

Figure FM-1 Adapted from Gregg Vanourek, *A Primer on Virtual Charter Schools: Mapping the Electronic Frontier,* Issue Brief for National Association of Charter School Authorizers, August 2006.

Depending on the make-up of the school based on these criteria, the mentoring strategy for the teachers varies. For example, if the virtual school is a supplementary, district-run program, the teachers might be full-time, face-to-face teachers who are teaching one course per semester online. This mentoring program may not have to be as extensive as one for a teacher who is 100% full-time with a fully-online school. The teacher in the supplementary program may need mentoring that is informal (not assigned) and on an as-needed basis, whereas the teacher in the full-time online instructor position may need a formal mentor assignment with additional support from other virtual school staff.

Most of the mentoring models describe mentors who are guiding teachers in helping students with new online learning environments, providing school-specific information, giving feedback, and engaging in consistent communication. The virtual school models see effective mentoring as developing knowledge and skills, leadership and communication, and sharing of ideas and expertise. Mentors take many forms and serve in various roles, including a formal mentor, an instructional leader, a content buddy, a professional learning team, or an informal mentor. By reflecting on the models and research in this book, learning from the virtual school mentoring models from Wortmann et al. (2008), and tapping into the already abundant literature on how mentoring occurs in traditional settings, we can further develop quality practice in mentoring that occurs in virtual schools and beyond.

Delving into past literature on teacher mentoring, mentors need to provide information (Villani, 2002), support and encourage (Huling-Austin & Murphy, 1987), coach (Rhodes & Beneicke, 2002), give emotional support (Odell, 1990), encourage creativity (Yendol-Hoppey & Dana, 2007), model effective behavior (Williams, 1993), and provide guidance in instruction and professional development (Rowley, 1999). Mentorship is important to the development of teachers, giving them an opportunity to work with an experienced teacher as an apprentice (Glazer & Hannafin, 2006).

Mentoring must be "educative" (Wang & Odell, 2002). Mentors need to facilitate mentee's path to develop a "commitment to inquiry," where mentors consistently ask "difficult questions" to their mentees and encourage their mentees to continue to pose difficult questions to themselves throughout their entire career (Dana & Yendol-Hoppey, 2007, p. 25). In addition, a mentor must encourage the mentee's commitment to equity (Achinstein & Barrett, 2004) and ensure that the mentee will continue to advocate for all students. Mentors need to also engage in their own practice and study it in order to better the mentees with whom they work (Feiman-Nemser, 2001). Mentors should form strong relationships with their mentees by understanding the prior knowledge that they bring to the experience (Dana & Yendol-Hoppey, 2007). Mentors need to guide mentees' professional knowledge development to include knowledge related to curriculum, pedagogy, content, context, pedagogical content, student learners, and classroom management (Dana & Yendol-Hoppey, 2007). Mentors should encourage mentees to engage in ethical work, collaboration, inquiry, and equity (Dana & Yendol-Hoppey, 2007).

As mentioned above, there is an abundance of qualities that a mentor needs to possess. The mentoring literature has found that great teachers are not always the best mentors (Rowley, 1999). Because of this, it is crucial for the virtual school to provide professional development for mentors, instilling in them the crucial role they play in the professional development

of their mentee (McKenna, 1998). In addition, providing training for the mentors is an investment for the virtual school because they will be building the base of teacher leaders needed to sustain their organization (Zimpher, 1988). By nurturing these teacher leaders, new virtual school teachers will carry on confidently and will be able to mentor the next generation of online educators, creating a sustainable model of professional development.

This book is an extension of Wortmann et al. (2008) and combines a model-based section as well as a research-focused section regarding teacher mentoring. The first section is the model-based section of the book explaining the mentoring models that have been implemented by various K–12 online learning programs, including Virtual High School Global Consortium, Hope Online School, Florida Virtual School, Georgia Virtual School, and North Carolina Virtual Public School.

In Chapter 1, Liz Pape and colleagues detail the VHS partnership model for delivery of online courses using a unique teacher mentoring model addressing teacher recruitment, professional development, mentoring and ongoing professional growth.

Chapter 2, by Joyce Geitl and Heather O'Mara, focuses on a blended model, Hope Online School, that uses an innovative community-based education model and places teacher mentoring as a central, core value. It shares lessons learned through the six-year journey as the teacher mentor program has grown and evolved.

Chapter 3 centers around the model at Florida Virtual and is written by Jo Wagner and colleagues. It describes the effective mentoring program at FLVS that includes the use of Teachers on Assignment (TOA) to serve as mentors that help teachers learn to work with their students in online environments in order to foster effective teaching as well as facilitate student growth.

Chapter 4 by Joe Cozart details the mentoring programs underway at Georgia Virtual School, centering on the range of support that is offered to assist teachers, from new hires to seasoned veterans. It describes the rationale and evolution of current mentoring efforts at GaVS so that other online programs can accelerate the development and refinement of their own mentoring initiatives.

In Chapter 5, Janice Silver writes about the Teacher Assistant Program at North Carolina Virtual Public School. This program provides mentoring to new online teachers, as well as teaches them how to instruct and make connections with their 21st century students. It shares the lessons NCVPS has learned on how to produce talented online educators.

In the second section, which is research-focused, there are five chapters. Chapter 6 by Michael Barbour provides an introduction to the preparation of K–12 online teachers as well as a critique of the literature base and research design surrounding online learning including some of the current limitations of conducting research in this area. Barbour also outlines existing university-based programs designed to train and mentor K–12 online teachers and provides an overview of open education resources that can be used to prepare pre-service and in-service teachers for K–12 online learning environments.

In Chapter 7, Julia Carpenter and Cathy Cavanaugh describe implementing Keller's ARCS model, discussing how online schools can increase student motivation by building the expertise of new K–12 online teachers through specific mentoring practices. Using data driven results from a study conducted at Florida Virtual, the chapter presents recommendation concerning the development and implementation of a teacher mentoring program that integrates motivation principles as part of cultivating pedagogical content knowledge.

Chapter 8, by Nancy Dana, Kara Dawson, Rachel Wolkenhauer, and Desi Krell, details the design and implementation of a year-long action research mentoring program and outlines five essentials of mentoring action research in a virtual school setting. These include (1) introducing the action research process, (2) developing a wondering/research question, (3) developing a plan for research, (4) analyzing data, and (5) sharing work with others (Dana & Yendol-Hoppey, 2008).

Greg Farley and Doug Lare report a lack of meaningful supervision causing teachers to seek peer mentoring opportunities to better understand the delivery of online learning to improve performance in Chapter 9. They also document that administrators in the study were often not meeting the more important supervisory function of providing instructional guidance and mentoring, calling for the need for professional development in this area.

And finally, in Chapter 10, Casey Daigle-Matos describes a student-centered model for online teacher mentoring called the SDL Support Model: Training Educators for Online Learning. This one-to-many online model introduces prospective online teachers to ideas of self-directed learning, partnering pedagogy, and metacognition. In addition to leveraging the affordances of social learning, the model is designed to be scalable as well as self-directed.

Through the extension of the work by Wortmann et al. (2008), current online programs can learn from examining both the research base as well as learning from existing mentoring models. To cultivate effective online teachers, it is essential to provide ongoing mentoring as well as professional development for both novice and experienced educators. This serves as an investment for the virtual school as a result of building the base of teacher leaders needed to nurture and grow their program (Zimpher, 1988). By developing teacher leaders through effective mentoring, K–12 online learning programs can work to ensure quality teaching practices. It is our hope that this book provides helpful strategies for mentoring online educators who continue to pioneer teaching in the 21st century.

About the Editors

Kathryn Kennedy, Ph.D., is an assistant professor of instructional technology at Georgia Southern University's College of Education. She earned her Ph.D. from the University of Florida in curriculum and instruction, with a concentration in educational technology. Her research interests and practical experience include pre-service and in-service teacher, technology specialist, and library/media specialist professional development for technology integration and instructional design in traditional, blended, and online learning environments. She was awarded the 2010 iNACOL Online Learning Innovator Award for Important Research and the 2011 AERA Division K Dissertation Award for her work regarding preservice teachers' field experiences in virtual schools. She, along with her co-editor Leanna Archambault, is co-founder of DEEP, Digital Environment Education Preparation, a consulting team dedicated to helping educators design professional development to meet the needs of 21st century learners. For more information, see her website at *http://www.kathrynmkennedy.com*.

Leanna Archambault, Ph.D., is an Assistant Professor at Arizona State University. Her research interests include K–12 online teacher preparation, the nature of technological pedagogical content knowledge in online environments, and the use of emerging technologies to improve the teaching/learning process and outcomes to prepare the next generation of literate citizens. Prior to taking her position at Arizona State University, Dr. Archambault graduated from University of Nevada Las Vegas, where she taught courses in educational technology. She also taught English at the middle school level for the Clark County School District. Dr. Archambault's research has focused on K–12 online teachers and their experiences in the online classroom. In 2010, she was part of the team that won the iNACOL Online Learning Innovator Award for Important Collaborative Research. For additional information on her work, please visit *http://leannaarchambault.com*.

Acknowledgements

This edited book was inspired by a previously published iNACOL research brief report by Karly Wortmann, Cathy Cavanaugh, Kathryn Kennedy, Yoany Belderrain, Therese Letourneau, and Vicky Zygouris-Coe. The report was commissioned by the iNACOL Research Committee to look at various models of teacher mentoring in virtual schools across the United States. Four years later, this edited book brings together practice-based models and research to give the field some guidance on how to best support teachers in K–12 online learning environments.

We would first and foremost like to thank the contributors to this book. Without them, this book would not have come together. We would like to thank Drs. Rick Ferdig and Cathy Cavanaugh for their guidance in assembling the second book in their *Lessons Learned* series. We would also like to thank Dr. Allison Powell, Jonathan Oglesby, Matt Wicks, and Linda Wood of iNACOL for their administrative oversight of this project and the Blue Marble Creative Team for their final editorial efforts and overall design work. Finally, this work is dedicated to all of the hard working K–12 online educators who dedicate so much of their time, energy, and talent to preparing the next generation of critical thinkers.

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SECTION ONE

Models from the Field

CHAPTER

1

Lessons Learned: The VHS Collaborative Teacher Mentoring Model

Liz Pape, Susan Leavey, Amy Michalowski,
Carol Ribeiro, Colleen Worrell
The VHS Collaborative

The VHS Collaborative's (VHS) (www.goVHS.org) model of partnership with public and private schools to deliver online courses has created a unique teacher mentoring model, which encompasses teacher recruitment, preparation, mentoring, and ongoing professional growth. VHS is a non-profit organization that offers over 425 course sections to over 18,000 students annually, yet does not have its own teaching staff. Instead, teachers employed at VHS member schools teach VHS courses as part of the school's commitment to the VHS Collaborative. As part of their membership in VHS, most schools agree to free one classroom teacher from one classroom teaching duty to teach an online VHS course, which is taught to students around the globe and not to just the students of the teacher's school. Students at that school enroll in any of VHS's other course offerings. Teachers offering VHS courses remain employees of their local school districts while teaching their courses through the collaborative. These face-to-face educators are located all over the world.

The challenges VHS faces with such a model are many:

- Preparing full-time classroom teachers to teach online
- Monitoring and supporting teachers in an online course delivery model which requires high levels of teacher-to-student and student-to-student interaction
- Mentoring and evaluating VHS course teachers who are not directly employed by VHS
- Improving instructional quality in a faculty whose primary job is classroom teaching
- Building and maintaining a vibrant community of educators from around the world who hone their online teaching skills through the sharing of best practices
- Applying lessons learned to new models of blended teaching and mentoring

In meeting those challenges, VHS has developed lessons to share that span the entire process from teacher recruitment to preparation, mentoring, evaluation, and ongoing professional development, as summarized in the following graphic:

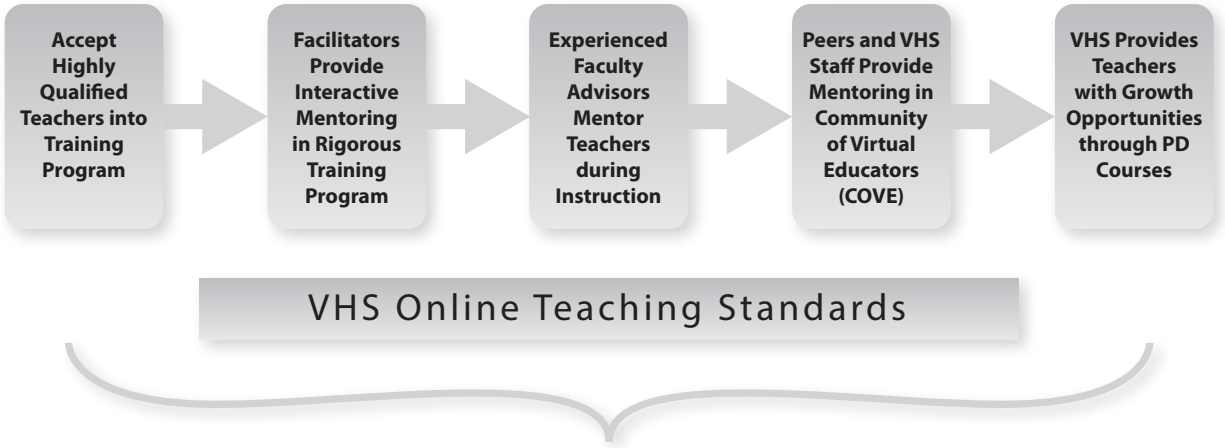

Figure 1-1 VHS Online Teaching Standards

Overview of VHS's Online Teacher Mentoring Program

The Role of the VHS Teacher

Lesson: Course and teaching standards are the fundamental building blocks of any high-quality teacher preparation and mentoring program.

VHS created its first online course and teaching standards in 1998, during its second year of online course delivery. VHS created the standards by convening a group of education and

higher-education distance learning experts, as no K-12 online course or teaching standards had been previously developed. The standards have evolved as more research around effective online teaching and learning becomes available, as technology advances the ability to support online students, and as VHS reflects upon lessons learned in over sixteen years of online course delivery. VHS's online course and teaching standards set the expectations for teachers' performance in the VHS online courses. VHS uses a co-synchronous instructional model for its online courses, and VHS's course and teaching standards support this co-synchronous online course instructional model. VHS's co-synchronous model is focused on building online classroom experiences in which students participate in highly collaborative cohort-based learning activities. VHS courses are cohort-based, with no more than 25 students enrolled in an online course section, working together on weekly-scheduled activities over a semester. VHS's co-synchronous courses are collaborative, with students participating online in collaborative activities that are central to the learning process. The core of the co-synchronous course design model is communication, with high expectations for robust online student-to-student and student-to-teacher communication, maintained through online discussions, team activities, and online presentations. Co-synchronous instruction also fosters community. Through communication and participation in cohort-based activities, students in co-synchronous online classrooms become part of an online learning community. The VHS model is supported by research that defines "learning" as more than access to content:

> [Learning] should mean access to a rich learning environment that provides opportunity for interaction and connectedness. Quality learning environments include opportunities for students to engage in interactive and collaborative activities with their peers; such environments have been shown to contribute to better learning outcomes, including development of higher-order thinking skills (Brindley, Walti, & Blaschke, 2009).

The community-based, collaborative nature of VHS online classrooms creates expectations for how VHS teachers work with their students. A successful VHS teacher needs to foster and support online communications, build community, and manage team activities in a virtual environment, as well as master the more typical online teaching skills, such as knowledge of learning management systems and online grade books. VHS's teacher recruitment and preparation model is focused on recruiting and developing teachers that will succeed in a co-synchronous learning environment, and supporting their mastery and growth of online teaching skills through mentoring and ongoing professional development.

VHS Teacher Recruitment and Onboarding

Lesson: Pre-knowledge of teacher qualifications is a helpful part of a mentoring program.

The VHS Collaborative (VHS) maintains an extensive collection of data on teacher qualifications, beginning when the teacher applies to join the VHS professional development program and continuing throughout the teacher's affiliation with VHS. This Teacher Information Database is not only helpful in providing general background information on the qualifications and teaching experience of the VHS

teacher applicant, it is also part of a larger Teacher Information System that VHS is creating to monitor the quality of its online teachers through a teacher dashboard.

When schools join VHS, school leaders identify the classroom teacher that will apply to teach a VHS course as part of the membership requirement of the VHS Collaborative. VHS provides guidance on the characteristics of successful online teachers, but ultimately the decision on who will apply to teach a VHS course is made by the school. This can put an additional burden on the VHS training and mentoring process if schools are unable to adhere to VHS's recommendations due to their inability to free a particular teacher from a period of classroom teaching. The selected teacher then applies for VHS training by supplying data about their degree, certification, previous experience in the classroom, and general qualifications. That information is collected in the VHS Teacher Information Database.

During the application process, VHS conducts a thorough review of each potential teacher's credentials and closely matches teachers with VHS courses. The process begins by establishing the list of courses available to applying teachers. The list is culled from VHS's full catalog (with 180+ unique titles/19 AP classes) and includes course titles where demand warrants the addition of new course sections. VHS keeps course sections capped at 25 students per teacher to foster the development of a strong, collaborative online classroom. Also, having upwards of 25 students is best practice for both asynchronous online discussions and collaborative group work (Schlosser & Simonson, 2010; Contemporary Educational Technology, 2011). There needs to be a "critical mass" of participants in order to create healthy back-and-forth online discussions. Although students deepen their learning when they reflect on and respond to an initial discussion prompt, some of the strongest connections and most powerful learning happens in the peer-to-peer and student-to-teacher online discourse that occurs after those initial posts. In addition, similar to face-to-face classrooms, there is a point of diminishing return when there are more than 25 students per teacher in a course section.

Applying teachers are given the opportunity to select two courses that speak to their interest and passion and are asked to describe their reason for picking their first and second course choices. Often there are interesting bits of information shared in this personal narrative portion of the application. VHS always attempts to pair teachers with their first choice, of course, because teachers are much more invested in their course when they are closely connected to the content they are teaching.

When reviewing resumes and applications, VHS staff looks for teachers who demonstrate a depth of content knowledge and enthusiasm for teaching online. Research suggests that the best online teachers are not only "competent in their content knowledge and pedagogical skill" but are also "qualified to use effective methods of teaching content online and [have] experience in online learning" (Cavanaugh, 2009). Teaching in a VHS classroom requires a high level of commitment and connection to students. Enthusiasm for teaching online is a strong initial indicator of future success as a VHS teacher. Successful teachers need not be experts in the use of technology, but they should be comfortable users of technology and should exhibit a willingness to learn new skills since the medium is constantly evolving, and it is essential that online teachers do the same!

Prior experience in an online course can be very helpful to a new online teacher. However, it can also present a challenge if the teacher's exposure to online learning was not as

collaborative and engaging as a typical VHS course. It can be difficult to retrain teachers who have taken a previous online class where interaction and content-centric discussions are not as highly valued as they are in VHS courses. Exposure to the community-based collaborative model that characterizes VHS student courses (and VHS's teacher training course) is a critical first step in modeling instructional expectations for these teachers.

VHS places a priority on ensuring that teachers are qualified to teach the courses they are assigned. Information on teacher qualifications is maintained within the VHS Teacher Information Database and is updated annually by VHS teachers to ensure that listings remain current as teacher credentials evolve. In addition to teacher name and contact information, data collected includes the following:

- The highest level of degree obtained
- Discipline areas in which the teacher is certified
- Grade levels of certification
- Certificate number(s) and expiration dates
- Geographic areas in which certifications are held
- Subjects taught in the past
- Completion of Advanced Placement and/or International Baccalaureate training

Once initial training is complete, VHS continues to add data to the Teacher Information Database, including:

- The date the teacher graduated from the VHS teacher training program
- VHS courses the teacher has taught or is currently teaching
- Additional VHS professional development courses taken
- Honors and awards received
- The teacher's anticipated retirement date

By knowing a teacher's plans for retirement, VHS can work with the school and teacher to have the retiring teacher recruit and mentor a replacement teacher so the school's VHS membership is not affected. VHS also uses the Teacher Information Database to help pair teachers with faculty advisors and peer mentors as needed. Occasionally a teacher may fall ill and a substitute teacher may be needed unexpectedly. In such cases, the Teacher Information Database can be used to help select teachers with the appropriate qualifications to fill in during a teacher's absence.

One of the benefits of maintaining a Teacher Information Database is that it enables VHS to easily compile statistics on the experience level of its course instructors. A recent analysis of profile data on VHS teachers reveals the following: 85% of VHS teachers hold master's degrees, 19% of VHS teachers hold master's degrees plus additional credits or doctorate degrees, and VHS teachers have an average of 16 years teaching experience.

VHS's Professional Development Model

Lesson: Effective mentoring of online teachers begins with effective development of online teaching skills.

What are the characteristics of a good (online) teacher? Engaging personality? Technically savvy? Enthusiastic and creative? A risk taker? Although teaching online requires certain skills and practices that are unique to the delivery model, much of what it takes to be a great teacher is universal, regardless of whether they are in a brick-and-mortar or online classroom, including:

- A deep knowledge of the subject matter
- The ability to facilitate meaningful discussions with and among students
- Being well versed in pedagogical approaches that promote critical thinking
- A passion for positively impacting the next generation of global citizens and leaders

"There are no limits to teaching and learning. If a student is motivated and a teacher is passionate, the opportunities are limitless."

—VHS teacher-in-training

"Frankly, I think VHS does a terrific job of preparing teachers. The coursework is excellent, and all of the information is online, accessible, and accurate. I have never felt that I've had a problem that couldn't be solved!"

—VHS teacher-in-training

What is unique to the development of effective online teachers is the instructional model inherent in the online course design. VHS's model of co-synchronous online classrooms requires different online teaching skills from those required for teachers of online courses (Lowes, 2007). VHS's professional development program for online teachers, Netcourse Instructional Methodology (NIM), provides online, asynchronous instruction where teachers learning to teach online address pedagogical issues related to the VHS co-synchronous instructional model, become familiar with the Learning Management System (LMS) necessary to effectively facilitate their VHS course, and practice pedagogical and technical skills while becoming familiar with their course's content. NIM is a ten-week, four-graduate-credit course designed to help teachers develop online teaching skills as they address the following essential topics:

- Characteristics of a good online learner
- Importance of online community
- Importance of standards in online courses
- Rubrics, assessment, and grading
- Evaluating websites and media literacy
- Moderating discussions
- Troubleshooting attrition
- Meeting the needs of all students
- Finding an online voice
- Teacher support and mentoring

Netcourse Instructional Methodologies is facilitated by experienced online teachers who demonstrate an active online presence in the course. The NIM philosophy is to "model the model" through establishing clear performance standards and using multiple modes and voices to provide continuous and timely feedback. Through the use of ice breakers and discussions on pedagogy, the NIM teacher-trainees develop an understanding of what an online community feels like and how it impacts one's perception of an online "classroom" rather than an online "course."

Through participation in NIM activities, teachers develop online teaching skills, such as facilitating online group projects, supporting the formation of online teams, and sustaining student-centered online discussions. The NIM week starts with an overview document that outlines the activities for the week. Each module contains lessons that appeal to different modalities, including large and small group discussions, readings, podcasts, videos, voice board, wikis, blogs, mind mapping, and peer and self-evaluations.

NIM discussions involve analysis and metacognition. Students take an active role as both participant and facilitator. Each discussion is seeded with starter questions that foster critical thinking skills. Here are some examples:

- Are there certain "gold standards" that should be part of every online course?
- What is the balance between "sage on the stage" and "guide on the side"?
- How can we design online lessons that address different learning styles?
- How will you approach the group-creation process?
- How do you create the best environment to foster positive, energizing, and ongoing communication in your own course?

"Best practices were illustrated and exemplified to show what a model classroom should look like, whether online or face-to-face."

—VHS teacher-in-training

"During the training for the course, I enjoyed the chance to discuss educational issues, teaching strategies, etc. with other teachers. I've enjoyed the technical side and have been exposed to fabulous online resources that I've used in VHS and in my face-to-face classes."

—VHS teacher-in-training

"This course allowed me to reflect on a lot of the practices I currently use in my face-to-face classroom and how to be more student-centered in my approach."

—VHS teacher-in-training

Since 2006, statistics have shown that both the VHS professional development graduation rate and the teacher success rate (defined as teachers demonstrating mastery of online teaching skills during their first year of teaching online) are above 90%. An end of the year survey of 240 teachers showed that 75% of teachers reported that teaching online had a **positive impact** on their face-to-face teaching (Lowes, 2005).

"I think it gives you a different perspective of teaching and learning. The collaboration with others through discussions is invaluable."

—VHS teacher-in-training

Lesson: Knowledge of policy guidelines is an essential component of teacher preparation.

In addition to online teaching skills development, VHS has also developed an extensive set of policies to prepare teachers to work effectively with online students who come from a variety of schools. VHS is a supplemental program designed to expand schools' course offerings. Students take VHS courses at their brick-and-mortar schools as part of their school day and remain the responsibility of their local school districts. Since VHS students are not enrolled as full-time students in VHS, VHS policies have been developed to provide the guidance VHS teachers need to support students and schools at a distance. In NIM, teachers become familiar with VHS's policies on issues such as student discipline, absenteeism, and accommodating students on IEPs. NIM participants also take an in-depth look at the VHS Faculty Handbook that outlines policies on grading and late work, copyright, plagiarism and academic honesty, and instructor and student expectations.

VHS Mentoring Model and Process

Lesson: Personalize the teacher mentoring program through one-on-one mentoring.

The skills and knowledge requirements that are defined in the VHS course and teaching standards are emphasized to teachers in their teacher-preparedness training, which is a critical part of the process of evaluating and mentoring VHS's online teachers. It serves as the foundation for the evaluation process that VHS teachers undergo once they begin delivering their VHS online course. Facilitators provide one-on-one support and personal guidance as teachers progress through NIM training; VHS evaluation standards and policies are related to the future teacher's particular course experience.

VHS is committed to providing high-quality co-synchronous online courses and recognizes that a critical part of that delivery is to develop, mentor, support, and redevelop its teachers to effectively teach VHS courses. VHS's biggest challenge is that the teachers work for their schools, not for VHS. Therefore, there can be no "carrots" and only very, very small "sticks." One of the things that VHS can do, however, is to instill a sense of loyalty by providing ongoing support for teachers, from their first semester and throughout their online teaching career. VHS can also act as a bridge to other teachers through the collaborative opportunities offered to VHS teachers in its ongoing professional development program. Additionally, VHS provides teachers the opportunity to teach courses they've always wanted to teach to a cohort of students from around the world, which can only serve to inform their own teaching and thinking.

The VHS mentoring process has many layers. As previously mentioned, it begins with the online teacher-training program NIM, in which NIM facilitators develop a mentoring relationship with their teacher-trainees. Teacher-trainees are organized into small groups and assigned a NIM facilitator to work closely with them on certain activities. In other activities, the entire group of teacher-trainees works together. In addition to building mentoring relationships for the trainees, this grouping also models how to work effectively as teachers in cohort-based co-synchronous online classrooms, reaching an entire classroom, as well as creating and working with small groups of students. By fully experiencing the collaborative aspects of a VHS online classroom from the perspective of a student, teacher-trainees are better prepared to anticipate and deal with some of the issues and responses their own students may have when the teacher-trainees subsequently facilitate their own courses.

Once teacher-trainees successfully complete NIM, they are ready to deliver their VHS course and enter VHS's formal mentoring and evaluation program. All new teachers receive a Faculty Advisor during their first semester of teaching with VHS and are placed at Level One of the mentoring program. This is the most structured level of VHS's mentoring program, where teachers receive frequent and in-depth evaluation and support of their online teaching practice. Faculty Advisors provide feedback to their advisees through email, as well as through a weekly evaluation checklist and end-of-semester evaluation process. During this Level One Faculty Advisor process, new teachers benefit from the experience of the veteran teachers and VHS Curriculum and Instruction Coordinators that serve as Faculty Advisors, and receive valuable suggestions on how to make the most of their online education experience.

During each week of the semester, Faculty Advisors complete a weekly evaluation checklist of each teacher they are assigned. The evaluation criteria for the checklist are based on VHS's teaching standards and focus primarily on teacher participation, online communication, and feedback to students. Teacher expectations include:

"I had no idea what netcourses were about before I started [NIM]. Many colleagues are skeptical that they will replace face-to-face teaching and make schools obsolete. I have a whole new appreciation for the power of online courses and the interactive nature that makes them successful. They are more than simply downloading information, completing it, and sending it back to an instructor. This course has pushed me to make my classes more rigorous by asking those analytical questions and forcing students to use factual information to determine outcomes and predict future action. I have a greater understanding of how to integrate technology into face-to-face classes and how social networking and creating online projects together can work. This course has really been a great way to review several important education topics and get new ideas and viewpoints from classmates—a really exciting and interesting course."

—VHS teacher-in-training

"The mentor in my first semester was the most beneficial part of teaching a course."

—VHS teacher-in-training

"First, I have gained valuable insights about teaching and learning from interaction with my VHS students, and these insights have helped me to improve the level of feedback I provide to students. Second, the VHS professional development courses have enabled me to gain new technology skills and begin to move toward a blended learning model of teaching in my face-to-face classes. These are two of the many benefits that I have received from my VHS participation."

—VHS teacher-in-training

- Maintaining a current student announcement
- Attending class every day, Monday through Friday
- Taking an active role in discussions to extend student thinking
- Grading student work within a week of submission
- Providing students with frequent constructive feedback

The weekly form evaluating teachers against standards includes a copy of any e-mail correspondence with the teacher and contains a space for anecdotal information. A VHS Administrator reviews all weekly evaluations from Faculty Advisors to ensure that all new teachers and courses are meeting VHS standards.

Faculty Advisors also send their assigned teachers an e-mail weekly, giving them brief feedback (positive and/or negative) on their course and course instruction. Advisors are available for questions or to provide assistance as needed, and regular communication between instructor and Advisor is encouraged.

After the last week of the course, Faculty Advisors complete an end of semester evaluation for each teacher and course they are assigned. Teachers have access to these evaluations once complete. These evaluations help teachers improve their VHS courses and online teaching methods. VHS administration uses these end of semester evaluations to determine whether teachers should be assigned an Advisor who continues to do full weekly evaluations during the following semester or if they have demonstrated mastery of online teaching skills and no longer need the one-to-one mentoring in Level One of the program. The final evaluation form uses the same standards as the weekly form but also assesses the teacher's online voice and whether the teacher has mastered the technology necessary for successful facilitation of the VHS course. Faculty Advisors solicit a self-evaluation from the teacher before the final evaluation is completed. These final evaluations are shared with the teacher.

If a teacher is found to be continually struggling to meet VHS standards, the final evaluation outlines the areas in need of improvement and is shared with the teacher's administration. Teachers who do not meet VHS standards are retained on Level One and continue to receive regular feedback from a Faculty Advisor. The procedure for underperforming teachers is to first warn the teacher that improvement is needed. If no improvement is evident, the teacher is put on probation and specific expectations are outlined. In rare cases of serious infractions, a teacher may be removed immediately by VHS Administration. The goal is always to ensure that the student has the best learning experience possible, so all decisions will be made with that overriding goal in mind. The teacher's school administration is always

included in any faculty sanctions process in the hope that the teacher can be provided with additional face-to-face guidance or structure as needed to achieve a satisfactory rating. It is rare that VHS replaces a teacher, but the final step when working with teachers who do not meet VHS standards is to remove the teacher and replace with a substitute teacher.

A high percentage of VHS teachers demonstrate appropriate development of their online teaching skills within their first year of teaching a VHS course (93% of Level One teachers in the 2010/2011 school year). Teachers meeting VHS online teaching standards progress to Level Two of the VHS mentoring program. VHS teachers who have successfully taught for a semester and are on Level Two are monitored on a less-frequent basis but are given the same support, on an as-needed basis. On this level, teachers are supported by the VHS Curriculum and Instruction team, which works collaboratively with teachers to edit course content and personalize instruction. VHS Curriculum Coordinators are experienced, certified

teachers who hold office hours and department meetings and offer regular webinars on pedagogy and technology to develop teachers' online instructional practice. Curriculum Coordinators become the primary point of contact and support for teachers in the mentoring program.

Maintaining Currency in Online Teaching

Lesson: An effective mentoring program includes a process of continuous improvement.

VHS offers a variety of opportunities for teachers to maintain currency in online teaching. Free webinars are scheduled throughout the year to provide faculty with targeted, just-in-time professional development on topics including project-based learning, creating student-centered blogs and wikis, and facilitating engaging discussions.

While webinar topics vary, they all combine pedagogy and technology use, tying best practices to specific strategies for integrating these practices into the curriculum. Along with webinars, VHS created a professional learning network (PLN) for VHS teachers. Housed within the learning

"I was somewhat skeptical of online courses before I started the process of VHS, but now I am a full proponent and I am strongly encouraging all of my students to take at least one during their high school career. I enjoy the new dimension of interacting with students and other VHS site coordinators and support staff from around the country. I enjoy the high quality and enthusiasm which is shown by the students and the professionalism exhibited by the VHS consortium. It is the most exciting thing which I have recently been involved with in the field of education. I feel that the future is unlimited and look forward to moving on."

—VHS teacher-in-training

management system to allow for easy access, COVE (Community of Virtual Educators), VHS's PLN, contains a variety of discussion forums that allow teachers and VHS staff to share ideas and information. Additionally, COVE features blogs by VHS staff, as well as articles and screen casts that showcase promising practices within VHS courses and highlight effective teaching practices and tools from the wider online learning community.

Research emphasizes the centrality of community and active learning in successful professional development programs (Ferdig, 2011). Therefore, collaboration is the goal of much of the professional development for VHS faculty, both within and outside of COVE. To enable teachers to work together, Curriculum Coordinators hold department meetings and virtual office hours. This allows Curriculum Coordinators to facilitate cooperative approaches to course updates and to encourage teachers to work together to integrate new assignments and teaching strategies into their courses and to share with each other best practices based on their own experiences teaching VHS online courses. Focus groups have also provided a way for VHS staff and faculty to collaborate on new initiatives and to explore new policies and practices.

In addition to these opportunities, VHS has offered faculty interested in deeper learning a tuition-free seat in its 21st Century Teaching Best Practices series of graduate-level courses, which are also offered to the general public.* Best Practices courses are eligible for three graduate credits, and interested teachers can earn a Certificate in Online Teaching upon completion of all five courses. VHS Best Practices courses scaffold instruction to immerse participants in varying levels of technology-rich teaching and learning, moving from an introduction to 21st century teaching and web-enhanced classroom environments to blended learning, Web 2.0 tools for collaborative instruction, and effective online facilitation (see Table 1). The capstone course, "Becoming an Online Teacher," also provides VHS master teachers an opportunity to mentor teachers who are new to online learning through a virtual teaching practicum in an active VHS middle or high school course in their discipline.

Table 1-1 21st Century Teaching Best Practices Courses

COURSE	FOCUS
21st Century Teaching & Learning	Explores the technology literacy and Information and Communication Technology (ICT) skills needed for effective 21st century teaching and learning
Web-Enhanced Classroom	Prepares face-to-face teachers to incorporate online resources into their classroom instruction
Online Extended Teaching	Enables teachers to promote active independent learning experiences for students by joining the best features of in-class teaching with online learning in a blended approach
Web 2.0: Collaborative Instruction	Gives educators hands-on experience using Web 2.0 tools so they can generate new and exciting learning experiences for students of all abilities and learning styles
Becoming an Online Teacher	Gives participants the opportunity to experience online teaching by partnering with a VHS online master teacher in an established middle or high school course

How Lessons Learned Point the Way to Future Mentoring Programs

> ***"Becoming a VHS teacher has renewed many parts of my teaching philosophy that have been pushed to the back burner. I hope that the online environment will allow me to be a better teacher to ALL of my students."***
>
> —VHS teacher

VHS Best Practices graduate-level professional development courses were developed from lessons learned from VHS's depth of experience in online teaching. Through these courses, VHS is able to share research, pedagogy, and technology-integration strategies with a wider community of educators, as well as with VHS faculty, following the TPACK model (Milman, 2011). As blended learning gains traction in K-12 education, VHS has identified new opportunities for online professional development and teacher mentoring. VHS teachers and member schools are eager to bring more of what they do in the online VHS classroom into their face-to-face teaching. While many educators continue to turn to the VHS certificate program for training, other educators are seeking less time-intensive learning opportunities. Moreover, many school leaders are interested in structuring relevant, job-embedded professional learning into teachers' busy lives. To meet the increasing demand for quality professional development that will enable educators to move into a blended teaching model, VHS is expanding and diversifying its online professional development catalog. First, VHS offers short, ten-hour learning modules that will combine a synchronous webinar with asynchronous, cohort-based learning. These modules will target specific competencies in an action-oriented approach, where participants will take what they learn and immediately put it to use in their classrooms or schools. Second, VHS offers content-specific professional development to assist teachers as they integrate the Common Core Standards into their curriculum. In this way, VHS will be able to continually meet the needs of its teachers and member schools, as well as the larger community of K-12 educators.

About the Authors

Liz Pape is the president and CEO of The VHS Collaborative (VHS) pioneers of online learning for high school students and online course design for teachers. Liz has more than 15 years of experience helping K-12 schools to develop a 21st century learning model. Under her management, VHS has grown from 28 member schools and 30 classes offered to a worldwide consortium of over 650 member schools and 396 teachers in 33 states and 32 countries. An award-winning online education expert, Liz regularly shares her expertise in K-12 online education by speaking nationally at numerous education and technology conferences. She has served on the Board of Directors of the North American Council for Online Learning (NACOL), Blackboard Idea Exchange Steering Committee, and DOME (Diversity and Outreach in Mathematics and Engineering) Foundation. She has served on the U.S. Department of Education National Online Education Policy Forum and the NCREL Blue Ribbon Panel for Online Education.

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Amy Michalowski is the manager of Educational Initiatives at The VHS Collaborative. She is responsible for managing VHS's accreditation and overseeing provider approvals at the state level. She also works closely with the VHS leadership to determine feasibility of new program initiatives and to support grant opportunities. Amy also manages VHS's Academic Advisory Board and works closely with the director of Curriculum and Instruction to ensure that education programs are of consistently high quality. Amy has developed a number of online courses for VHS and has taught many courses, including various professional development courses. Prior to joining VHS, Amy worked for the Westborough Public School system in Westborough, Massachusetts, and for Genzyme in Allston, Massachusetts. Amy holds a Bachelor of Science degree in Biotechnology from Worcester Polytechnic Institute and a Masters in Education in secondary education.

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CHAPTER

2

Innovative Teacher Mentoring Program for Blended Online Learning: An evolution to life-long collaborative mentoring and professional learning communities

Heather O'Mara and Joyce Gietl
Hope Online Learning Academy Co-Op

Abstract: *Teacher mentoring has long been used by traditional schools as a tool to develop effective teachers. Twenty years ago, online learning appeared on the scene and set a new spin on teaching and learning, presenting the question of how, then, has teacher mentoring changed. This chapter will describe a blended online learning school utilizing an innovative community-based education model, the expanded role teacher mentoring takes as a central and core value of this school, and the lessons learned through the six-year journey as the teacher mentor program evolved and transformed.*

Key words: *effective teachers, teacher mentor, blended online learning, online mentoring*

The importance of quality classroom teachers, as it relates to student performance, cannot be over-emphasized. A multitude of studies have been conducted in the brick-and-mortar environment and have proven that effective teachers are key to improved student performance. Darling-Hammond and Youngs (2002) summarize that student achievement gains are much more influenced by a student's assigned teacher than other factors like class size and class composition. The question is *how* to produce effective teachers.

Darling-Hammond and Sclan (1996) state that more than forty years ago, as the teaching profession explored strategies to produce more effective teachers, what emerged was the formal mentoring program. This practice proliferated across the fifty states, and in some cases—such as New York, Wisconsin, Iowa, and Illinois—mentoring programs have been mandated.

Wong (2004) maintains that mentoring programs are good but cannot be effective as a standalone approach. Mentoring is a component of induction, which is a "system-wide, coherent, comprehensive training and support process that continues for two or three years and then seamlessly becomes part of the lifelong professional development program of the district to keep new teachers teaching and improving toward increasing their effectiveness" (p. 42). Indeed, induction programs became an outgrowth of the original teacher mentor programs and today, in some states, induction programs have become a statutory requirement.

Wong's contention is a part of the widespread evolution of thinking regarding a connection he makes between the well-executed professional learning communities and student learning. Teacher effectiveness does not happen in isolation but through collaboration and carefully developed planning. According to Wong (2004), "Learning to teach is a developmental process that takes several years. What is important in the life of a new teacher is the presence of a district articulated, coherent, lifelong professional development program" (p. 48).

The most current thinking on brick-and-mortar teacher mentoring can be summed up as follows:

> *The Annenberg Challenge Foundation reported on high schools that are reforming teacher learning by bringing teachers together to focus on improving instruction. Teachers work together to focus on improving instruction. Teachers work together, creating collaborative teams that analyze and critique each other's work. They situate collegial teacher learning at the school as a routine part of the workday and make public the work of teaching, sharing with the larger community what has been learned. Collaboration supports sustainability where teachers feel they are working together to benefit students and the district at large with a collegial mindset and in a collaborative culture. (Rothman, 2002–2003)*

Mentoring in the online and blended online learning environment

Online learning is known by many different names: distance learning, virtual schools, virtual learning, e-learning, electronic learning, digital learning, and more (Barbour et al., 2011). But no matter what the name, its growth over the past 20 years has been exponential. Numbers of K-12 online students in 2010 were estimated at as many as one million, or roughly 2% of the K-12 population, as reported by Lips (2010, para. 3).

Online program models vary widely

Explaining the types, categories, and variations of online learning is complicated and multifaceted. The "traditional," original online program model consists of a student located remotely from the school location, usually in his/her home, utilizing technology such as a computer, phone, and software curriculum, supported by an adult on location and a certified teacher at a distance. One definition for this type of online learning is "education in which instruction and content are delivered primarily via the Internet" (Barbour et al., 2011). This is in direct comparison to face-to-face learning, which places the student and teacher in the same location with direct contact for teaching and learning and is typically referred to as a brick-and-mortar setting.

According to the Keeping Pace report (Watson, Murin, Vashaw, Gemin, & Rapp, 2011), the evolution of traditional online learning is beginning to merge with face-to-face for what is referred to as blended learning—the fastest growing segment of online learning. Many iterations of blended learning are currently in practice, but for purposes of this writing, we will adopt the definition of Staker (2011), "Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path and/or pace" (pg. 5).

Little to no scholarly research in online teacher mentoring

Much has been written and researched regarding teacher mentoring in the face-to-face teaching mode. But with only a 20-year track record and yet no stability to its form, online learning is still clearly in its infancy. This explains why little, if any, scholarly research has been identified by these authors regarding teacher mentoring in this new field. A special report from the North American Council for Online Learning, entitled "Online Teacher Support Programs: Mentoring and Coaching Models," describes the mentoring practices of eight online programs in the United States (Wortmann, Cavanaugh, Kennedy, Beldarrain, Letourneau, & Zygouris-Coe, 2008). They vary widely in breadth and depth, but most included the following elements:

- Personal and professional reflection
- Sharing of expertise to others with common interests

- Portfolio development
- Learning communities
- Professional development planning for both mentor and mentee/protégé
- Short-term collaborations through co-teaching or team teaching

This chapter describes a yet to be publicized, seasoned and successful blended online learning program, Hope Online Learning Academy Co-Op (Hope Online), its mentoring program, and how it has developed and matured over the past six years.

Hope Online: An innovator in education reform

Hope Online has been a quiet innovator in education reform since 2005. Its innovative model has experienced continuous improvement over the past six years; its enrollments have stabilized at 3,000 full-time students; and it has sustained financial stability without grant supplementation in spite of the low per-pupil state funding allocation and recent severe budget cuts. Adopting blended online learning in 2005, long before it became a trend in 2010, Hope Online is one of a limited number of public online schools in the nation to provide a full K-12 educational program, having granted high school diplomas to almost 600 young Colorado citizens.

Mentoring, or the act of assigning a more junior staff member to a more experienced staff member to assist the junior member with his/her career, is at the core of Hope Online's value system and at every level of its operating model. The effectiveness of the "in-house" mentoring program and the unique expansion to a network of community-based Hope Online "classrooms" encompassing hundreds of participants is not only unique but also worthy of scholarly attention.

Hope Online background and model

In order to fully understand the mentoring program of Hope Online, it is first critical to be aware of its history and innovative model. Hope Online was founded in 2005 as an online public charter school to provide free online education for students who are historically underrepresented in the online education system because of access issues. This K-12 school, with 45 locations in Colorado, serves a very diverse population identified as 79% non-white, 63% free/reduced lunch eligible, and 37% who qualify for English as a Second Language services.

Most Hope Online students are challenged in some way. The majority has intense learning gaps. Many have high mobility or significant dropout risk factors such as prior expulsions and failing grades. Forty-nine percent of students in grades 2–5 have been in three or more schools in the last three years. Research shows that these students are two and a half times more likely to repeat a grade than students who have never changed schools. They are at risk for gaps in achievement, failing grades, behavior and social-emotional issues, and

dropping out of school. As its name implies, Hope Online Learning Academy Co-Op was conceived as a cooperative. The first educational model of its kind in the United States, it is comprised of three essential elements: The Authorizer, The School, and The Classroom.

The Hope Online Model

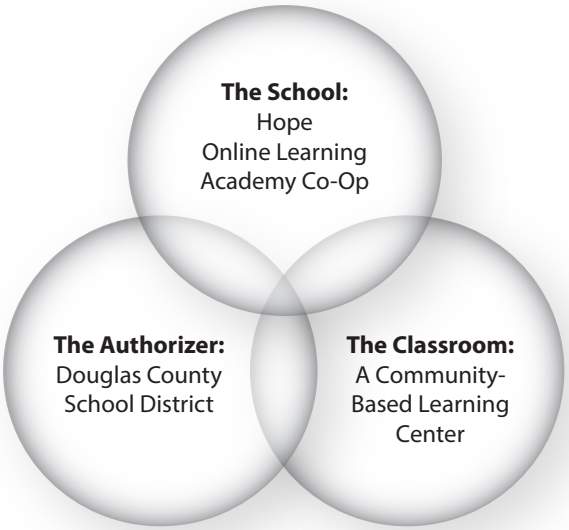

Figure 2-1 The Hope Online Model

The Authorizer: District authorization is one of two methods by which charter schools may operate in the state of Colorado. Hope Online's authorizer is the Douglas County School District, a leader in public education and third largest district in Colorado. Authorization is achieved through a rigorous application process and approval from the district Board of Education and is subject to renewal. Douglas County provides Hope Online with high-quality guidance, support services, and general governance.

The School: Hope Online is a school designed to equalize access to online education and provide students with an alternative opportunity for academic success. Hope Online's educational program utilizes a blended online teaching methodology. It is individualized, dynamic, and engaging, playing a significant role in reaching and educating students who are not performing at grade level. It is supported by a strong academic team including Colorado-licensed, highly qualified teachers.

The Classroom: Community-based Learning Centers serve as the remote classrooms for Hope Online. They are community-based organizations that wish to partner with Hope Online to provide quality education opportunities to Colorado's at-risk population. Students and parents select a Learning Center from the 45 locations in Colorado. The Learning Center offers students an online classroom setting with computers, Internet connections, and qualified Learning Center Mentors/paraprofessionals who support individualized student attention. It represents a "safe" place, consistency and stability in schedules and expectations, and an individualized, nurturing environment that encourages academic growth and achievement.

Hope Online has stimulated community education investment. Seventy-six percent of Hope Online's Learning Centers have been established as new, non-profit businesses by community leaders. These social entrepreneurs support 70% of Hope Online's students—representing yet another positive role model for the students they serve.

If this innovation, focused on the disenfranchised student, was going to be successful, it had to address the "whole child" and develop a "child-centered" and individualized education program supported by a teaching model powerful enough to address the challenges of this student population.

Child-Centered Teaching Model

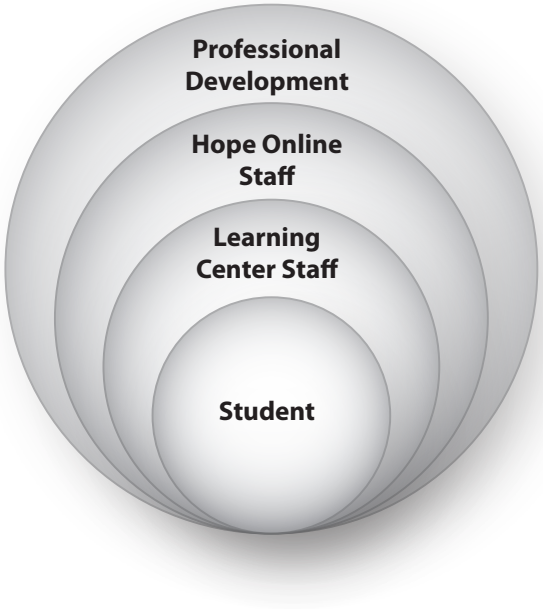

Figure 2-2 Hope Online's Child-Centered Teaching Model

The **Student** is nestled in the center of Hope Online's Child-Centered Teaching Model. Instructional teams surround the student to provide a comprehensive, supportive, success-oriented educational environment. The following student stories are examples of the powerful effect of the Child-Centered Teaching Model.

A second grader at a Hope Online Learning Center in Aurora, Colorado, Tony was headed down a very bad path. He was agitated and disruptive in class and bullied other children, regardless of their ages. The concern was so great that he was moved to another classroom in hopes he would fit in better, but his behavior continued, picking fights with classmates and discussing inappropriate topics such as guns and drugs. His Learning Center Mentor did not give up on Tony, understanding the crises that fostered his behavior. One day Tony observed the advanced work his older classmates were doing and asked if he could do it too. His mentor explained that he could not skip lessons but that he could work at his own pace to advance. That captured his attention.

Since that day, Tony has studied relentlessly, even asking for permission to use his breaks to study. With his mentor's help and tracking of his performance and progress, Tony understands how to move ahead and is committed to it. He is no longer interested in starting fights.

Salvador came to a Hope Online Learning Center from Mexico two years ago. He could not speak, read, or write English and did not read or write in Spanish either. Last year he was two years behind in his reading and was struggling to maintain a pleasant attitude. The Reading Specialist, Hope Online teacher, and Learning Center Mentors worked all last year with him and observed him beginning to make progress. Checking in today, Salvador is reading at grade level and loves school. His teacher says he is one of the best students in her class, and he is so pleasant to work with now!

Tony's and Salvador's stories are not uncommon to Hope Online.

Another success story is Kyle. Until Kyle enrolled in a Hope Online Learning Center in Brighton, Colorado, his educational environment had been chaotic, and in his words, ". . . none of my teachers ever helped me." He struggled with old patterns of thinking but experienced a surprising revelation: ". . . my Learning Center Mentor helped me with whatever problem I faced and did not tolerate any bad attitudes."

That kind of support propelled Kyle toward graduation in 2011. He is currently enrolled as a freshman at Front Range Community College and has a part-time job working for the Learning Center and assisting his Learning Center Mentor with middle and high school classes.

Encircling the student as the first level of support in this model is the **Learning Center Staff**. The staff, consisting of Learning Center Mentors and Learning Center Directors and Managers, provides instructional support and classroom management to students all day, every day in a small classroom setting (average ratio of 1:14). At a minimum, Learning Center Mentors are qualified paraprofessionals who meet the national standards of the No Child Left Behind Act. Recent staff statistics reveal 38% of Learning Center Mentors hold an associate's degree (at least 48 hours of college work) and/or paraprofessional certification, 19% hold a bachelor's degree, 14% possess a master's degree, and 28% are licensed teachers.

Learning Center Mentors play a key role in providing social growth and development for students by facilitating students with their daily lessons and classroom activities, both online and offline. Learning Center Mentors are responsible for providing supervision at the Learning Center, monitoring attendance and progress, and ensuring that students are focused on learning. They work collaboratively with Hope Online teachers, closely following their instructional lead.

All **Hope Online Teachers** are Colorado-licensed and Highly Qualified according to No Child Left Behind standards. Three types of teachers work directly with Hope Online students. The *General Education teachers* are assigned, on average, to 125 students in one to three Learning Centers. As a collaborative member of the Learning Center team, they lead group and individual instruction, facilitate students and Learning Center Mentors with daily school lessons and curriculum questions, provide suggestions regarding teaching strategies, monitor academic progress, and assign

student grades as the "teacher of record." They travel between their assigned Learning Centers on a regular schedule and are available in person, by email, and by phone.

A staff of *Reading Specialists* serve students by evaluating and working one-on-one to increase grade-level reading skills. They work with core curricula and address individual student academic gaps through the use of Hope Online's multiple reading intervention programs.

Learning Specialists provide specialized teaching support and evaluation for students who have or need an Individualized Education Plan—about 5% of the Hope Online student population. Learning specialists follow a strict set of regulatory guidelines to provide a free and appropriate education to special needs students.

Encircling the instructional teams is **Professional Development**. Best teaching practices, research-based teaching strategies, and curriculum training are made available regularly to the instructional teams, including Learning Center Mentors, Learning Center Directors, and all Hope Online teachers. A minimum of six days is set aside each school year for professional development for all instructional staff. Hope Online teachers meet twice monthly for full days of additional training and collaboration and, in turn, provide training to Learning Center Mentors throughout the year.

Hope Online adopted a blended online teaching model in part to satisfy different student learning styles. It also was apparent that students in grades K–3, with their shortened attention span, required more active participation in the learning process than the online curriculum could always provide. And, just as no textbook is all-inclusive and requires supplemental materials, so does online curriculum require supplementation. Over the past six years, coordinated offline supplemental and intervention materials have been developed and integrated into the curriculum by the Hope Online teaching staff. Students are tested throughout the year to determine grade-level placement in all core subjects, and curriculum is individualized to the students' needs.

Determined to serve the "whole child" in a child-centered educational program, as well as expand access to blended online education, Hope Online created this unique model, leveraging the power of a partnership between community organizations and leaders and an online public charter school.

- Students attend community-based Learning Centers that contract with Hope Online. The Learning Center provides a safe and nurturing environment, complete with online and offline curriculum and trained Learning Center Mentors. These are the "classrooms" of Hope Online and may be found in strip malls, churches, office spaces, etc.
- Qualified Learning Center Mentors (paraprofessionals) serve as role models and facilitators to motivate and encourage students, while working closely with the Hope Online state-licensed teacher of record.

- A team of state-licensed teachers, reading specialists, special education teachers, health services, student services, and technicians provide daily academic, emotional, and technical support to all Hope Online students.
- Small, safe classrooms with low student-to-adult ratios and curriculum tailored to the students' academic level speeds the closing of identified learning gaps.
- The first federally funded free/reduced lunch program in an online school feeds students through optional lunch and breakfast programs.

Mentoring at the core of the Hope Online value system and operating model

Before entering into the discussion of teacher mentoring in this blended online program, it is important to note that the Hope Online teacher job description differs significantly from both a face-to-face teacher's and a traditional online teacher's. Because of the unique Hope Online model, a Hope Online teacher is similar to an itinerate teacher who is assigned to more than one location where they are responsible for multiple grade levels. In addition to their instructional duties, the Hope Online teacher is responsible for building rapport with the adults in the Learning Center and providing a "mentoring" relationship with the Learning Center Mentors. This dual role of instruction and site administration requires a unique skill set for effective teachers.

Such a challenge is important to address with all teachers, but essential for new Hope Online teachers. An induction program with mentoring as a strong component was developed to assist new Hope Online teachers with two distinct purposes in mind: teacher retention and developing teachers who can produce student achievement results.

The Hope Online Induction Program

The ***goals*** of the Hope Online Induction Program are:

- To assist inductees in understanding and demonstrating the Colorado Performance-Based Standards
- To provide consistent opportunities for inductees to meet with a Hope Online mentor teacher for support in all aspects of their job responsibilities
- To provide training for Hope Online's online curriculum, supporting technology, literacy and math instructional strategies, and strategies for providing individualized instruction
- To provide on-going professional development with the entire Hope Online teaching staff on developing and sustaining professional learning communities
- To increase the retention rate of high-quality teachers at Hope Online

Successful completion of the Induction Program requires that the new teacher meet the following ***objectives***. The inductee will:

- Attend all Induction seminars and Hope Online professional development sessions as evidenced by the Professional Development Log
- Meet with their mentor for no less than 25 hours as evidenced by their Mentor Log
- Complete a mid-year self-evaluation
- Write and turn in a Reflective Essay focused on what they learned during the Induction Program
- Receive a satisfactory Performance Evaluation from the Chief Academic Officer
- Complete an exit survey to provide feedback on the Induction Program

The Induction Program consists of ***three basic components***: Professional Development sessions, Individual mentoring, and the Reflective process

Each new Hope Online teacher is assigned a teacher mentor to support them throughout their first year in the organization. The mentor is a successful Hope Online teacher, experienced in all aspects of the role and responsibilities. The mentor is responsible for supporting the new teacher with:

- Instructional strategies, both offline and online
- Standards and curriculum
- Individualized instruction
- Management issues (classroom management, scheduling, grading, etc.)
- Development of individual professional goals for evaluation
- Working successfully with students, colleagues, and community
- Assessment (administering and utilizing data to impact academic achievement)
- Utilizing technology efficiently and effectively

The Chief Academic Officer is responsible for selecting the mentors and matching them with the mentees using the following qualification criteria:

- A master's degree in Education
- At least three years of successful classroom teaching experience
- At least two years of successful experience as a Hope Online teacher as demonstrated by an excellent Performance Evaluation
- Familiarity with the Colorado Professional Educator Standards and the Hope Online curriculum
- Competency with all technological requirements of the Hope Online program

- Previous experience working effectively with adults in a mentoring capacity
- A commitment to developing a collaborative relationship with the Learning Center Director/Mentors and students at each Hope Online Learning Center

Mentors are carefully screened and trained prior to taking on this important role. In addition, they have the on-going support from an Instructional Support Team Consultant and access to the Chief Academic Officer. Training focuses on developing professional goals and specific steps to reach those goals, crafting questions that promote reflective thinking, strategies for developing and sustaining collaborative professional relationships, and optional Cognitive Training from the Douglas County School District.

Mentors are required to spend 25 to 30 hours with their mentees, supporting the new teachers in the following topics:

- Instructional strategies, both offline and online
- Standards and curriculum
- Individualized instruction
- Management issues (classroom management, scheduling, grading, etc.)
- Affiliation as it relates to the students, colleagues, and community
- Assessment (administering and utilizing data to impact academic achievement)
- Utilizing technology efficiently and effectively
- Cultural influence on student achievement
- Adult learning theories
- Communication and customer service
- Development of individual professional goals for evaluation
- Reflection upon instructional practices

Evolution of the formal mentoring program

This formal mentoring program is consistent with many other schools—both brick-and-mortar and online—yet is customized to Hope Online's unique educational model. For the most part, the communication is face-to-face or by phone and occasionally email. Not many differences could be noted between this mentoring and brick-and-mortar practices. The program proved helpful, but Hope Online soon began to question whether a single mentor could give enough support in this complex environment. Hope Online's experience reinforces the theory that evolving instructional-support models have forced teachers to expand their mentor relationships to include different perspectives and areas of expertise. Important advice may be coming from an array of sources: literacy and math coaches, data specialists, special education counselors, technology

coordinators, advisors outside the immediate organization, such as university coaches, qualified board members, and authorizing district staff, or others (Barlin, 2010).

In this scenario, Barlin (2010) contends that it then becomes necessary to integrate these different mentoring messages into something consistent and aligned. Hope Online has taken the first step in aligning these messages, identifying them by type and adopting the high-level typing provided in the iNACOL report "Online Teacher Support Programs: Mentoring and Coaching Models" (Wortmann et al., 2008). They include the following:

- **Task-based mentoring** focuses on an individual's short-term need to improve a skill or acquire knowledge in order to fulfill a new role.
- **Experience-based mentoring** pairs an individual who is new to an organization or a role with a mentor who has experience in that role.
- **Just-in-time mentoring** matches mentors with individuals who have an unanticipated need for assistance.
- **One-on-one mentoring** centers on a single mentor working with a single mentee.
- **Team mentoring** joins groups of mentors with groups of mentees.
- **Formal mentoring** involves explicit expectations of the mentoring process and/or outcomes by specifying such characteristics as timelines, achievements, progress reporting, benchmarks, and communication formats.

As Hope Online recognized the need for expansion beyond a single mentor, the instructional leadership team identified experience-based, task-based, and just-in-time mentoring from a variety of sources in the Hope Online organizational infrastructure as necessary. In addition, administrative mentors emerged from the instructional leadership team, providing one-on-one advice and helping to coordinate a consistent mentoring message from the multiple-mentoring approach. Often this counsel mushrooms into teacher workshops and professional development topics to the advantage of all teachers—not just the new.

Other just-in-time and experience-based mentoring from health services, technology, student services, and special education learning specialists occurs as the need arises. Hope Online supports a strong communication network and by nature of its size (80+ employees) is quick to respond to mentee needs.

Communication between mentors and mentees varies by circumstance. Teachers are typically in the field but come together every other Friday for collaborative work. All teachers are equipped with technology tools such as laptop computers and smart phones. Opportunity is available to them to have face-to-face communication, as well as electronic communication via email, text, chat, telephone, and Skype. Because our teachers utilize technology tools on a daily basis, they are comfortable with all modes of communication. Through the guidance of the mentor and personal experience, mentees learn the appropriate mode of communication for the topic to be discussed, i.e., the more sensitive the topic, the more important it is that the communication mode chosen is real-time and personal, such as phone or face-to-face.

Sandra Fritz, Hope Online Math Specialist and mentor, describes the way various communication modes address different mentoring needs:

> "A great deal of mentoring support can occur through phone conversations, email, or other electronic means. It's a great time-saver and provides almost instantaneous assistance or feedback. In a blended learning environment, where the teacher is present and interacting face-to-face with students, it's also critical for the mentor to observe and provide face-to-face mentoring." (personal communication, December, 2011)

Hope Online calls its mentor model "blended mentoring" for blended learning

Moving yet another step beyond multiple mentors, Hope Online has adopted the current thinking on mentoring, as described earlier in this chapter regarding Wong's theory that teachers learn best from collaboration. He states,

"Teachers remain in teaching when they belong to professional learning communities that have, at their heart, high-quality interpersonal relationships founded on trust and respect. Thus, collegial interchange, not isolation, must become the norm for teachers. The era of isolated teaching is over. Good teaching thrives in a collaborative learning environment created by teachers and school leaders working together to improve learning in strong professional learning communities" (2004, p. 50).

Subject to this belief and in addition to the formal induction program and multiple mentor practice, Hope Online has developed a plan for lifelong collaborative learning through "team mentoring." This team mentoring includes all new and returning teachers and consists of:

- Full-day faculty meetings (teacher workshops) twice a month
- A two-week intensive professional development session before school starts in the fall
- Three weeks of collaborative team and study groups during the month of June

A small sample of the topics covered in these sessions includes:

- Core reading instruction expectations and strategies
- Knowledge of how number sense evolves and strategies for supporting development of these skills
- Training and coaching in the Sheltered Instruction Observation Protocol (SIOP) Model for second language learners
- Hope Online Response to Intervention (RtI) Process
- Knowledge in using assessment data to drive instruction

- Content and pedagogical knowledge to understand how to fill in gaps in student learning
- Strategies to support students, families, and Learning Center staff

Annual teacher surveys show trends that through focus and clear, consistent expectations, teacher efficacy is rising as teachers believe that they are positively impacting student learning. As one Hope Online teacher stated, "The dramatic benefit I've gained in my ability to be effective in teaching all subject areas can be directly linked to Hope Online's intense instruction in the elements of teaching students to read."

Various communication modes

As the Hope Online Instructional Team continues to adjust and improve its professional development program, they have taken advantage of a variety of communication modes that are serving them well. One of the most important outcomes for teachers is that all information they learn through professional development must be transportable. They model teaching methods toward that end, including, for instance, small group discussions, team teaching, independent work groups, direct instruction, and project-based assignments, all of which may be used at different times with students.

This structure is dependent on its ability to be replicated in Learning Centers, as teachers work to facilitate positive learning outcomes for students and for increased academic efficacy for Learning Center Mentors. The more alternatives there are for facilitating student understanding and proficiency, the more likely it is that Learning Center Mentors will continue to seek new and challenging ways to engage their students.

The Hope Online Instructional Team has also introduced a one-on-one mentorship with central academic staff and Learning Center staff. Members of the team are assigned to specific Learning Centers as active, weekly contributors. Clearly, this is labor intensive and calls for the need for more personnel; however, it has shown positive effects in every instance.

The academic staff relies more and more on the use of technological communication and tools through Moodle, Skyping , and iPads, and through the use of Google Docs. Teachers are expected to communicate through email and, of course, over the phone with students, Learning Center Mentors, or parents who have questions.

Communication is an ongoing and omnipresent need. The leadership at Hope Online continues to look for options that allow effective, efficient communication while ensuring no loss of the human aspect that is critical in the work of teaching and learning.

The progression of professional development

Professional development has increased in frequency and focus from two to six days over the past six years. In 2007–2008, Hope Online contracted with Douglas County to provide a two-day professional development training based on Wong's strategies to start the school year off right (2004). In 2008–2009, Hope Online

continued to contract with Douglas County, and the four required professional development days across the year were focused on RtI, Colorado English Language Acquisition (CELA), and Colorado Student Assessment Program (CSAP) training.

Starting in 2009–2010, five days of professional development were required throughout the year. The focus of these days aligned with the school improvement plan that was developed by the Hope Online Instructional Team. Content focused on offline reading instruction, aligned with the revised Colorado Content Standards and Common Core. In 2010–2011, professional development continued to focus on the reading learning targets and developing a literacy block.

In 2011–2012, six days of professional development are required. Content for this school year is focused on reinforcing reading instruction, introducing math assessments, and learning targets and instruction, as well as providing offline science lessons.

Hope Online was placed on Academic Turnaround Status in 2010. The 2011 upgrade to Academic Priority Improvement status is fairly attributed, at least in part, to the quality and intensity of the professional development provided. In addition, it is noteworthy that Hope Online has been able to impact the number and percent of students performing unsatisfactorily. Longitudinal research of student performance on state tests has found that it is more difficult to impact students who are lowest performing (Dee & Jacob, 2011; Choi, Seltzer, Herman, & Yamashiro, 2007).

The trial, error, and recalibrating of mentoring design

Hope Online Learning Academy Co-Op began its operations in 2005 with a staff of ten and 41 Learning Centers with approximately 85 employees and 1,500 students. Training and professional development of the staff consisted primarily of online curriculum training. No one-on-one mentoring or induction program had been developed yet but soon followed in a very preliminary form in 2006.

With the addition of Sherida Peterson, Chief Academic Officer, in 2007, two professional development days were scheduled and more focused faculty workshops and meetings were introduced. A revised induction program was approved by the authorizing district, Douglas County, and the Colorado Department of Education in 2008, when the first formal mentoring program began and professional development days were doubled. Even then, most mentoring was done with face-to-face communication. With the exception of the Hope Online customization of types of mentoring topics, the methodology looked much the same as in brick-and-mortar schools.

Still, Hope Online was deeply concerned that student achievement was not improving. Granted, students almost always come to Hope Online below grade level while retention rate was barely at 40% year after year, but the Instructional Leadership Team was determined to find a solution to move the student performance needle. It was time to reform teaching practices.

A potential solution surfaced over the next couple of years through the aggregated and repurposed mentoring experiences of the senior academic staff, representing past lives at a variety of Colorado school districts, as well as thoughtful forward thinking. Recognizing that the Hope Online model is truly unique—the only one of its kind in the country and with no history for guidance– Hope Online leaders thought innovatively about all aspects of the school's operation.

Three elements of change transpired: 1) the hiring process, 2) the multiple-mentor concept, and 3) the lifelong collaborative mentoring process.

Hope Online teachers are not only state-licensed teachers, they also teach more than one grade level in a blended environment of online and offline curriculum and serve as site coordinators for more than one location, requiring them to build rapport with the Learning Center staff and to mentor the Learning Center Mentors. This requires a skill set different from the traditional classroom teacher. The process of finding and recognizing this unique set of skills took time to refine.

As the academic team reviewed the original teacher job description, they realized that it did not properly reflect the position. It needed to be broader and deeper than a traditional classroom teacher job description. This would more fairly represent the expectations to incumbents and provide a useful guide for evaluation. In addition, a more representative job description would help the interview team stay focused on the essential qualities and skills needed for success.

The result was a revised job description, broken into three equally important parts: responsibilities, experience, and necessary skills. The following list highlights additions of emphasis under teacher responsibilities:

- Independent time management—teachers are on their own in the field and cover more than one physical location
- Collaborative team work—highly intense every-other-Friday training during the school year and through the month of June and early August
- Balancing and integrating the management and training of Learning Staff with student monitoring and instruction
- The ability and desire to teach across grade levels and disciplines
- The ability and desire to persistently seek and identify solutions to meet the needs of the "whole child" as it relates to and affects successful learning

Experience and skills warrant equal status in this revised job description. Based on the population Hope Online serves, the job description requires significant experience with generally at-risk students, as well as ELL students *and* their families. Candidates must demonstrate technical aptitude, as well as viable experience with various technologies and web-based/online curricula. High levels of diplomacy and cultural sensitivity are necessary skills for this position, and a strong sense of humor is extremely favorable.

As the academic team honed the teacher job description *and* learned from the feedback of teachers who did not possess the necessary skill set or desire to do this work, one key, less tangible characteristic surfaced:

The candidate must demonstrate maturity and passion—passion for the work and passion for Hope Online's student and Learning Center population.

As stated earlier in this chapter, the practice of a single one-on-one mentor, though effective, was too limiting in the complex, multifaceted position of the Hope Online teacher. The one-on-one formal mentor program for induction was not abandoned, but the less formal cross-functional, multi-mentor practice was adopted to enable experience-based, task-based and just-in-time mentoring for all new and returning teachers.

And finally, in Hope Online's tradition of innovation, it searched for forward-thinking ways to add continuous improvement to their teaching quality. With the assistance of Wong's theories of lifelong collaborative mentoring and professional learning communities (2004), Hope Online has developed a high-performance culture where affiliation is highly valued, networks are encouraged, and learning is turned over to the learners in collaborative group settings throughout the year.

The efforts made to enhance and expand teacher mentoring at Hope Online have resulted in improvements in two targeted areas.

1. ***Teacher retention***, as evidenced by the fact that only three teachers since the 2009–2010 school year have left on their own accord to pursue other careers or different teaching models.
2. ***Improved student achievement***, as evidenced by the improved academic status from Turnaround to Priority Improvement and the trending movement of students from the lowest performance on statewide testing to higher levels.

Mentoring in a larger context at Hope Online

Mentoring has been identified as a core value that permeates the Hope Online culture. According to Sherida Peterson, Chief Academic Officer, "Mentoring is equal to academic proficiency and is a commitment to improving our craft. It is at the heart of developing active learners, not passive students." (personal communication, December, 2011)

In the first two years at Hope Online, training for Learning Center staff was focused on operational procedures and beginning computer skills. It was not until 2007 that Learning Center staff joined the Hope Online teaching staff on the professional development calendar.

During the 2009–2010 school year, Hope Online adopted a philosophical working mission, based on research from the Center for Student Engagement and the Center for Student Aspirations. Four pillars focus all work around Attendance, Affiliation, Achievement, and Aspirations. In order to achieve success with this undertaking, it

was clear that every layer of the organization—from student to Learning Center staff to Hope Online academic staff—would need to fully understand and live the mission.

Each year the commitment to collaborative group work through Professional Development has expanded and improved. In 2011, Hope Online was awarded a Title I School Improvement Grant. The implementation of this grant requires all Learning Center Mentors and Directors serving students grades K-5 to attend six training modules on classroom and behavior management within the 2011–2012 school year.

Directors also agreed to participate in five additional "Leadership Institute" professional development days. These collaborative learning opportunities are focused on teaching Learning Center Directors to use multiple sources of data for improvement and how to focus on instructional programming in the Learning Center. These learning days also allow for the much-needed time to collectively problem-solve common issues faced by all Learning Center Directors.

Figure 2-3 Increase in required professional development days

New and more affordable communication technologies have allowed collaborative group mentoring sessions to be structured in a variety of ways. All professional development was initially presented in a face-to-face format. Due to the distance between Learning Centers, alternative formats were explored. In 2009–2010, Hope Online used video conferences for its most remote locations, but it failed to produce the desired results. The streaming was inconsistent and disruptive, contributing to a quick loss of audience attention. As a next alternative attempt, Hope Online moved to a webinar format for certain sessions. This, too, proved to be less than ideal. Participants did not feel obligated to attend or to be attentive to the material. It was difficult to encourage and monitor collaborative work and to measure success in this format.

Though webinars and face-to-face communication modes are still utilized by Hope Online, most recently Moodle lessons are being developed and posted on Hope Online's Google Docs website. So far, this has produced satisfactory results, engaging the audience while

providing opportunity for collaborative work and learning from one another. Not only does Hope Online utilize blended learning for student curriculum, but the school also finds the blended approach effective for professional development.

To more deeply enrich the professional learning community for Hope Online teachers and Learning Center staff, two outside resource programs have been developed.

- The Alternative Teacher Licensure Program with Douglas County School District affords Learning Center Mentors the opportunity to earn a Colorado teacher license, a potential second career, while still working.
- Scholarships connect Jones International University, Douglas County School District, and Hope Online to allow Hope Online teachers to earn advanced degrees, specifically addressing English Language Learner teaching strategies and skills, for improved opportunity and income.

Fourteen Learning Center Mentors have participated in or are currently active in the Alternative Teacher Licensure Program. To date, five have graduated. Five Hope Online teachers have earned an advanced degree from Jones International University, while several others are midstream in the program.

Candice Steele, a Hope Online teacher and a graduate of the scholarship program, states:

> *"As a general education teacher, I have always gravitated to students who are second language learners. Working with them just felt right. When the scholarship opportunity was announced, affording me the ability to earn my master's in English as a Second Language, I jumped at the chance. Taking the courses confirmed my own gut reactions in the field, and taught me new strategies that fueled my passion even more. Now, with degree in hand, my expertise is validated and exciting new career doors are opening."*

Candice Steele

Candice Steele is best known to her peers as a teacher who unlocks the minds and imaginations of K-12 students from all walks of life.

Never known to shy away from a challenge, she chose the blended learning environment and all of the challenges that come with a relatively new learning structure. She started at a Hope Online Learning Center as a Learning Center Mentor, where she quickly demonstrated a relentless quest for new ways to engage any hard-to-reach student.

But Candice knew she could reach more students if she became a Hope Online general education teacher. In that capacity she has been an outstanding example of how the teaching profession can change lives and provide students with a hand-up through a strong educational foundation.

When the opportunity to complete her master's degree in English as a Second Language was presented to Candice, she viewed it as a springboard to help students from diverse populations improve the quality of their lives.

In her progression from Leaning Center Mentor to Hope Online teacher, she was led by her unwavering example as a supportive adult who also emerged from a difficult childhood. Her students cannot help but see her daily energy and creativity dedicated to them, which, in turn, affirms and validates their right to, and desire for, an excellent education, while inspiring them to work hard in their studies.

Conclusion

The definition of teacher mentoring is evolving in both the brick-and-mortar and the online education worlds. One-on-one formal mentoring programs have been in place for over 50 years and are still widely practiced and respected. But just as our world has shrunk and more information is available than we can possibly assimilate, education has become more vast and complex. Research soundly supports the effective teacher as the pivotal cog in student achievement. To strive for effectiveness, teachers rely more and more on their professional learning communities and the breadth and depth of collaborative mentoring. Hope Online is committed to the development of effective teachers and educators through this philosophy. And blended learning, as the term implies, is also blended in the forms of communication and the format of its mentoring programs.

Innovation is the foundation of Hope Online, and a key characteristic of an innovator is to not be afraid to fail. Hope Online has not been afraid to try new approaches to mentoring and improving teacher effectiveness—even if it meant failing and going back to the drawing board.

Hope Online has demonstrated that mentoring programs are not one size fits all. The school has deliberately and thoughtfully developed an expanded mentoring program to embrace collaboration and include all levels of teaching in this transformational education model. Implementing this plan with fidelity has increased teacher retention and led to upward trends in improved student performance.

Mentoring is the nucleus of the Hope Online organization as described in its original charter application in 2004:

> The [Hope Online] "whole school" philosophy is based on the concept of the "one-room" school of America's past. In this concept, not only do students learn through the assimilation of lessons from lower and upper grades in a mixed-grade classroom, but they also learn the importance of mentoring and being mentored—an essential quality identified in the development of role-modeling and leadership. The combination of the "whole school" philosophy, Teacher/Mentor model, individualized instruction, and using technology for learning supports a sound formula for propelling learning to a new dimension for at-risk students.

Bridging the digital divide by combining the power of technology with a "whole child" philosophy, Hope Online is establishing a new and innovative path for student academic achievement.

About the Authors

With more than 20 years of experience across multiple fields, including education, technology, media, and telecommunications, **Heather O'Mara** has a passion for K-12 and online education.

Ms. O'Mara takes an active role in Hope Online's daily operations, including academics, technology, and finance, as well as strategic planning and execution, and Hope Online's charter contract and partnerships with Douglas County School District. Ms. O'Mara is committed to providing students with quality academic instruction by utilizing the benefits of blended online curriculum.

Prior to co-founding Hope Online, Ms. O'Mara spent eight years at Jones International Ltd. As President of Jones Knowledge, she was responsible for facilitating the innovation and growth of one of the country's first online education businesses, encouraging high schools and universities to adopt online education.

Prior to Jones, Ms. O'Mara served as Vice President of Finance and International Operations for Viacom Inc., and CPA for the Emerging Business Services unit of Coopers & Lybrand. Ms. O'Mara earned her Bachelor of Science in Accounting and International Business from New York University in New York City.

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Joyce Gietl has served the education community for over 25 years through expert consulting services for online, blended online, and distance learning organizations.

Over the past six years, as Executive V.P. of Operations for Hope Online, Ms. Gietl has overseen the day-to-day organizational operations of the school, including specific oversight of the Admissions and Records, Technology, Health Services, and Data Management departments. Ms. Gietl was a co-writer of the charter application developing the Hope Online concept, and served on its initial Board of Directors.

Prior to Hope Online, Ms. Gietl held the position of Vice President of Account Management, Product Management and Customer Support for the e-education division of Jones Knowledge, directing the development of customer relationships to promote and deliver value-added products, training programs, and professional services to online learning organizations.

Ms. Gietl possesses three years of classroom teaching experience and has been involved in course development for various online colleges and universities. She earned her Bachelor of Science in Speech/English Education from Iowa State University in Ames, Iowa, and her Master of Arts in Business Communications from Jones International University in Centennial, Colorado.

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CHAPTER

3

Mentoring the Florida Virtual School Way

Jo Wagner with contributions by Christine Conidis, Mary Mitchell, and Beth Miller

Mentoring at Florida Virtual School (FLVS) is an important component in building and maintaining culture. Formal mentoring programs support dramatic change for new teachers (Scherer, 1999). With mentoring, teacher retention rates increase, resulting in attitudinal improvements and increased instructional success (Lacey, 2004). By formalizing the mentoring role for experienced teachers, another niche is created in their career ladder, which contributes to the professionalism of education (Scherer).

FLVS takes great pride in its mentoring program. Mentoring has been a major factor in its success with new hires and with in-state franchise and client teachers. The concept of teaching online is new to everyone. It has been said that the first year of teaching online is similar in many ways to the first year of teaching in the traditional classroom; however, there are many new skills to learn. New online instructors do not have the comfort level of experienced online teachers and are not deeply rooted into the school culture yet. Furthermore, new online instructors have not established key relationships with their peers to obtain needed advice and guidance.

Mentoring provides the needed support during this adjustment period. For FLVS, mentoring is a combination of community building, institutional support, culture keeping, and teacher support. Effective mentoring serves as the basic connection to unite the new teacher with the environment, students, and school curriculum (Hunter & Kiernan, 2005). Our mentors' goal is to help teachers become effective online educators who have the skills, knowledge, and confidence to independently teach their students.

As in any effective mentoring relationship, there are important points to remember.

- Maintain regular contact. Mentors should assume they are the givers in the relationship. Consistent contact fosters dependability and builds trust.
- Be honest, as trust and respect are the foundations upon which mentoring rests.
- Respect confidentiality just as a good friend would.
- Do not expect to have all the answers; sometimes it is most important to listen and consider all of the resources available.
- Help the mentee expand his/her support networks and access resources.
- Promote self-directed attitudes and behaviors.

Mentors are chosen because they have demonstrated the ability to develop great people into contributors to the FLVS culture (Impact Coaching, 2012). Mentors are also recognized for their strong working knowledge of the culture and processes. They are efficient and effective with the processes for student success and customer satisfaction. The mentor should develop mentees who can

- meet challenges head-on, ask good questions, and think outside of the box;
- handle welcome calls, parent calls, and student calls independently;
- make effective daily choices that support the FLVS culture and community; and
- identify curriculum problems and take appropriate action to resolve them.

Benefits to the mentee are many, but what benefit does the mentor experience and what can the mentor expect to gain? There are many.

- Working closely with a peer gives the mentor new insights into his/her own approaches and techniques and allows the mentor to reevaluate what he/she does, and why he/she does it.
- Working with newer instructors exposes the mentor to new ideas that might be very useful in the mentor's own practice.
- Providing ongoing contact and supporting the development of new relationships can help prevent isolationism and give the mentee a "sounding board" when he/she needs another opinion.
- Mentoring can also reinforce good habits as mentors lead by example and are more aware of their own working habits. (Katzenmeyer & Moeller, 2001)

Program History

The FLVS mentoring program has evolved over the past ten years. Being a leader in K–12 online learning and experiencing tremendous growth over the past 15 years, FLVS knows it is essential to support its teachers and staff with the best strategies for success. FLVS has experimented with several different ways to manage its mentoring program.

In 2003, FLVS set up a formal mentoring program. Five highly qualified online teachers were selected to serve the staff at that time; they were Teachers on Assignment (TOAs), serving a small number of students, as well as approximately 40–60 mentees a year. That program lasted approximately five years.

FLVS knows that teachers, when beginning their experiences in the online environment, know their content (J. Ogletree, personal communication, July 15, 2011). They feel very confident in their ability to serve students with the content. However, with any beginning teacher, they struggle and need help from veteran teachers with classroom management and systems management expertise (Scherer, 1999). For example, the FLVS policy that requires teachers to grade work within 48 hours can be challenging when a teacher is serving approximately 180 students who are submitting three to four assignments per week. Also, teachers are expected to provide live tutoring sessions weekly and contact each student and parent to provide stellar customer service. Teachers need to have a systematic approach in order to serve students and parents effectively (R. Drolshagen, J. Rogier, C. Meloy, & B. Evans, personal communication, July 15, 2011). Developing such a system was accomplished only through real trial and error. Availability for FLVS teachers is 8:00 am to 8:00 pm daily, which is an adjustment for most teachers.

Back in 2003, FLVS worked to help teachers serve students monthly with tutoring sessions and "oral components" (a voice-to-voice quiz, where students confirm they are working consistently, and to ensure the student's knowledge of the content is covered in the module they are working in). FLVS also talked with parents to provide progress updates and then answered any questions they may have had regarding their child's progress in the course.

New teachers attended New Teacher Orientation (NTO) for two to three days. NTO was offered by our Professional Learning (PL) Team. The mentoring team then conducted eight weekly follow-up calls to provide "in-time" trainings to help set up and implement the systems needed to serve their students. The mentoring team then followed up for a year, providing help and support as needed.

In 2008, FLVS shifted to a more content-based program where veteran teachers supported new teachers in their content area. That program lasted for approximately three years. FLVS wanted to help by providing more specific content support for the new courses being developed. This program was similar to the original, but one-on-one support was provided by the content person, while mentees were teaching a full course load of students. This presented some challenges for teachers to find a balance of helping their students and providing enough support for mentees. FLVS found that the levels of support varied from mentor to mentor. These findings resulted in the redesign of the mentoring program.

FLVS now operates its mentoring program as a hybrid model where ten highly successful TOAs on the mentor team support teachers; they also serve a small number of students, as well as approximately 40 mentees. These ten mentors have been trained very specifically in coaching to help each new mentee transition into the FLVS teaching environment by using specific coaching strategies (Impact Coaching, 2012). Once the new teachers complete what is now called New Employee Orientation (NEO) training for three full days, which is offered by the FLVS PL team, FLVS does eight follow-up calls to help support and develop the systems needed to serve all students effectively. One reason FLVS teachers struggle with this system is because FLVS has rolling enrollment. Students can potentially start and stop at any time. Providing differentiated instruction for all students and helping them see the value of working consistently each week in the course takes time to master and balance. A teacher can potentially have 180 students at 180 different places in the course. The mentor team models the customer service qualities expected from instructors the first year. Providing as much support and being available for mentees is key to success as a mentor team. Mentees must feel supported the same way the teachers will support their students (Murray, 2001). FLVS sets very high expectations as a team to lead by example. Teaching with FLVS is a way of life. Teachers have to be able to serve and maintain a healthy "work life" balance. This balance is difficult to attain during the first year. The mentor team provides the support and coaching to help them adjust to this new way of working so that they can be successful in the online environment.

The FLVS mentor program is constantly evolving and adjusts to meet the needs of teachers in new situations as they arise. In the fall of 2010, FLVS began a new district-based program to provide more choices for students in several districts. FLVS facilitated Virtual Learning Labs (VLL) to help meet the class size amendment that was passed by the Florida legislature. Miami Dade County used FLVS to serve about 10,000 students that they were unable to serve as required by this new mandate. The students utilize computer labs with on-site facilitators and do their coursework during their school day. Both content and teachers are provided by FLVS. Teachers in this model require specialized support to serve the students during the time they are working in the lab. Students can also work at home but do most of the work while they are in the lab at school. Specific strategies were developed by the mentor team to help this teacher population. The FLVS blended learning manager and support team provide specific support in conjunction with the mentor team.

Program Structure

Today, in 2012, ten mentors participate in the mentor program, with scheduled assessments each quarter based on the number of active mentees. Ideally, there will be at least one mentor from each content area (Math, Science, Social Studies, English, Electives, and Foreign Language) to support mentees with content-specific needs. Each mentor will be a TOA and retain an annual student load of 70 students and 40 mentees per year. The mentor "term of service" will be a period of one year, running from July 1 to June 30. Terms of service can be renewed from year to year, and mentor TOA term renewals are based on mentor choice, performance

reviews, and mentor program needs. We have a 36-month term limit for each mentor to allow them to go to other growth areas and allow more participants to share their knowledge.

Mentors are paired together to create a network of support for the mentees in the program (Wellman, Humbard, & Lipton, 2009). As mentioned above, each mentor will serve 40 mentees, but mentee cohorts are created within mentor pairs to provide the maximum amount of support needed for new and struggling instructors. A mentor's primary responsibility is not only to support, train, and instruct mentees on how to become successful online instructors, but also to communicate, promote, and maintain the culture at FLVS. Every effort is made to assign mentees to mentors based on content area; however, when that is not possible due to maximum mentee loads, mentees are assigned to mentors based on availability. Mentors support mentee content-area needs through content-area experts and members of the Mentor Team.

Mentors are supervised by the Instructional Leader (Principal) that houses their content area, and the mentor program is facilitated by the Instructional Program Manager. The Instructional Program Manager reports to the Directors of Student Learning. Mentors will document their interactions with mentees on a SharePoint site provided by the Instructional Program Manager and instructional technology team, which will include documentation of hours and topics covered, as well as anecdotal records about each mentee's progress. Mentee progress will then be reported to the IL Team as needed.

The mentor TOA positions will be posted internally, and interested candidates will go through the interview process to be selected. Minimum qualifications include:

- Florida Professional Teacher Certification
- Bachelor's Degree
- Minimum two years successful teaching experience at FLVS
- Instructional Leader approval
- Above average course metrics
- Previous small group presentation experience (preferred)

Table 3-1 Mentor Program Schedule

Mentor Program Schedule	
Week 1	Week 1 Contact: At least two members of the mentor team will be present at each NEO Phase 1 class on a day determined by the NEO team. Mentors that have new mentees in the NEO class will make every effort to attend NEO Phase 1 to meet their new mentee face-to-face in order to establish rapport. Mentors that are unable to attend NEO face-to-face to meet their mentees will contact their mentee by email in week 1 and establish phone contact as soon as possible.
Months 1–4	Mentors will conduct weekly calls with each mentee in weeks 2–8 as needed for specific questions to be answered. Mentor pairs will schedule weekly cohort calls with mentee groups based on start date in weeks 2–8. Mentors will schedule weekly one-on-one calls with each mentee in weeks 9–16.
Months 5–8	Mentors will schedule weekly one-on-one calls with each mentee in months 5–8.
Months 9–12	Mentors will schedule monthly one-on-one calls with each mentee in months 9–12.

Table 3-2 Mentor Behavioral Outcomes (Learning Objectives)

Mentor Behavioral Outcomes (Learning Objectives)		
Timeline *	**Topic of Conversation**	
Months 1–4	The mentors assist the mentees with: • Engage in weekly cohort calls as scheduled • Check in with the mentor after each cohort call and discuss the cohort call topic(s) • Request supplemental materials based on the cohort call topics and/or their personal needs • Send an invite to mentor for cohort call participation	The mentor team will assist the teachers in managing his/her classroom by: • Using VSA to maintain specific contact logs for all student contact • Making at least one attempt per student for overdue monthly contacts • Ensuring that monthly contacts will be 90% complete • Ensuring that students are actively submitting work and making steady progress • Contacting every student at least once per week by phone
Virtual School Administrator (VSA)	The mentor will help the teacher manage his/her classroom efficiently and effectively by: • Using VSA to maintain specific contact logs for all student contact • Making at least one attempt per student for overdue monthly contacts • Ensuring that monthly contacts will be 90% complete • Ensuring that students are actively submitting work and making steady progress • Contacting every student at least once per week by phone	The mentor will help the teacher manage his/her classroom efficiently and effectively by: • Discussing how they are managing "balance" among the tasks and job duties • Confirm that he/she is utilizing "smart-call" times • Confirm that he/she is working with at least one other person • Confirm that the teacher is participating in an activity away from the computer to increase efficiency and effectiveness

Mentor Behavioral Outcomes (Learning Objectives), cont.		
Learning Management System (LMS)	Given guidance, instruction, and techniques for using LMS by the mentor team, the mentee will: • Ensure that the Announcement Page (AP) is student-centered and specific • Give feedback that is specific and detailed • Grade work within time guidelines • Ensure that the discussion area is maintained	Given guidance, instruction, and techniques for using LMS by the mentor team, the mentee will: • Ensure that he/she is completing the "Where do we go from here?" worksheet • Ensure that he/she is participating in content/schoolhouse student learning activities
Months 5–8	Given conversations during weekly check-ins and bi-weekly calls, the mentor will coach the mentee and ensure that the mentee: • Manages his/her classroom efficiently and effectively • Uses VSA to maintain specific contact logs for all student contact • Makes at least one attempt for overdue monthly contacts • Ensures that monthly contacts are 90% complete • Ensures that students are actively submitting work and making steady progress • Contacts every student at least once per week by phone • Ensures that 90% or more of students complete and are called for "completion call"	Given a conversation with the mentor around the LMS, the mentee will: • Ensure that the Announcement Page is student-centered and specific and that help files are provided • Demonstrate that feedback is specific and detailed and animation is included • Confirm that grading is within guidelines • Ensure that the discussion area is maintained • Given coaching and guidance during a conversation with the mentor, the mentee will: • Discuss any issues around "balance" • Discuss utilizing "smart-call" times • Confirm that he/she is working cooperatively with at least one other person • Discuss time and activity away from the computer to increase efficiency and effectiveness • Given a discussion around the topic of professional learning, the mentee will: • Confirm that he/she is completing the "Where do we go from here?" worksheet • Confirm participation in content/schoolhouse meetings • Confirm participation in follow up training sessions
Months 9–12	Given ongoing check-ins with the mentor, the mentee will: • Observe mentor's Elluminate sessions • Manage his/her classroom efficiently and effectively by using VSA • Use VSA to maintain specific contact logs for all student contact • Make at least one attempt for overdue monthly contacts • Ensure that monthly contacts are 90% complete • Ensure that students are actively submitting work and making steady progress • Contact every student at least once per week by phone • Ensure that 80% of students or 90% or more complete called for "completion" call	Given ongoing discussions about the LMS, the mentor and mentee will: • Ensure that the Announcement Page is student-centered and specific • Ensure that feedback is specific and detailed • Keep grading within guidelines • Confirm that discussion area is maintained • Given a discussion about "balance," mentees will: • Utilize "smart-call" times • Work cooperatively with at least one other person • Participate in an activity away from the computer to increase efficiency and effectiveness • Given additional discussion about Professional Learning, mentees will: • Complete "Where do we go from here?" worksheet

* The time line is flexible. We will work with each mentee to ensure that they are mastering content and systems to prove them efficient and effective in the online world.

Program Success Measures

- 100% of new teachers will participate in the FLVS Mentor program.
- 95% of new teachers indicate that they participated in required Professional Learning events or activities.
- 95% of the new teachers indicate and demonstrate that they can successfully manage information and resources found in VSA.
- 95% of new teachers indicate and demonstrate that they can successfully utilize the current Learning Management System application (Blackboard).

The one word FLVS emphasizes is "relationships." If new teachers can understand the importance of developing a relationship with their stakeholders, they will reap the rewards of the time spent developing the relationship (Impact Coaching, 2012).

Internship Experience

FLVS teachers also provide mentoring support for pre-service teachers. The Florida Virtual School University Partnership program (Florida Virtual School, 2011–2012) offers pre-service teachers the experience of being a virtual teacher. FLVS prides itself in being an industry leader in offering a completely virtual internship in partnership with several Florida universities. The program serves junior-, senior-, and graduate-level education majors in a wide variety of subject areas. FLVS has hosted interns in all of the core curriculum subject areas and elective areas, including foreign language and physical education. Currently, FLVS is working with three Florida universities in a wide range of subject areas.

FLVS coordinates the internship experience with the college/university depending on the needs of the internship program guidelines of the university. Junior-level interns work with an FLVS clinical educator for seven weeks. They shadow phone calls, develop lessons, grade student work, and develop online tutoring sessions. A senior- and/or graduate-level intern works with an FLVS clinical educator for 14 weeks. For the first half of the experience, they are learning basic fundamentals while shadowing and grading, much like a junior-level intern. During the second half of the experience, they take on the role of the teacher and handle phone calls, student monitoring, grading, and online office hours, while creating lessons and attending teacher meetings. Over the course of the internship, pre-service teachers are expected to meet several objectives through projects and day-to-day interaction with their students and clinical educator. Pre-service teachers are given all the tools needed to successfully complete the internship.

Before an intern is introduced to and enters our virtual classroom, several steps take place. First, when we receive a list of possible intern candidates from the university, all interns are fingerprinted and a background check is completed. Once an intern clears Human Resources, the teacher placement process begins. To host an intern, an FLVS instructor must have a

Clinical Educator ("CET," 2003) certificate, as well as permission from the teacher's Instructional Leader (Principal). Once all of those items are met, the teacher is then paired with the intern.

Since university internship guidelines vary, the FLVS mentor program is monitored and adjusted to meet the needs of the specific required internship guidelines for each university. All interns are placed in their specified subject area with a state-certified teacher (in both subject-area certification and Clinical Educator certification). Each internship experience is designed to meet the Florida Educator Accomplished Practices (FEAP) (1999).

The internships run year round, with fall, spring, and summer placements. To date, FLVS has placed over 100 interns in its classrooms (junior, senior, and graduate levels). FLVS has also hired 12 interns for teaching positions, following their senior-level internship experience upon graduation. With year-round hiring, FLVS opens the door to college graduates who are looking for teaching positions mid-year and prior to school starting in the fall if they graduate in August. In addition to FLVS, the growing numbers of FLVS franchises (currently 30) in school districts throughout the state are also actively hiring online teachers. Participation in this program makes them attractive candidates to those hiring agencies.

The internship has been designed so the FEAP benchmarks are met (Florida Educator Accomplished Practices, 1999), along with NETS standards (ISTE.org, 2011) and several NCATE strands (NCATE.org, 2008). The internship is proactive in meeting the pre-service teacher's and clinical educator's needs in a timely manner. The ultimate goal at Florida Virtual School is to ensure that its students are receiving the best education, while training the next generation of teachers. To that end, FLVS is constantly refining the program. The mentoring and Pre-Service Educator programs at FLVS continue to evolve as FLVS learns what practices are most successful for mentors and mentees in an online environment. FLVS has found that a willingness to adapt its programs to the needs of its mentees and pre-service teachers has been the most essential component of the success of its programs.

At Florida Virtual School, we pride ourselves in leading K-12 virtual learning environment for student success. Our mentoring program helps teachers learn to work with their students in the new environment to achieve success. Students can work faster or take more time to finish a course as long as there is mastery. Our mentoring team works with teachers to facilitate that growth and helps the teacher understand the flexibility of working in this environment from home. We strive to model stellar customer service for our teachers to use with their students and parents. We have learned and matured as an organization. We continue to implement the latest research for staying on top of the best methods and strategies for teacher and student success.

About the Authors

In **Jo Wagner's** classes, good health and solid learning go hand-in-hand. For 28 years, Ms. Wagner has challenged her students to set goals and to work hard at whatever they were trying to accomplish. There is an element of fun and enthusiasm in Ms. Wagner's teaching, whether it is for children or adults. Her greatest satisfaction comes from seeing positive change in her students and teachers after much hard work. It is this kind of motivation that makes teaching exciting and learning rewarding. Ms. Wagner's skill as a teacher and her knowledge of instructional technology drew her to the challenge of teaching on line. Her goal is to be present to her students and colleagues as they develop and execute their plan for success. The mentoring program has been a love for her, and coaching new staff members to success is a very rewarding challenge each day. Ms. Wagner earned her M.Ed from Grand Canyon University online in Educational Leadership, M.Ed. in Curriculum and Instructional Design from the University of South Florida, and her B.A. in Elementary Education/Physical Education from Purdue University. She was selected as the Florida Virtual School Teacher of the Year for 2005 and Mentor of the year for 2008. Jo Wagner is an instructional program manager in charge of the mentoring program.

Christine Conidis, Ed.S., is an instructional program manager at Florida Virtual School, based in Orlando, Florida, supporting instructors, research programs, and internal pilot programs. She has degrees in English education, reading, and educational leadership from the University of Central Florida, Grand Canyon University, and the University of West Florida. Formerly a middle school language arts teacher and reading coach, Christine has been an educator in both the bricks- and- mortar and virtual settings since 1996. Christine was part of the team that designed and developed the award-winning gamed-based intensive reading course Conspiracy Code: Mindbender for Florida Virtual School. *cconidis@flvs.ne*

As the Director for Professional Learning, **Mary Mitchell** oversees the professional learning, whichT includes new employee induction, franchise/client training, and ongoing professional learning for all staff. Mary has the first- hand FLVS experience needed because she has developed courses, taught students, mentored internal instructors, mentored clients, and mentored franchise instructors. She has also served as a program manager, senior manager, and department manager. Mary is a veteran National Board Certified Teacher who creates trusting relationships with her colleagues. Her career has been marked by numerous recognitions. She has been named as Teacher of the Year by Florida Virtual School, the United States Distance Learning Association, and by Discovery Middle School in Orange County, Florida. She was chosen as a National Milken Educator. Mary has also served as a curriculum analysis consultant for the American Association for the Advancement of Science, and as a curriculum developer for Project TELLUS, creating interactive videos on global environmental change. Mary has written numerous articles for professional journals on topics ranging from computer image processing to teacher training for the online classroom. She is a frequent presenter at state and national conferences, and is an accomplished grant writer. As an athlete, she has run in the Boston Marathon and numerous 5K and 10K events to raise money for the Disney Cancer Institute, American Heart Association, March of Dimes, and many others. Mary earned her Masters of Education and her Bachelor of Science Education from the University of Central Florida.

You will never get bored when talking with **Beth Miller**. Even during an all-day training session for new staff and teachers, Mrs. Miller makes everything sound exciting. Perhaps it is because she is so enthusiastic about Florida Virtual School and everyone she meets. As a program coordinator in the training and development department, Mrs. Miller is among the first people that new FLVS employees meet. From her they learn about how to work effectively in an online environment. They also learn about the heart and soul of their new school. Mrs. Miller's enthusiasm for online learning comes from her own experiences working on her undergraduate

and graduate degrees. She greatly preferred the flexibility of studying at her own time and pace. She is equally enthusiastic about online technology that enhances teacher effectiveness. Without minimizing the effectiveness of her grandmother's teaching in a one-room schoolhouse in the hills of Pennsylvania, Mrs. Miller is a strong advocate of modern, well-applied technology. Mrs. Miller brings a wealth of experience to her position at FLVS. She worked for four years as a Social Studies teacher in a traditional classroom environment. She also worked for fifteen years at Walt Disney World as an entertainer and as a trainer and training coordinator. It is little wonder that her orientation sessions for new FLVS employees are well organized and highly engaging. Mrs. Miller earned her Masters and Bachelor's degrees in Social Science Education from the University of Central Florida. She is married and has a son and a collection of cats. If time permits, she will gladly tell you about her travels to forty-nine of the fifty United States and across the world.

CHAPTER

4

Just-in-Time Training: How Georgia Virtual School Scaffolds Mentoring Programs to Meet a Variety of Teacher Needs

Joe Cozart
Georgia Virtual School

Georgia Virtual School (GaVS) has several initiatives in place that seek to provide mentoring opportunities to its teachers. This chapter will provide a brief overview of Georgia Virtual School and then explore each of the types of mentoring programs in place. These programs begin with the support structures for new hires and continue all the way to seasoned veterans. Sufficient depth for each program will be given so that other online programs can use this chapter as a guide for practical implementation of teacher mentoring initiatives. Georgia Virtual School was created in 2005 through legislation signed by Governor Sonny Perdue. The goal of the school was to provide additional Advanced Placement and core academic course options to students throughout the state. To that end, the school offers 22 Advanced Placement courses and almost 200 academic courses. During the 2010–2011 school year, over 12,000 students enrolled. These students were taught by 12 full-time and 77 adjunct faculty members who are all highly qualified with Georgia teacher certification in their respective fields.

Georgia Virtual Learning (GaVL) is the parent organization of Georgia Virtual School. GaVL provides opportunities to Georgia students not only through GaVS, but also Georgia Credit Recovery (GCR) and shared resources. GCR provides free online credit recovery to public school students across the state in core academic courses. It is a self-paced, teacher-less model with the exception of essay grading in English courses. GaVL shared resources offer the full content of courses through a web-based delivery free of charge to anyone with web access. Additionally, a subscription format of the shared resources allows public schools in the state to have access to downloadable versions of course content that can be loaded and customized in learning management systems at each school.

Rationale

This chapter will provide descriptions of current mentoring programs, as well as the theoretical considerations in creating them. Included in a description of the current programs is the framework used in their development and refinement. Additionally, the evolution of these programs over time is discussed. By understanding the rationale and evolution of our current mentoring efforts, other schools will be able to accelerate the development and refinement of their own mentoring initiatives. The discussion of online professional learning at Georgia Virtual School will best assist other K-12 online schools, but it has applications for the postsecondary environment as well. Finally, this chapter will help drive the conversation on future improvements needed in K-12 online teacher mentoring programs as schools consider their own teacher mentoring options in light of the practices at Georgia Virtual School.

Teacher Mentoring Framework

All teachers hired by GaVS already have full certification in their field. However, they do not necessarily have experience teaching online. Teaching online requires a set of skills different from those required in a face-to-face environment, and to develop those online teaching skills, specific professional learning is required (Wilson & Stacey, 2004). Great teachers in traditional schools do not automatically make great teachers in virtual environments (Archambault, 2010). This presented a challenge to our school as we began hiring our first teachers. Many did not have online teaching experience so all that we could look at was other teaching experience, comfort with technology in general, and perhaps experience taking courses as an online student. Because of these limitations, we knew that we were hiring people familiar with the concept of online learning who were proven quality teachers in traditional environments. It is important that teachers receive training in online pedagogy before they attempt to teach online (Yang & Cornelius, 2005). Our challenge was to equip them with the necessary skills to help them make the transition to online teaching. The teachers in our school are located across the state primarily, but some are in other states and even other countries. This made an online training course ideal. On a philosophical level, it is important that teachers have a consistent online learning experience in our system so that they can better empathize with their students in the future (Hitch & Hirsch, 2001).

Online teaching has some fundamental differences compared to the online classroom. It is not just about learning to use new software and a learning management system, though those certainly are important pieces. An asychronous classroom gives the student more flexibility and freedom in choosing how to learn. This change requires that the instructor become a guide and facilitator. Because the teacher is not physically present to help students and notice when they disengage, the online teacher must acquire new skills in motivating students to keep them engaging with the content and their peers (Wu & Hiltz, 2004). In order to fully utilize the benefits of the learning environment, teachers must learn to create opportunities for students to collaborate and use higher-order thinking while completing assignments (Yang & Cornelius, 2005). Palloff and Pratt (1999 recommend that students be made aware of school policies before beginning an online course, thus, the teachers themselves must first be made aware of these policies.

Once that initial transition is made, we have found that teachers need additional support to continue growing as professionals in this new setting. While paired mentoring can be successful, the inconsistencies in the quality and style of the mentors can limit the large-scale effectiveness. To increase the overall effectiveness of the mentoring, structure and clear expectations must be put in place. Teachers need access to not only veteran online teachers in a mentoring capacity but also a larger community of online teachers to help them grow professionally (Yang & Cornelius, 2005).

Mentoring Programs

The system in place today has evolved over the years since the school's inception in 2005. Our mentoring process is broken down into four parts that will each be explored in detail. The first is the new instructor preparation course including a paired teaching experience. Next is what we call "Just-in-Time" training, where a new teacher is given a small group of students and partnered with a teacher in the same course. Third is the mentoring we provide to veteran adjunct faculty, and finally, mentoring for full-time teachers.

New Instructor Preparation Course

When teachers are first hired by GaVS, they are enrolled in our New Instructor Preparation Course. This is a 14-week course taught by our Teacher Training Specialist. For clarity, the new hires will be referred to as students, and the Teacher Training Specialist will be referred to as the teacher. Typically, no more than 15 people are in the course so that the teacher is able to spend time with each student. The class meets synchronously once per week. The course itself also has online content, discussions, quizzes, and grades. Assignments are due weekly, and students are expected to earn at least a grade of 90 in the course to be eligible to teach at the school in the future. Included in the grading criteria is the late policy that also applies to students. Work can be turned in late for a penalty of 10% per school day, but no credit is given for assignments submitted more than five school days after the due date. This allows the students to become familiar with a policy they themselves will have to enforce, and they are able to see the application of the policy modeled for them.

From the administrative side, applying grades and a late policy allows for a quick snapshot view of not only the quality of work from each student, but also their ability to manage assignments and complete tasks on time. From previous experiences, we have learned that teachers who are unable to complete tasks in a timely manner as students may also struggle to complete teaching tasks in a timely manner, which is something our school values.

During the first four weeks, students are introduced to online learning. Students are assigned articles and case studies to read that present key issues in online learning, such as digital citizenship, online pedagogy, and academic honesty. Discussion boards are used to allow students to interact with one another and break down the ideas from the assigned readings. Here, the students can experience online learning in a very straightforward manner. Content is presented to them that they must internalize and make sense of. Then they have an assignment through the discussion board that requires them to share how they have made sense of the material and also engage with fellow students on their own ideas. This experience is invaluable for when they become online teachers and must create and facilitate their own learning environments.

In the next six weeks, students are introduced to the components of the GaVS learning management system (LMS) and how to teach with them. To facilitate this, separate course shells are created for each student at the location where they are enrolled as teachers. This allows them to experience the LMS from the teacher perspective for the first time. Here, they learn how to post news items, set up a course, create content, and grade items. Our previous experiences have shown that it is vital for teacher trainees to learn in a course with no actual students participating so that the trainees are truly free to explore the learning environment. In the past, we had tried to place all the trainees in a single empty course, but as multiple people made simultaneous changes, it was difficult for each trainee to determine what he/she had done. For example, one person might create a news item, while another might remove news items from the homepage, which could lead the author of the news item to assume that it had not been created properly.

The last four weeks include the paired teaching experience. Each student is placed in a live class in their area of certification, with the classroom teacher now acting as a mentor for the student teacher. The mentor teacher in each of these courses introduces the new teacher, who is referred to as a student teacher during that time. The student teacher then performs all the tasks that a teacher would, while under daily supervision from the mentor teacher in that class. The mentor teacher talks daily with the student teacher to be sure that the class is running smoothly and that the student teacher is comfortable with all the tasks being completed. It is important in this phase that the mentor teacher give daily feedback to the student teacher in areas including the quality of feedback on assignments and the tone of communication with students. Clear expectations on what the student teacher should do are also key. As previously mentioned, at the end of this experience, student teachers with a grade of 90 or higher in the course are eligible to teach the next semester.

Just-in-Time Training

Following the New Instructor Preparation Course, new hires are given their first class as actual teachers. This class is limited to five students so that the new teachers have an opportunity to become acclimated to online teaching. In the past, we tried giving new teachers a regular teaching load, but we found that many became overwhelmed, not only from learning their new tasks but also from trying to learn the new time management skills required to handle larger loads. By limiting enrollment to five students, new teachers can practice effective teaching and become used to their new role without the added burden of heavy time commitments. This has been especially effective for those already busy teaching a full load in a traditional school.

There are two support staff for the new teachers in the Just-in-Time program: the Just-in-Time trainer and a mentor. Typically, the Just-in-Time trainer is the same person who led the training course, so new teachers already have a relationship with their trainer. It is explicit that this person is not a supervisor but truly a peer that new teachers should feel free to come to with any concerns. The Just-in-Time trainer continues to meet weekly in an online meeting room with all the new teachers so that they can discuss any issues that arise during the first semester of teaching. As an added benefit, the group of new teachers is able to share struggles with each other and build a support community. The mentor is often the same person the new teacher taught with as a student the previous semester during the New Instructor Preparation Course. This mentor is also not a supervisor but is well acquainted with the content of the course, as well as the culture of the specific department the new teacher is in. The official supervisor for new teachers at this point is their respective Department Chair.

The structure of this program allows new teachers to go to the Just-in-Time trainer, other new teachers in the Just-in-Time program, their mentor, and their Department Chair anytime they need support. Having multiple support options for each new teacher increases the likelihood that there will be at least one person who each new teacher connects with professionally. Without all of these supports, teachers are more prone to fall behind on teaching duties and fail to ask questions when clarification is needed. It is especially key that formal mentors be put in place who are not supervisors. In the past, the Department Chair served as the mentor. However, the Department Chair also evaluates teachers, and the evaluations determine future teaching assignments. This provided a disincentive for new teachers to seek out help from the Department Chair because they did not want to appear unprepared or ill-equipped to teach. Then, when the teachers did not seek out the necessary help, they fell behind on learning effective teaching skills and were more likely to leave the school. This was problematic on multiple levels. First, GaVS would lose a teacher who was a good candidate, and then that person, who has a poor impression of the school, would be teaching elsewhere in the state—in addition to incurring further costs of training a new staff member.

Veteran Adjunct Faculty Mentoring

Following the Just-in-Time training, teachers begin taking on full course assignments. The exact number of courses and students depends on each teacher's schedule and abilities, as well as how many students actually enroll in a course. Each department has two full-time faculty members: the Department Chair and a Lead Teacher. The Department Chair is the direct supervisor of all teachers in the department, while the Lead Teacher takes on a mentoring role for all adjunct faculty.

The Lead Teacher is enrolled in all the courses of all adjunct faculty, and all the adjunct faculty are also enrolled in the Lead Teacher courses. The role in our LMS for these teachers who are not the active instructor is labeled a Visiting Educator. It allows teachers to see each other's classes without changing anything. Also, the students are not able to see these Visiting Educators, which helps to avoid confusion. When this program was initially implemented, there was backlash from teachers who felt that they would be judged by the Lead Teacher and that the information would reflect poorly on them in subsequent teaching assignments. We realized that we had failed to fully understand the personal identity teachers have with their students. Upon clarifying that the Lead Teacher (as the Visiting Educator) was there in a collaborative and support role that was in no way punitive, the teachers were able to embrace the presence of other educators in their classroom.

The Lead Teacher visits each adjunct faculty member's course about once a month, and adjunct faculty are free in turn to visit the course of the Lead Teacher as often as they find useful. Through this setup, teachers are able to see effective teaching by others and gain helpful tips and support. Because the Lead Teacher is not a supervisor, other teachers are able to receive feedback less defensively, and they also feel more comfortable approaching the Lead Teacher with pedagogical questions.

Full-Time Teacher Mentoring

The mentoring available to full-time teachers, by both the Department Chairs and Lead Teachers, is still being developed. While our organization has historically attended online teaching conferences and participated in related professional organizations, we have realized there is a weak link in not remaining active in these organizations. To remedy this, we have begun encouraging full-time teachers to participate in state and national organizations in their content areas. Additionally, we budget for and fund travel expenses for these teachers to attend the conferences of these organizations. Even when we have encouraged this travel in the past, a culture at our school had been to require teachers to man a booth with our promotional materials and also to be accepted to present at the conference for our program. Recently, GaVS is beginning to realize that if the true importance in a teacher attending a content-specific conference is to learn about teaching practices in their domain, we ought to prioritize that our teachers actually attend the sessions as learners. Thus, teachers are no longer required to present at a conference or to man a booth in order to attend, though we certainly encourage any such behaviors that will increase our school's exposure and encourage the teachers to be teacher leaders in their content area.

One final mentoring opportunity being implemented this year is our Leadership Track. It allows teachers the opportunity to partner with members of the administration team to better understand the operation of the school from a more global perspective. As our school has grown and had additional career opportunities added to our administrative team, we often have found that our teachers make great candidates based on their institutional knowledge and leadership capabilities. Many even have administrative experiences from traditional schools and formal educational leadership training through certificate and degree programs. However, we realized that there was not a structure in place to help teachers make that transition or even determine if they would enjoy school administration in an online environment.

The Leadership program involves meeting monthly in an online meeting room with the Associate Director for Strategic Planning and working independently on administrative projects. The meetings are used to expose the teachers to the tasks and conversations happening with our school leadership. Members of the school administration share their perspectives and describe their own jobs. The projects that each Leadership Track participant completes are focused on the larger needs of the school and on connecting participants to members of the school administration. Examples of the projects include creating promotional materials for presentations to outside organizations, researching and implementing new tools in the learning management system, and practicing the formal evaluation of other teachers. The leader of this program is not a direct supervisor of the teachers, so it is another example of teachers having a resource they can feel more comfortable reaching out to because there is no concern over formal evaluations. Through this experience, it is our hope that teachers will better understand how the activities and policies in individual departments work together to help the school achieve its goals. For some of these teachers, their next career step or goal may include administration, and this provides the resources they will need to begin effectively making this transition.

In-Service Mentoring

Georgia Virtual School partners with several state institutions to mentor in-service teachers participating in professional learning. These mentoring opportunities are either part of a course in a degree-seeking program or for the Online Teaching Endorsement. The Online Teaching Endorsement is issued by the state teacher-certifying agency, the Professional Standards Commission. It consists of four courses, the last of which is an online field experience.

The type of experience we offer these in-service teachers depends on the needs of the institution providing the course. The degree of integration into our classrooms can range from short-term observation to a long-term student teaching experience. Those who are only observing are given the Visiting Educator role in the relevant courses. Additionally, the students are not able to see that the observer is enrolled in the course, so there is no disruption to our school's day-to-day operations.

When any interaction with students is required for the in-service teacher, the Visiting Educator role will not work. Instead, that mentee is enrolled as a second teacher in the

relevant course. The teacher of record for the course is assigned as a mentor. The mentor has phone conversations and online meetings with the mentee to clarify expectations and procedures initially. The mentee then begins to integrate into the course. Upon full integration in the teaching environment, which is then acknowledged as student teaching, the mentee will grade all assignments, post news items, manage all emails and instant messages with students, and lead online meetings. In short, the mentee performs all the tasks that the online teacher does, just with the supervision of the mentor. The period of student teaching can last up to four weeks, but the timeline and level of teaching responsibilities varies by the needs of each course and institution that we partner with.

Implications and Future Considerations

As other online schools consider implementing and adjusting mentoring programs, we believe it is important to ensure that mentoring is in place for teachers during all stages of development. For GaVS, this has included four distinct areas: initial teacher training, new teachers, adjunct teachers, and full-time teachers. The programs are all highly iterative, particularly the newer additions, such as the Leadership Track and Lead Teachers. A formal evaluation is conducted at each of the four areas to determine how well the teachers are achieving their goals. This process should involve reaching out to similar organizations to find data on their teacher retention rates, as well as percentages of teachers who have documented performance issues—though at this time, it is unclear how freely this information might be shared. Georgia Virtual School is a part of a State Virtual School Leadership Alliance and iNACOL, both of which may prove useful in collecting comparison data from similar institutions. Additionally, the school will go through a SACS accreditation review next year that may include a formal evaluation of our mentoring programs.

When creating and implementing mentoring programs, it is vital that formal processes be put in place and that peer mentoring is utilized. At each point in the process, an explicit pairing should be made between the teacher and a person who is not the direct supervisor. Expectations for each mentor and student teacher must be clearly stated at the start. Teachers also need to experience online learning from the student perspective, then slowly be introduced to managing their own online classroom. Even as veteran teachers, they need a learning network that fosters their ability to grow professionally, including options to move into the administrative realm where they can influence larger numbers of teachers and students. In this relatively new area of online teacher mentoring, all efforts are works in progress. It is our hope that this chapter provides ideas of how to expand similar mentoring programs, and we would strongly encourage other online schools to share their insights so that we all can continue to grow our own initiatives.

About the Author

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CHAPTER

5

Harvesting World-Class Educators: Building a Teacher Assistant Program That Supports Online Instruction

Janice L. Silver, Modular Learning Specialist
North Carolina Virtual Public School

It is imperative to have teachers earn experience with North Carolina Virtual Public School (NCVPS) and establish a support system before offering them a teaching position. A few key components of the instructional model used by NCVPS are teacher support, elevated interaction with students, and a great deal of synchronous communication and real-time instruction. For this reason, NCVPS is able to provide teachers this experience through its Teacher Assistant Program (TAP).

Teacher Assistant Program at a Glance

When creating its Teacher Assistant Program NCVPS planned with the end result in mind. The goals were to create an experience much like our student courses in that it could be conducted across vast distances because some of our teaching core reside in other countries or travel throughout the year. This coincides with the next goal of flexibility due to the fact that all of our teachers are part-time employees and most teach face-to-face. For this reason, Teacher Assistants would need to be able to access the course no matter their location or time. The third goal was to provide easy-to-access resources and provide support continuously. This was an indicator that the school would need at least one Curriculum and Instruction staff member devoted to this program at all time. It was most advantageous for the school to assign one of its three Modular Learning Specialist to lead its TAP because this particular Modular Learning Specialist already owned the teacher quality component of the school. Another goal was to create a sense of community within the Teacher Assistant Course that promoted collaboration, sharing of best practices, problem solving, and a range of communication methods. This confirmed the need for whole-group instruction, team building activities, and live chats throughout the Teacher Assistant Program.

Before prospective teachers begin the Teacher Assistant Program, teachers enter the hiring cycle, which is designed to filter these prospective teachers based upon their potential to become a quality North Carolina Virtual teacher. Teachers begin the hiring cycle by visiting the North Carolina Virtual Public School website to complete the online application. A North Carolina Virtual staff member reviews the applications of all potential teachers that meet the requirements using the NCVPS Teacher Hiring Rubric and teachers are then asked to complete the Teaching Online Course offered by LearnNC. Some of the requirements to teach are at least four years of face-to-face teaching experience, Learning Management System experience, 20-30 hours of time to commit to teaching part-time each week, educational leadership experience, and personal access to high speed Internet and appropriate computer equipment. Upon completing the Teaching Online Course, teachers are enrolled in the Teacher Assistant Program. The Teacher Assistant position is a temporary position usually lasting nineteen weeks, divided into two sections: the Teacher Assistant Orientation Course (lasting nine weeks) and the Teacher Assistant Practicum (extending ten weeks). NCVPS has also differentiated the Teacher Assistant Program to address the needs for teachers that instruct its new Occupational Course of Study Blended Learning Courses.

Figure 5-1 Teaching Assistance Program at a Glance

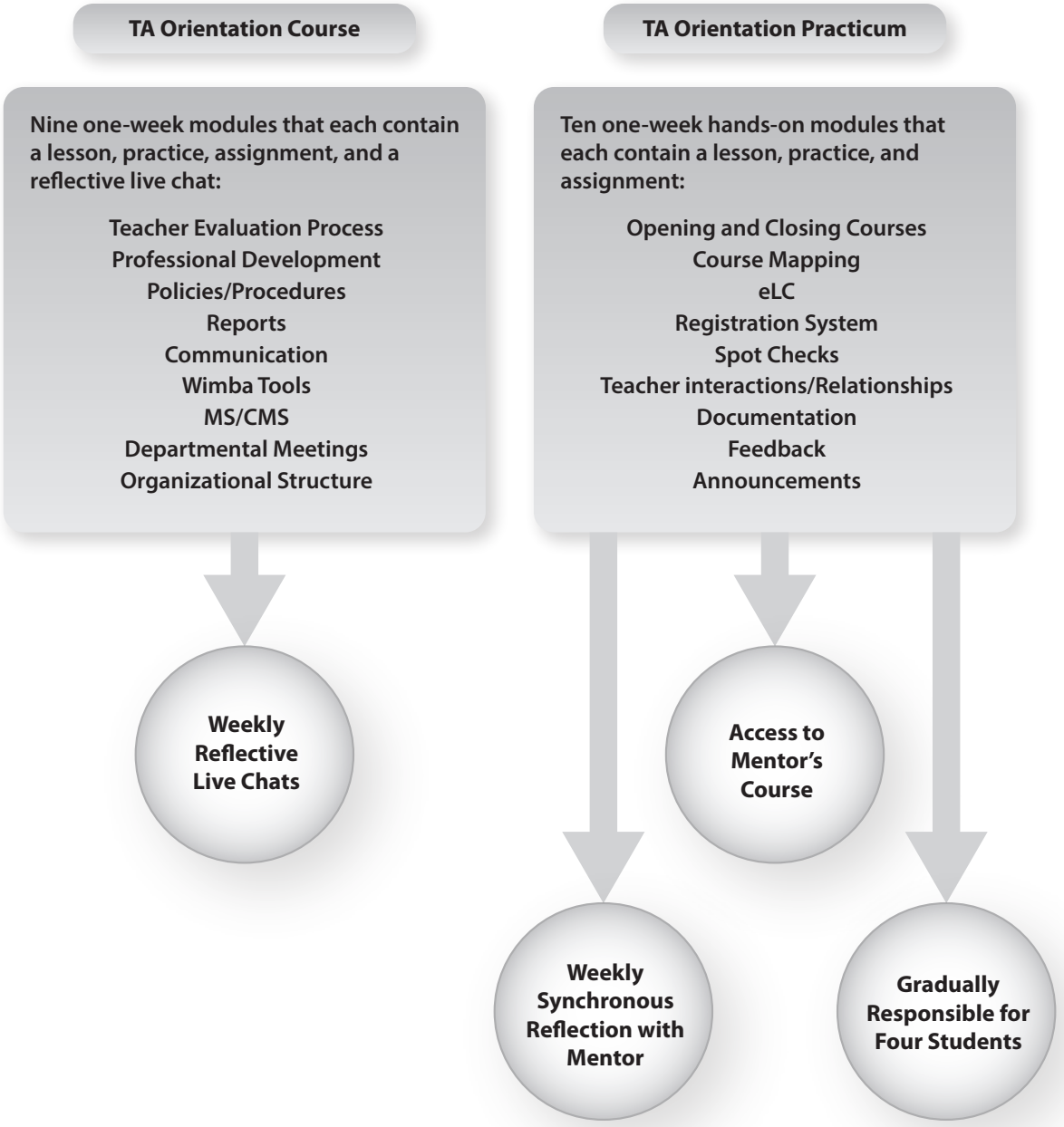

Table 5-1 A Rubric for Identifying Teachers to Teach for NCVPS This rubric is to be used to determine the best teacher candidates to participate in the Teacher Assistant Program and possibly teach for NCVPS.

A Rubric for Identifying Teachers to Teach for NCVPS							
CRITERIA	**0**	**1**	**2**	**3**	**4**	**POINTS**	**COMMENTS**
EXPERIENCE							
F2F Experience - Department Interested in Teaching	Lateral entry; working in a certification program	Novice, first year teacher	1-2 years	3-5 years	6+ years		
Online Education as Student - Instructor	Never taken or taught an online course	Completed the LearnNC TOC course, but have never taught an online course.	Taught online course(s) for a semester/1 year	Taught online course(s) -2 years	Taught online course(s) -3 years		
Learning Management System (LMS)	Never used/or participated in a LMS	Taken a course which used an LMS	Taught an/or TAed an online course in a LMS other than Blackboard	Taught an/or TAed in an online course using Blackboard	Could teach others to use Blackboard		
Time Commitment	Can commit less than 5 hours per week to TA process	Can commit 5-10 hours per week to TA process	Can commit 11-20 hours per week to TA process	Can commit 21-30 hours per week to TA process	Can commit 30+ hours per week to TA process		
ACCESS AND EQUIPMENT							
Internet Access	Doesn't have easy Internet access. Would need to go to an Internet cafe	Has limited dialup access 5-6 days per week	Has dialup access 24/7	Has broadband access 5-6 days per week	Has broadband access 24/7		
Equipment	No access to any computer equipment	Access to computer with an OS below Win XP, or Mac OS 10.3	Access to computer with at least Win XP, or Mac OS 10.3	Has headset with mic, and computer with at least Win XP, or Mac OS 10.3	Has headset with mic, Webcam, and computer with at least Win XP, or Mac OS 10.3		
EDUCATIONAL LEADERSHIP							
Leadership i.e. Dept. Chair; School Leadership Team; Master's, Ph.D., Ed.D., or Advanced Degree in appropriate curriculum area/ education; Developing/ Writing courses, etc.	No evidence of educational leadership	Clear evidence of educational leadership in progress i.e. advanced education program	Clear evidence of 1 element of educational leadership	Clear evidence of 2 elements of educational leadership	Clear evidence of 3+ elements of educational leadership		

A Rubric for Identifying Teachers to Teach for NCVPS, cont.							
CRITERIA	**0**	**1**	**2**	**3**	**4**	**POINTS**	**COMMENTS**
Philosophy							
Online Learning Philosophy	Believes online learning is not for everyone	Believes students need a special set of skills and must be properly motivated in order to learn online	Believes all students can learn online, but it is the f2f school's responsibility to support students	Believes all students can learn online and it is the online teacher's responsibility to support students	Believes all students should have the opportunity to take an online course before they graduate		
RESPONSIBILITIES							
Instructional Responsibility	Believes online learning is an independent process and an online teacher simply needs to facilitate students	Believes online learning is an independent process and as long as an online teacher grades assignments and answers email, they are doing their job	Believes an online teacher needs to frequently contact students and establish a relationship in order to differentiate instruction as needed	Believes an online teacher needs to frequently contact students, establish a relationship in order to differentiate instruction as needed and create collaborative learning opportunities so students can interact with their classmates during the learning process	Believes an online teacher needs to frequently contact students, differentiate instruction, create collaborative learning environments, and prepare students for a 21st Century workplace		
Non - Teaching Responsibilities	Only willing to teach the sections assigned	Willing to teach and participate in course revisions and ELCs for all assigned courses, but believes PD should be optional	Willing to teach, participate in course revisions and ELCs for all assigned courses, but only a limited number of online PD modules	Willing to teach, contribute to courses revisions, participate in an ELC for all assigned courses, and regularly participate in online PD	Willing to teach, lead peers in course revisions, participate in ELCs for all assigned courses, and regularly participate in online PD		
TOTAL POINTS							

During the Teacher Assistant Orientation Course, Teacher Assistants will work through nine one-week modules that model NCVPS's modular learning courses. Each module contains a lesson, practice activity, an assignment, and a reflective live chat. Teacher Assistants will learn about NCVPS's policies and procedures, teacher expectations, and communication tools just to name a few.

After successfully completing the Teacher Assistant Orientation Course, teachers will be given the opportunity to work with an assigned veteran teacher during the Teacher Assistant Practicum. The Teacher Assistant Practicum consists of ten one-week, hands-on modules that each contains a lesson, practice activity, and an assignment. During the Teacher Assistant Practicum, Teacher Assistants will gain access to their assigned veteran teacher's course, meet weekly with their assigned veteran teacher, and gradually become responsible for up to four of their assigned veteran teacher's students. This Teacher Assistant Practicum simulates a student teacher experience. Upon successful completion of the entire nineteen-week Teacher Assistant Process, Teacher Assistants will then be eligible to teach a course with NCVPS.

Teacher Assistant Orientation Course

The Teacher Assistant Orientation Course is designed to assist Teacher Assistants as they begin the Teacher Assistant Program preparing them to teach online and is taught by a NCVPS School Curriculum and Instruction staff member who not only instructs, but who also assesses assignments, provides feedback to all Teacher Assistants, and models the instructional model that is expected by all teachers. Cullingford argues that interaction and feedback are fundamental to the effectiveness of virtual mentoring in the same way they are to a traditional face-to-face mentorship (Cullingford, 2006). Most Teacher Assistants find that teaching online for the first time is much like the first semester that they taught in the face-to-face classroom. For this reason, Teacher Assistants work through this Orientation Course based upon a weekly schedule consisting of nine one-week modules (see Appendix B, 5-A). Before starting the first module, Teacher Assistants complete a Pre-Assessment to provide NCVPS with first impressions that they may have, common misconceptions, and processes or procedures that are known beyond the organization. This also allows the staff to chart the growth of the Teacher Assistants throughout the Teacher Assistant Program.

Within a module there are four components: lessons, practice activities, an assignment, and a reflective live chat. A lesson may consist of notes, audio notes, or videos. Week five is the Communication Module. One of the lessons is based upon the book *Crucial conversations: Tools for talking when the stakes are high* by Kerry Patterson. Teacher Assistants watch a video of both the correct and incorrect way to have a crucial conversation, view a presentation on the book study, and then read an article about communicating virtually. Practice activities may consist of interactive websites, discussion boards, or navigation and creation activities within the Learning Management System using Web 2.0 tools. The Learning Management System Module is presented in week three. Teacher Assistants are asked to create a sample welcome announcement using Web 2.0 tools that teachers would post in their courses to welcome students during the first week of the course. In addition to this course, Teacher Assistants are also enrolled in a Teacher Assistant Practice Course. Teacher Assistants use

this course to practice using and creating Web 2.0 tools within the Learning Management System. Assignments may consist of voice boards, Wikis, creating documents or logs, or auto graded quizzes for immediate feedback. Teacher Assistants complete the Organizational Structure Module during the first week. They are presented with various scenarios that teachers may experience and asked to create a voice board to present their solutions.

Each week Teacher Assistants meet in a virtual classroom with their instructor, and a guest, veteran teacher co-hosts to participate in their weekly reflective live chat. NCVPS staff collected feedback from the new teachers and former Teacher Assistants from the last few orientations and incorporated all of their needs into this Teacher Assistant Orientation Course. Probst argues that the developmental assets need to be infused throughout a mentoring program, so the school focused on the feedback involving support, empowerment, expectations, use of time, commitment to learning, social competencies, positive values, and positive identity of the teacher training experiences in the past (Probst, 2006). One reoccurring theme was the need for weekly live chats. For this reason, the veteran teachers volunteer to co-host the live chats.

Veteran teachers view the modules and discussion topics for each week and volunteer to co-host the live chat where they can be the greatest assets. This is one example of how the school incorporates asset-building strategies into mentor recruitment. In addition to the modules and discussion topics, veteran teachers share their experiences and advice with Teacher Assistants as well as participate in a question and answer session. NCVPS understands that when mentees are gathered together, it results rich learning experiences and networking opportunities (Megginson, Clutterbuck, & Garvey, 2006). These weekly live chats not only serve as weekly checkpoints for Teacher Assistants to ask questions about assignments or concerns, but also help to foster relationships with some of NCVPS's best veteran teachers. Teacher Assistants also participate in team building exercises and competitions to promote camaraderie.

NCVPS teachers come from a variety of backgrounds. The school prides itself on the fact that some teachers currently reside in other countries. NCVPS recognizes that the cultural traits, language differences, and learning styles of the Teacher Assistants must be addressed throughout the Teacher Assistant Program (Cullingford, 2006). Brockbank and McGill state that teachers from European countries may not be accustom to a relationship component of mentoring, but instead focus on the work-related counseling instead (Brockbank & McGill, 2006). For this reason, multiple learning styles are addressed in each module of the Orientation Course and one-on-one tutoring sessions are offered for Teacher Assistants that may require additional help due to language barriers. Teacher Assistants also have the opportunity to use study groups to take a deeper look at their weekly assignments for the purpose of refining practice and ultimately improving student learning (Carr, Herman & Harris, 2005). Teacher Assistants instantly begin building their support systems and networks that will last throughout their teaching career. The goal of this Orientation is for Teacher Assistants to have a better understanding of what North Carolina Virtual is about, what will be required of them on a daily and weekly basis, the tools they have to promote online instruction, and relationship building that will lead to their support system.

Teacher Assistant Practicum

During the last reflective live chat, Teacher Assistants meet their assigned Veteran Teachers and together they discuss the Teacher Assistant Checklist and Evaluation Rubric that will be used during the Teacher Assistant Practicum. During this live chat mentees are encouraged to know their mentor. Teacher Assistants are encouraged to show appreciation to their mentor by thanking them for the additional time spent with them and letting them know when they enjoy lessons and activities. The goal is for the Teacher Assistants to be open to new experiences that their mentor will be introducing them to. Ultimately Teacher Assistants should feel comfortable in sharing talents, skills, and interests with their mentor and realize that they can make a contribution as well.

After Teacher Assistants have successfully completed the nine-week Teacher Assistant Orientation Course, they are assigned a veteran teacher that will work with them during the ten-week Teacher Assistant Practicum. The modules in the Teacher Assistant Practicum are structured in the same manner as the Orientation Course except for three major differences. Instead of participating in the whole group reflective live chat each week, Teacher Assistants will now meet synchronously with their assigned veteran teacher each week; Teacher Assistants are now working within their assigned veteran teacher's course instead of the Orientation Course; and the practice assignments are now called student teaching assignments.

The Registration System Module is completed in Week 16. Veteran teachers complete several tasks within the Registration System while sharing their computer screen with their Teacher Assistants to serve as a lesson. During week 10 Teacher Assistants complete the Learning Management System Module. They must review their assigned veteran teacher's course for errors and post their findings in their Course Revision Wiki as an assignment.

The Student Teaching assignments progress each week and build upon prior knowledge. During week 10, the veteran teacher will identify four students that Teacher Assistant will observe and become responsible for starting in week 13. Two of these students will be high-achieving and two will be lower-achieving students that have special needs. The veteran teacher will share background information and any concerns or processes used with the four students that will be assigned to the Teacher Assistant. In week 13, the Teacher Assistant will provide grades and feedback modeled by the veteran teacher to assigned Student One (high achiever) on assignments, post feedback in the grade book, make synchronous contact with Student One, document in the Synchronous Contact Log, and send emails via the Learning Management System's Message Center. The Teacher Assistant will continue to monitor grades, provide feedback, and any additional communication necessary with the other three assigned students. From this point on, the Teacher Assistant will assume responsibility for an additional assigned student each week until they are responsible for all four students. Teacher Assistants are responsible for all four assigned students from week 16 through week 18. This is designed to provide them with a true student-teaching experience.

Assigned veteran teachers will use their program specific Teacher Assistant Checklist to demonstrate and allow Teacher Assistants to practice the processes and procedures that they learned about during the Teacher Assistant Orientation Course. NCVPS

staff has differentiated the Teacher Assistant Checklist to reflect the needs of the teachers that will be teaching Credit Recovery, OCS Blended, and Traditional Courses. Their assigned veteran teacher, using the Teacher Assistant Evaluation Rubric, assesses teacher assistants at the end of the Teacher Assistant Practicum.

Table 5-2 Teacher Assistant Checklist

Semester: Fall _____ Spring _____ Summer _____

Name of Veteran Teacher: _____

Name of Teacher Assistant: _____

The Veteran Teacher (VT) will discuss the checklist in detail with the Teacher Assistance (TA) to provide some background on NCVPS policies/guidelines, resources etc. and document that discussion took place. A list of Duties as Assigned/Actions Steps are list below. The TA will be given an opportunity to complete these during the process.

Teacher Assistant Checklist		
Check when Shared with TA	**Criteria**	**Details**
Week 9		
	Communications/ Collaborates with VT	• VT and TA will develop schedule (time and day) for weekly meetings • VT and TA will agree on methods to be used in communications/ collaborations
	Teacher Assistant Orientation	• Request and motivate TA to complete TA Orientation if they have not done so • Answers any questions that TA may have about assignments that have not been completed. • Attend Week 9 Live Chat in orientation with TA
Week 10		
	Accesses Assigned Course Section as Teacher Assistant	• VT will share the goals, objectives and overall structure of course the TA has been assigned to • TA will access assigned course using Bb username and password to become familiar with course • TA will view VT's course and document any errors find • The VT will assist the TA in posting the documentation in a Wiki designated in the Live PD course
	Accesses Assigned Course Section as Student	• VT will share Bb username and password with TA to access course as a student • VT will show TA how to send messages to teacher through student account • TA will access course as a student
	Student Teaching - Assigning Students to TA	• VT will identify 4 students that TA will observe and become responsible for starting in Week 13 (i.e. two high achieving, two lower achieving students) • VT will share with TA the background information on the 4 students that will be assigned to TA • VT will share with TA any concerns/processes that they have used with these students

Teacher Assistant Checklist, cont.		
Check when Shared with TA	**Criteria**	**Details**
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone
Week 11		
	Posts Announcements	• VT will model how to teach and connect to students through announcements • VT will introduce TA to different technology tools (i.e. Animoto, Glogsters, Voki, Toondoo, voice announcements) to introduce course content in announcements • TA will post announcements using technology tools as modeled by VT each day this week (one/day=total of 5)
	Student Teaching	• TA will observe grading, feedback, and any communications made with their 4 assigned students
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone
Week 12		
	No Zero Policy - 60/50	• VT will discuss purpose of policy • VT will explain importance of sharing with students • VT will explain when to give grade of 60 and 50 for assignments not submitted
	IEP Documentation	• VT will share IEP document • VT will explain responsibility of teacher/DLA/school personnel working with IEP • VT will share process for identifying and supporting student with IEP
	Late Work	• VT will discuss process for accepting late work
	Grades Assignments	• VT will model how to grade each assignment type (including over riding) for TA in the grade center • VT will set schedule with TA to have assignments graded • VT will model how to provide various types of feedback (including the Message Center) that contains specific examples students could understand, re-learn and/or extend their understanding of course content
	Student Teaching - Observation of Assigned Students	• TA will observe grading, feedback, and any communications made with their 4 assigned students
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone

Teacher Assistant Checklist, cont.

Check when Shared with TA	Criteria	Details
Week 13		
	Wimba Tools	• VT will showcase use of Wimba Classroom • VT will showcase use of Pronto
	Contact Phone Log	• VT will explain Welcome Call • VT will explain synchronous contact with students • VT will provide the type of details to include in contact log (share example) • VT will explain alternative communication methods and solutions when other methods have not been successful • VT will begin copying TA in on all messages and emails to all stakeholders (DLAs, parents, and student) • VT will allow TA to listen in on a stakeholder phone call (DLA, parent, and student)
	Monitors Collaborative Assignments	• VT will model how to become actively involved in collaborative assignments (i.e. Discussion Board, Wikis and/or Blogs) by using probing questions in responses that encourage high-level, critical thinking • TA will monitor collaborative assignments and becomes actively involved as modeled by VT
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1 (high achieving) on assignments, post feedback in the grade book, make synchronous contact with Student 1, record in Contact Log, and send emails via Message Center. • TA will continue to monitor grades, provide feedback, and any additional communication necessary with the other 3 assigned students
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone
Week 14		
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Teacher/Student Relationship Building	• VT will share with the TA how they build relationships with their students
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1 and 2 (both high achieving) on assignments, post feedback in the grade book, make synchronous contact with Student 1 and 2, record in Contact Log, and send emails via Message Center to Student 1 and 2. • TA will continue to observe grades, provide feedback, and any additional communications made with the other 2 assigned students
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone

Teacher Assistant Checklist, cont.		
Check when Shared with TA	**Criteria**	**Details**
Week 15		
	NCVPS Rubric for Self-Reflection and Goal Setting	• VT will share and discuss rubric with TA
	Virtual Teacher Achievement Plan (VTAP)	• VT will share and discuss purpose of VTAP
	Spot Checks	• VT will share their Spot Check process with TA and explain both the form and process
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1, 2, and 3 (both high achieving and 1 low achieving) on assignments, post feedback in the grade book, make synchronous contact with Student 1, 2, and 3, record on Contact Log, and send emails via Message Center to Student 1, 2, and 3. • TA will continue to observe grades, feedback, and any additional communications made with the other assigned student
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone
Week 16		
	No Show Report	• VT will discuss purpose of No Show Report
	Administrative Drop Report	• VT will discuss purpose of Admin Drop
	Progress/Pass Rates Report - VT needs to share in Wimba Classroom as an App Share	• VT will share location of report and purpose of report • VT will share list of strategies used to address low Pass Rate • VT will share On Pace Reporting if working with Credit Recovery • TA will assist VT in completing a Progress/Pass Rates (and On Pace Reporting for Credit Recovery only)
	Registration System – VT needs to share in Wimba Classroom as an App Share	• VT will AP Share how to retrieve a class roster in registration system • VT will show TA how to check for new students just added • VT will share how to access all reports
	Add/Drop Guideline	• VT will explain Add/Drop process • VT will share time line for adding students • VT will share time line for dropping students • VT will share process for adding transferred students
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1, 2, 3, and 4 (2 high achieving and 2 low achieving) on assignments, post feedback in the grade book, make synchronous contact with Student 1, 2, 3, and 4 record on Contact Log, and send emails via Message Center to Student 1, 2, 3, and 4.
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto

Teacher Assistant Checklist, cont.		
Check when Shared with TA	**Criteria**	**Details**
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone
Week 17		
	Departmental Meetings	• VT will discuss purpose of Department Meetings • VT will share location in TBD for Dept. Meetings • VT will share schedule for Dept. Meetings
	eLC and Course Revision Meetings	• VT will discuss purpose of eLC discussions and course revision meetings
	Teacher Convocation/ Symposium	• VT will share purpose of Teacher Convocation/Symposium • VT will share location in Wimba Classroom where Teacher Convocation/ Symposium are usually held
	Participates in a Department Meeting	• VT will share schedule and location of Department Meetings with TA • TA will participate in a scheduled Department Meeting
	Participates in an eLC Meeting	• VT will share schedule and location of eLC meetings with TA • TA will participate in a scheduled eLC meeting
	Teacher Boat Dock (TBD)	• VT will share purpose of TBD • VT will share the resources available in TBD
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1, 2, 3, and 4 (2 high achieving and 2 low achieving) on assignments, posts feedback in the grade book, make synchronous contact with Student 1, 2, 3, and 4 record on Contact Log, and send emails via Message Center.
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone Teacher Convocation/ Symposium
Week 18		
	Professional Development	• VT will share purpose of Live PD course • VT will share the PD available in the Live PD course i.e. Just in Time, PD 10 modules
	Quick Reference Guides (QRGs)	• VT will share purpose of QRGs • VT will share the location of QRGs in the DLA Spa
	Student Teaching - Working with Assigned Students	• TA will provide grades and feedback modeled by VT to assigned Student 1, 2, 3, and 4 (2 high achieving and 2 low achieving) on assignments, posts feedback in the grade book, make synchronous contact with Student 1, 2, 3, and 4 record on Contact Log, and send emails via Message Center to Student 1, 2, 3, and 4
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto
	Reflection	• VT will meet with TA via Wimba, Pronto, or phone

Teacher Assistant Checklist, cont.		
Check when Shared with TA	**Criteria**	**Details**
Week 19		
	Teacher Expectations	• VT will share location of documentation in TBD/Orientation • VT will share differences between expectations for fall, spring and summer
	Closing A Course	• VT will explain all processes and procedures needed to close a course at the end of the semester/grading period • VT will explain procedures for projects, final exams, and issuing INCs to TA
	Distance Learning Advisor (DLA)	• VT will share role of DLA • VT will share when it is appropriate to contact DLA • VT will share where to find the list of DLAs
	Department Chair (DC)	• VT will share the name of the DC for the department • VT will share the role of DC
	Research Development and Innovation Specialist (RDIS)	• VT will share the name of the RDI for the department • VT will share the role of RDI
	Virtual Learning Consultant (VLC)	• VT will share the role of VLC • VT will share the list of VLCs • VT will share when it is appropriate to contact VLC
	NCVPS Office Manager (Tammy Pearson)	• VT will share Tammy's role • VT will share the type of resources she provides
	Division Director, Modular Learning Specialist, and CAO	• VT will share the role of DDs and Modular Learning Specialists • VT will share list of DDs and Modular Learning Specialists
	Chief Academic Officer (Dr. Tracy Weeks)	• VT will share role of CAO
	Technology Division Staff	• VT will share role of Tech and resources provided • VT will share process for reporting technical issues (Goes through DC to Tech)
	Participates in Virtual Hours in Wimba Classroom and/or Pronto	• VT will share schedule and location of a Virtual Hours session with students in Wimba Classroom and/or Pronto with TA • TA will participate in a scheduled Virtual Hours session with VT in Wimba Classroom and/or Pronto • VT will model effective use of Virtual Hours using Wimba Classroom and/or Pronto

Table 5-3 North Carolina Virtual Public School Teacher Assistant Evaluation Rubric

The following rubric will be completed by the VT during the TA process to provide evidence of the effectiveness of the TA.
NOTE: Most equals more than half and **Some** equals less than half.

North Carolina Virtual Public School Teacher Assistant Evaluation Rubric						
Criteria	**0 (Unacceptable)**	**1 (Needs Improvement)**	**2 (Average)**	**3 (Exceptional)**	**Score**	**Comments**
TA Checklist	TA cannot clearly address items in detail reflected in the TA Checklist. See checklist above.	TA can clearly address some of the items in detail reflected in the TA Checklist. See checklist above.	TA can clearly address most of the items in detail reflected in the TA Checklist. See checklist above.	TA can clearly address all the items in detail reflected in the TA Checklist. See checklist above.		
Virtual Meetings	TA met virtually with the VT once a month using Pronto, phone, or Wimba Classroom for the purpose of meaningful and productive collaborative planning.	TA met virtually with the VT 2 times a month using Pronto, phone, or Wimba Classroom for the purpose of meaningful and productive collaborative planning.	TA met virtually with the VT 3 times a month using Pronto, phone, or Wimba Classroom for the purpose of meaningful and productive collaborative planning.	TA met virtually with the VT 4 or more times a month using Pronto, phone, or Wimba Classroom for the purpose of meaningful and productive collaborative planning.		
Teacher Expectations	TA showed understanding of some of the Teacher Expectations.	TA showed understanding of most of the Teacher Expectations.	TA showed understanding of all Teacher Expectations and asked questions to get a better understanding.	TA showed understanding of all Teacher Expectations, asked questions to get a better understanding and shared personal insight regarding the expectations.		
TA/VT Communication	TA communicated with the VT on all correspondence within 48 hours.	TA communicated with the VT on all correspondence within 36 hours.	TA communicated with the VT on all correspondence within 24 hours.	TA communicated with the VT on all correspondence within 12 hours or less.		
Department Meetings	TA attended some of the Department meetings from Weeks 17 - 19.	TA attended most of the Department meetings from Weeks 17 - 19 or reviewed archives of meetings missed.	TA attended most of the Department meetings from Weeks 17 - 19 and reviewed most archives of meetings missed.	TA attended all of the Department meetings from Weeks 17 - 19 and made meaningful contributions to the discussions.		

North Carolina Virtual Public School Teacher Assistant Evaluation Rubri, cont.						
Criteria	**0 (Unacceptable)**	**1 (Needs Improvement)**	**2 (Average)**	**3 (Exceptional)**	**Score**	**Comments**
eLC Meeting	TA attended some of the eLC meetings from Weeks 17 - 19.	TA attended most of the eLC meetings from Weeks 17 - 19 or reviewed archives of meetings missed.	TA attended most of the eLC meetings from Weeks 17 - 19 and reviewed most archives of meetings missed.	TA attended all of the eLC meetings from Weeks 17 - 19 and made meaningful contributions to the discussions.		
TA Orientation	TA completed some of the assignments in the TA Orientation.	TA completed most of the assignments in the TA Orientation.	TA completed all of the assignments in the TA Orientation.	TA completed all of the assignments in the TA Orientation and provided feedback to the VT.		
Grading Assignments	TA provided feedback on all assignments for 1 student over 3-4 week period. The feedback did not contain specific examples that students could understand, re-learn and/or extend their understanding of course content in the grade book.	TA provided feedback on all assignments for 2 students over 3-4 week period. The feedback contained specific examples that students could understand, re-learn and/or extend their understanding of course content in the grade book.	TA provided feedback on all assignments for 2 different students (i.e. 1 high achieving, 1 lower achieving student) over 7 week period. All the feedback contained specific examples that students could understand, re-learn and/or extend their understanding of course content in the grade book.	TA provided feedback on all assignments for 4 different students (i.e. 2 high achieving, 2 lower achieving students) over a 7 week period. All the feedback contained specific examples that students could understand, re-learn and/or extend their understanding of course content in the grade book.		
Monitoring Collaborative Assignments	TA did not monitor collaborative assignments i.e. Discussion Board, Wikis and/or Blogs.	TA monitored collaborative assignments i.e. Discussion Board, Wikis and/or Blogs involved in discussions, but did not use probing questions in responses that encouraged high-level, critical thinking.	TA monitored the collaborative assignments i.e. Discussion Board, Wikis and/or Blogs and became actively involved by using probing questions in responses that encouraged high-level, critical thinking.	TA monitored the collaborative assignments i.e. Discussion Board, Wikis and/or Blogs and became actively involved by using probing questions in responses that encouraged high-level, critical thinking and volunteered to monitor more collaborative assignments.		

North Carolina Virtual Public School Teacher Assistant Evaluation Rubri, cont.						
Criteria	**0 (Unacceptable)**	**1 (Needs Improvement)**	**2 (Average)**	**3 (Exceptional)**	**Score**	**Comments**
Posting Announcements	TA incorporated course content within 3 or fewer of the 5 assigned announcements to teach and connected to students, but did not use a technology tool (i.e. Animoto, Glogsters, Voki, Toondoo) to introduce course content.	TA incorporated course content within 3 or fewer of the 5 assigned announcements to teach and connected to students and used a technology tool (i.e. Animoto, Glogsters, Voki, Toondoo) to introduce course content.	TA incorporated course content within the 5 assigned announcements to teach and connected to students and used 1 technology tool (i.e. Animoto, Glogsters, Voki, Toondoo) to introduce course content.	TA incorporated course content within the 5 assigned announcements to teach and connect to students and used more than one different technology tool (i.e. Animoto, Glogsters, Voki, Toondoo) to introduce course content.		
Virtual Office Hours	TA did not attend a Virtual Office Hours session with VT in Wimba Classroom or Pronto.	TA attended a Virtual Office Hours session with VT in Wimba Classroom or Pronto, but did not contribute to the conversation..	TA attended a Virtual Office Hours session with VT in Wimba Classroom and Pronto and contributed to the conversation.	TA attended a Virtual Office Hours session with VT in Wimba Classroom and Pronto, contributed to the conversation, and volunteered to attend more.		
Duties as Assigned	TA accepted some of the duties assigned by VT.	TA accepted most of the duties assigned by VT.	TA accepted all duties assigned by VT, but did not take the initiative to take on more responsibilities/duties.	TA accepted all duties assigned by VT and took initiative to request more responsibilities/duties.		
Course Structure	TA can not discuss in detail the course goals/ objectives/structure as evidence by application of elements above.	TA discuss in detail some of the course goals/ objectives/structure as evidence by application of elements above.	TA can discuss in detail most of the course goals/ objectives/structure as evidence by application of elements above.	TA can discuss in detail all course goals/objectives/ structure as evidence by application of elements above.		
Overall Score						

NCVPS understands that in order to sustain its competitive advantage, it needs teachers who are motivated and eager to learn and adapt as their roles change along with the organization (Stone, 2007). Veteran teachers recognize the value of the Teacher Assistant Program and volunteer to mentor Teacher Assistants. Probst states that how an organization portrays mentors and mentees when marketing can determine how people define mentors (2006). The Curriculum and Instruction staff member that owns the Teacher Assistant Program visits each department meeting during the semester before the start of the Teacher Assistant Program. Mentors serve as potential support systems and role models that have the ability to bring out the best in Teacher Assistants. During this presentation, images and anecdotes are used that allow veteran teachers to see Teacher Assistants with diverse characteristics and experiences in an effort to focus on positive possibilities. Veteran teachers are reminded that relationships, not the actual program, build successful Teacher Assistants. It is the veteran teacher's responsibility to spark and support the relationship. Veteran teachers are also reminded that mentoring benefits both parties; the Teacher Assistants have tons to offer them as well.

After expressing interest, veteran teachers are asked to complete a TA Buddy (VT) Form (see Appendix B, 5-B) to determine if they meet NCVPS's expectations. NCVPS prefers that veteran teachers have taught for the school at least one year. This allows them to share the unique challenges that arise with each semester. After teaching for a year, veteran teachers should now be adjusted to teaching virtually and have the extra time to mentor a Teacher Assistant. Most Veteran Teachers do not view mentoring as requiring extra time because they would be completing the same tasks for their courses, but they do have to allow for the weekly synchronous meetings. Veteran Teachers must not only know NCVPS's policies and procedures, but they must feel comfortable explaining them to their Teacher Assistants. There must also be a high comfort level with technology tools used to share computer screens such as virtual classrooms and instant messengers. Veteran Teachers will use these tools to demonstrate procedures within the Registration System and other programs. NCVPS views having completed mentor training in the face-to-face school as a bonus and gives priority to these teachers when selecting Veteran Teachers.

Instructional Leaders then assign all Veteran Teachers that meet the expectations to a Teacher Assistant. Instructional Leaders work with teachers on a daily basis and provide coaching, so they truly know the teachers and have established relationships with them. Instructional Leaders also interview Teacher Assistants during the hiring cycle. They pair Veteran Teachers with Teacher Assistants based upon their personalities and content area. Veteran Teachers are then given access to the Mentoring Teacher Assistants Professional Development Module. Cullingford (2006) states that virtual mentors in their support role have to cope with a range of ambiguities, tensions, and conflicting responsibilities. For this reason, all Veteran Teachers are asked to complete a short two-hour professional development module to provide the rationale for the Teacher Assistant Practicum, the expectations for both Veteran Teachers and Teacher Assistants, and strategies needed to ensure success. Cullingford (2006) also points out that one of the greatest strengths of email is its ability to break down socio-economic, racial, and the other traditional barriers to the sharing and production of knowledge. This is why NCVPS teaches its mentors the proper way to communicate virtually with their Teacher Assistants and how to have the needed crucial conversations that may arise throughout the mentorship. This module is aligned with the North Carolina Professional Development

Standards and the ISTE Educational Technology Standards For Teachers. This module consists of the following components: Preparation, Engagement, Exploration, Implementation, and Final Step assignments and activities. Upon completing this module, Veteran Teachers earn Continuing Education Units (CEU) that may be used towards their licensure renewal.

Veteran Teachers gain access to the Orientation Course during the last week. They not only meet their Teacher Assistant during the last live chat, but also check their Teacher Assistant's progress and make sure that they understand the content that has been covered. If their assigned Teacher Assistant is not on task to complete the Orientation Course on time, the Veteran Teacher motivates and coaches them to complete the Orientation Course on time. Once the Practicum begins, Veteran Teachers use the Teacher Assistant Checklist as a guide when working with their Teacher Assistants on a weekly basis. The Veteran Teachers are coached and report the progress of their Teacher Assistants weekly to the NCVPS Curriculum and Instruction staff member. At the end of the Practicum, Veteran Teachers complete the Teacher Assistant Evaluation Rubric, which determines whether the Teacher Assistant will be eligible to teach a course during the upcoming semester. NCVPS understands that if mentoring is not to become manipulative, a tool to deliver compliance and conformity is vital to ensure that ethics and values are put sharply into focus (Pask & Joy, 2008).

Teacher Assistant Program Results

Hart (2009) explains that organizations that offer mentoring programs benefit because it helps them attract talent and it enhances the organizational commitment among employees who seek developmental opportunities. Even though NCVPS has only offered this Teacher Assistant Program for three semesters, the feedback has been extremely positive. NCVPS has seen many success stories. Some of the former Teacher Assistants are now even being groomed for teacher leadership positions which supports Hart's theory that mentoring is a key competency among organization leaders (Hart, 2009). The overall quality of North Carolina Virtual Public School's teaching core has increased. New teachers are more prepared, have a better understanding of the school's policies and procedures, and have built a support system within the organization. The school contributes this to the fact that mentors have a great understanding of the direction of the organization, which allows them to better align Teacher Assistant's efforts with the goals of the organization (Hart, 2009). Instructional Leaders have expressed feeling more comfortable leading new teachers based upon their practicum experience. All of NCVPS's teachers have part time positions and most teach in a face-to-face school full time. The new teachers feel that their face-to-face classes have benefited from their Teacher Assistant Program experience. The confidence level of the new teachers is higher than the school has ever seen; they truly believe that they can teach anywhere or use any tools and be successful. NCVPS has truly learned how to produce world-class educators that possess the knowledge to promote independent thinkers of society, the students.

About the Author

Janice L. Silver started her education career as a Science teacher in both Nashville and Tarboro, North Carolina. She came to NCVPS from the Edgecombe Early College, where she served as a department chair and curriculum specialist. It was here that she became a life-long supporter of quality curriculum and instruction.

Her duties as a modular learning specialist are to provide daily support for modular learning teachers and schools, work with team to develop/revise modular learning courses, and develop/implement school support plans to prepare school systems for virtual training. Her leadership across the organization promotes teacher quality. She provides professional development to all current and pre-service teachers within the organization. She also creates and presents statewide promotions for the modular learning programs.

Ms. Silver is currently pursuing an Education Doctorate in Educational Leadership and Management from Capella University. She holds a Bachelor of Science in Biology (Pre-Medicine) from Elizabeth City State University and Master's of Science in Curriculum and Instruction from the University of Scranton.

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SECTION TWO

Research

CHAPTER

6

Models and Resources for Online Teacher Preparation and Mentoring

Michael K. Barbour
Wayne State University

The history of K-12 online learning is relatively new, beginning in the early 1990s with the development initially of a private virtual school, followed by limited statewide virtual schooling. In 1997, the creation of the Florida Virtual School (FLVS) and the Virtual High School Global Consortium (VHS) is often recognized as the beginning of public K-12 online learning. Shortly thereafter, Clark (2001) estimated there were between 40,000 and 50,000 K-12 students engaged in distance education. Ten years later, Ambient Insight (2011) estimated there were around four million students engaged in K-12 online and blended learning, while Watson, Murin, Vashaw, Gemin, and Rapp (2011) indicated that there were online learning activities in all 50 states and the District of Columbia. Some have even predicted that over half of all K-12 education will be delivered online in the next decade (Christensen, Horn, & Johnson, 2008). However, even with this exponential growth in the practice of K-12 online learning, the availability of useful research to guide that practice has not kept pace.

It is this lack of research that has been one of the main difficulties when it comes to the preparation and mentoring of online teachers. Five years ago, as a part of a national survey of K-12 online teachers in the United States, Rice and Dawley (2007) found that less than 40% of those who responded indicated they had received any professional development before beginning to teach online. More recently, Kennedy and Archambault (2012) reported that university-based teacher education programs were unable to meet the demands of K-12 online learning in their teacher preparation programs. In fact, there are so few teacher education initiatives currently available that Barbour, Siko, Gross, and Waddell (2012) were able to describe the majority of initiatives in the United States and Canada.

The reality of the situation is that those engaged in online teaching at the K-12 level need to be prepared for this unique environment. Teaching online is different from teaching in a face-to-face setting (Davis & Roblyer, 2005; Davis et al., 2007; Roblyer & McKenzie, 2000; Wood, 2005). In this chapter, I review some of the limitations of the existing research related to the design, delivery, and support of K-12 online learning. These shortcomings negatively affect the ability of K-12 online learning programs and teacher education institutions to develop research-based models. Next, I examine some of the existing university-based teacher education initiatives focused on K-12 online learning. Finally, I describe selected open access resources that are available for use by both K-12 online learning programs in their professional development programs and universities in their teacher education endeavors.

Limitations of Research into K-12 Online Learning

Six years ago, Rice (2006) wrote that "a paucity of research exists when examining high school students enrolled in virtual schools, and the research base is smaller still when the population of students is further narrowed to the elementary grades" (p. 430). Three years later, Barbour and Reeves (2008) confirmed "there [had] been a deficit of rigorous reviews of the literature related to virtual schools" (p. 402), and that "much of the research [was] only available in unpublished Master's theses and Doctoral dissertations" (p. 403). Simply put, there is a limited amount of published research available regarding K-12 online learning in general. While the situation has been improving over the past three years, as Barbour (2011) concluded, "the practice of K-12 online learning has far outpaced the availability of both general literature describing practitioner experiences and reliable, valid research" (pp. 4–5). This situation is not exclusive to the practice of K-12 online learning, but also includes the preparation of teachers for K-12 online learning environments.

One way to look at the tasks pre-service and in-service teachers would need to be prepared to undertake in K-12 online learning is to examine the roles that these teachers might play in that environment. Davis (2007) defined three separate roles for teachers in the K-12 online learning environment:

- **Virtual School Designer:** designs instructional materials; works in team with teachers and a virtual school to construct the online course, etc.
- **Virtual School Teacher:** presents activities, manages pacing, rigor, etc.; interacts with students and their facilitators; undertakes assessment, grading, etc.

- F**acilitator:** local mentor and advocate for students(s); proctors and records grades, etc.

One of the difficulties in the field of K-12 online learning is the lack of research into these three roles, in addition to limitations of the existing research.

Limitations of Research into the Design of K-12 Online Learning

There have been only a handful of scholars that have conducted systematic investigations into the design of K-12 online learning. Barbour and Cooze (Barbour & Cooze, 2004; Cooze & Barbour, 2005; 2007) were among the first, when they examined the potential for K-12 online learning course designers to develop online courses to cater to the students' specific learning style. However, learning styles as a field of inquiry has been generally found to be unreliable (Coffield, Moseley, Hall, & Ecclestone, 2004) due to the results being based on students' own self report and are often centered on a list of esoteric words or a rating of their feelings about a series of statements. Later, Barbour (2005, 2007) proposed seven principles of effective course design for K-12 online learners. These studies were based on interviews with course developers and online teachers in a single virtual school that utilized a model of delivery that employed between 40% and 80% synchronous instruction. The researcher did not seek student opinions of the principles, examine whether courses with these principles led to higher student outcomes, or even verify whether the course developers and online teachers actually enacted the practices they believed to be effective.

Earlier, Keeler (2003) created and validated an *Instrument of Instructional Design Elements of High School Online Courses*. This instrument described online courses based on 156 different variables. While this research resulted in a validated instrument, the instrument was simply descriptive. It was designed to describe the various elements of an online course, not whether those elements were of high or low quality or whether those elements were sequenced in a pedagogically-effective and efficient manner. More recently, Keeler and her colleagues have used this instrument to discuss the accessibility of online courses and how the principles of differentiated instruction and universal design could be used to design online courses for learning-disabled students (Keeler & Horney, 2007; Keeler, Richter, Anderson-Inman, Horney, & Ditson, 2007). However, the instrument that formed the basis of this discussion was still descriptive in nature and did not account for the quality of the elements it described.

In one of the early examples of systematic examination of the design of K-12 online course, the SRI International evaluation team studied the course development process of the VHS. As a part of their five-year external evaluation of the VHS, one of the subject-specific investigations SRI International undertook was to create a series of course design standards and measure VHS courses based on those standards (Yamashiro & Zucker, 1999). Zucker and Kozma (2003), in their final evaluation of the VHS, described the 19 standards—based upon the *Principles and Standards from School Mathematics* by the National Council of Teachers of Mathematics—that formed the basis of their review. It should be noted, however, that the instrument developed from these standards was not used in any other context and that the VHS, with its supplemental model that—at the time—focused largely on academically advanced courses, was and still is a unique model in the K-12 online learning landscape.

Limitations of Research into the Delivery of K-12 Online Learning

The research into the delivery of K-12 online learning suffers from many of the same limitations as the research into the design of online learning in K-12 environments. For example, DiPietro, Ferdig, Black, and Preston (2008) described 37 research-based best practices for the asynchronous delivery of online instruction for K-12 students. Similar to Barbour's studies into online course design, DiPietro and her colleagues interviewed a series of individuals selected by a single statewide virtual school as being effective online teachers. There was no verification of whether these handpicked online teachers were indeed effective. This could have been examined by measuring student performance in specific courses and/or by observation of their actual teaching to see if the teachers practiced what they preached. Further, DiPietro (2010) outlined five "successful" asynchronous pedagogic practices using the same methodology.

Within the Canadian context, Murphy and her colleagues have conducted several studies that shed some light into the delivery of K-12 online learning but often suffer from the same methodological limitations. For example, Murphy and Coffin (2003) described effective strategies for the online delivery of a second language in a synchronous environment. The study was based on their observations of a single teacher in a single course in a single K-12 online learning program. Nippard and Murphy (2007) outlined a series of teacher actions to increase a teacher's social presence in a K-12 synchronous online environment based on observations of 12 recorded synchronous classes in a single K-12 online learning program. More recently, Murphy and her colleagues have provided advice on how online teachers can address issues such as student motivation, learner-centered instruction, and effective uses of synchronous and asynchronous learning tools based solely on interviews with 42 teachers from K-12 online learning programs across Canada (Murphy & Rodríguez-Manzanares, 2009a, 2009b; Murphy, Rodriguez-Manzanares, & Barbour, 2011). In each of these instances, the use of a single method of data collection has limited the ability of the researchers to triangulate their findings and, in the first two examples, the use of a single K-12 online learning program with a unique method of delivery (i.e., primarily synchronous) limits the applicability of the findings to other settings.

More recently, Kerry Rice has published *Making the Move to K-12 Online Teaching: Research-Based Strategies and Practices*. In this book, Rice (2011) indicates that:

> much has been written about effective strategies for teaching adult learners, less has been written about younger learners, who often require different approaches to be successful in online environments. This text is designed to provide a broad understanding of the programs, frameworks, tools, and strategies for teaching online, with a specific focus on strategies that target K-12 learners. (p. xiv)

While the author does an excellent job of taking the research, presenting it in a user-friendly way for a practitioner audience, and focusing it on strategies for K-12 online teachers, much of the research that is used is still based on adult learners. Furthermore, Rice does not provide any of the limitations of scope or reach for the K-12 research that is used and fails to consider some of the problems of generalizability described above.

Limitations of Research into the Support of K-12 Online Learning

Research into the support of those engaged in K-12 online learning began with Roblyer and her colleagues' work into the Educational Success Prediction Instrument (ESPRI). The ESPRI, a validated instrument, is designed to predict whether a K-12 student will have success in the online environment (Roblyer, Davis, Mills, Marshall, & Pape, 2008; Roblyer & Marshall, 2002–2003). However, the instrument was limited to predicting the success or failure of a K-12 student in online learning. As Roblyer (2005) noted, the next step that was needed—but has yet to be completed—was "to develop preparation materials to help students whose ESPRI results indicate potential for problems in online learning" (¶ 8). One of the tools that can be used to support those engaged in K-12 online learning is the presence of a virtual school facilitator, mediating teacher, or eDean (i.e., some form of school-based personnel; eDean is a term used in New Zealand).

In fact, Roblyer, Freeman, Stabler, and Schneidmiller (2007) reported that school-based personnel "directly working with students day by day [were] key to the success of the [K-12 online learning] program" (p. 11). Further, Barbour and Mulcahy (2004) reported that school-based personnel provided substantial levels of support in a variety of areas (e.g., supervisory and administrative duties, technical troubleshooting, and providing content-based assistance). However, their study was based on the experiences of five of these personnel responsible for supporting a supplemental K-12 online learning program in its first year of operation. Five years later, Barbour and Mulcahy (2009) found an increase in the amount of support being provided by these school-based personnel. This finding was based on survey data collected from a supplemental online program that utilized a model of delivery that included 40% to 80% of the students' scheduled time being in a synchronous virtual classroom environment, and is not likely generalizable beyond the immediate context.

In one of the more extensive investigations into the design, delivery and support of K-12 online learning, Irvin, Hannum, and their colleagues at the University of North Carolina at Chapel Hill investigated the effects that training for the school-based facilitator could have on student performance and retention in the K-12 online learning environment. This North Carolina team created a web-based training for the facilitators that included topics such as issues for the first day of school, how to talk about and support online assignments, potential student fears, helping to develop time management skills, assisting with the problem of too much work, what to do when students become disengaged, and how to ease students who are worried about their grades (Irvin, Hannum, Farmer, de la Varre, & Keane, 2009). This study, which was conducted over multiple years and involved students learning from K-12 online learning programs in several states, found that students enrolled in online courses where their facilitators had completed this training persisted in their online course at a higher rate (Hannum, Irvin, Lei, & Farmer, 2008). Finally, the North Carolina research team also identified effective facilitators as having "a good, working relationship, who were consistently responsive in their interactions with the teacher, and engaged with and interested in their students" (de la Varre, Keane, & Irvin, 2010, pp. 202–203); and that the facilitator should undertake some of the functions that project teacher presence (de la Varre, Keane, & Irvin, 2011).

Summary of the Limitations of Research into K-12 Online Learning

To date, the availability of research to guide the design, delivery, and support of K-12 online learning is limited. The research that has been conducted has been methodologically limiting. In many instances, the research has been based on the self-reported data of students, teachers, and course developers, with no attempt to verify the veracity of the opinions provided by these individuals. These studies have also often been conducted in isolated settings, likely not generalizable beyond the specific context where the data were collected. Finally, in some instances, the basis of the research itself was unreliable or invalid (e.g., the research in online course design and learning styles).

This is not to suggest that the researchers described above have conducted poor quality or useless research. As Cavanaugh, Barbour, and Clark (2009) indicated:

> in many ways, this is indicative of the foundational descriptive work that often precedes experimentation in any scientific field. In other words, it is important to know how students in virtual school engage in their learning in this environment prior to conducting any rigorous examination of virtual schooling. (Literature Review, ¶ 1)

However, the lack of research into the design, delivery, and support of K-12 online learning has meant that those teacher education programs that have ventured into the preparation of pre-service and in-service teachers for the online environment have often done so with little guidance.

Existing University-Based Training Initiatives

Obviously this lack of research into the design, delivery, and support of K-12 online learning has limited the ability of universities and individual K-12 online learning programs to design effective training for pre-service and in-service teachers. This is one of the reasons why there are limited examples to be found. In this section, I will briefly outline some of the existing university-based programs designed to train and mentor potential online teachers (for a more complete description of these programs, see Barbour et al., 2012).

Professional Development Partnerships

The first university-based programs to develop were actually done in partnership with VHS. As a part of their initial, federally funded development, the VHS created a series of online professional development courses that were designed to provide in-service teachers interested in working with the VHS the necessary skills to be able to design their own online course and then successfully teach or facilitate that online course. These initial professional development courses eventually became five distinct six-week courses that any interested individual could enroll in. Through partnerships with universities such as Endicott College (Beverly, MA), Framingham State College (Framingham, MA), North Dakota State University (Fargo, ND), Northwest Nazarene University (Nampa, ID), Plymouth State University (Plymouth,

NH), and Salem State College (Salem, MA), individuals who successfully complete these courses can also obtain two to four graduate credits per VHS course at these institutions by simply paying the appropriate university's credit hour fees. Endicott College and Plymouth State University have taken the additional step of providing individuals the opportunity to complete a Graduate Certificate in Online Teaching and Learning if they complete all five VHS courses.

Online Student Teaching

Another example of partnerships between K-12 online learning programs and universities for the purpose of training and mentoring pre-service and in-service teachers comes from the State of Florida. The FLVS has partnered with Florida-based universities (e.g., University of Central Florida, University of Florida, and University of South Florida) to allow pre-service teachers to complete their pre-student teaching (sometimes referred to as teaching practicum) and their student teaching (sometimes referred to as teaching internship) in the online environment with an FLVS teacher. These student teaching experiences generally operate in much the same way as traditional student teaching experiences would occur.

The pre-service teacher or student teacher is matched up with a subject-specialist teacher in the content area the student teacher is preparing to become certified in. The student teacher begins by completing some initial orientation to prepare for their student teaching experience. Then for the first portion of the semester, the student teacher observes the teacher, asks questions, and is generally mentored into that classroom and school. During that time, the student teacher may teach an isolated lesson and is generally available to help the K-12 students in facilitating their learning. After a few weeks, the student teacher often takes over the instructional responsibilities for one course and, as the mentoring teacher sees progress and confidence in the student teacher, takes over more and more of instructional responsibilities until the student teacher is teaching most or all of the mentoring teacher's courses. As the end of the semester nears, the mentoring teacher begins to take instructional responsibilities back from the student teacher, often at the completion of units or other logical end points.

The only real differences between the traditional student teaching experiences and the online student teaching experiences these universities are able to provide through the FLVS are that the initial orientation includes a significant amount of technical training to allow student teachers to become comfortable with the learning management system and other online tools, and that all of the interactions described above occur online instead of in a traditional face-to-face classroom. FLVS has worked to expand these opportunities with other institutions in the State of Florida (see Kennedy [2010] for a description of one of these pre-service initiatives). FLVS is also in the process of expanding these partnerships beyond Florida; Wayne State University in Detroit, Michigan, is likely to become one of the first universities outside the state to be able to provide these opportunities to its pre-service and in-service teachers.

Graduate Certificates in Online Teaching and Online Teaching Endorsements

In addition to the graduate certificates available from some universities to those who complete the VHS professional development courses, the availability of graduate certificates for online teaching has increased significantly despite the small number of programs. Further, as some states have moved to create online teaching endorsements for the teacher certification process (e.g., Georgia and Idaho), and other states have incorporated online learning into existing endorsements (e.g., Michigan), these certificate programs often provide teachers with additional incentives and give K-12 online learning programs in those jurisdictions a qualification that can be requested or required in order to teach online. Table 6-1 provides an overview of the graduate programs focused on K-12 online teaching and learning that were in operation at the time this chapter was written.

Table 6-1. Summary of Graduate Certificates in Online Teaching and Online Teaching Endorsements

Summary of Graduate Certificates in Online Teaching and Online Teaching Endorsements		
University	**Required**	**Elective**
ASU	1. Principles & Issues in K-12 Online Learning 2. Methods of Online Teaching 3. Online Course Design 4. Online Teaching Practicum	One of: 1. Technology Integration Methods 2. Using the Internet in Education 3. Emerging Technologies 4. Technologies as Mindtools
BSU (Certificate)	1. Online Teaching in the K-12 Environment 2. Advanced Online Teaching Methods	One of: 1. The Internet for Educators 2. Online Course Design 3. Teaching & Learning in Virtual Worlds 4. Educational Games & Simulations
BSU (Endorsement)	1. Internet for Educators 2. Theoretical Foundations of Educational Technology 3. Online Course Design 4. Teaching Online in the K-12 Environment 5. Advanced Online Teaching 6. Social Network Learning 7. Internship (evidence of one year of online teaching experience)	
CSU*	1. Introduction to Online Teaching and Learning 2. Teaching Models for Online Instruction 3. Technology Tools for Online Instruction 4. Designing Curriculum for Online Instruction	
GA Southern (Certificate & Endorsement)	1. Theories and Models of Instructional Design 2. Pedagogy of Online Learning 3. Field Experience in Online Teaching and Learning	

Summary of Graduate Certificates in Online Teaching and Online Teaching Endorsements, cont.		
University	**Required**	**Elective**
GA State (Certificate & Endorsement)	1. Integrating Technology into School-Based Environments 2. Evaluation and Assessment for Online Learning 3. The Internet for Educators 4. E-Learning Environments	
UCF (Master's degree)	1. Current Trends in Instructional Technology 2. Research in Instructional Technology 3. Measurement & Evaluation OR Statistics for Educational Data 4. Fundamentals of Graduate Research in Education 5. Instructional System Design	All of: 1. Multimedia for Education & Training 2. Distance Education 3. Interactive Online & Virtual Teaching Environments 4. Virtual Teaching & the Digital Educator
UCI*	1. Foundations of Virtual Instruction 2. Advanced Instructional Strategies 3. Performance Assessment in the Virtual Classroom 4. Virtual Teacher Practicum	
UWS	1. E-Learning for Educators 2. Assessment in E-Learning 3. Instructional Design for E-Learning 4. Creating Collaborative Communities in E-Learning 5. E-Learning Practicum	
VSU (Certificate & Endorsement)	1. Course Management Systems for E-Learning 2. Resources and Strategies for E-Learning 3. Design and Delivery of Instruction for E-Learning	
WSU	1. Facilitation of Online & Face-To-Face Learning 2. Foundations of Distance Education 3. Practicum in Instructional Technology	Two of: 1. Designing Web Tools for the Classroom 2. Internet in the Classroom 3. Web-Based Courseware Development 4. Multimedia for Instruction 5. Advanced Multimedia for Instruction 6. Learning Management Systems

* Continuing Education programs (i.e., not traditional fifteen-week, semester-long courses and do not naturally lead to graduate credits at the university or other universities)

Of note is that the programs vary in terms of the number of courses and the structure (e.g., all courses required vs. some required and some elective). This provides prospective online teachers or existing online teachers who wish to improve upon their skills a variety of options. For example, in the state of Georgia there are three graduate certificate programs that lead to the state's online teaching endorsement. Two of those three programs (at Georgia Southern University and Valdosta State University) require only three courses, while the third (at Georgia State University) requires four courses. Only one of the three programs in Georgia (at Georgia Southern University) requires a field experience component. All three programs have an online pedagogy course. This would provide prospective or current online teachers in Georgia the opportunity to select the program that best suits their needs and current professional context.

The example from the state of Georgia does highlight some of the differences that exist within these programs that are important. For example, the only program that naturally leads to a Master's degree is the program at the University of Central Florida. On the opposite end of the spectrum, the graduate certificates offered by California State University, East Bay, and University of California–Irvine may not even lead to graduate credit hours from those institutions that could be used toward a graduate degree program. Some of the programs have a strict K-12 focus (e.g., Arizona State University and the three Georgia-based universities), while others have both a K-12 and adult focus (e.g., Boise State University, University of Wisconsin–Stout, and Wayne State University).

The content is also an area where many of the programs differ. For example, almost all of the programs include a course in online pedagogy, as well as a learning management system or online tools course. However, only approximately half of the programs include a course in instructional design or online course development. Less than half of the programs provide some form of field experience, practicum, or online student teaching. None of the programs have a course that specifically focuses on the role of the school-based facilitator. There is no specific curriculum for those interested in how to better support the online learners in their school—one of the three roles a teacher could play in the online learning environment. Further, none of the programs have a course that specifically focuses on blended learning—something that is becoming more and more common within the K-12 environment. One of the reasons for these deficiencies is a lack of research that can guide universities in the development of these teacher training and mentoring programs.

Teacher Education Goes Into Virtual Schools (TEGIVS)

One of the few research-based initiatives to help prepare and mentor pre-service and in-service teachers into K-12 online learning has been the TEGIVS project at Iowa State University (ISU). In partnership with the University of Florida, the University of Virginia, Graceland University, and Iowa Learning Online, ISU identified and developed online teaching competences for teachers to be able to support K-12 online learning in the traditional setting. These competencies focused on a variety of perspectives that included the online course developer, online teacher, online student, and local school site facilitator to provide teachers with a general understanding of all aspects of the K-12 online learning process.

In addition to the creation of these competencies, ISU also developed a series of curricular resources that could be used in teacher education and K-12 online learning professional development programs (described in greater detail in the following section). More importantly, at least to the research community, the TEGIVS project represented the first systematic effort to examine in an empirical manner the specific competencies that teachers need in order to be prepared for one or more of the three teacher roles in the K-12 online learning environment. In addition to the creation of research-based competencies, the ISU team also undertook several evaluative research studies into the development and delivery of their K-12 online learning curriculum. This research, along with other curricular and support materials for the TEGIVS project, can be found at *http://ctlt.iastate.edu/~tegivs/TEGIVS/homepage.html*

Open Education Resources

The lack of research into what constitutes the effective design, delivery, and support of K-12 online learning is clearly one of the reasons why university-based teacher education programs have been reluctant or slow to position themselves to prepare pre-service and in-service teachers for the K-12 online learning environment. However, another reason is the lack of existing curricular materials that can be used within a university course or professional development module related to K-12 online learning. For example, there are very few resources available that are related to the role of the designer of K-12 online learning. In fact, beyond the individual lessons and modules—and sometimes courses that some of the K-12 online learning programs make available for students and parents to be able to preview their learning materials—there is little content that is currently available to those who are designing the training and mentoring experiences to be used in K-12 online learning.

Previews of online lessons, modules, and courses are also transient in nature. For example, the TEGIVS project lists nine sources of what it refers to as demo courses (which include samples of online learning from a variety of K-12 online learning programs). The resource was last updated approximately three years ago, yet six of the nine demo courses are no longer available or have been moved to a different web address. One initiative that may begin to address this issue is the Open High School of Utah's (OHSU) "Open Courseware" initiative (see *http://www.ocw.openhighschool.org/*). OHSU is an online charter school that was founded on the principle of open education; as such, one of the initiatives that it has undertaken is to make its curriculum available through this open, online courseware repository. One of the limitations of this initiative, however, is the fact that only the course content is provided. All of the assessments that are associated with that content have not been included, which limits the ability of the Open Courseware initiative to be used as a resource to examine the effective design of a complete online course.

Additionally, access to K-12 online content is only one of the curricular resources that would be needed for K-12 online learning teacher training and mentoring programs. Open source resources that focus on the process of design, particularly for different subject areas, grade levels, student ability levels, and classes of student (e.g., at-risk, special needs, gifted, etc.) would still be useful. One of the reasons we have yet to see any of these kinds of resources developed to date may be due to the lack of research to support what is effective course design under these differing conditions. Another potential reason we haven't seen more open course repositories, or a greater level of sharing of course content, may be due to the fact that there are often multiple providers (both for profit and non-profit) operating in a given state who are competing against one another for student enrollments (and in the case of the for profit companies, their course materials are often proprietary in nature). However, even with a general lack of research to guide their development, there has been some development of open education resources to support training and mentoring for the delivery and support of K-12 online learning.

Resources to Support the Delivery of K-12 Online Learning

One of the first sets of open access resources designed to help support the delivery of K-12 online learning was actually a precursor to the TEGIVS project. In 2005, ISU, in partnership with Iowa Learning Online (ILO), developed a resource known as "Good Practice to Inform Iowa Learning Online" (see *http://ctlt.iastate.edu/~vhs/*). Contained in one of the main portions of the resource were ten case studies that were designed to provide guidance to online teachers in asynchronous environments in a variety of subject areas (see Table 6-2).

Table 6-2 Summary of the Ten ILO Case Studies

Summary of the Ten ILO Case Studies	
Subject Area	**Online Pedagogy**
Anatomy and Physiology	Active Web-Based Labs
Biology	Enhanced Course through Virtual Labs
Chef Youth Apprenticeship	Demonstration Video Labs
Chemistry	Blending Virtual and Home-Based Labs
Chemistry	Parallel Distributed Labs in a High School Partnership
Environmental Science	Longitudinal Case-Oriented Labs
Life and Physical Science	Online Lab Instrument Access
Physics	Active Web-Based Labs
Physics	Scientific Reports of Virtual Labs
Psychology	Social Science Discussion Labs at a Distance

Each case study provided a rationale for the pedagogical problem or concern related to online pedagogy, a description of the materials developed or used by the teacher to overcome the problem of concern with links to the actual items used, and then a discussion of how the teacher used those items in their online teaching.

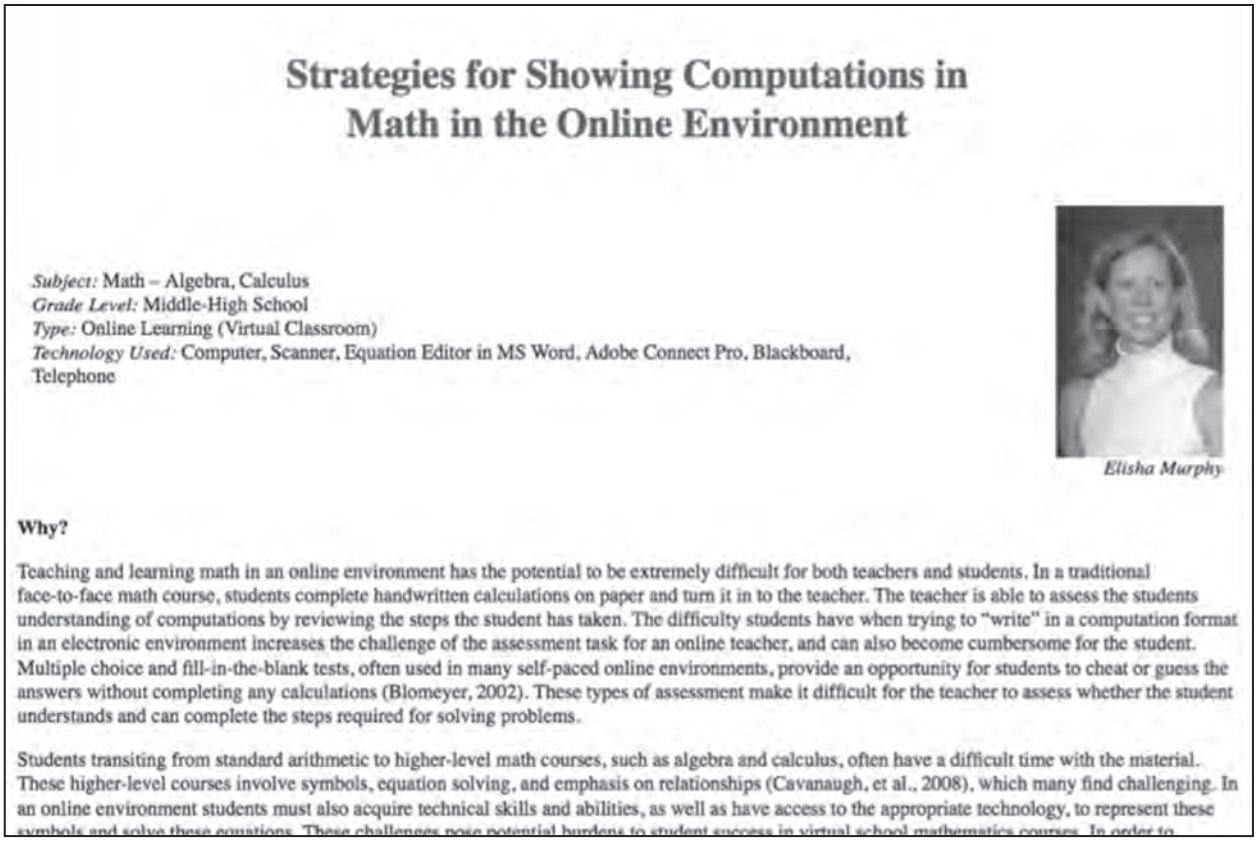
Figure 6-1 Screen capture of one of the "Good Practice to Inform Iowa Learning Online" case studies.

While the ILO case studies are quite useful, they are geographically limited to the context under which they were developed (i.e., based on a statewide, supplemental program in a Midwestern state that primarily served rural students). Additionally, there is a strong mathematics and science focus in the case studies that were developed (i.e., eight of ten case studies). However, many of the suggested asynchronous teaching practices that were suggested would likely be applicable under most contexts.

Four years later, faculty at Wayne State University, in partnership with the Michigan Virtual School (MVS), used the ISU-ILO model to create four additional case studies (see *http://itlab2.coe.wayne.edu/it6230/casestudies/*).

Table 6-3 Summary of the Michigan Online Teaching Case Studies

Summary of the Michigan Online Teaching Case Studies	
Subject Area	**Online Pedagogy**
English Language Arts	Providing Substantive Feedback
Mathematics	Showing Computations
Science	Using Reading and Writing
Social Studies	Increasing Interaction



Strategies for Showing Computations in Math in the Online Environment

Subject: Math – Algebra, Calculus
Grade Level: Middle-High School
Type: Online Learning (Virtual Classroom)
Technology Used: Computer, Scanner, Equation Editor in MS Word, Adobe Connect Pro, Blackboard, Telephone

Elisha Murphy

Why?

Teaching and learning math in an online environment has the potential to be extremely difficult for both teachers and students. In a traditional face-to-face math course, students complete handwritten calculations on paper and turn it in to the teacher. The teacher is able to assess the students understanding of computations by reviewing the steps the student has taken. The difficulty students have when trying to "write" in a computation format in an electronic environment increases the challenge of the assessment task for an online teacher, and can also become cumbersome for the student. Multiple choice and fill-in-the-blank tests, often used in many self-paced online environments, provide an opportunity for students to cheat or guess the answers without completing any calculations (Blomeyer, 2002). These types of assessment make it difficult for the teacher to assess whether the student understands and can complete the steps required for solving problems.

Students transiting from standard arithmetic to higher-level math courses, such as algebra and calculus, often have a difficult time with the material. These higher-level courses involve symbols, equation solving, and emphasis on relationships (Cavanaugh, et al., 2008), which many find challenging. In an online environment students must also acquire technical skills and abilities, as well as have access to the appropriate technology, to represent these symbols and solve these equations. These challenges pose potential burdens to student success in virtual school mathematics courses. In order to

Figure 6-2 Screen capture of one of the "Michigan Online Teaching Case Studies."

Each case study provided a rationale for the pedagogical issue, a description of the strategies and/or materials utilized by the MVS teacher to overcome the issue, including links and samples, and finally a discussion of the online pedagogical issue within the literature. Similar to the ISU-ILO case studies, these case studies are limited by their geographic focus on Michigan. However, many of the pedagogical strategies described in each case study could be explored in other contexts.

One final open access resource that may be useful to those designing or implementing programs to support teachers with the delivery of K-12 online learning are the instructional videos created by Elizabeth Murphy of Memorial University of Newfoundland. Dr. Murphy, using both her YouTube channel (see *http://www.youtube.com/user/elizmurphy*) and TeacherTube

(see *http://www.teachertube.com/viewProfile.php?user=elizmurphy*), has uploaded numerous videos that explore the use of virtual learning in the K-12 environment. These videos include:

- Learner-centered e-teaching: Part 1 and Part 2
- Learner-centered e-teaching: Motivation: Part 1 and Part 2
- Learner-centered e-teaching: Individual and developmental differences
- Rural students talk about learning French online
- E-teaching French as a second language: Part 1 and Part 2
- Perturbations and possibilities in the virtual classroom
- Learner-centered teaching with technology

One of the main limitations of these resources is the fact that they focus primarily on a supplemental online learning program in Newfoundland and Labrador that utilizes a method of delivery with a heavy reliance on synchronous instruction compared to most American, and even other Canadian, K-12 online learning programs.

Resources to Prepare Teachers to Support K-12 Online Learning

As a part of the TEGIVS project, ISU developed five web-based scenarios that focused on introducing teachers to K-12 online learning and how they could support the students at their local school who were taking courses online (see Table 6-4).

Table 6-4 Summary of the Five TEGIVS Scenarios

Summary of the Five TEGIVS Scenarios			
Subject Area	**Grade Level**	**Technology**	**Online Learning Issue**
N/A	Early Childhood/ Elementary	World Wide Web	Teacher use of collaborative online project
Mathematics	Elementary/Middle	Florida Virtual School	Student pacing and role of school-based personnel
Foreign language	Secondary	Synchronous software	Technology difficulties
Science	Secondary	Videoconferencing	Internet safety
Science	Secondary	Course management system	Student pacing and potential cheating in test-taking situations

Under the TEGIVS model, each scenario begins with an *Introduction* that outlines the objectives for the scenario and the task that the students will have to complete at the end of the scenario. Students would then click on the *Notes Sheet*, which provides them with a structured way in which to view the content of the scenario for a copy of the standard notes sheet). The *Scenario* itself is divided into a series of scenes. Each *Scene* occurs in a different setting and presents the content of the scenario using a series of still images with a narration of the issue or problem being highlighted by the scenario.

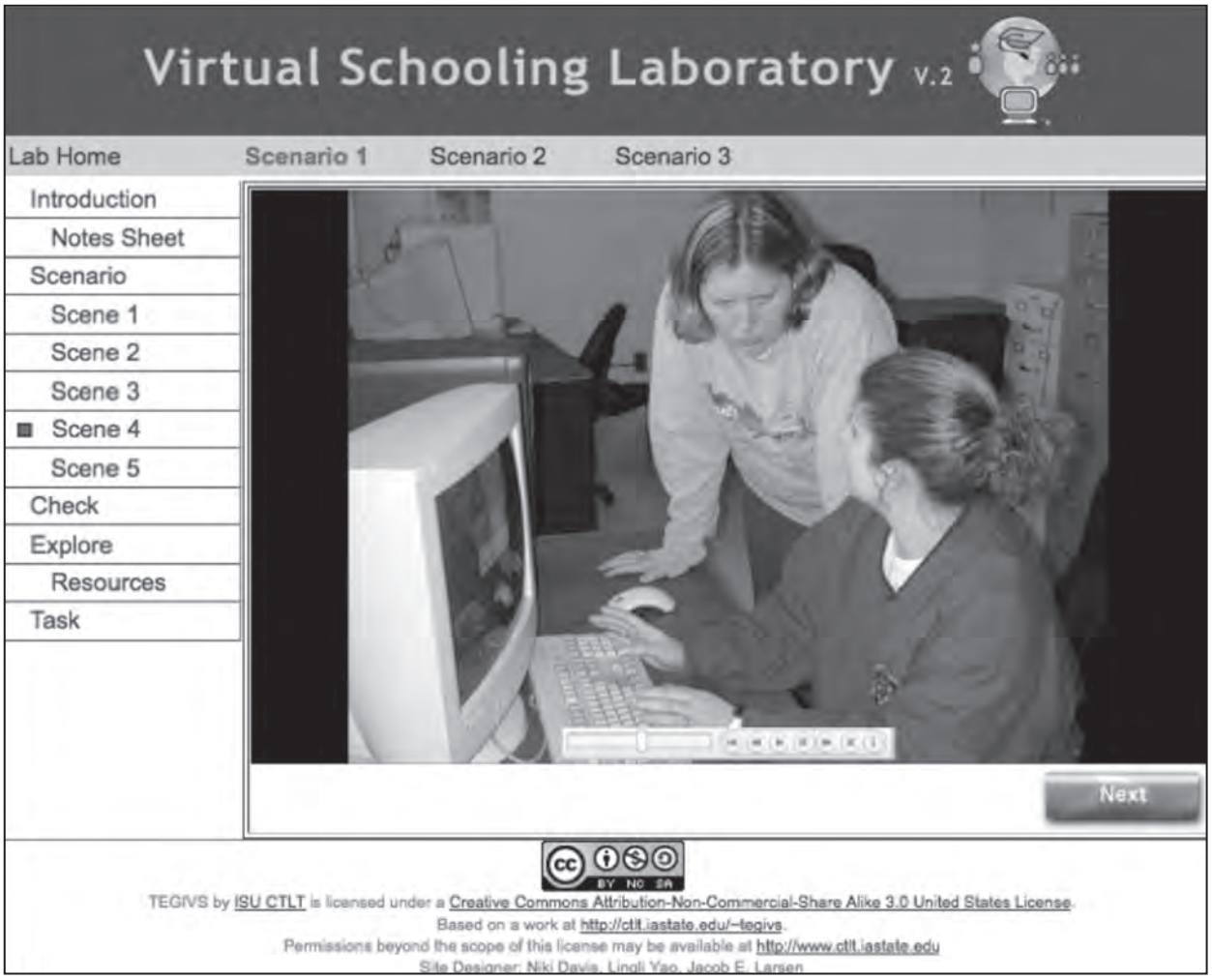


Figure 6-3 Screen capture of one of the TEGIVS scenarios.

After viewing the scenario, a *Check* page provides students with a review of the items that they should have completed as a part of their Notes Sheet. The *Explore* option provides students with a summary of the main issue or problem highlighted by the scenario, and then encourages students to use the links to additional web-based *Resources* to find out more about the issue or problem. Finally, the students are asked to complete a *Task* that can be evaluated by the instructor. The scenarios were narrated and delivered using Adobe Flash.

Building upon the TEGIVS model, in 2010–11, faculty at Wayne State University created three Michigan-based scenarios designed to introduce teachers to the Michigan online learning graduation requirement and explain how they could support students in their own schools who were engaged in online learning to meet this requirement (see Table 6-5).

Table 6-5 Summary of the Three "Supporting K-12 Online Learning in Michigan" Scenarios

Summary of the Three "Supporting K-12 Online Learning in Michigan" Scenarios	
Scenario Subject	**Online Learning Issues**
Online Learning Graduation Requirement for Michigan	An overview of the three methods that schools may use to allow students to meet the online learning graduation requirement
Online Learning Necessitates Soft Skills	An overview of the independent learning skills K-12 students need in order to learn online
Supporting the Online Student in a Virtual School Environment	An overview of various strategies that teachers can use or schools can implement to help support K-12 students learning online

These scenarios used the same *Introduction - Notes Sheet - Scenario - Check - Explore - Resources - Task* format (see *http://itlab2.coe.wayne.edu/it6230/michigan/*).

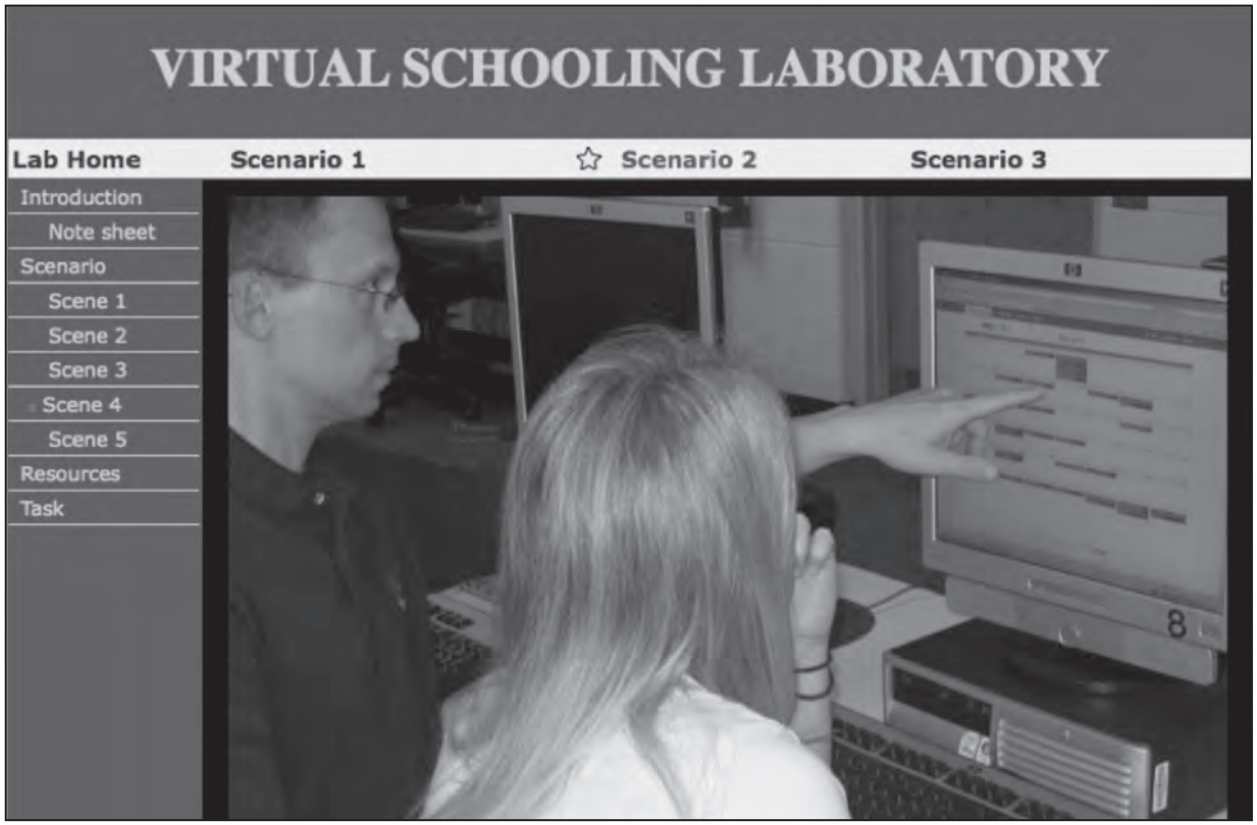


Figure 6-4 Screen capture of the format for the Michigan-based scenarios.

While the TEGIVS scenarios are quite general in nature and could likely be applied in any geographic context, the same cannot be said of the "Supporting K-12 Online Learning in Michigan" scenarios. All three of these scenarios are related to the Michigan graduation requirement, which requires that students complete an online learning experience (i.e., defined as completing an online course, 20 hours of online instruction in a face-to-face course, or technology-infused lessons on all of the student's Michigan Merit Curriculum courses). In fact, one of the three scenarios is devoted to simply explaining this requirement, while the other two scenarios do provide some general strategies for supporting students engaged in K-12 online learning in any context.

Summary

At present, K-12 online learning is continuing to grow throughout the United States and worldwide. Similarly, the availability of empirical studies into K-12 online learning is also growing. However, the research field has not been able to keep pace with the growth in practice or with the need of the practitioner community for guidance on effective practices related to the design, delivery, and support of K-12 online learning. This is one of the reasons why those involved with the preparation and mentoring of teachers—both in universities and K-12 online learning programs themselves—have also not been able to keep up with the need to ensure that teachers be prepared to design, deliver, and support K-12 online learning.

While there are a limited number of university-based programs that are currently available, there are some models that have been developing. There are partnerships between K-12 online learning programs and universities to allow for dual-credit opportunity for teachers completing online professional development (i.e., continuing education units from the K-12 online learning program and graduate credits from the university), as well as opportunities for pre-service and in-service teachers to participate in student teaching and practicum/field experiences in online environments. There are also a variety of university-based programs that include continuing education certificates to graduate credit-based certificates to programs for endorsements to existing teaching certificates to complete graduate degrees.

However, in addition to the lack of available research to guide the content of these programs, another limitation is the lack of available resources—particularly open access resources—that can be incorporated into these preparation and mentoring programs. Beyond the availability of samples or course content, some of which are more extensive than others, there are currently few resources that can be used to support the design of K-12 online learning. There are a series of open access resources that have been developed in Iowa and Michigan focused on providing strategies for effective asynchronous delivery of K-12 online learning, as well as resources developed in the Canadian province of Newfoundland and Labrador on effective synchronous delivery of K-12 online learning. Finally, there have also been open access resources developed in Iowa and Michigan focused on providing strategies for effective support of K-12 online learning, with the TEGIVS scenarios probably providing the best example of generic resources that could be adopted into any context focused on the preparation and mentoring of online teachers.

While teacher education programs have been slow to implement formal programs to prepare teachers to design, deliver, and support K-12 online learning activities, there have been numerous examples of initiatives that have been undertaken by universities and K-12 online learning programs themselves to ensure that teachers have the skills necessary to facilitate student success in this new and innovative educational environment. For example, Barbour, Kinsella, Wicks, and Toker (2010) described the extensive teacher selection and initial training process that was utilized by the Illinois Virtual High School. The other chapters in this book provide additional examples of how universities and K-12 online learning programs are

preparing teachers to be successful in the K-12 online learning environment. For example, a team from the University of Florida describes an innovative professional development initiative that used action research to allow online teachers to examine and improve upon their practice in a systematic way, with support from the University of Florida team. There are numerous examples of these kinds of innovative programs occurring all over North America. Through books like this one, these initiatives are beginning to be documented and shared with a wider audience. A greater awareness of these innovative ways that universities and K-12 online learning programs are preparing teachers to design, deliver, and support K-12 online learning is a necessary step in providing effective opportunities for students in all jurisdictions.

About the Author

Michael Barbour is an Assistant Professor in Instructional Technology and Educational Evaluation and Research at Wayne State University. He has been involved with K-12 online learning in Canada, the United States, and New Zealand for over a decade as a researcher, teacher, course designer, and administrator. His research focuses on the effective design, delivery, and support of K-12 online learning, particularly for students located in rural jurisdictions.

CHAPTER

7

Increasing Student Motivation through Mentoring Practices

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The Role of Motivation in Mentoring

Because of its importance in the success of online learners, the topic of motivation is essential when designing mentoring programs for novice virtual instructors in the K-12 environment. Virtual K-12 schools are growing rapidly in the United States, providing students the opportunity to learn at their own pace and convenience. However, online education offers challenges for students, instructional designers, and online facilitators. The learner-centered focus of online courses requires learners to be motivated and self-directed (Lee, 2000). Although learners are required to be self-directed to succeed, lack of motivation has been cited as a major cause of failure to succeed by online students (Kim & Keller, 2008; Moore & Kearsley, 1996).

Effective mentoring of K-12 online instructors should include strategies that build a mentee's expertise, including direct instruction and deliberate practice for mentees on the specific instructional practices that virtual K-12 students find motivating. In designing this mentoring, the instructional practices and cognitive skills of experienced online instructors that are found to motivate K-12 online students should be used to build the framework for mentoring.

A large body of knowledge illuminates student motivation in the traditional classroom (Ames & Archer, 1988; ChanLin, 1994; Deci & Ryan, 1995; Graham & Golan, 1991; Keller, 1987, 1999, 2010). A growing number of studies on student motivation relate to distance learning (Angelino, Williams, & Natvig, 2007; Gabrielle & Branson, 2003; Hara & Kling, 2001; Keller, 2010; Sperry, 2009; Swan, 2001; Talvitie-Siple, 2007). This research base builds from a variety of theories regarding how and why students are motivated.

Keller's ARCS model is a research-based, problem-solving approach to designing the motivational aspects of learning environments to stimulate and sustain students' motivation to learn (Keller, 1987, 1999, 2010). Two major parts comprise the model; the first is a set of categories representing the components of motivation. These categories are the result of a synthesis of Keller's research on human motivation, including Bandura's (1977) self-efficacy theory, Fishbein's (1967) expectancy–value theory, Jones, Kanhouse, Kelley, Nisbett, Valins, and Weiner's (1971) attribution theory, and Gagne's (1970) nine events of instruction. The second part of the model is a systematic design process that educators can use to create motivational enhancements that are appropriate for a given set of learners.

Keller's ARCS model is valuable in both identifying specific factors which motivate students and supporting differences between how experienced and novice teachers in the K-12 online learning environment motivate students in different ways. In an effort to identify whether or not there were significant differences between novice and experienced instructors in the ARCS factors which motivate secondary students, Carpenter (2011) administered the Course Interest Survey, a validated survey designed to measure ARCS constructs within a course, to ninth grade English I students at Florida Virtual School. At the time of the survey administration, these students had completed 65% to 99% of the course. Carpenter found that while there were no differences in Attention and Relevance scores, the Mann-Whitney *U* test revealed significant differences in Confidence scores between students with novice teachers ($Md = 4.25$, $n = 15$) and those with experienced teachers ($Md = 4.62$, $n = 63$), $U = 226.50$, $z = -3.14$, $p = .002$. The Mann-Whitney *U* test also revealed significant differences in Satisfaction scores between students with novice teachers ($Md = 4.00$, $n = 15$) and students with experienced instructors ($Md = 4.56$, $n = 63$), $U = 318.50$, $z = -2.00$, $p = .050$. For the purposes of this study, novices were defined as those online instructors with five years or fewer of online teaching experience in the subject area, while experienced instructors were online instructors with six years or more of online teaching experience.

This research supports the positive effect of experienced instructors on secondary students in the secondary online learning environment. Since both novice and experienced instructors were found to be effective in motivating students, the Carpenter (2011) study supports observations by Siedentop and Eldar (1989) that although both novice and experienced teachers may be effective, the effectiveness of experienced teachers is different from that of the intermediate and first-year teachers. For example, in their study, the more experienced teachers paced events more smoothly, followed up more deliberately on important specifications, and utilized content more imaginatively. Siedentop and Eldar called the automaticity and ease of expert teachers "experienced effectiveness." According to Keller (2010), the level of subject matter expertise can be important when trying to make a unit of instruction more motivating. Keller maintains that teachers with a high level of knowledge and experience "are usually better able to think of a variety of possible motivational tactics" (p. 201). According to the Carpenter study, experienced teachers may possess a level of expertise in building confidence and satisfaction that novice teachers have not yet developed. It is important to capture specific elements of this level of expertise to use in developing mentoring programs for new online instructors.

In the context of mentoring practices for virtual schools, the Carpenter study supports the value of examining the specific instructional practices and cognitive skills that experienced instructors use to motivate students by building confidence and satisfaction in students. Once the practices and abilities of experienced online instructors are examined, these motivating elements should be included as essential curriculum for mentoring practices for new online instructors. Based on the qualitative data collected from the Carpenter study, a list of instructional practices, instructor characteristics, and cognitive abilities was created. The qualitative data focused on what motivated ninth grade English I students at FLVS to persist and perform in the course. Based on research regarding effective ways to build expertise, recommendations are made for how to structure mentoring practices through direct instruction, guidance, deliberate practice, and reflection. These practices and recommendations are detailed in the sections to follow.

Theoretical Framework

Building Expertise

One goal of mentoring programs for virtual schools is to build the expertise of teachers new to the K-12 online learning environment. Virtual schools can use the cognitive and practical expertise of its experienced instructors to do this. One way of using this experience is to identify specific cognitive skills and instructional practices online students perceive to be motivating. Virtual schools can then design direct instruction, guided practice, feedback, and self-evaluation for newly hired online instructors, using experienced online instructors as mentors.

Expertise in teaching can be defined as effectiveness in bringing about desired learning outcomes in students (Ammon & Levin, 1993). As Ammon and Levin observe, good understandings of subject matter are seen as particularly desirable outcomes of instruction,

and effective "teaching for understanding" is therefore a mark of expertise in teaching. An effective mentoring program will be based on an understanding that expertise is constructed gradually, through the learner's own activity and reflection, within different knowledge domains. Because the domain of online instruction and facilitation differs from the face-to-face domain, the mentor or experienced teacher is charged with teaching the mentee a new set of specialized skills or knowledge specific to the K-12 online learning environment. Mentoring is an ideal approach to developing online teacher skills because it models the type of individualized teaching common in virtual schools (Lowes, 2007).

Framework for Building Expertise through Mentoring

Ammon and Levin summarize a constructivist theory of preparing teachers to teach for understanding, which also applies to an effective mentorship program for online teachers in a K-12 online learning environment.

1. **Gradual construction**—Consistent with the principle of gradual construction is to give novice online instructors sufficient time for hands-on-practice, reflection, and support as they learn how to become proficient in the tasks of online instruction. Ericsson, Prietula, and Cokely (2007) argue that it takes time to become an expert. Virtual schools, such as Florida Virtual School, offer examples of specific ways to do this through:
    - Supporting new hires by providing a formal mentor for up to one year
    - Providing "just-in-time," content-related support to new hires through content buddies
    - Offering synchronous training modules
    - Making available an extensive network of support through formal and informal mentoring
2. **Metacognition**—It is important to consider what goes on in mentees' minds as they learn new skills from their mentors. Mentoring programs should give novice online instructors the opportunity to reflect on the learning process as they learn the new skills of online instructors. Reflective learning activities will allow mentees to examine their prior experiences and professional knowledge as teachers, to connect with their professional training and beliefs, and to attend to the concepts, theories, and policies in use in their virtual schools. It also gives mentees the opportunity to recognize prior myths and misconceptions about facilitating online. The inclusion of self-evaluations and journaling in the mentoring program can prompt reflection.

3. **Knowledge domains**—It is understood that being a online facilitator in a K-12 online learning environment requires a different set of knowledge and skills than teaching in a face-to-face environment (Clark, 2008). To be effective, mentees must learn specific communication, feedback, and interaction skills with online students that motivate them to succeed. Direct instruction by experts (mentors), along with deliberate practice and self-evaluation, can strengthen the mentees' skills in specific domains.

In *Building Expertise*, Ruth Clark (2008) observes that expertise requires extensive and deliberate practice. The core assumption of deliberate practice is that expert performance is acquired gradually and that effective improvement of performance requires the opportunity to find suitable training tasks that the performer can master sequentially (Ericsson, 2006, p. 692). Deliberate practice requires good performers to concentrate on specific skills that are just beyond their current proficiency levels. In "The Making of an Expert," Ericsson, Prietula, and Cokely (2007) reveal that the amount and quality of practice are key factors in the level of expertise people achieve. It takes 10,000 hours of practice—roughly equivalent to three hours a day or 20 hours a week of practice over 10 years—to achieve true mastery of a subject (Levitan, 2006). The expertise demanded of online teachers is complex. The areas of expertise are categorized in at least 13 standards documents, amounting to dozens of skills and competencies (Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2009). No single professional development approach can or should support all of these areas of expertise. The interpersonal dimensions of online teaching encompass motivation, attitudes, and social-emotional factors best strengthened through personalized interactive professional experiences (Eby, Allen, Evans, Ng & DuBois, 2008; Davis & Niederhauser, 2005).

Recommendations and Guidelines for Motivating Practices

Motivating Instructional Practices

Themes emerged from a qualitative analysis of written comments in a study of online ninth graders at Florida Virtual School (Carpenter, 2011). These themes, organized based on the ARCS construct, may be used to design specific elements of a mentoring program or curriculum.

For example, secondary students most frequently referenced the instructor's personal feedback, phone calls, and e-mails as most motivating in building their Confidence. Instructor feedback, as well as the opportunity to resubmit assignments for a higher grade, was most frequently cited as building student Satisfaction. According to students of both novice and experienced instructors, the most motivating part of the English I course overall was personal feedback (Carpenter, 2011). Specific details within these categories, such as feedback, can be used to design direct instruction, guided and deliberate practice (as defined by Ericsson), and reflection for new online instructors.

Table 7-1 Instructional Practices Based on the ARCS Construct

Instructional Practices Based on the ARCS Construct		
ARCS Construct	**Instructional Practice**	**Specific Features or Elements to Include in Mentoring Program**
Attention	• Encouraging student reflection • Challenging students to use higher-order thinking skills • Creative projects • Choice in selecting activities	• How to facilitate existing course design features • Helping students with pacing that alternates study with reflection, including scaffolding activities to teach reflective habits and guiding questions to keep learning at a motivating level of challenge (Vygotsky, 1978) • Integrating skills of design thinking to help students as they plan and create projects (Hayes & Games, 2008)
Relevance	• Telling students how they will use their existing skills • Explaining what the subject matter will do for the student today and tomorrow • Modeling • Allow students to use different methods to pursue their work or choice in selecting options	• How to facilitate existing course design features • Connect learning to specific student long-term and short-term goals (Jonassen, 1999) • Examples of how learning this content served the teacher and others in their lives, with the teacher leading students as cognitive apprentices (Brown, Collins, & Duguid, 1989)
Confidence	Feedback	• Supports students' ability to positively control success • Positive (encouraging) • Specific (rather than general) • Constructive • Offers specific ways to improve performance • Written in a way that energizes the student to improve • A meaningful learning environment builds confidence in part through collaboration centered on informative feedback for learning (Jonassen, 1999).
Satisfaction	Frequent communication	• Timely • Frequent • Encouraging • Encourage students' belief in their ability to succeed • Be empathetic, caring, flexible • Set high expectations for success which are doable • Regular communication between teachers and students contributes to teacher presence, which is associated with satisfaction (Gunawardena & Zittle, 1997)

Note: A well-designed course, integrating ARCS motivational constructs such as Attention and Relevance, can support less-experienced instructors as they facilitate online courses.

Integration of ARCS Motivational Strategies

Florida Virtual School has integrated specific ARCS motivational strategies into its mentoring program in the following ways:

1. **Attention**—FLVS includes training designed to mentor novice instructors in facilitating existing course design features to gain and maintain students' attention, while helping students with pacing to teach reflective habits and guiding students as they plan and create projects. Here are some specific ways FLVS mentors integrate motivational strategies and skills to support gaining and maintaining students' attention.

    - Train new teachers in Elluminate, a web conferencing system which allows instructors and students to hold virtual classes synchronously with two-way audio, text messaging, a shared whiteboard, surveys, and other features.
    - Coach mentees regarding listening skills, modeling this in one-on-one situations and allowing the mentees to reflect on strategies to motivate student success.
    - Offer mentees a choice of optional training opportunities, which include weekly question/answer coffee chats to engage in reflective thought on creative methods of motivational teaching styles.
    - Train and encourage mentees to participate in direct instruction with "live lessons." This ensures that students have additional resources for completing the course with excellence.

2. **Relevance**—FLVS includes training designed to mentor novice instructors in facilitating existing course design features to ensure that course content and activities are relevant, connecting learning to specific student long-term and short-term goals. Here are some specific ways FLVS mentors integrate motivational strategies and skills to support relevance.

    - Model effective communication strategies with mentees by using consistent communication skills in helping them make goals.
    - Train mentees on using effective management systems, ensuring successful productivity on the job.
    - Encourage mentees to design engaging experiences for learners that promote student success.
    - Help train new teachers in Elluminate in order to offer direct differentiated instruction.
    - Model effective direct instruction of students by inviting mentees to sit in on live lessons with students via Elluminate.
    - Allow mentees to practice with mentors in a safe environment.

3. **Confidence**—FLVS includes training designed to mentor novice instructors in building students' confidence. Here are some specific ways FLVS integrates the strategy into its mentoring program.

    - Use the coaching model to provide positive, constructive feedback.
    - Build relationships between mentor and mentee, creating trust. This relationship enables openness and strength in giving individual feedback and developing success.

- Integrate opportunities for mentor/mentee to collaborate to bring about change, improvement, and success.
- Provide mentees with specific examples of positive, effective feedback used with students. These examples are used as models of how to effectively create customized, constructive, specific feedback.
- Model individualized feedback to students, inviting mentees to listen to experienced instructors while communicating with students, providing opportunities to learn and reflect on these communications.

4. **Satisfaction**—FLVS includes training designed to mentor novice instructors in building students' satisfaction. Here are some specific ways FLVS integrates the strategy into its mentoring program.

    - Mentor models timely, frequent, encouraging, empathetic communication methods with mentees during the training so that mentees experience the importance and benefits of effective communication strategies.
    - FLVS mentors provide specific success stories of former students to reinforce the importance of frequent, positive, constructive communication in motivating students to succeed.
    - FLVS mentors model and reinforce the importance of "smiling when you talk" and weekly individualized communication with all students.
    - Mentor coaches mentees through scenarios of students needing extra attention.
    - Coach mentees through ideas of effective ways to meet a student's individual needs.
    - Continuously relay to mentees the importance of setting high expectations for students and following through with the expectations. Provides mentees with specific ways of setting expectations and following through with weekly communication.
    - Offer weekly encouraging communication with mentees via phone, e-mail, IM, and Elluminate sessions.
    - Listen with an encouraging ear to mentees. Celebrates mentees' successes and offer specific help for challenges and struggles mentees face.
    - Encourage mentees to build meaningful relationships with students that build trust and understanding.

Recommendations for Mentoring Programs

The following strategies are recommended to effectively integrate specific motivational instructional practices into mentoring programs.

Direct Instruction

- Giving and receiving feedback is a skill that can be taught, practiced, and reinforced. Distance learning administrators and educators can develop mentorship opportunities and online training to teach specific practices that motivate online students. Direct instruction may include modeling by the expert or mentor, introduction of the skill, description of the skill (verbal and nonverbal), and reflection on the importance and purpose of the skill.
- Johnson and Johnson (2000) offer specific guidelines for giving effective feedback, which can be utilized in instructor training to teach this specific skill. According to these researchers, when feedback is given skillfully, it generates energy, directs the energy toward constructive action, and transforms the energy into action toward improving performance. These specific criteria can be valuable in designing instructor training for this essential skill. Other motivating practices can also be introduced, defined, and exemplified.
- Use samples of effective instructor feedback as a model for instructor training on this skill.

Opportunities for Deliberate Practice (and guidance)

- Ericsson, Prietula, and Cokely (2007) observe that not all practice makes perfect. Deliberate practice is required to develop expertise. According to Ericsson, deliberate practice entails specific and sustained efforts to do something you can't do well; it is only by allowing new online instructors to work at what they can't do that they become the experts they want to become.
- Virtual schools can use the case method, which presents real-life situations that require action, to give new online instructors practice. After deliberate practice in a skill, online instructor mentees might be given a real sample student project or essay to evaluate. After drafting feedback to the student, the mentee can then compare his or her feedback to samples of feedback on that student drafted by an expert.

Opportunities for Reflection

As they learn skills to build expertise as online instructors, mentees should have the opportunity to reflect on their learning through journaling or guided reflection activities. For example, after comparing their own feedback to expert feedback on a student project, mentees can reflect with specific guided questions such as: *Compared with the expert feedback, what did I do well? What did the expert do that I can learn from? How can I improve?*

Implications for Virtual Schools

Virtual schools can use the knowledge, skills, and abilities of experienced online instructors and online students themselves to design effective mentoring for less experienced or novice instructors. Mentorships and other support systems should focus on the specific skills needed to motivate students. Research indicates that specific ways of building expertise include gradual construction, direct instruction, deliberate practice, and reflection.

This chapter builds on existing research and on the recent research of a dissertation by Julia Carpenter (2011) reporting the positive effect of teaching experience on student performance. Carpenter provides evidence that there are significant differences in two specific motivational constructs between novice and experienced online instructors in a secondary virtual environment. There was a significant difference between the Confidence and Satisfaction scores of novice and experienced instructors. Students who had more experienced instructors had higher Confidence and Satisfaction scores than students whose teachers had less experience. An understanding of the role of experience in motivation will enable online schools to design mentorship and training support systems to support new online instructors in building expertise and effectively motivating online students.

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CHAPTER

8

Virtual Educator Inquiry: Design and Implementation of a Year-Long Program to Mentor Virtual Educators in the Action Research Process

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Since the inception of virtual schools in the USA in 1996, online learning has grown exponentially (Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2009). As the enterprise of virtual schooling grows, so does the need to recruit, hire, develop, and retain exemplary virtual school teachers (Barbour, Kinsella, Wicks, & Toker, 2009). While a majority of the virtual school teaching workforce is recruited from traditional brick-and-mortar teaching contexts (Archambault & Crippen, 2009), the skills one needs to be an effective virtual school instructor do not translate readily from the skills one needs to be an effective teacher in the traditional face-to-face classroom setting. Hence, those new to virtual school teaching need powerful professional development opportunities to gain insights into their new virtual school setting (Cavanaugh, 2012; Archambault & Crippen, 2009).

In addition, because the entire enterprise of virtual schooling is relatively new, even more experienced virtual school educators are in need of professional development opportunities that honor the unique complexities of teaching online (Barbour et al., 2009). While the need for novice and more experienced virtual school teacher professional development opportunities are clear, relatively little is known about what constitutes powerful professional learning for virtual school educators (Dawley, Rice, & Hink, 2010).

One promising approach to the professional development and mentoring of virtual school educators is action research. The purpose of this chapter is to describe the design and implementation of a novel program in which virtual school educators were mentored in the action research process throughout an academic year. The chapter will begin with a brief overview of the action research process and make a case for the use of this process as a mechanism for virtual school teacher professional development. Next, we will explore five critical junctures in the action research process where mentoring is essential and provide detailed information about a virtual school action research mentoring program designed to address these five critical junctures. Finally, we end this chapter with a description of the virtual educator inquiries produced in this program, in addition to lessons learned from feedback these educators provided on their action research mentoring program. The content of this chapter is designed to raise awareness about the importance of developing powerful professional development opportunities for virtual educators, as well as to provide support for others who wish to develop and implement a virtual school educator program of action research. Numerous resources that can be readily adapted and utilized to mentor virtual educators in the action research process are shared.

Action Research: An Overview

Simply stated, action research (also referred to as practitioner inquiry or teacher research) is defined as systematic, intentional study by educators of their own professional practice (Cochran-Smith & Lytle, 1993, 2009). Inquiring professionals seek out change by reflecting on their practice. They do this by engaging in a cyclical process of posing questions or "wonderings," collecting data to gain insights into their wonderings, analyzing the data along with reading relevant literature, taking action to make changes in practice based on new understandings developed during inquiry, and sharing findings with others (Dana & Yendol-Hoppey, 2009).

While many educational innovations have come and gone, the systematic study of teachers' own classroom practice is a concept that has proved its staying power, with the movement rooted in the work of John Dewey (1933), popularized by Kurt Lewin in the 1940s (Adelman, 1993), and applied shortly thereafter to the field of education by Stephen Corey (1953). Whether we refer to this process as classroom research, teacher research, action research, teacher inquiry, or some other name, three main reasons exist for the longevity of this concept: (1) The process has proven to be a powerful tool for teacher professional development (Zeichner, 2003), (2) the process has become an important vehicle to raise teachers' voices in educational reform (Meyers & Rust, 2003), and (3) the process is a mechanism for expanding the knowledge base for teaching in important ways (Cochran-Smith & Lytle, 1993, 2009).

Because the process of action research has proven both its utility and its value in brick-and-mortar contexts, the process holds great promise for the world of virtual schooling as well. Just as brick-and-mortar classroom teachers utilize action research to gain better understandings of themselves and their classroom practice, virtual educators can utilize this process to gain deeper insights into their role as virtual school educators and the promise of online teaching and learning. Action research also holds potential for the virtual schooling context as virtual schooling is still developing as a field of research, policy, and practice (Blomeyer, 2002; Cavanaugh et al., 2004). According to Ferdig et. al, (2009), "the field is currently lacking a strong body of research knowledge that investigates the elements of pedagogy and practice used by successful virtual school educators" (p. 480). Hence, engagement in action research by virtual school educators not only can serve as a mechanism for personal professional development but also has the potential to add to the developing knowledge base about virtual school teaching practice.

The promise that action research holds for informing online teaching and learning led Florida Virtual School, the country's first statewide Internet-based public high school and founded in 1997, to pilot a year-long program of action research for their employees. As faculty members and graduate students at the University of Florida with years of experience designing, coaching, and researching the action research process in brick-and-mortar contexts, we were invited to design an action research mentoring program for the participants in this pilot program. We aligned our program design efforts with the literature on action research, emphasizing support for virtual educators through five critical junctures in the process.

Five Essentials of Mentoring Action Research: Critical Junctures in the Process and How to Address Them in a Mentoring Program

There are five critical junctures in the action research process where mentoring is essential: (1) introducing the action research process, (2) developing a wondering/research question, (3) developing a plan for research, (4) analyzing data, and (5) sharing work with others (Dana & Yendol-Hoppey, 2008). We define critical junctures as times in the action research process where the mentoring a teacher researcher receives is critical to the ultimate outcome and quality of the action research endeavor. In the next sections of this chapter, we will review each of these critical junctures—why they are important and how they were addressed in the Virtual School Action Research Mentoring Program.

Critical Juncture 1: Introducing the Action Research Process

It is not uncommon for virtual school teachers either to be unfamiliar with the process of action research or to have some experience with action research in brick-and-mortar classrooms but not yet considered the ways action research can translate into the virtual school context and inform their practice as online educators. In addition, many virtual school teachers hold misconceptions about what the process of action research entails and the ways it differs from traditional university research. Finally, because the work of

virtual school teachers is time and labor intensive, they may not initially embrace the idea of engaging in action research when this responsibility is added onto an already long list of instructional responsibilities. For these reasons, the introduction that virtual teachers receive to the action research cycle is the first critical juncture in the mentoring process.

The introduction that virtual school teachers receive to action research must provide a solid overview of the process, help teachers unpack their prior conceptions of educational research and explore the ways action research differs from large-scale educational research, excite teachers about the possibilities inherent in studying their own work as online educators, and ensure teachers that indeed they are capable of seamlessly integrating the act of research into their everyday practice and teaching lives in the virtual school.

To achieve these goals, our Virtual School Action Research Mentoring Program began with a live Elluminate session entitled "Overview of Practitioner Inquiry & Orientation to Being a Virtual School Inquirer." The purpose of this session was to "kick-off" the inquiry experience and to orient participants to the ways their inquiry work would be supported throughout the year. In preparation for this session, all participants received a copy of *The Reflective Educator's Guide to Classroom Research* (Dana & Yendol-Hoppey, 2009) to supplement and enhance the mentoring sessions on inquiry.

This first session began with a PowerPoint presentation delivered through Elluminate that served to define action research and provide an overview of each component of the action research cycle ("Developing a Wondering, Collecting Data, Analyzing Data, Sharing Inquiry, and Taking Action"). Utilizing some of the unique features of Elluminate that allow for interaction, we created the space for session participants to share their thinking with others as they made sense of the action research process during the PowerPoint presentation. For example, when we reviewed the many terms that are often utilized interchangeably to describe the process (including action research, teacher research, practitioner inquiry, and classroom research), we shared that our preferred term is simply "inquiry." We then proceeded to demonstrate why by asking all session participants to take a minute to search the Internet and use the screen capture software Snagit to find an image that encapsulated what came to their minds when they heard the word "research." As participants found their images, they were able to paste them directly into the presentation on the Elluminate whiteboard, and a powerful collage began to take shape with pictures of scientists in white lab coats, piles of books, and long numerical equations. We were able to utilize these images to alleviate participant anxiety about engaging in practitioner research by sharing that the images they selected were associated with large-scale research and antithetical to what the process of action research was all about. This short activity helped the virtual school teacher/participants to understand that what they would be doing as action researchers was not about emulating large-scale research methods but rather about becoming a highly reflective and effective virtual school teacher through engaging in a systematic process customized to their role as virtual school educators.

This notion was reinforced when we provided an example of virtual school teacher research in the next portion of our introductory session. The example we chose to share began as two virtual school teachers conversed about a similar dilemma—the rising population of new home-schooled students who were enrolling in their biology classes and the unique needs this

population of students brought with them to the virtual school context. These students were in need of developing an understanding of the virtual school's policies and procedures, as well as developing the skills and work habits necessary to be successful independent online learners. Furthermore, the teachers wanted to create a mechanism for motivating new home-schoolers to remain "on-pace" as they progressed through their biology course to successful completion. To address this dilemma, these two teachers posed the following *wondering*: "What strategies can we incorporate as virtual school teachers to support new homeschool students?"

To gain insights into this wondering, the teachers re-created the concept of "homeroom" from the brick-and-mortar environment in the online context. To understand how their virtual homeroom was working, the teachers *collected data* in three ways: (1) conducting a survey of students to understand their perceptions of homeroom participation and the meaning a virtual homeroom held for their learning and motivation to complete their coursework, (2) monitoring the attendance of students at homeroom over time, and (3) saving artifacts and e-mail/text communication produced by students related to homeroom activity.

As a result of analyzing their data, these teachers were happy to report that once new homeschool students attended a virtual homeroom session, they returned to future sessions and, despite virtual homeroom being an optional activity, offered apologies when they were unable to attend. For example, one student wrote the following message:

> *Hi, sorry about missing homeroom. I had an eye exam. I will be there next week though. So sorry again.* —JJ, 3/22/11

In addition, these virtual school teacher researchers reported that while their homeschool students enjoyed the social/fun side of homeschool homeroom best, they also found homeroom a valuable place to learn about virtual school procedures and the biology course in which they were enrolled. In fact, over 66% of the students reported that they attended homeschool homeroom to get to know other homeschool students, while 33% reported that they attended either to learn more about virtual school procedures or to learn more about the biology course. This led the virtual school teacher researchers to focus on the ways they might capitalize more on the value their students reported in getting to know other homeschool students and the ways they might incorporate these students' need for social interaction into course learning activities.

In sum, the results of this study led to the following *actions*: (1) the refinement of homeschool homeroom to make it more effective in meeting the needs of students, and (2) the fine-tuning of some biology course learning activities to heighten students' interactions with one another. *Sharing* their research with colleagues in their virtual school enabled other virtual school professionals to reflect on the ways they were and were not meeting the unique needs of their homeschool student population and created a rich space for dialogue around the action the virtual school might take as a whole to create special programs and experiences that target the learning needs of not just homeschool students, but other special virtual school student populations as well.

Illustrating with this real-life case exemplified each component of the action research cycle we defined in our opening PowerPoint. The example helped the teachers imagine themselves not as "scientists in lab coats engaging in tightly controlled experiments with research subjects," but as virtual school teachers carefully weighing the different ways of teaching and learning online to truly become the best virtual school teachers they could be. This first session set the virtual teachers' minds at ease that, indeed, they could engage in the action research cycle and, indeed, it held potential to be an authentic and meaningful professional learning experience. With these thoughts articulated, we closed our first mentoring session by providing a calendar overviewing the entire action research professional development experience (Appendix B, 8-A).

Critical Juncture 2: Developing a Wondering/Research Question

Once teachers have been introduced to the action research process, igniting their own individual research journey begins by articulating a burning question they have about their practice. Burning questions, often referred to as "wonderings," emerge from issues, tensions, problems, and/or dilemmas teachers face when confronted each day with the complexities inherent in the daily act of teaching. As new teacher researchers articulate wonderings, it's important to note the following (Dana & Yendol-Hoppey, 2009, pp. 57–58):

> Rarely does any teacher researcher eloquently state his or her wondering immediately. It takes time, brainstorming, and actually 'playing' with the question. . . . By playing with the wording of a wondering, teachers often fine-tune and discover more detail about the subject they are really passionate about understanding.

Hence, the second critical component of mentoring action research is creating a space for teachers to play with the possibilities for their research question(s).

Action research mentors often establish a "wondering playground" by creating a space for new action researchers to discover, share, and reflect upon their felt difficulties or real-world dilemmas. As a part of the Virtual School Action Research Mentoring Program, we suggested that participants progress through a series of exercises designed to help teachers reflect on their practice from Chapter 2 of the text that accompanied the mentoring program (*The Reflective Educator's Guide to Classroom Research,* Dana & Yendol-Hoppey, 2009). It is in this reflective space that healthy, meaningful wonderings are born. In addition, action research mentors often create a space for new action researchers to "try out" the initial articulation of a wondering with other teachers and to enlist their colleagues' help in fine-tuning the wording and direction of the wondering.

To create this space, our Virtual School Action Research Mentoring Program proceeded with a second live Elluminate session entitled "Developing Your Wondering." We began by offering a PowerPoint presentation that provided the virtual teacher inquirers some tips for wondering development and for providing feedback on wonderings to their colleagues (Appendix B, 8-B). Utilizing the breakout room feature of Elluminate, which provides private spaces for small groups of participants to collaborate, we then divided the larger group of virtual teacher inquirers into groups of four or five per room. In these rooms, each small group member had ten minutes to present their initial wondering and discuss it with members of their group. As

the action research mentors and Elluminate moderators, we could visit each small group to listen in on their discussion and offer our suggestions for shaping their research questions.

Critical Juncture 3: Developing a Plan for Research

Once the process of action research is ignited with the birth of a wondering, a crucial next step is the development of a research plan. In the absence of a well-developed plan for inquiry, "teacher researchers risk making little or no progress in their work, getting lost, or even returning to the comfort of the ways their teaching has always been done without the benefits and insights that inquiry can bring" (Dana & Yendol-Hoppey, 2008, pp. 95–96). For this reason, the third critical juncture teacher inquirers face is articulating a doable plan for their research that will provide a road map for the inquiry journey.

The development of a road map may take the form of an "inquiry brief," defined by Hubbard and Power (1999) as "a detailed outline completed before the research study begins" (p. 47). In general, a research brief is a one- to two-page summary that covers such aspects as the purpose of the study, a statement of the wondering(s), how the teacher researcher will collect and analyze data, and a timeline for the study to unfold (Dana & Yendol-Hoppey, 2009). Through the process of developing a brief, teacher inquirers commit their energies to one idea. The process also helps members gain insights into their wondering(s) and the "do-ability" of action research becomes apparent. Through the development of an inquiry brief, teacher researchers develop a sense of direction and know where to go next.

Just as it takes time and play for teacher researchers to articulate their wonderings, it takes time and playing with each component of the inquiry brief for teacher researchers to design a solid plan of attack for their research.

To create this time, our Virtual School Action Research Mentoring Program proceeded with a third live Elluminate session entitled "Developing Your Inquiry Plan." We began by offering a PowerPoint presentation that provided the virtual teacher inquirers some tips for developing their plans and for providing feedback on inquiry briefs to their colleagues (Appendix B, 8-C). Once again, utilizing the breakout room feature of Elluminate, the larger group of virtual teacher inquirers was returned to the same designated groups and rooms they participated in for wondering development. Paralleling the previous session on wondering development, each small group member had ten minutes to present their inquiry brief and discuss it with members of their group in the breakout rooms. A sample virtual school teacher inquiry brief appears in Appendix B, 8-D.

In addition to the feedback they received from colleagues during this session, as action research mentors, we also provided individual feedback to each virtual school inquirer. After receiving colleague and mentor feedback, the virtual school inquirers entered a four-month period designated for data collection. During this data collection time, there were no further Elluminate sessions. However, the inquirers received regular email communications from our action research mentoring team with reminders and tips about the inquiry process. As inquirers neared the end of the data collection period, the emails shifted in focus to the provision of information about the data analysis process.

Critical Juncture 4: Analyzing Data

Teacher researchers often feel overwhelmed when they get to the data analysis phase of their studies and face making sense of a huge pile of data. It is not uncommon for teacher researchers to think, "Okay, I've collected all of this stuff. Now, what do I do with it?" Hence, the fourth critical juncture in the action research process is data analysis.

To help teacher researchers dig deeper into their data, our Virtual School Action Research Mentoring Program proceeded with a combination of asynchronous and synchronous small group discussions using a learning management system called Schoology and telephone conferencing. To begin, prior to a small group synchronous phone conference meeting, each inquirer we mentored was asked to complete the following steps to create a post on the Schoology site:

Step One: Gather all of your collected data into one place and organize it chronologically or in some other fashion that makes sense for your inquiry.

Step Two: Read through your entire data set one time to provide a sense of the entirety of your data set.

Step Three: Read through your entire data set a second time. As you read through your data set a second time, ask yourself "What am I noticing about my data?" Construct a list entitled "Inquiry—What I'm Noticing."

Step Four: Complete the following open-ended sentences:

The issue/tension/dilemma/problem/interest that led me to my inquiry was . . .

Therefore, the purpose of my inquiry was to . . .

My wondering was . . .

I collected data by . . .

So far, three discoveries I've made by reading through my data are . . .

(1)

(2)

(3)

Step Five: Post your open-ended sentence completion responses on the Schoology site.

Prior to the synchronous phone conference meeting, teacher researchers were asked to visit the Schoology site to refamiliarize themselves with their small group members' inquiries, as well as to become acquainted with what each teacher researcher had

learned so far from their data by reading each others' postings. Furthermore, each teacher researcher was asked to have the Schoology site opened on their computer during the synchronous phone conference meeting so they could glance at each person's written summary of the inquiry as they provided feedback to one another.

At the synchronous meeting, one by one, each small group member had the opportunity to share his/her inquiry and receive feedback on the data analysis process by following these steps:

Step One: Brief Review of Inquiry (2–3 minutes)—Presenting inquirer briefly reminds the group about his/her inquiry by summarizing and referring to the post made on the Schoology site.

Step Two: Probing Questions (4–5 minutes)—Members of the group each take a turn posing one probing question to the presenter. Some examples of probing questions include:

- What are some ways you might organize your data?
- Do you have any data that doesn't seem to fit?
- Based on your data, what are you learning about yourself as a teacher?
- What is your data telling you about the students you teach?
- What changes might you make in your practice?

The presenting inquirer may or may not choose to answer the probing questions.

Step Three: Group Discussion (5–6 minutes)—Members of the group talk about things they have noticed or heard about the presenting inquirer's research and what he/she has been learning from data analysis. Group members discuss the inquiry as if the presenter was not present. During this discussion, group members may make suggestions and/or share thoughts that have occurred to them in relationship to the presenter's research.

The presenting inquirer does not participate in this discussion, but listens and takes notes.

Step Four: Reflection (1–2 minutes)—Presenting inquirer reflects on what he or she heard and what he or she is now thinking, sharing with the group anything that particularly resonated for him or her during any part of the group members' data analysis discussion in Step Three.

Following the synchronous small group phone conference meetings, each inquirer finished up data collection and analysis and prepared to share their work with other virtual school colleagues during a series of inquiry-sharing Elluminate sessions that took place in May.

Critical Juncture 5: Sharing Work with Others

An important way to bring closure to a cycle of inquiry for action researchers is to make their work public by sharing it with other professionals. Not only is this important to bring closure to one action research cycle, but the process of preparing to share one's action research with others itself helps teacher researchers clarify their own thinking about their work. In addition to clarifying their own thinking, in the actual sharing of their work, teacher researchers give other professionals access to their thinking so they can question, discuss, debate, and relate. The sharing process helps teacher researchers and their colleagues push and extend thinking about practice as well, enabling a teacher researcher's colleagues to learn from the research she or he conducted. For these reasons, sharing work with others is the fifth and final critical juncture in the action research process.

Our Virtual School Action Research Mentoring Program utilized Elluminate to create a virtual sharing space for teacher researchers by grouping three or four teacher researchers with related topics together to share their work in a 60- to 75-minute time frame (depending on the number of teacher researchers presenting in one session). Different sessions were given a title and were advertised broadly to other virtual school action researchers and their colleagues, extending an invitation for others to attend and participate in the live webinar-style sessions.

During the session itself, each of the three or four action researchers presented a 10–12 minute PowerPoint presentation that was uploaded on Elluminate to guide the sharing of their work. The following directions (which included a PowerPoint template) were provided to the action researchers so there would be consistency across the presentations.

> To prepare for your Elluminate session, please create 5–10 PowerPoint slides that overview your study. The following format is suggested.
>
> - Slide One: Title Slide
> - Slide Two: Background (what led to your inquiry question)
> - Slide Three: Statement of Your Wondering
> - Two–Three Slides: What You Did and How You Collected Data
> - Two–Three Slides: What You Learned (supported by data)
> - Final Slide: Next Steps—Where You Are Headed in the Future

A session facilitator welcomed all participants, introduced each teacher researcher, helped each teacher researcher stay within their allotted time by signaling presenters when they had five minutes left and then one minute left to their personal presentation time, helped each teacher researcher field questions, and led a discussion to synthesize all three action research presentations during the last fifteen minutes of each session.

Action Research Mentoring Realized: A Description of the Virtual Educators' Inquiries

Twenty inquiries were completed by virtual school instructional personnel as a result of participation in the pilot year of this Action Research Mentoring Program. While a detailed report and analysis of each of the individual virtual school inquiry endeavors is beyond the scope of this chapter, an analysis of the topics of these studies revealed three broad categories of inquiry focus: Virtual Course Completion, Virtual Student Academic Learning, and Meeting Non-Academic Needs of Virtual School Students.

Eight of the twenty inquiries were related in some way to student completion rates or course progress. These inquiries provided a systematic look at the relationship between course progress/completion by virtual school learners and the following:

1. the utilization of particular technologies that make doing virtual work easier and/or more appealing to young learners, such as mobile devices, portable music players for podcasts, and popular social media (Twitter and Facebook);
2. the increase of instructor communication with individual students utilizing personalized phone calls and emails; and
3. the adaptation of course content/delivery through heightening attention to the pacing chart, as well as the development of alternative assignments and supplemental files.

Eight of the twenty inquiries directly examined enhancement of the academic learning that occurred for virtual school students as they engaged in coursework. These inquiries provided a systematic look at the relationship of student learning/achievement and the following:

1. the enhancement of pedagogical approaches to virtual coursework (i.e., discussion group forums, live lessons, Elluminate extra help sessions, and direct instruction videos);
2. the incorporation and integration of student prior knowledge into virtual school course experiences; and
3. the provision of quality instructor feedback to students.

Four of the twenty inquiries focused on meeting the non-academic needs of virtual school learners. These inquiries provided a systematic look at:

1. the examination of family issues and their relationship to student success, and
2. the personalization of communication with parents and students.

As this collective summary of the research conducted by virtual school educators indicates, engagement in the action research/inquiry cycle clearly impacted the teaching practice of virtual school instructional personnel. Virtual school educators integrated new technologies into their teaching, tried new pedagogical approaches to their work, and developed closer

and stronger relationships with their virtual school learners, as well as their parents. In sum, virtual school educators noted in a final individual exit interview about the inquiry experience and participation in the Virtual School Action Research Mentoring Program that engagement in action research is a powerful mechanism for professional growth.

> The whole concept [is] of objectively watching yourself do what you do and being open to learning from what you're doing well, what you're not doing well, where there's room for improvement, the impact on the kids, and the impact on the school. It's almost like videotaping yourself, and then being open enough to [make changes to your teaching]. And I think that's one of the targets you've got to look at is you need educators who are interested in watching what they do and seeing what they do and seeing what they do well and what they don't do well with the interest of growing from the experience. (personal communication, June 2011)

Additional feedback gleaned from interviews and subsequent lessons learned about mentoring virtual educators through the action research process are shared in the final section of this chapter.

Mentee Feedback on the Program: Lessons Learned

At the completion of the pilot year of the Virtual School Action Research Mentoring Program, we invited program participants to join us for telephone interviews. The sixteen interviews we conducted provided deep insight into the process from the perspective of the virtual school educators. To further inform our practice and developing knowledge of powerful professional development in virtual schools, we analyzed the transcripts of these interviews and drew from them three lessons: (1) the structure provided by the Virtual School Action Research Mentoring Program was essential to the success of each individual's experience with the action research process; (2) the Virtual School Action Research Mentoring Program could be strengthened through the utilization of one single online learning management system rather than utilizing different mechanisms for program delivery (i.e. Elluminate sessions, email, Schoology, etc.); and (3) the experience and value of action research would be enhanced through administrative knowledge and support of the action research process.

Lesson One: The Structure

The first lesson we learned from the virtual school educators was that the structure provided by the Virtual School Action Research Mentoring Program was essential to the success of each individual's experience with the action research process. Action research mentors worked with virtual educators through each step of the cycle. The structure established a learning environment conducive for virtual educators new to the process of action research to feel nurtured and supported. We learned from their interviews that they felt their mentors gave them permission to slow down and carefully consider each of action research's critical junctures. The long-term organization valued teachers' time and enabled a more focused engagement on reflective learning to take place. Through purposeful

chunking of the process, action research was more manageable, provided deeper occasions for collaboration, and ultimately led to greater personal investments in professional development. One virtual educator summarized the structure of the program in this way:

> I would say that the action research that we were doing here gave us a much more in-depth look at our practices that allowed time for reflection. . . . It made it much more manageable chunking it the way [the mentors] did, giving us some time in between to do some work. . . . I spent time talking to some of my colleagues about how's your [research] going, what kind of data are you collecting, where are you running into some challenges, and it was just good to hear that you weren't the only one; others were running into some challenges. . . . I think as virtual educators, it's still a fairly young industry; there's so much we have to learn about our practices. . . . This is a great way for teachers entering the virtual environment, or even those who have been in it a while, to test their practices. (personal communication, June 2011)

Lesson Two: Program Delivery

The second lesson we learned was that the Virtual School Action Research Mentoring Program could be strengthened through the utilization of a single online learning management system, rather than utilizing different mechanisms for program delivery (i.e. Elluminate sessions, email, Schoology, etc.). Virtual educators spend a great deal of time using online tools and are thus well versed in recognizing the benefits and limitations of certain tools. Although some of the tools functioned well, most notably Elluminate, many virtual educators expressed challenges when the mentors introduced Schoology, the learning management system implemented to promote dialogue among virtual educators around the data analysis stage of the process. After receiving feedback from the virtual educators, it was evident that more meaningful dialogue would have taken place without the added disturbance of going to, and learning, a second system. For example, one educator said:

> You had like a couple links that we had to go to . . . for me personally there were too many places to have to go. . . . You know it would have been better if everything was streamlined and at one place (personal communication, June 2011)

Upon reflection, we believe that one learning management system should be utilized in future implementations of the program. With one system, the virtual educators' time and obligations would be better respected, communication would be streamlined, support materials would be more readily available, and interaction would take place in more authentic and meaningful ways.

Lesson Three: Administrative Support

The third lesson we learned from our interviews was that the experience and value of action research would be enhanced through administrative knowledge and support of the action research process. Many instructional leaders of the participants involved in the Virtual School Action Research Mentoring Program had limited knowledge of the process of action research. While most program participants expressed that

they had overall support from their supervisors, they felt that the process would have been enriched had their administrators been more aware of their professional development experience. One virtual educator we interviewed explained:

> I don't think she knew what it was . . . and what the time commitment was. . . . I think that the [administrators] need to be aware and involved and encouraging . . . . I would report that I had done this and this for my action research and sometimes she just looked at me like, "Oh, what's that?" (personal communication, June 2011)

Administrators who understand action research and are supportive of the process are more likely to create the spaces and opportunities necessary for virtual educators to gain deeper insights into their practices, professional positions, and emerging understandings of virtual education. In addition, leaders knowledgeable about action research would better understand how to predict the struggles, barriers, and outcomes educators encounter during action research. Administrative understanding and support would better establish and maintain the potential power of educators engaging in systematic, intentional study of their own practice (Dana, Thomas, & Boynton, 2011).

Implications for the Future of the Virtual School Action Research Mentoring Program

The first year of the Virtual School Action Research Mentoring Program revealed that action research provides virtual educators with rich opportunities to engage in meaningful professional development and provides insights into the functioning of virtual schools as an educational enterprise. With the successes revealed in the pilot program, Florida Virtual School asked us to continue the program with their employees for another year. In the second year of program implementation, we wish to take the lessons we have learned in order to build action research capacity in the organization. The group of educators with which we will work in the second year will consist of instructional leaders who will learn to serve as action research mentors themselves. With our support, a streamlined learning management system, and the structures of the Virtual School Action Research Mentoring Program in place, these leaders will each mentor five virtual educators through the process. While more research needs to be done to understand the process of action research and the value it holds for virtual educators, the lessons we have learned from this pilot program provide evidence that virtual school educator action research holds promise both as a form of professional development and as a mechanism to gain insights into the elements of pedagogy and practice used by virtual school educators.

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CHAPTER

9

Instructional Supervision in Cyberschools

Gregory Farley and Douglas Lare

Almost all organizations have a system by which a person's performance in completing the tasks required by the employer can be assessed. Businesses use a wide range of supervision models in order to evaluate and improve employee performance. The assessments generated by these business supervision models can often lead to retention, promotion, and accountability for completing job-related tasks (Clausen, Jones, & Rich, 2008). Educational organizations are no different, requiring supervision of classroom instruction to evaluate a teacher's effectiveness. This generally involves an administrator observing and evaluating lessons in a classroom, documenting the teacher's performance, and sharing suggestions for improvement. Currently, there are hundreds of supervision models utilized by school districts. Most include checklists and narrative documents to record and analyze teacher performance (Glickman, Gordon, & Ross-Gordon, 2001).

Current trends in educational supervision reflect the prevailing values permeating most educational institutions today. Accountability, improved performance, ensuring the curriculum adheres to standards, and achieving school and district goals drives many supervision models. Although there are variations, the process of instructional supervision in schools is conducted by administrators and generally involves face-to-face visits to the teacher's classroom in an observation and evaluation model (Glickman et al., 2001). Certain criteria are observed and recorded, and a report is generated. The report is analyzed and suggestions for improvement are shared with the teacher. In addition, administrators are usually required to fill out state-generated forms that document teacher performance. The process of instructional supervision has generally occurred in a face-to-face setting with teachers and administrators physically present in the same location. Ideally, the supervision process results in better teaching and learning that ultimately leads to improved student performance. While this typical supervision model works well in traditional schools, there may be questions about its relevancy in the fast growing world of cyberschools.

The Emergence of Cyberschools

Distance education has evolved over the past 100 years. Correspondence education via U.S. mail, films, television, and more recently, video/audio and computer conferencing have all been used but have generally been the instructional exception (Anderson, 2008). However, rapidly evolving technologies have enabled educational organizations to provide distance learning options that do not require physical attendance in a school building. Charter cyberschools emerged in the early 2000s, and as school districts realized that demand for this type of instruction was booming, many districts cobbled together their own cyberschools.

In 1995, no course offerings were available via the Internet for K-12 students in the United States and the U.S. Department of Education's National Center for Education Statistics (NCES) reported in November 2011 that just over half of districts nationwide (55%) had students enrolled in some form of distance education courses in the 2010–2011 school year (Southern Regional Education Board, 2012). Data suggests that within six years, 10% of secondary courses will be computer based and 50% of courses will be delivered online by 2019 (Christensen & Horn, 2008). U.S. public schools are rapidly moving from a brick-and-mortar environment to an online setting for staff, students, and administration (Zandberg & Lewis, 2008). The growing demand for online learning has been creating significant enrollment increases in K-12 virtual schools over the past decade (Watson et al., 2011). Throughout the past decade, students have been enrolling in online or blended courses as an alternative to attending classes in a physical school setting (Barbour, 2012). The growth of K-12 online learning programs is estimated at 25% per year with all 50 states having supplemental and online learning programs (Watson, Murin, Vashaw, Gemin, & Rapp, 2011). More recently, online courses for secondary and higher-education students have grown from 200,000 nationwide in 2009–2010 to 250,000 in 2010–2011 and full-time online education is now being offered to at least some students in all 50 states and Washington, D.C. (Watson et al., 2011). Typically, these virtual schools teach a state-mandated curriculum that is overseen by personnel in the district, a role usually assumed by principals or subject area supervisors in the traditional

learning environment. An example of this structure is the New Jersey Virtual Academy (2012) in Tinton Falls, which is overseen by the Monmouth Ocean Educational Services Commission.

Therefore, there is an increasing trend in K-12 schools to move from a traditional, face-to-face educational environment to an online learning environment utilizing technologies to deliver instruction primarily via the Internet (Anderson, 2008).

There may be many explanations for this explosive growth. Technological developments have enabled greater access to the Internet. Online course offerings adapt to schedule conflicts. Cyberschools provide classes unavailable at local institutions, and students can accelerate or decelerate content in order to meet individual needs. And obviously they can offer convenience to learners with other obligations (Smith, Clark, & Blomeyer, 2006).

Teaching and learning in a brick-and-mortar school setting has been studied for over a hundred years in all sorts of ways. In addition, teachers, administrators, and students have their own personal, physical experience of the teaching/learning process since the great majority attended brick-and-mortar schools. The prevailing assumption seems to be that the online teaching/learning environment is very similar to the teaching/learning environment in a traditional school, and that, therefore, the structure, protocols, and pedagogy will be very similar in both environments. Yet this may be a fatally flawed assumption. Further, just as the teaching/learning environment may be different, the way to hold teachers accountable may need to be structured in a different way than the supervision models utilized in brick-and-mortar schools. In fact, since this is such a new field, supervision may play a critical role in developing the emerging online learning pedagogy. Margaret Spellings, the U.S. Department of Education Secretary (2008) stated:

> Although online learning is a relatively new enterprise in the K-12 arena, it is expanding rapidly, with increasing numbers of providers offering services and more students choosing to participate. As with any education program, online learning initiatives must be held accountable for results. Thus, it is critical for students and their parents—as well as administrators, policymakers, and funders—to have data informing them about program and student outcomes and, if relevant, about how well a particular program compares to traditional education models. To this end, rigorous evaluations are essential. They can identify whether programs and online resources are performing as promised, and, equally important, they can point to areas for improvement. (p. v)

The increase in student enrollment in cyberschools and the change in instructional delivery may require teachers and administrators to change their practices from a face-to-face model to a new, different online model of teaching, learning, and supervision (Allen & Seaman, 2009). Only rarely are future teachers trained to teach online; many are thrust into the cyberschool environment having never received training nor ever having participated in an online course. Therefore, quality professional development, supervision, and teacher mentoring may be the keys to the improvement of instruction in cyberschools (Rosendale, 2009).

The Emergence of Online Pedagogy

The term pedagogy generally refers to the strategies of instruction and includes practices that educators use to teach children. These practices have been identified by many theorists and researchers and help guide teachers as they plan classroom instruction. Most pedagogical practices are limited to strategies in a physical classroom, describing what a teacher does regarding methods and content to facilitate the learning process. Many of these practices are identified, for example, in the four domains outlined in Charlotte Danielson's work, *Enhancing Professional Practice: A Framework for Teaching* (2007). Danielson's rubric identifies strategies for effective instruction and has been used by school districts throughout the nation as a rubric to observe and evaluate teachers.

Danielson's rubric has been modified by numerous school districts around the country as the instrument to evaluate teachers through classroom observation. The four domains in the rubric are Planning and Preparation, The Classroom Environment, Instruction, and Professional Responsibilities. There are subcategories under each domain that specify areas such as content knowledge, classroom management, questioning, and professionalism. These areas can be structured in a rubric that serves as a rating system by which administrators observe teachers in a classroom. Local districts agree upon rubric language and ratings, which can range from "needs improvement," "unsatisfactory," or "partially proficient," to "proficient," "satisfactory," or "distinguished." These scales provide teachers with specific criteria to work toward in their instruction and a rating scale that measures the instruction as observed by an administrator. Danielson's rubric was developed in 1997 for evaluating face-to-face instruction.

Translating the ideas of Danielson into the online learning environment can be difficult. Many of the practices of face-to-face pedagogy are available in an online environment in the form of communication and information technologies (Anderson, 2008). However, implementing these components into an online setting requires cyber teachers to shift from their prior practices and experiences in a face-to-face setting. Teaching in an online environment requires a new set of skills that combines technology, pedagogy, and content, and this can be difficult for teachers new to delivering instruction virtually. A study by Jaffe (1997) suggests that specific pedagogies need to be evident in practice to promote and enhance online learning. These pedagogies are (a) interactivity, (b) active learning, (c) mediation, and (d) collaboration.

Table 9-1 Specific Pedagogies of Online Learning

Specific Pedagogies of Online Learning		
Pedagogy		**Practice**
a	**Interactivity**	Communication between people, technologies and educational content and processes
b	**Active learning**	Students interact with content through problems, exercises, and projects providing for knowledge construction and reconstruction
c	**Mediation**	Teachers and students interact through course clarification and queries
d	**Collaboration**	Interaction among students through information and perspective sharing, support and questioning

These pedagogies can enhance the practices of online learning creating an effective model for learning in an online environment.

As the growth of online learning environments accelerates and expands, the quality of e-learning pedagogies will continue to develop and improve (Anderson, 2008). Research to date has already highlighted a variety of instructional techniques, curriculum design elements and teacher qualities that are found to positively impact learner outcomes (Ukpokodu, 2008). Many organizations such as the Southern Regional Education Board (SREB) and the New Jersey Educational Association (NJEA) have introduced handbooks and guidelines for successful course design; however, there is little research to identify specific skills and criteria for successful online teaching (Cavanaugh, Gillian, Kromrey, Hess, & Blomeyer, 2004). Promising research and best practices are emerging from organizations such as the International Association for K-12 Online Learning (iNACOL), but the accelerated growth of online learning may have created a knowledge gap between instructors and those who are supposed to supervise and monitor teacher improvement. This is such a new field that the research concerning online supervision is minimal. Therefore, since the supervision model may hold the key to successful online teaching and learning, it seemed logical to look at several cyberschools and their supervisory practices.

The Study

This study employed a combination of qualitative and quantitative measures and described the instructional supervision of teachers of online courses. A preliminary screening identified participating schools, and school administrators were surveyed to determine the practices, criteria, and tools utilized by them for supervising teachers of online learning. The identification of school districts maintaining cyberschools was not easy. Rosendale (2009) suggested the identification of cyberschools was difficult and thus prevented researchers from reaching school districts that provide online learning to K-12 students. The search for potential schools required extensive searches in order to identify the cyberschools that qualified for participation in this study. Several schools outsource online learning to various providers rather than develop an in-district cyberschool.

Teachers and administrators in the cyberschools completed a similar survey and compared data regarding supervisory practices in an online environment. Survey data was analyzed in a frequency table to identify, rank, and rate supervisory processes in the sample schools. The study culminated in a rich description of instructional supervision of teachers in three schools and suggested that peer coaching/mentoring was the most helpful for improved delivery of instruction in an online environment.

Background

The sample school districts enrolled students to meet a growing demand for online learning that eliminates geographical and scheduling limitations (Smith et al., 2006). As the sample schools opened, the observation and evaluation of online instructional delivery was overlooked, causing administrators to supervise online learning without the benefit of defined standards and practices to meet the goals of instructional supervision. Instead, as Administrator C explained about instructional supervision, "That has all been by the seat of my pants, make it up as I go, and figure out what works for our children." The performance criteria and supervisory practices were implemented in real time as the process of online teaching was occurring. Another implication of "learning on the job" is that the criteria and practices are being developed by educators and administrators inexperienced in the practices of online learning.

Training reportedly consisted of preparing teachers to use the learning management system (LMS) rather than focusing on online pedagogical practices. Lowes (2007) suggests that much of the professional development for online teachers focuses on LMS technologies like chats, blogs, videoconferencing, and wikis, which are integrated into virtual learning. Learning to use the applications in a cyberschool is vital to successful online teaching; however, these are merely the modalities of online instruction. In relation to a physical environment, this is similar to training teachers to write on a whiteboard, create handouts, read the textbooks, and find their way to the media center. Training teachers how to use an LMS does not necessarily provide examples or a structure of good teaching, only how to use the equipment available in the school building. Meaningful professional development should train teachers on the pedagogy of online learning to enhance teaching strategies in an online environment. This training should be conducted prior to an online teaching assignment and continue as online learning research emerges. Administrator training was similar to teacher training focusing on the use of the LMS and the technical aspects of online learning.

The lack of training was evident in administrators who were providing improvement strategies for teachers via direct assistance. The primary objective of direct assistance is to improve teacher performance (Glickman et al., 2001), but a gap has developed between teachers and administrators regarding instructional practices. This is evident as administrators reported a lack of supervisory training in an online environment. Contributing to this gap, none of the three sample administrators taught in an online environment prior to working as a cyberschool administrator. Pennsylvania code requires a minimum of five years teaching experience prior to obtaining a principal or supervisor certificate, stating specifically that the candidate should "Have completed 5 years of satisfactory professional experience in the area in which the supervisory certificate is sought" (1 PA Code § 49.111). New Jersey requires a minimum of three years teaching prior to meeting the requirements to acquire a supervisory certification (New Jersey Department of Education Administrative Code, 2005).

However, this requirement does not transfer to an online environment. An administrator with no online teaching experience is not precluded from supervising online teachers. This supports the need for a standardization of criteria or certifications to support further training of teachers and administrators on effective teaching in an online environment. This speaks to teacher online instructional competencies and an administrator's ability to identify and evaluate effective online teaching strategies.

All of the respondents agreed that they learned "on the job" and implemented techniques of online instruction and online teacher supervision. Administrator C said, "My formal training came through grad school and on the job learning, watching teachers, watching what makes students tick and talking to parents along with principal workshops I attend here at our district." Administrator C attended the International Society for Technology in Education (ISTE) workshops, the National Educational Computing Conference (NECC) international conference and conferences and workshops with the International Association for K-12 Online Learning (iNACOL), explaining that the district was a member of iNACOL.

Through interview data, other administrators and teachers expressed similar feelings of how online evaluation and online instruction had been implemented in their schools. Administrator B explained that there was no formal training for supervision in an online environment, but that he had studied Marzano's work on foundational issues of pedagogical practices and the art and science of teaching (Marzano, 2007) and adapted the concepts to an online environment. Administrator B explained the districts' involvement with iNACOL and described the work as "the most purposeful of the bunch" in reference to resources for online learning and supervision. Administrator A described her training as having "attended professional seminars on effective teacher evaluations, researched online and read books." In an open-ended survey item, a teacher from School B criticized administrators for not having a full understanding of observation and evaluation in an online environment. A follow-up interview question with Teacher B revealed that the principal of the school did not understand online learning, but stipulated that she (Teacher B) was directly supervised by the assistant principal. When asked if any of the training was specifically for online learning, Administrator A stated "no." All of the administrators in the sample schools reported they had very little training in the evaluation of teaching in an online environment.

Teacher C explained that graduate school coursework had not offered online pedagogy as an option, but she had attended several trainings on the use of LMS and online instruction. She elaborated by saying, "I'm trained on designing courseware, but I've never really had a specific course (on online learning) because for the most part, anytime I walk into a classroom, I know more than the instructor when it comes to online learning and computer usage in the classroom." Teacher B attended courses in a graduate program in the past two years that included courses on cyber education and said "that really helped me." Teacher B was the only teacher who attended a graduate course on how to teach in an online environment and concluded that training provided through the school district was for the four LMSs available in the school, but "as far as cyber techniques and things like that, there was not a ton of training on that." The teachers explained that their training as online instructors was based on experiences in a face-to-face classroom and that they learned through trial and error, verifying research by DiPietro, Ferdig, Black, and Preston (2008).

The teachers in the three sample schools reported that online learning was a new venture in their districts and that their administrators did not have the same experience in the delivery of online instruction or an understanding of the criteria for effective online learning. Teacher B stated that "it's a new venture here, even in public education it's still somewhat a new venture." Teachers B and C stated explicitly that their administrators had not taught online prior to becoming directly responsible for observing and evaluating teachers of online learning. Teacher C said "I've had more on-line time than she (Administrator A), and what I take from her and what I see from her is the traditional setting and the traditional expectations and all those core things that still apply in the virtual realm. Those are the kinds of things that she brings to the table." Administrator A was the principal of the school when it began offering online courses but did not have any experience teaching in an online environment. Administrator B stated that he was given the mandate in March 2009 that online instruction would begin in September 2009. He also explained that the short time period between the decision to open a cyber program and the enrollment of students provided little time for preparation of all aspects of a program opening. Teachers from all three sample schools described similar circumstances with teachers who had little or no online experience. Many teachers reported their reliance on peers for support and guidance as a resource.

The gaps in knowledge of technology were evident in the study, showing evidence of teachers with more experience in online instruction than their supervisors who were certified, yet lacked practical experience in the practice they were evaluating. Many teachers reported that administrators had not taught online and were responsible for supervising a practice in which experience was obtained by evaluating face-to-face teachers and reading research studies or articles. A lack of practical experience was reported; however, administrators seemed well versed in current practices and contemporary techniques of online instruction.

Models of Supervision

Numerous models of supervision are currently implemented in school districts. However, the majority of school districts implement a single evaluation system (Glickman et al., 2001). Schools comply with state policies and implement locally approved methods to supervise staff. These models can be classified into three basic categories: directive, non-directive and collaborative (Glickman et al.). These three categories provide a variety of supervisory options for school districts and are evident in different models of supervision. Table 9-2 shows a breakdown of these categories (Glickman et al.)

Table 9-2 Supervisory Model Categories

Supervisory Model Categories			
Type	**Directive**	**Non-Directive**	**Collaborative**
Who sets goals	Supervisor	Teacher	Agreed upon by teacher and supervisor
Examples	Inspection	Clinical, developmental, differentiated	Peer coaching, portfolio assessment

Data from the study suggest that goal setting from interaction between the administrator and the cyber teacher was disconnected due to a gap in the skill set required to deliver effective online instruction. The meaningful discourse and improvement strategies resulted from the collaborative category or peer interaction in each school district. The directive or inspection model was not helpful for teachers considering the lack of practical experience of administrators in the pedagogy of online learning.

Clinical Supervision

A model of clinical supervision was developed by Goldhammer and Cogan in the late 1960s utilizing a collaborative approach by the supervisor and teachers to constructively and continually improve instruction. Acheson and Gall (1997) describe the clinical model to include three basic processes: pre-conference, observation, and feedback or post-conference. In the pre-conference, the supervisor and teacher agree upon what the supervisor should focus on. The actual observation usually utilizes an observation tool that captures the suggested focus area. In the post-conference, the supervisor encourages the teacher to look at the observation data and reflect on the initial focus areas. This direct interaction between teacher and supervisor emphasizes an accurate understanding of practices and specifically identifies areas of improvement (Goldhammer, 1969; Cogan, 1973). Clinical supervision provides a teacher with an action plan to meet instructional improvement goals after conferencing with the supervisor about an observation (Goldhammer). Goldhammer adds that defining the goals of the observation and evaluation during the pre-conference assists in the assessment of instruction. This collaborative model creates a counseling-guidance setting and helps teachers to better perform a job according to their capabilities (Goldhammer, 1969).

A practice of clinical supervision that was identified by respondents in the study as typical was incorporating pre- and post-conferences as a part of the observation process. This pre- and post-conference was modified into a "present" conference by School C with the administrator present while Teacher C was instructing a class. Feedback was provided during the lesson without disrupting the class and seemed to positively impact instruction with an immediacy of feedback that is not available in face-to-face supervisory models. This modified the work of Goldhammer (1969) and Cogan (1973) and adapted the clinical model to reflect a 21st century learning environment. The potential of current technologies offers several means for administrators and teachers to work together in real time to improve teaching. This practice could be beneficial for peer coaching in formal and informal models. A recommendation for practitioners is to identify best practices. Unfortunately, there is no consensus on what best practice means in the online environment. One example might be providing immediate feedback to teachers as they are teaching online.

All of the schools in the study implemented a clinical model for formal observations, yet teachers reported that suggestions and criteria for improvement focused on use of the LMS rather than instructional delivery and pedagogical recommendations. The recommendations for practical improvement came from other teachers (mentors) in a non-structured peer coaching model. One school district had a formal peer coaching/mentoring model in place but it was not a component of supervision or collaboration in the cyberschool.

Peer coaching is the process of two or more professional colleagues working together to reflect on current practices, build new skills, share ideas, teach each other, conduct classroom research, or solve problems in the classroom workplace (Robbins, 1991). Joyce and Showers (1982) define peer coaching as "involving the analysis of teaching for the purpose of integrating skills and strategies into a curriculum, and developing instructional goals and a personal teaching style through a collegial approach" (p. 170). The cycle of the pre-observation, observation, post-observation model is evident in the peer coaching model and occurs in the daily activities of teachers and administrators (Zepeda, 2007). To achieve district goals, it is necessary to have clear objectives and purpose prior to implementing a peer coaching model (Garmston, 1987). Glickman et al. (2001) conclude that the direction of teachers in developing instructional improvement goals as a result of peer coaching is the role of instructional supervision. Research suggests that peer coaching is successful because the focus is on improving practice rather than rating teaching (Munro & Elliott, 1987).

Peer coaching was identified by two of the three administrators and eight of the eleven teachers as evident in practice. However, interview findings indicated no formalized peer coaching programs existed in the sample schools. Administrators and teachers reported that teachers worked together to support each other via in-person and virtual meetings. All three administrators reported facilitating a "loose" form of peer coaching that provided support for teachers who shared the experiences of teaching in an online environment. Schools B and C reported that formal peer coaching programs were available for traditional teachers but that practice had not been implemented in the online programs. Many practices were adopted from traditional observation and evaluation and others evolved from technologies and innovation.

Table 9-3 shows the supervisory practices as ranked by administrators and teachers.

Table 9-3 Ranking of Supervisory Practices

Ranking of Supervisory Practices					
		Administrators		**Teachers**	
#		**Somewhat useful**	**Very useful**	**Somewhat useful**	**Very useful**
10	Personalized emails	0	3	2	8
4	Timely, constructive and specific feedback	0	3	3	7
2	Regularly scheduled meetings with supervisor	0	2	3	6
11	Peer mentoring/coaching	1	2	2	6
9	As needed/on-demand training and support	1	2	3	6
14	Individual teacher self-reflection	2	1	3	5
5	Differentiated supervision based on varied ability and developmental levels	2	1	3	5
6	Analysis of multiple sources of data	2	1	4	5
7	Data collected over time	1	2	3	4
8	Flexible professional development opportunities	1	1	3	4
12	Learning communities	0	2	2	3
1	Frequent observation	1	2	4	3
3	Pre- and post-observation conferences	0	2	5	2

Teachers and administrators ranked supervisory practices in Table 9-3 although not all respondents answered all questions, causing some inequalities in the total number of responses. For example, Question 10 totals 13 responses, whereas Question 2 totals 11 responses.

Some practices of instructional supervision were rated in the somewhat useful/very useful category by administrators. Each of these items was ranked very useful by two administrators and somewhat useful by one administrator:

- Peer mentoring/coaching
- Frequent observation
- Data collected over time
- As needed/on-demand training and support

Peer mentoring and coaching was regarded as very useful by administrators even though the practice was not formalized in the three schools. All teachers and administrators reported instances of collegiality and working together as a team to share best practices and resources without a district model that promoted peer coaching. Two teachers stated that peer coaching was "the most useful" practice in their supervision without the benefit of common planning time or a supervisor who facilitated the model.

During interviews with two teachers, the researcher had to consistently refocus the conversation on the guided discussion questions. Two of the three teachers described problems and issues they had with the program and with their students, and they engaged in a dialogue with the researcher when the purpose of the interview was to gather information on instructional supervision. This could have indicated a lack of official mentoring for teachers and was consistent for each of the teacher and administrator respondents in the study. The researcher followed up with four of the six respondents after the study was completed to discuss the delivery of online learning and issues that researchers should address, including the need for a structured mentoring or peer coaching program directly from current practitioners.

Several factors could contribute to the disconnect between teachers and administrators regarding the purpose of instructional supervision. These factors include: 1) the newness of cyberschools, 2) minimal teacher and administrator experience in an online environment, and 3) the lack of separate online teaching criteria and rubric for observation and evaluation designed to assess online teacher performance. Another factor is criteria that is not included in rubrics and face-to-face policies that were reported to enhance teaching in an online environment, such as multitasking and technical skills. These criteria may be necessary for success in an online environment but may not be as beneficial in a physical classroom. This affirms the need for cyberschools to develop specific criteria and develop a vision and mission to achieve school goals. The implementation of instructional supervision in a cyberschool requires a vision and specific goals for the supervision of online instruction.

The three highest ranked practices by teachers suggest a means for teachers to solve problems or resolve issues with their teaching. Administrators ranked

frequent observation and pre- and post-conferences high, but these items were ranked lowest by teachers in the surveys. Teachers reported the need for practical recommendations for the effective delivery of online instruction; they indicated that these recommendations were provided by an unstructured mentoring model and by communicating with peers to discover what works in an online learning environment.

Overall, the respondents showed enthusiasm for their jobs and a willingness to adapt and improve in an online environment. The field of online learning is new and has been implemented quickly and without policy- and research-based practices in place (Anderson, 2008). However, the participants embrace their roles as educators and administrators in the changing landscape of education and use prior experience in this new environment with the advice from other practitioners to work to the best of their abilities.

The impact of instructional supervision was reported through survey data and confirmed by interview data that described administrator and teacher perceptions of useful practices, such as peer coaching/mentoring that enhanced a teacher's performance. Particular practices providing training or solving problems as a result of direct assistance ranked high on teacher surveys but were generally a result of discourse with a peer or colleague who provided guidance to enhance and improve instructional delivery. This was shown to be beneficial to teachers with little experience in an online environment. Moving from a face-to-face educational environment was shown to be an overwhelming task for teachers and administrators. Anderson (2008) acknowledges that delivering and supervising web-based instruction requires the development of new performance criteria and practices; however, that complexity does not excuse inaction. Findings indicate a need for the accreditation of cyberschools to standardize criteria and practices, such as peer coaching/mentoring to facilitate educational innovation rather than emerge as a discipline subsuming the knowledge and practice of pedagogy in a traditional learning environment.

Recommendations

Based on the results of this study, several key recommendations emerged. First, while acknowledging critical differences in the supervisory practices for face-to-face versus online learning, the development of a unique supervision model for cyberschools was haphazard and slow. Local districts feel the need to do this immediately, yet another direction might be to have some of the national organizations, such as the Association for School Curriculum Development and the National Education Association or the American Federation of Teachers, develop guidelines that could help local districts construct realistic supervision models for cyberschools.

In addition, it is critical that teacher training begin to include elements of online pedagogy. Inevitably, if trends continue, new teachers will be required to teach online. Rather than "learn through experience," it would be advantageous to everyone if all teachers have some training in online teaching.

Currently, administrators in the sample schools are basing teacher observation and evaluation on the current criteria for traditional classrooms. The same rubric is used to record and assess lessons of both online and face-to-face teachers as per district and state policy. This requires the administrator to interpret face-to-face teaching criteria and adapt it to an online environment. This supervision was conducted by administrators with no experience in online teaching or online supervision, and interpretation of current criteria could be speculative. Public education developed policies and procedures for teacher supervision throughout the past century and this structure remains relatively unchanged.

The virtual delivery of instruction is a radical change from teaching in a traditional classroom and will require school districts to change criteria and standards for effective online instruction. This shift in criteria will require a change in the practices and tools administrators use to observe and evaluate online teachers. Cyberschool administrators reported they learned about supervising online learning through past experience and independent study of online learning research and articles. As the criteria and tools change in the early 21st century, administrators' practices must be modified to address significant technological changes and the online delivery of instruction.

This study showed a definitive need for cyberschools to develop criteria and policies for supervision prior to enrolling students in online courses. Although this need is evident, the exponential growth of online learning seemed to require school leaders in this study to focus on other tasks rather than modify criteria and practices of instructional supervision. In this study, observation and evaluation, specific to an online environment, was overlooked as a component of instructional supervision. An accreditation process implemented prior to opening a cyberschool should benefit the observation and evaluation system for teachers and administrators. Specific performance criteria for teachers and supervisory practices designed for online learning should impact instruction for both public schools and for-profit providers providing instruction in an online environment. The knowledge and background of the pedagogy of online learning and technological capacities can be leveraged to impact instruction in cyberschools.

Specific criteria shown to impact instruction in an online learning environment in this study should be included as performance measures for teachers in cyberschools. This study identified "multitasking" and "technical skills" as additional criteria for cyberschool teachers and should be included in observation and evaluation rubrics for identification and assessment of online instruction. This can be conducted via a face-to-face visit or through data gathered in a cyberschool's LMS.

Summary

Technology has certainly impacted education in the past. Radio, movies, television, and computers have all influenced what takes place in a classroom. However, with the increasing emergence of online learning in K-12 education, a new pedagogy is emerging. This study would suggest that there are serious administrative deficiencies in supporting online instructors. While there are certainly some face-to-face teaching/learning principles that spill over into the online learning environment, most cyber teachers in this study were anxious for more mentoring and direction from their supervisors. The supervisors, to their credit, acknowledged their own shortcomings. While meeting the state-mandated requirements for evaluation, supervisors were often not meeting the more important supervisory function of providing instructional guidance and mentoring. Education schools and state education departments have been very slow in developing new guidelines for online instruction. The supervisory process may be the best hope for immediately improving the online teaching/learning process. Recognizing the problem is certainly a first step. However, in order to develop a new online pedagogy, schools need to directly address the supervisory issue and provide updated training to both supervisors and teachers.

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CHAPTER

10

The SDL Support Model: Training Educators for Online Learning

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Recent speculations cite that 50% of high school courses will be online by 2019 (Christensen & Horn, 2008). Effective online learning is not a replication of the traditional classroom; it is interactive, student-centered, and maximizes available technology. Most districts are fortunate to have even a handful of teachers who are prepared to teach online courses. Given the statistics on the number of school districts using online learning, one can deduce that few have teachers equipped to develop online courses and train their colleagues to teach effectively in this new environment (International Association of K-12 Online Learning, 2012). The SDL Support Model: Training Educators for Online Learning developed at the Collaborative for Educational Services highlights the power of districts or organizations to partner with each other to create a rich and diverse intersection of educators and experiences. Instead of approaching mentoring through an insular, single school/district approach and exhausting the resources of a single or small cohort of teachers, the SDL Support Model has found success in decentralizing the mentor and creating a social learning community that is facilitated by one or a few highly qualified online teachers.

Self-Directed Learning: An Overview

Self-directed learning (SDL) is defined by Maurice Gibbons (2002) as "any increase in knowledge, skill, accomplishment, or personal development that an individual selects and brings about by his or her own efforts using any method in any circumstances at any time" (p. 2).

All learners exhibit and develop natural capacities "according to the talents we are endowed with, the experiences we encounter, the strengths we discover, the interests that begin to direct and motivate us and the patterns of learning that we develop" (Gibbons, 2008, p. 9). In a teacher-directed learning environment, instructional practices direct a student's pathway of learning often without integrating knowledge of each student's unique capacities into the course or lesson design. In a student-centered and self-directed learning environment, students are given the opportunity to direct their own learning pathway. Students who have strong SDL skills are aware of how they learn, what learning strategies are most effective for them, and how to monitor and adjust their strategies throughout the process.

Online learning is ideal for creating self-directed learning environments. A self-directed environment must include fluidity around the following components: location, pace, and time. When learners are given the opportunity to select the location from which they engage in online learning, they have the ability to create an optimum setting to facilitate their learning. When students are able to set their own pace, they may choose to move quickly through some content and spend more time on other areas. Flexibility around pacing also enables students to approach content in a way that they prefer, instead of a teacher-prescribed sequence. Offering students control of time allows them to engage with content at a time of day when they are most alert and focused.

Online learning environments, when well designed, provide multiple representations of information necessary to learning the content. These representations may include text; video; audio; synchronous or asynchronous discussions and chats; project-based assignments; and individual, small group, and large group activities. Students are able to select the representations that best match their learning style.

Central to the SDL process is metacognition, which has been defined as "the monitoring and control of thought" (Martinez, 2006, pp. 696–699). Students who are strong, self-directed learners may employ a range of metacognitive processes while engaging with content or a learning task. Self-evaluation and self-reflection, as well as awareness of personal strengths and weaknesses, allow students to monitor and control their learning. Additionally, learners' ability to perform these metacognitive operations has a positive impact on their effectiveness and performance (Carnegie Mellon University, n.d.).

Metacognition is not about teaching students what to think or how to process in a certain way. It is about helping a student understand how they got from Point A to Point B, from problem to solution. Metacognition makes room for different learning styles in that it demands students are aware of not only what they think but also how they think and why. Students need to be strong self-directed learners in order to master their favorite video game or figure out how to download music. If students can make the connection

between the natural strengths and effective learning processes that enabled them to learn the things they aim to learn outside the classroom, they may be empowered to reflect on the strategies that work and apply them to learning content in the classroom. Students must understand that they have control of their own learning and that whether it is mastering a new game on Xbox or demonstrating the process of photosynthesis, they are active participants in the process and they know best how they learn.

Although many adults were not formally taught to be self-directed, experiences, parents, and jobs have trained us to be self-directed in at least some areas of our lives. For many adults, it was not necessary to be self-directed. The professional opportunities that existed were not being threatened by the replacement of technology. For students today, if a job requires a rote if–then activity or script, it can likely be completed more efficiently and less expensively by a computer. This means that the jobs our students will have are going to require critical thinking and problem solving. The expectations are going to be higher for our students. Many of us understand this shift. Some might even say that education is not changing fast enough to teach these skills while also covering content. This is where teachers who understand SDL skills come in. The teacher who is committed to self-directed learning understands that students will only succeed when they own their learning.

Essential Skills K-12 Online Learners Need

Central to the design of the SDL Support Model is the idea that there are a few essential skills that all K-12 online learners need in order to be successful lifelong learners. These skills are independent of IQ and may be increased with practice. In all aspects of the SDL Support Model, these essential skills are modeled, scaffolded, and demonstrated by participants. By consistently reinforcing these skills as crucial, we aim to develop habits that participants will employ with their students.

Goal setting

Goal setting in this context is not exclusively about having students state a task they would like to complete and outline the steps to get there. Goal setting in the SDL Support Model is focused on developing students' ability to clarify their personal values and tackle obstacles that are overwhelming. It is our belief that goal-setting skills are essential to creating lifelong learners and that they will help students get into college or save for a house or negotiate the obstacles they will undoubtedly face in their daily lives.

Metacognition

When a student is able to question why they are learning what they are learning, reflect on their own learning strategies, and evaluate the effectiveness of their strategies, they are better equipped to create and execute a plan for future learning. Activities related to metacognition include creating action plans or maps, creating mental pictures, rehearsing scenarios, evaluating outcomes against the action plan, and being able to make adjustments to the plan during the execution (Costa & Kallick, 2004).

Motivation

Motivation accounts for a significant portion of students' success in any learning environment but especially an online learning environment. If students are uninterested in learning, it can be nearly impossible to engage them in a meaningful way. We have witnessed flagging motivation among high school students and participants in the SDL Support Model online course. It is our belief that motivation stems from students' ability to perceive the value of a learning activity. That perceived value is linked to confidence and personal expectations of success, coupled with support from their environment (Carnegie Mellon University, n.d.). When faced with a student's or participant's dip in motivation, our program does not give a sales pitch for how important the content is; instead, it prompts the individual to revisit their goals for the course and connect their current challenge to their larger goals and learning outcomes for the course. As instructors and instructional designers, we reflect on the support we are able to provide or build into the course, and we ensure that students have opportunities to demonstrate their learning using the tool or medium that they prefer.

Critical thinking

Critical thinking skills enable students to pose questions to evaluate assumptions, identify alternative perspectives, identify relationships between ideas, and pose hypothetical problems. This type of questioning, when transparent and understood by students, can be used to build strategies for finding solutions (Costa & Kallick, 2004). Other skills encompassed by this category are students' ability to prioritize information, take notes, and follow directions.

Time management

The ability to independently manage time and effort is crucial to successful self-directed and online learning. Effective time management enables students to prioritize, plan, and manage their studies and has a direct correlation to the development of other essential skills listed in this section: goal setting, metacognition, motivation, and critical thinking (Costa & Kallick, 2004).

Self-directed Learning and Online Learning

Students in an online learning environment often have more options than their traditional counterparts. They have the freedom to access their classroom whenever it is convenient for them. They often have control over what they learn and the sequence in which they learn it. They also have additional options for demonstrating what they have learned. This increased autonomy can translate to truly powerful and transformative learning experiences, or students can quit after encountering their first obstacle. Online learning can be a great alternative for students who have not found success in traditional classrooms, but we must equip our students with the skills they need to thrive in this new environment. Self-directed learning skills benefit all students, but they are especially crucial for students, particularly online learners, who are literally in control of their own learning.

Many participants in the SDL Support Model online course believed that their students, digital natives, were innately digital learners. The reality is that, though students have been raised with technology at their sides, they are not savvy at using this technology for work

(Cowan, 2011). This has two implications for the classroom. The first is that this creates an opportunity to partner with students and learn together. In the partnering model, students have the opportunity to shine as they apply their knowledge of technology to specific activities, while the teacher models the SDL strategies they have developed over so many years as an exemplary learner. The second is that virtual instructors have the added charge of teaching students how to use tools they are familiar with to meet learning objectives. This often includes helping students understand appropriate uses of email and learn how collaboration differs in the online environment from the face-to-face environment.

Essential Elements of the SDL Support Model

The SDL Support Model is a one-to-many design. Operating on the foundation that participants should own their learning and in an effort to reach as many educators as possible using the resources available, we built the course in a way that maximizes access to the expertise of a few individuals. The instructional team consisted of a highly qualified instructor who specializes in SDL, an experienced instructional designer, a seasoned distance learning coordinator, and a licensed secondary English teacher with experience in instructional design.

Design Elements

The SDL Support Model's online course was built in Moodle, a free, open-source Learning Management System (LMS). During the course, participants are required to participate online by sharing resources, asking questions, reflecting on the readings and assignments, and actively engaging in the asynchronous discussion forums and synchronous webinar (web conference) sessions. At the start of the course, each participant creates their own learning contract. The contract helps participants articulate their learning goals for the course, develop an action plan, and identify the resources available to support their efforts. Participants revisit their contract every week or every other week to ensure that they are on track or to make adjustments as necessary. At the end of the course, participants are also asked to create an instructional or coaching contract that details their goals for integrating SDL skills and strategies into their teaching.

In each module, the instructor introduces concepts, objectives, and guiding questions. A list of required and recommended reading and media accompany the module activities outlined below.

Reading and Media are provided in required and recommended categories. Each module includes an audio podcast from the instructor introducing the concepts that will be covered; text-based content from a textbook, PDF, or website; and a video addressing some aspect of the concepts. By offering content in at least three mediums, participants have ample opportunity to consume the ideas that will inform the module's activities.

Warm-up Activities are intended to prompt participants to reflect on prior knowledge or experience that is relevant to the content being addressed in the module. These activities, which may take the form of a survey, quiz, brief writing assignment, or

wiki, also serve as an informal pre-assessment for the instructor to gauge each participant's starting point. Warm-up activities also serve as an opportunity to introduce technology that will be used throughout the module or course.

Daily Journals are maintained outside of the course and then submitted at the end of each module. Participants are expected to add a brief entry at least four to five times per week. Each entry should be a reflection on the participant's own practice, with a focus on the concepts being addressed in the module. Participants are graded on punctuality and demonstration of knowledge and understanding of the reading, media, discussion, and other activities from the module. For participants who prefer more structure, a list of prompts is also provided.

The **Shared Knowledge Base** is a collaborative, student-populated wiki that can be used as a resource during or after the course. Participants are encouraged to make a minimum number of contributions to this shared knowledge base at regular intervals throughout the course.

Discussion Forums are asynchronous forums in which participants are expected to connect the module's reading and media to the concepts and/or guiding questions. These forums are frequently used by participants to share experiences and solicit feedback from their peers about issues they face in their practice. The instructor monitors the discussion forums but generally only interjects to deepen or redirect the conversation. This is largely a space for participants to interact with one another and further explore the concepts covered in the module.

Synchronous Webinars are instructor-facilitated sessions that are used to further nurture a strong learning community among participants. The synchronous sessions also serve as a bridge between traditional face-to-face settings and the online environment. Providing the familiar experience of synchronous interaction early in the course often improves retention, especially among participants who do not self-identify as being technology savvy.

Assignments are any activity outside of those that occur in each module.

Post-assessments encourage reflection on the participant's learning during the module. These assessments mimic the format of the warm-up activities. If the warm-up was a wiki, the post-assessment will be a wiki.

Self-assessment Surveys are a self-grading activity in which participants score their work in the module against the rubrics provided. These surveys focus on discussions, activities, and overall contributions. Participants must provide a few sentences of evidence explaining why they earned their self-assigned grade.

Technology-Rich Instructional Tools

In addition to the tools built into the LMS, participants are encouraged to explore other Web 2.0 tools that enable them to most clearly and effectively demonstrate their learning. As long as the content may be shared in some way with Moodle (via link or embed) and can be accessed by at least the instructor and all course participants, the tool is acceptable. Participants who choose to research or use these tools are asked to share their learning with their peers.

By embedding multi-media, multi-directional tools like wikis, Google Docs, blogs, and other Web 2.0 tools that allow for multiple authors or representations of information, participants are able to begin understanding and become comfortable with these tools and this type of collaboration. As participants move beyond the stages of becoming familiar and are able to realize the instructional value these tools offer them, we gradually reduce the support we offer as instructors and instructional designers. We approach this by using a three-step process with all new technology. We introduce the technology, model an application of the technology, and scaffold the participants' interaction with the technology.

Introduce

Throughout the activities offered in the SDL Support Model course, we intentionally require the use of technology tools that are housed within and outside of the LMS. We begin this process early in the course and gradually increase expectations around participants' ability to work with the tools.

Model

With any new technology that we introduce, we operate under the assumption that participants are not familiar with it. A demonstration is provided whenever possible that models both functionality of the tool and an exemplar of the assignment. The instructor is also careful to be transparent about mistakes and to share learning at all stages, even in creating exemplary models.

Scaffold

Integral to the course design is the steady introduction of varied technology tools. At the start of the course, heavy support and instruction on each tool is provided. As the course progresses, the instructors provide less aggressive support and begin introducing tools found outside the LMS (i.e., VoiceThread, Voki, Prezi, Skype, Adobe Connect, YouTube, Vimeo, Dipity, MP3, and Flickr).

Delivery through the Coaching Model

In their paper "Technology, Coaching, and Community," Beglau et al. (2011) discuss the four components of Cognitive Coaching. Cognitive Coaching, originally developed by Art Costa and Bob Garmston, is "defined as a set of strategies, a way of thinking, or a way of working that invites self and others to shape and reshape their thinking and problem solving capacities" (Beglau et al., p. 8). The four core propositions of Cognitive Coaching are:

1. Thought and perception produce all behavior.
2. Teaching is a constant decision-making process.
3. To learn something new requires engagement and alteration in thought.
4. Humans continue to grow cognitively. (Beglau et al.)

These four propositions are the starting point from which we begin to engage with participants in the course. Using these principles as the foundation for all work in the course immediately establishes that the onus for each participant's learning rests squarely on the individual. The design of the course is such that we aim to present information that is crucial to understanding the concepts of self-directed learning, but the real value comes from the rich discussions and interactions among participants. It is the instructor's role to monitor the discussions and to pose the right questions at the right time—questions that prompt participants to reflect deeply and make connections between content and experience. The instructor's efforts are precise and intentional, with the idea that at all times we are modeling the practices we hope teachers will integrate into their practice.

Self-assessment, Peer Review, and ePortfolios

In our course, there are two ePortfolios for each participant. The Working ePortfolio is used in each module as a virtual space to collect evidence. The Working ePortfolio is a place where submissions are molded and improved through the self-assessment and peer review processes. The Final ePortfolio is a formal space where fully developed instructional tools reside.

Working ePortfolios are used in our course to facilitate self-assessment by:

- Collecting evidence of each participant's learning
- Practicing working with specific technology tools (wikis)
- Providing a visual timeline of each participant's learning
- Prompting reflection on each participant's understanding of the module's content
- Demonstrating each participant's ability to apply their learning to a classroom environment

For each module in the course, participants create instructional tools, which are then housed in the Working ePortfolio. The tools provide evidence of the participant's learning. They also give the participant a practical take-away from the course. Collectively, these Working and Final ePortfolios create a gallery of lessons that can be immediately implemented in the classroom.

Portfolios are also used in our course to facilitate peer review by scaffolding the peer review process. Participants are graded on the feedback they provide their peers. They are given a rubric and instruction on how to provide constructive feedback. In an online environment, communication (especially critical or constructive feedback) must be intentional. This creates a challenge for online instructors who are providing feedback for their students. In order to reinforce this idea and give instructors practice honing their ability to give constructive feedback in an online environment, our course includes frequent peer feedback in every module.

Implementation of the Mentoring Program

The Power of Community and Social Learning

A recent study of online learning by the Community College Research Center at the Teachers College of Columbia University cites the following challenges for online learners: "technical difficulties, a sense of social distance and isolation, a lack of the 'high learner control' [what we call self-directed learning] that may be needed for success in the relatively unstructured and flexible online environment, and limited availability of online student support services" (Xu & Jaggers, 2011).

For online teachers, supporting students is not a one-person endeavor. In addition to intentionally building opportunities for meaningful student interaction, online teachers must work with students and administrators to identify or create networks of support that extend beyond the virtual learning environment. In our course, participants identified their support networks while completing their learning contracts. By identifying the people and resources available before a need arose, they were able to avoid feelings of isolation and persist through challenges.

An important component of modeling self-directed learning skills is being transparent about one's own cognitive process. For a traditional teacher, this may mean standing at the board and talking through a difficult problem. For virtual instructors, this requires additional steps. It can be very tempting to only post the final, shiny versions of problem solving, but it is critical that online teachers find mediums through which they can demonstrate complete processes and review the problem-solving processes of their students. As the instructor, it is also important to see how students solve problems collaboratively. Next we discuss the need for structured collaboration. Depending on the tools that students use to collaborate, the instructor may have more or less access to the collaborative process. Our recommendation is to have a blend of methods available to facilitate access. Reflective questions that address process may be included or the assignment may include a predetermined collaboration tool that allows for recording the session or tools such as Google Docs can be used to review the evolution of a document or project.

Providing structured opportunities for peer interaction during the online course proved to be critical to building a strong sense of community among participants in our course. These opportunities included synchronous webinars for all participants, collaborative assignments requiring synchronous interaction on a small group level, and assigned consistent check-ins between participants to make sure they were on track with their learning contracts.

Many participants took their learning about self-directed learning skills and the instructional strategies that were shared and developed in our course back to their colleagues at their home institutions. Participants imparted anecdotes about sharing strategies, materials, and readings from the course with their departments and administrators. Some became teacher leaders in their schools and advocated for broad implementation of the strategies, while others created pilot studies in their classrooms and then reported results to their peers.

Participants who shared close physical proximity continued the conversation face-to-face and applied their learning in a collaborative way. By working together to implement their learning in a traditional classroom, they were able to share experiences and learn from one another's accomplishments and errors. The leaps in understanding that came from collaboration in this micro-community of online and traditional instructors demonstrated the need for continuing social learning beyond the confines of this course. Over the course of a few weeks, participants went from being unsure about online learning as a viable and valuable option for students to demanding their own online learning environment to collaborate around the issues they face. By the end of the course, participants also cited a need for expanding the support system from the virtual classroom to include administrators, parents, and the community-at-large. They wanted more people to understand self-directed learning and online learning so that their students would get the full spectrum of support they needed to be successful.

Social Learning

Social Learning Theory, as developed by Albert Bandura, tells us that people learn through watching their peers (Weibell, 2011). By observing others' behavior, attitudes, and outcomes, we are able to make more informed decisions when we encounter similar circumstances. Learning is a continuous process that relies on a few conditions. These conditions can be fabricated in an online environment to maximize each participant's learning.

The first condition is attention (Weibell, 2011). Countless factors impact an individual's attention. Online instructors must make use of all available tools to increase attention among students. Some strategies include using materials and media that are distinctive, original, or creative. Examples of this could be using bullets and chunks of information instead of long blocks of text and/or providing relevant content that engages more than one sense and increases sensory arousal. Reinforcement is key to ongoing attention. Instructors must consider how their students are being rewarded for their attention.

The second condition is retention (Weibell, 2011). Simply put, retention is the ability to recall the outcomes of an experience. Retention can be reinforced through activities that allow participants to demonstrate personal strategies for organizing information as the experience happens and in its aftermath. Through learning about another person's mode of understanding and imprinting the outcome of an experience, participants may find new retention strategies that work for them. Also, instructors can facilitate opportunities for participants to rehearse (through collaborative assignments) the information that they are learning in the course.

The third condition is reproduction (Weibell, 2011). Participants must be able to and are expected to reproduce their learning. This includes demonstrating their learning, synthesizing many sources into new activities, and conducting ongoing self-observation and reflection. With reproduction, participants are able to look at a product of their learning, assess themselves, and engage in a continuous cycle of improvement.

The fourth and final condition is motivation (Weibell, 2011). Social learning is essentially about imitation, but a compelling reason to imitate must be apparent. A past experience that resulted in a positive outcome, the promise of an incentive (even if imagined), or vicariously witnessing and recalling outcomes all serve as sources of motivation that help to reinforce imitated behaviors. What is a good reason to imitate a behavior? Behavior is reinforced in many ways.

Identifying Potential Online Instructors

Our course is implemented across multiple districts, schools, programs, and communities in an effort to create diverse cross sections of participants. The greater the range of experiences participants bring to the classroom, the richer the discussions and collaborations. Additionally, having perspectives from multiple levels within districts broadens the conversation around student needs. For example, a typical group of participants might include classroom teachers, special education teachers, paraprofessionals, administrative staff, guidance counselors, and education consultants from traditional, virtual, and institutional school settings.

We intentionally recruit teachers who are excited to teach in virtual environments. We also intentionally recruit participants who are uncertain about working in an online environment. The aim of our course is threefold. First, we aim to increase awareness and development of self-directed learning skills crucial to success in online learning. Second, we strive to prepare participants to support students through online learning experiences (by building empathy and providing strategies). Third, we intend to make participants well versed in the technology available and its impact on online learning. We are building a network of educators who are knowledgeable and can engage with new developments around online learning. By demystifying online learning, the technology, and the students' experience, we empower educators at all levels of a student's educational experience to see online learning as not only possible but as a valuable learning experience that can enhance any curriculum.

Sustaining the Mentoring Program

In an effort to support an incipient community and in response to the overwhelming request from students for more resources, we have created *http://www.sdlskills.com*. It is our hope that this website will be a repository of resources, effective practices, and new developments and will eventually serve as an online professional learning community. By providing a single site for current participants, course alumni, prospective participants, and the community-at-large, we can empower more educators to proactively engage in conversations around self-directed learning skills and online learning. In its eventual role as online professional learning community, educators using SDL in traditional and online classrooms will have a network of support for everything from lesson plans to implementing SDL on a school- or district-wide level.

Putting Learning into Practice

This section is built around the voices of the three key parties involved in the SDL Support Model: teachers, students, and coaches. The testimonials in this section demonstrate that, through the SDL Support Model, teachers are better able to recognize their own skills and provide strategies for teaching SDL skills to their students. Drawing on individual experience empowers teachers to intentionally link content to life skills and life goals. As the testimonials indicate, when content is directly linked to students' skills and goals, they gain confidence in their ability to engage with increasingly challenging content and to strategically approach obstacles in academic and other realms. Finally, coaches report that the SDL Support Model

teaches them to empower students to find relevant connections among their own experiences and content that are not reliant on an individual instructor's guidance. Ultimately, the SDL Support Model gives teachers, students, and coaches the confidence they need to own their experiences and to approach challenges with a positive attitude, expecting success.

Nellie Taylor, an online instructor who completed the course, describes how she implements the skills, tools, and strategies learned through the online course.

> *"This was a new way to approach teaching . . . for me. I schedule my classes to the minute so that the kids always know what they're supposed to be doing and what they're supposed to be working on. This is a real change because the kids are going to be taking the reins and doing that for themselves. They are going to be deciding what they're working on and setting goals for themselves. With this philosophy of self-directed learning, I gained a lot of new vocabulary for talking about goals I want students to achieve in being self-directed and being able to assess themselves and being able to follow through on [learning] contracts that they created. The biggest challenge for me was giving the kids opportunities to work on their own or work in small groups around projects that they created for themselves. That was very hard for me to let go enough to give them the space to make that happen, but I think in my calculus course, in particular, when I tried it out, the kids really appreciated it and some of them were very successful and did some great learning on their own. They really did the research by themselves and created a product that demonstrated their learning. It was a great success" (2010).*

Online instructor Jim Hanson notes that this course helped him better understand how to support each of his high school students in an online Algebra course. He explains that "a student can sit in a traditional classroom, and it can be hard to tell sometimes if they are getting what I'm teaching. But with the online [Algebra course], there's no mistaking whether they've learned the material or not" (Enerson, in press).

High school students in an online Algebra course share their experience of learning from instructors that position student needs and perspectives at the center of online instruction. One student explains that "I am more assertive about my learning than I was before" (Student, 2010). Another student reports that "it feels easier to grasp the concepts because you are self-directed and you can do it yourself without the help of others" (Student, 2010).

Online Algebra student, Ty, likes knowing immediately whether she understands a concept. "That way," she explains, "I can spend my time learning what I don't know yet," and she can stay on track with the learning contract she developed with her online instructor (Enerson, in press). Ty explained that she has an easier time learning online because she can go at her own pace. She also says that she likes how the program "explains things in more than one way," referring to the Algebra Online's interactive format that includes videos, interactive written explanations, and multiple practice problem sets for each concept.

Regina LeCours, an alumna of the SDL Support Model online course, describes herself as "not a technologically oriented person." When she first enrolled, she thought, "Oh no, please don't make me do this course!" However, LeCours found the kind of support through her online instructors that she now provides for her own students taking online courses. "My

instructors made me feel like I could do it, and I did do it." LeCours says she learned a lot about supporting all learners through the course, particularly those who have not been successful in a traditional classroom. "It was a game changer for me," she says. "The course really helped me understand how to encourage and coach students, not just around content but around linking content to their own goals in life." For LeCours, the most rewarding aspect of coaching is watching students take more ownership of their learning. "It's cool to watch students change over the course of the year. They start talking about what their goals are and what skills they've learned. Online learning puts their education in their own hands—it's wonderful!"

Paying It Forward

For many of our participants, the ideas they work with in our course are beyond the scope of their school or classroom's culture. In many ways, our course demands a paradigm shift for most participants. Taking this learning back to their colleagues can be a challenge.

One participant, who cited the need for a greater focus on SDL skills in her school, struggled to get her principal on board. Though the principal loved to discuss educational theory, he was unwilling to divorce himself from his political ties to standardized testing. Faced with this reality, she decided to pilot the SDL ideas in her own classroom and demonstrate to her colleagues the positive impact on student performance (Participant, personal communication, 2011). Using the skills she became cognizant of through the SDL Support Model, she took initiative, found a creative solution to the obstacles that blocked her path, and created a plan that would help her achieve her goal of having her school focus on self-directed learning.

By working with individual teachers to increase their understanding of SDL skills, we aim to eventually create a social network of like-minded educators. Through this network of teachers who are working with SDL skills, individual cases such as this will have greater visibility and, by sourcing effective practices from teachers across many districts, more credibility when introducing new SDL initiatives. This network will also sustain the work of individual teachers through shared experiences, resources, and support, while creating synergy across regional and district barriers.

Many teachers have the SDL skills they need to succeed professionally and personally. The challenge is that people who have SDL skills often assume that others have them as well because these skills have not been treated as teachable. By isolating the essential skills that make someone a strong self-directed learner, teachers may reflect on how they utilize each skill and integrate more explicit instruction of these to their overall curriculum. As teachers become more aware of these skills, instances of use are more apparent and gaps in a student's skill set are more easily identified.

For education in the United States, these skills can be easily overlooked in an effort to cover more content. It is often difficult for a teacher who recognizes the value of teaching SDL skills (like the teachers in this chapter) to convince their colleagues and administrators of their importance, especially in the face of greater standardized, content-focused testing and teacher evaluation. As we see greater student achievement on a case-by-case basis, we hope to gain traction for a more systemic shift toward student-centered teaching and learning models.

About the Authors

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APPENDIX

A References by Chapter

Chapter 1

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APPENDIX

B Appendices by Chapter

Chapter 5 – A

Please use the following information as a description of the professional development completed for the NCVPS Teacher Assistant (TA) Orientation Course. All NC Professional Development Standards and ISTE Standards are listed on the corresponding CEU certificate. A description for the NCVPS Teacher Assistant Practicum can be found on the corresponding Teacher Assistant Checklist and Evaluation Rubric.

Week 1 – Organizational Structure Module

Learning Objective: The TA will formulate a working understanding of the North Carolina Virtual Public School (NCVPS) that will serve as a foundation for how to approach teaching online for NCVPS.

Assignments: The TA will complete a Pre-Assessment to assess all prior knowledge of NCVPS, our policies/procedures, and online instruction. The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will record a voice board response to the NCVPS organizational structure scenarios provided.

Week 2 - Departmental Meetings Module

Learning Objective: The TA will be able to explain the purpose of eLCs and department meetings and how they relate to the NCVPS course revision process.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create a Voki that explains the purpose and process of the NCVPS course revision process.

Week 3 – Learning Management System Module

Learning Objective: After successful completion of this course, the TA will be able to demonstrate the ability to anticipate challenges and problems in the online classroom and find effective solutions.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create and post a Welcome Announcement in the TA Practice Course. The announcement will contain the five key components discussed within the module that can be used during the first day of class.

Week 4 – Wimba Tools Module

Learning Objective: The TA will model, guide, and encourage legal, ethical, safe, and healthy behavior related to technology used in an online classroom.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create a Wimba Classroom archive showcasing the instruction of a mini - lesson containing audio, visual aids, and content knowledge. The TA will complete the Pronto and Wimba Classroom Agreement stating that these tools will be used during everyday online instruction.

Week 5 – Communication Module

Learning Objective: After successful completion of this course, the TA will be able to demonstrate the ability to anticipate challenges and problems in the online classroom and find effective solutions.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will upload the division Contact Log into a secure Google Doc and share this document with the corresponding Instructional Leader (Department Chair.) After reviewing the Crucial Conversations presentation, based upon the book by Kerry Patterson, the TA will use the ToonDoo resource to share a crucial conversation they have had in the past and discuss how the conversation could have been executed differently.

Week 6 – Reports Module

Learning Objective: After successful completion of this course, the TA will be able to maneuver the NCVPS Registration System and complete all reports.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create a Google Form survey to be used with students. Also, the TA will complete an IEP/504 Jog The Web activity to answer review questions about the NCVPS IEP/504 process.

Week 7 – Policies/Procedures Module

Learning Objective: The TA will analyze strategies for teaching online and learn logistical components that are critical for all NCVPS Credit Recovery teachers.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create an Xtranormal cartoon to explain the NCVPS High Five and Work Completion processes. The TA will complete the NCPVS Hiring Process Agreement to confirm their understanding of this process and agree to complete all forms involved in this process.

Week 8 – Professional Development Module

Learning Objective: The TA will learn, plan, design, and incorporate strategies to encourage active learning, interaction, participation, and collaboration in an online environment.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create a Jing video showcasing the instruction of a mini - lesson containing audio, visual aids, evidence of higher level of Revised Blooms Taxonomy, and content knowledge.

Week 9 – Teacher Evaluation Process Module

Learning Objective: The TA will learn, plan, design, and incorporate strategies to encourage active learning, interaction, participation, and collaboration in an online environment.

Assignments: The TA will attend and participate in the 1-hour weekly live chat. After reviewing all content within the module, the TA will create an Animoto video showcasing one SMART goal and how it will be met during the upcoming semester. After reviewing all content within the module, the TA will upload the division Teacher Portfolio/ Virtual Teacher Achievement Plan into a secure Google Doc. The TA will complete the previous forms and share these secured documents with the corresponding Instructional Leader (Department Chair.) The TA will complete a Post-Assessment to assess knowledge of NCVPS, our policies/procedures, and online instruction.

Chapter 5 – B

TA Buddy (VT) Expectations

This form outlines the expectations for being a TA Buddy. Please complete this form to the best of your knowledge.
Your username (janice.silver@ncpublicschools.gov) will be recorded when you submit this form. Not janice.silver? Sign out
* Required

Please enter your name. *

Have you been teaching with NCVPS for at least one year? *

- Yes
- No

Will you visit the TA Orientation Course to meet your TA, make sure that your TA is on task, and has a good understanding of the material? *

- Yes
- No

Will you be able to meet with your TA via Wimba, Pronto, or phone once per week during the Practicum for reflection? *

- Yes
- No

How comfortable are you explaining all NCVPS processes and procedures listed on the TA Checklist to your TA? *

	0	1	2	3	4	5	
Not comfortable at all	○	○	○	○	○	○	Very comfortable

How comfortable are you using the Appshare feature in Wimba Classroom and Pronto? *

	0	1	2	3	4	5	
Not comfortable at all	○	○	○	○	○	○	I could teach someone how to Appshare

How comfortable are you allowing your TA to listen in on a stakeholder (DLA, parent, or student) phone call and copying your TA on stakeholder emails? *

	0	1	2	3	4	5	
Not comfortable at all	○	○	○	○	○	○	Very comfortable

Have you completed mentor training in your face-to-face school? *

- No.
- Yes, but I have not mentored a new teacher.
- Yes, and I have mentored a new teacher.

Chapter 8 – A: AR Mentoring Program Calendar

OCTOBER 26, 2010 10:30–11:30	AR Mentoring Elluminate Session I: Overview of Practitioner Inquiry & Orientation to Being a Virtual Inquirer
NOVEMBER 2, 2010 10:30–11:30	AR Mentoring Elluminate Session II: Developing Your Wondering
NOVEMBER 9, 2010 10:30–11:30	AR Mentoring Elluminate Session III: Developing Your Inquiry Plan
NOVEMBER – FEBRUARY	Data Collection
WEEK OF FEBRUARY 15, 2010	On Your Own Learning—The Data Analysis Process Read Chapter 5 of *The Reflective Educator's Guide to Classroom Research* (Dana & Yendol-Hoppey, 2010)
WEEK OF FEBRUARY 22, 2011	On Your Own Learning—Analyzing Your Own Data Read through your entire data set and post what you are learning from your data on our Schoology site.
WEEK OF FEBRUARY 22, 2011	Giving and Receiving Data Analysis Help Read through your colleagues' postings and pose helpful questions to one another about data analysis.
WEEKS OF MARCH 1 AND MARCH 7, 2011	Special Small Group Phone Conference Session You will work with your AR mentor and group members to give and receive feedback on your analysis to date.
MARCH/APRIL	Complete Data Collection and Analysis
MAY	Share Your Inquiry with Others During Elluminate Inquiry Showcase Session

Chapter 8 – B: Mentoring Session II Handout Tips for Helping Colleagues Fine-Tune Wonderings on the Wondering Playground!

Playground Equipment

- Is the wondering a dichotomous question?
- Is your wondering specific?
- Is the wondering focused on the educator's own practice?
- Is the wondering a question whose answer is not known?

(Wondering criteria adapted from Dana, N. F. & Yendol-Hoppey, D. *The Reflective Educator's Guide to Professional Development: Coaching Inquiry-Oriented Learning Communities)*

If the wondering is a yes/no question:

Try playing with the wording of the wondering using phrases like:

- In what ways does . . .
- What is the relationship between . . .
- How do students experience . . .
- What happens when . . .
- How does . . .

To help make the wondering more specific:

Check to see if these three components are embedded in the question:

- Participants (i.e., third grade learners; Algebra II students)
- Intervention/Strategy/Action
- Targeted Skills/Knowledge/Ability Outcomes

To help focus the wondering on the virtual educator's own practice and something that is unknown:

Ask these questions of your colleagues:

- What difference might exploring this wondering make in your practice as a virtual school educator?
- What might you learn about your students/colleagues as a result of exploring this wondering?
- What potential impact will the insights you gain from this inquiry have on you?

Chapter 8 – C: Mentoring Session III Handout Tips for Helping Colleagues Fine-Tune Inquiry Briefs on the Inquiry Plan Playground!

Playground Equipment

- Do the virtual school inquirer's data collection strategies align with the wondering?
- Is the virtual school inquirer incorporating the collection of multiple types of data into the inquiry plan?
- Is the plan doable? (It meshes with the everyday work of the virtual educator)
- Timeline for Study—Does it align with each step of the AR process?

(Adapted from Dana, N. F. & Yendol-Hoppey, D. *The Reflective Educator's Guide to Professional Development: Coaching Inquiry-Oriented Learning Communities*)

Summary of Data Collection Strategies:

Definition: capturing the action of teaching and learning

- Field Notes
  - Scripting dialogue and conversation
  - Diagramming the classroom or a particular part of the classroom
  - Noting what a student or group of students are doing at particular time intervals
  - Recording what a teacher is saying
- Documents/Artifacts/Student Work
- Interviews
- Focus Groups
- Digital Pictures
- Video as Data
- Reflective Journals
- Weblogs
- Surveys
- Quantitative Measures of Student Achievement (Standardized Test Scores, Assessment Measures, Grades)
- Critical Friend Group Feedback
- Literature
- Other?

Chapter 8 – D: Sample Inquiry Brief

The Grade-Forgiveness Student

Purpose: Typically students take Algebra 1 online for grade-forgiveness. Grade-forgiveness is when a student receives either a D or an F in a class and takes that class again to attempt to make an improved grade of C or better. This grade will then replace the former low grade.

When a pupil has received a poor grade in a class, it weighs on them heavily. Some students think they are stupid or tell the instructor they "just don't get math at all." Even some parents will say "they are just like I was—they don't get this math work." Many times when a learner comes to the online environment they have what is termed "learned helplessness" when it comes to math. According to Ormrod (2003), learned helplessness is when students are "unsure of their chances for success or else [are] convinced that they cannot succeed" and "display a growing sense of futility about their chances for future success."

Virtual learning provides students a way to complete the course for grade-forgiveness and stay in their brick-and-mortar school. Sometimes adjusting to the online environment is difficult, especially when it is paired with a full-course load at the traditional school. On top of this, students need to have tremendous focus and organization skills. With all of these challenges, many students either do not complete the class, end up taking it by another method, or fall so far behind, it takes them longer than normal to complete—further deepening their hatred of math. Given these challenges, I would love to learn how to implement effective strategies to help the students stay motivated, to stay on pace, and to stay in the course—to finally feel successful at math.

Wonderings:

Overarching: How do I get brick-and-mortar students taking grade-forgiveness Algebra to complete and to complete in a more timely manner?

Sub-wonderings:

What methods work best at keeping students motivated?

What communication methods should be utilized in helping students stay on-pace and motivated?

Why do students leave the virtual classroom to complete the course in another manner? Are there factors that I contribute as a teacher to increase the withdrawal rate? What methods can I implement to lower the withdrawal rate and raise the completion rate and yield rate?

What effect will this study have on my students' grades?

Data Collection: I plan to collect data through surveys, VSA data pulls, and blogging about the different methods I try. I will analyze the number of submissions I receive. I will

research various communication techniques and apply them. Furthermore, I will monitor contact frequency and types of communication used during the contact. Also, I will pick a few key students and utilize them for data collection and reflection. Finally, I will focus on instructional methods and types of differentiated instruction in an online environment.

Data Analysis: I will constantly read and reread all data that has been collected. I will log this data depending on type—which could be daily or weekly.

Timeline:

November: Gather data on students who are in the course for grade-forgiveness, their initial feelings about math, their weeks to complete, their desire to leave the online environment and continue in a brick-and-mortar school, etc. Research communication techniques and differentiated teaching methods in an online environment. Blog.

December–February: Apply the methods, continue collecting data, blog

February/March: Data analysis

March/April: Develop overview of teacher inquiry findings

April/May: Attend FLVS Teacher Inquiry Conference

May: Reflect on the experience.

— Ormrod, J. E. (2003). *Educational Psychology: Developing learners* (4th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

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