PERCEPTIONS OF K-12 ONLINE TEACHING ENDORSEMENT PROGRAM EFFECTIVENESS IN GEORGIA: A CASE STUDY

LESLIE POURREAU
ANISSA LOKEY-VEGA
Kennesaw State University, U.S.A.

ABSTRACT

This qualitative case study examined professional educators' beliefs and perceptions about K-12 online teaching endorsement (OTE) practices in the State of Georgia. The authors collected data from six one-on-one semi-structured interviews and the Georgia OTE Program standards (505-3-.95) as set forth by the Georgia Professional Standards Commission. Analysis showed that the issues and concerns participants shared about current K-12 OTE preparation practices reflected real problems and challenges related to a lack of customized virtual instructor training, educator perceptions or misconceptions about online instruction and technology knowledge, and virtual setting imperfections. Findings highlighted issues with current Georgia K-12 OTE standards that teacher educators and virtual education practitioners perceive as training issues and barriers to success for virtual instructors.

INTRODUCTION

Certification dilemmas exist for today's K-12 online teaching endorsement candidates as many of them were trained solely as traditional or face-to-face (f2f) instructors, and most states do not require virtual instruction certification. The Council for Accreditation of Education Preparation, known as CAEP, requires teacher preparation programs in Georgia to prepare candidates to show mastery in technology standards; however, this requirement does not aim to specifically prepare or certify K-12 teacher for careers as virtual or online instructors. Literature in the field of K-12 online learning includes research that has examined teacher demographics and experiences (Archambault & Crippen, 2009), state education agency struggles with regulating the rapid growth of online learning options through for-profit and nonprofit organizations (Natale & Cook, 2012), student expectations for teachers in virtual school environments (Oliver et al., 2009), and how to provide evidence of identifiable learning outcomes as a measure of the effectiveness of technology in schools (Schrum et al., 2007). Little is known about the characteristics of K-12 online instructors, particularly their professional preparation, the effectiveness of different types of professional development they receive, and how they may or may not differ from teachers in traditional settings.

LITERATURE REVIEW

Changes in teacher preparation procedures across the United States including the addition of Common Core Standards in the 2000s and a strong entrance by online schooling options in K-12 public education settings have presented new instructional and learning challenges for teachers and students alike. Facing these challenges requires identifying and addressing the new instructional preparation that online teaching endorsement (OTE) candidates need so that they are capable candidates for hire in K-12 virtual settings (Archambault & Crippen, 2009; Bawane & Spector, 2009; Corry & Stella, 2012; Davis & Roblyer, 2005; DiPietro, 2010; Dykman & Davis, 2008; Kennedy, Cavanaugh, & Dawson, 2013; Schrum, Burbank, & Capps, 2007). Online K-12 education has become a ubiquitous and accepted form of 21st century schooling in many states (Hathaway & Norton, 2012; Jorrín-Abellán & Stake, 2009), but the United States lacks a single, nationalized, top-

down educational system with parity across all 50 states for traditional or face-to-face education and online education alike.

Numerous studies to date have substantiated the claim that K-12 virtual school enrollment continues to grow across the United States (Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2009; Larson & Archambault, 2015; Watson, Pape, Murin, Gemin, & Vashaw, 2014). Many researchers have examined the strengths and weaknesses of professional development endeavors for college and university faculty teaching online; however, literature that investigates professional development for K-12 settings remains limited (Archambault, Kennedy, Shelton, Dalal, McAllister, & Huyett, 2016; Corry & Stella, 2012; DiPietro, 2010; McAllister & Graham, 2016; Moore-Adams, Jones, & Cohen, 2016; Pineda Hoyos & Tamayo Cano, 2016; Rice, 2006).

Literature has established that K-12 virtual instruction places high demands on instructors. They must incorporate dynamic instructional repertoires grounded in face-to-face values and foundational practices whose implementation varies by model (i.e., online, blended/hybrid, or web-facilitated) and depends on the academic needs and ethnic, linguistic, and socioeconomic diversity of its learners (Archambault & Crippen, 2009; Natale & Cook, 2012; Oliver et al., 2009; Schrum et al., 2007). Archambault and Crippen (2009), Natale and Cook (2012), Oliver et al. (2009), and Schrum et al. (2007) identified other elements critical to K-12 virtual instruction environments: good communication and classroom organization skills, distance-learning specific verbal and nonverbal presentation skills, collaboration aimed at producing effective courses, the ability to involve and coordinate student activities among several sites, and incorporating various traditional instructor roles common to K-12 online schools. Researchers have examined different elements of virtual instruction including the transfer face-to-face pedagogical principles and practices to the K-12 online environment (Barbour, Siko, Gross, & Waddell, 2012; Hewett & Powers, 2007; Larson & Archambault, 2015; NCATE, 2008; Zimpher & Howey, 2013), curriculum requirements for K-12 online teaching endorsements (McAllister & Graham, 2016), pre-service teacher training for online instruction (Luo, Alexander, & Crompton, 2017; Luo, Hibbard, Franklin, & Moore, 2017; Williams & Casale, 2014), and training while teaching online (Zweig & Stafford, 2016), but no study to date has examined specifically perceptions of program design and to what degree candidates emerge from programs ready to teach online.

RESEARCH PURPOSE AND QUESTIONS

This case study served to examine the perceptions and beliefs held by University System of Georgia teacher educators, K-12 virtual school administrators and K-12 virtual school instructors in the state of Georgia about the effectiveness of K-12 OTE candidate preparation practices. The study specifically sought to identify the beliefs and perceptions that these three types of educators believed or perceived as the necessary or desired knowledge, skills, and dispositions of the ideal virtual K-12 instructor. The study explored these beliefs and perceptions by asking the following questions:

1. What do teacher educators in the state of Georgia believe or perceive as the necessary or desired knowledge, skills, and dispositions of the ideal K-12 instructor?
2. What do K-12 virtual school administrators in the state of Georgia believe or perceive as the necessary or desired knowledge, skills, and dispositions of the ideal K-12 instructor?
3. What do K-12 virtual educators in the state of Georgia believe or perceive as the necessary or desired knowledge, skills, and dispositions of the ideal K-12 instructor?

METHODS

Context

The literature consulted for this study showed that different online teaching endorsement (OTE) practices are at work across the state of Georgia that make a difference in how K-12 OTE candidates are prepared to become virtual instructors. There are University System of Georgia (USG) institutions, whose programs adhere to CAEP standards (CAEP, 2013), but different non-USG institutions including Georgia Regional Educational Service Agencies (RESAs), local school systems, and other organizations in the state operate under the auspices of the Georgia Professional Standards Commission (GaPSC). This study did not include the non-USG institutions and their programs since these agencies fall outside of the case boundaries.

Initial examination of the GaPSC codes and standards governing OTE shows Georgia certified K-12 teachers can choose from five K-12 OTE programs to earn this endorsement. With completion of one of these programs the GaPSC deems them effectively prepared and ready to teach online in any K-12 virtual setting in the state of Georgia (GaPSC, 2014a; 2014b; 2014c; 2014d; 2014e). In reviewing these five USG programs, evidence revealed that curricular differences exist. Some institutions required more or fewer courses than others, and slight to significant differences among programs were apparent in the courses required and how these courses were designed (GaDOE, 2015; GaPSC, 2014a, 2014b, 2014c, 2014d, 2014e; Georgia General Assembly, 2012; GeorgiaGov, 2015). Key differences among programs occurred in the course names, the course descriptions, the course assignments and assessments, and, at times, in the number of courses required toward earning OTE. In contrast, program similarities shared two traits including the key concepts and the practical applications as dictated by state codes, and the professional teaching standards that stipulated how these programs build candidates' core knowledge. The faculty responsible for OTE candidate training at each USG institution develop the courses within the programs. This study assumed that the potential for differences in OTE training practices stemmed from contextual differences among the different USG institutions. The faculty who coordinate, design, and teach OTE courses at each institution all differ in the training they received and how they perceive and interpret the different Georgia codes and GaPSC guidelines and standards (GaPSC 2014a; 2014b; 2014c; 2014d; 2014e). These differences produce different USG and GaPSC approved programs, each having a unique structure and, to a degree, its own unique course offerings for OTE candidates.

This qualitative case study was designed to examine the beliefs and perceptions held by different types of educators in the state of Georgia about K-12 virtual instructor preparation practices. Subsequently, the study compared these beliefs and perceptions to the current Georgia K-12 OTE standards to determine parity and divergence between the standards and current perceptions about K-12 virtual instructor preparation practices. The study was framed by constructivism (Stake, 1995; Yazan, 2015), elements of phenomenology (Creswell, 2006; Moran, 2000), existing emerging literature about educational practices and identity as related to K-12 OTE candidate preparation, and triangulation of data for analysis. This publication is one component of a larger dissertation study conducted in 2016 (Pourreau, 2016).

Participants

This study's participants included three USG teacher educators, one Georgia K-12 virtual school administrator, and two Georgia K-12 virtual instructors. The USG teacher educators in this study came from different USG institutions across the state who offer OTE as a part of their post-graduate certification programs. All three USG teacher educators and the K-12 virtual administrator hold terminal degrees from major research institutions in the United States but in different fields.

One USG teacher educator holds a Ph.D. in Instructional Technology, another holds a Ph.D. in Instructional Design and Technology, and the other holds an Ed.D. in School Improvement. Both of the teacher educators with terminal degrees in instructional technology fields direct the K-12 OTE program in their respective colleges of education based on their specialized knowledge about Georgia K-12 OTE program preparation practices and purposes. Both have at least two years of prior experience as K-12 teachers and both have trained Georgia K-12 instructors in virtual and face-to-face settings. The K-12 OTE programs at both of their institutions are fully online. One has been training K-12 OTE candidates via online means only for three years; the other, for five years. The other USG teacher educator also instructs Georgia K-12 teachers, but mostly in face-to-face settings. While this teacher educator's USG institution offers online courses, it did not offer the K-12 OTE endorsement.

The K-12 virtual school administrator and the K-12 virtual instructors came from K-12 virtual schools based in the state of Georgia. The K-12 virtual school administrator held a Ph.D. in Curriculum and Instruction and directly supervises K-12 virtual instructors. One K-12 virtual instructor held both a Bachelor's of Science degree and a Master's of Science degree in English Education from major research institutions in the United States and recently moved from a position as a K-12 virtual instructor to one as a Coordinator of Course Development at a K-12 virtual school. The other virtual instructor, also a graduate of a major research institution in the United States, held a Bachelor's of Science degree in Math Education and a Master's of Science degree in Educational Leadership and recently moved from a position as a K-12 virtual instructor to one as a Testing Coordinator. Both of the virtual instructors taught for an average of five years in a traditional K-12 face-to-face environment in a Georgia public school system before becoming virtual instructors, and each of them spent four years working as full-time faculty in a K-12 virtual school prior to changing positions.

Data Collection

Purposive sampling method was used to ensure that the study included only participants with the potential to yield information relevant to the research purpose and questions. Online searches for USG institutions offering K-12 OTE through their respective colleges and for actively operating K-12 virtual schools in the State of Georgia helped determine participant eligibility. A second and more extensive search of USG college websites and K-12 virtual school websites produced the names of faculty who fit the criteria for this study. Following IRB approval, ten potential participants received an email with details about the study and an invitation to participate. Invitation respondents then received the study cover letter, the IRB-approved study consent form, and a copy of the interview questions via email. Of the ten invited participants, six of them (60%) (three USG teacher educators, one K-12 virtual school administrator, and two K-12 virtual instructors) self-selected by responding to the invitation and consenting to participate in the interview process. Interviews with these six participants were scheduled via email upon receipt of their signed consent form.

This study employed an interview protocol consisting of open-ended questions coupled with inductive and deductive inquiry. All interviews were conducted one-on-one over the phone and were held at the convenience of the participants. All interviews were recorded in a digital audio-only format using a voice-only recording app housed on a university-owned electronic tablet. All participants responded to the same open-ended questions about their perceptions and beliefs about K-12 OTE preparation practices in Georgia as related to the knowledge, skills, and dispositions (i.e., attitudes or beliefs) that a K-12 OTE candidate needs to work in a K-12 online classroom in the State of Georgia. The use of open-ended questions permitted inquiry about issues in greater depth

and afforded the researchers the flexibility of using probing or follow-up questions to facilitate more meaningful or reflective answers from participants (Simons, 2009; Yin, 2011). The voice-only recordings were erased from the university-owned electronic tablet upon transfer to a password-protected flash drive. When not in use, all interview recordings, interview transcriptions and data were encrypted and stored securely on a password protected flash drive that was locked in a university office as approved by the institution's IRB. All recordings were subsequently deleted in accordance with the conditions of the IRB.

Data Analysis

After all interviews were transcribed, the transcriptions were coded thematically using constant comparative analysis (Boeije, 2002; Glaser, 1965) to determine response alignment among same-group participants, across participant groups, and between the body of participant responses and the current Georgia K-12 OTE standards. To do this, all themes that emerged from the interviews were coded axially to identify related themes that could be collapsed for same or similar themes or concepts. Thematic coding allowed the authors to examine and manage information in a gradual process while working to safeguard against researcher inferences and suppositions with the potential to influence coding outcomes and study results (Simons, 2009; Stake, 1995). The authors then employed inductive and deductive analysis (Stake, 1995; 2005) coupled with coding comparisons across interviewee groups to analyze interview responses for commonalities and differences in the beliefs and perceptions across the three participant groups (USG K-12 teacher educators, K-12 virtual school administrators, and K-12 virtual instructors). The cross-coding results then were compared to each other to establish themes and content related to all of the educator responses in this study that support and challenge current K-12 OTE practices in the state of Georgia.

The next step was to determine how well the current state K-12 OTE standards align with current beliefs and perceptions about knowledge, skills and dispositions deemed necessary for successful K-12 virtual instructor on-the-job performance. The themes in Table 1 first were grouped into one of the four thematic categories including "K-12 Virtual Instructor Training and Dynamics", "K-12 Virtual Instructor Knowledge", "K-12 Virtual Instructor Knowledge and Skills Integration", and "K-12 Virtual Instructor Dispositions". Then the themes were compared to wording in the current Georgia K-12 OTE standards for explicit emergence from the current Georgia K-12 OTE standards based on wording that corresponded explicitly, implicitly, or not at all to participants' beliefs and perceptions. Findings from this last stage of comparison were used to draw connections between participants' self-reported perceptions and beliefs to current research findings and recommendations in the field. The results of this comparison served to drive discussion about current K-12 OTE program preparation trends and making recommendations for future research endeavors in this field.

FINDINGS

The beliefs and perceptions held by participants generated 25 overarching themes related to the knowledge, skills, and dispositions that they collectively deemed essential for K-12 virtual instructors. These themes appear below in Table 1.

Table 1.
Interview Themes with Explicit Emergence.

Building Confidence with Technology
Instructor Perceptions about Online Instruction
Appropriate Modeling for Online Courses
K-12 Virtual Instructors Need Fluency with Technology Tool Use
Virtual Support for Students' Learning Needs
Knowing How to Integrate Technology into Teaching
Competence with Online Instruction
Know How to Instruct Online instead of Facilitating Online Learning
Establish and Improve Online Communication Skills
LMS Competence
K-12 Virtual Instructors Need Content Knowledge Mastery
K-12 Virtual Instructors Need to Know How to Integrate Technology into Teaching
Establishing and Maintaining Strong Online Instructor Presence
K-12 Virtual Instructors Need Documented Success as a Traditional/f2f Instructor
Current OTE Program Design for Three Endorsement Courses in the State of Georgia
K-12 Virtual Instructors Need Robust Content for Technology Knowledge
K-12 Virtual Instructors Need to Be Flexible and Adaptable
K-12 Instructors Need to Be Creative and Resourceful
K-12 Virtual Instructors Need to Know How Technology Works in a Virtual Environment
K-12 Virtual Instructors Need to Know How to Troubleshoot Technology Issues
Insights into K-12 Virtual Instructor Training
K-12 Virtual Instructors Need Tolerance for Imperfections
K-12 Virtual Instructors Need to Believe that Everyone Can Learn Online
K-12 Virtual Instructors Need to Embrace and Use Student-Centered Pedagogy
K-12 Virtual Instructors Need to Use Visual and Non-Visual Tools in Virtual Environments

The themes in Table 1 corresponded to one of four different categories. Three categories (*K-12 Virtual Instructor Training and Dynamics, K-12 Virtual Instructor Knowledge,* and *K-12 Virtual Instructor Knowledge and Skills Integration*) related to each of the study's three research questions. The fourth category, *K-12 Virtual Instructor Dispositions*, emerged from the study itself, resulting from the emergence of additional themes that drove and necessitated its creation.
Table 2 below shows categorically which themes from Table 1 emerged explicitly from wording in the Georgia OTE standards.

Table 2 shows that eight of the 25 overarching themes from Table 1 corresponded to explicit statements in the Georgia OTE Standards. These eight themes appear in the standards as explicitly stated criteria for K-12 preparation practices and correlate to the three theme categories based on the research questions (*K-12 Virtual Instructor Training and Dynamics, K-12 Virtual Instructor Knowledge*, and *K-12 Virtual Instructor Knowledge and Skills Integration)* plus the theme category *K-12 Virtual Instructor Dispositions* that emerged from the study. The category *K-12 Virtual Instructor Training and Dynamics* houses three themes ("Building confidence with technology", "Appropriate modeling for online courses", and "Current OTE program design"), and the category *K-12 Virtual Instructor Knowledge* houses the theme "Robust training content for

technology knowledge" plus three child themes. The other two categories each house two themes, with "LMS knowledge and competence" plus several child themes and "Be creative and resourceful" falling under *K-12 Virtual Instructor Knowledge and Skills Integration*, and "Be flexible and adaptable" and "Embrace and use student-centered pedagogy" under *K-12 Virtual Instructor Dispositions*. These categories and their themes correlate to knowledge, skills, and dispositions that USG teacher educators, K-12 online practitioners, and the Georgia OTE Standards commonly identified as necessary for K-12 virtual instructor success:

- Knowledge about and competence with a Learning Management System
- Knowledge about how technology works in a virtual environment
- Knowledge about how to integrate technology into teaching
- Creativity and resourcefulness
- Knowledge based on robust technology training content
- Knowledge that reflects content area mastery.

Table 2.
Beliefs and Perceptions about K-12 Virtual Instructor Knowledge, Skills and Dispositions That Emerged Explicitly from the Georgia OTE Standards

Belief and Perception Themes by Category
K-12 Virtual Instructor Training and Dynamics
Building confidence with technology
Appropriate modeling for online courses
Current OTE program design content for three courses
K-12 Virtual Instructor Knowledge
Robust training content for technology knowledge:
Good OTE preparation from USG programs
OTE program practice opportunities must mirror reality
OTE candidates need positive technology
K-12 Virtual Instructor Knowledge and Skills Integration
LMS knowledge and competence:
Know how technology works in a virtual environment
Know how to integrate technology into teaching
Know how to troubleshoot technology issues
Know how to instruct online instead of facilitate online learning
Establish and maintain a strong online instructor presence
Fluency with technology tool use
Provide virtual support for students' learning needs
Use visual and non-visual technology tools in virtual environments
Be creative and resourceful
K-12 Virtual Instructor Dispositions
Be flexible and adaptable
Embrace and use student-centered pedagogy

The explicit emergence of these themes from the standards also shows that the creators of the standards, USG teacher educators, and Georgia virtual education practitioners alike view them as essential components of Georgia's K-12 OTE preparation practices. Conversely, there are themes that did not emerge from the standards despite substantiated emergence from the interviews and document analyses. This was the case for three different themes from Table 1. One theme, "Current OTE program design for three endorsement courses in the state of Georgia", emerged explicitly across all interviews and the GaPSC OTE Standards. At the time of this study, the state of Georgia required teachers seeking K-12 online teaching endorsement to complete three courses to add the Online Teaching Endorsement to their Georgia teaching certificate. Its three child themes, however, did not emerge at all from the state standards. They are:

- K-12 instructional designers need their own OTE standards
- K-12 virtual instructor trainers need their own OTE standards
- K-12 virtual instructors need their own OTE standards

The explicit emergence of the parent theme "Current OTE program design for three endorsement courses in the state of Georgia", which stems from the category *K-12 Virtual Instructor Training and Dynamics* in Table 2, correlates directly to statements from all interview participants that described their professional experiences either as virtual instructor trainers or as virtual instructors in-training. The theme "Instructor Perceptions about Online Instruction" and its three child themes ("Online instruction misconceptions", "Technology misconceptions", and "Technology knowledge and expertise") as well as the theme "Be tolerant of imperfection" emerged explicitly from all interviews but did not emerge at all from the state standards. The absence of these three parent themes and three of the child themes from the GaPSC OTE Standards provides evidence that these three themes in particular, at least from the perspective of the standards creators, have not yet arisen as K-12 virtual instructor preparation concerns that the Georgia standards need to address explicitly.

DISCUSSION

The findings presented in this study indicated that current K-12 OTE preparation practices in the State of Georgia align well with participants' beliefs and perceptions of what constitutes appropriate K-12 OTE candidate preparation. Analysis of participant feedback also identified three themes that correspond to issues or areas of concern expressed by all participants:

- The need for OTE program design to include training based on standards specific to three different professional capacities in virtual education (instructional designer, educator trainers, and virtual instructors)
- The need to address K-12 OTE candidate perceptions about online instruction (this includes misconceptions about online instruction, technology, technology knowledge, and technology expertise)
- The need for K-12 virtual instructors to be tolerant of imperfections that arise in virtual settings.

These themes did not emerge from thematic coding of the current Georgia standards nor did they align with any of the wording in the standards. The program documents and policy statements consulted for this study showed that the GaPSC OTE Standards drive K-12 OTE program design. The data revealed that standards in Georgia did not prescribe K-12 OTE preparation practices that differentiate among instructional designers, educator trainers, and virtual instructors; a reading the GaPSC OTE Standards confirmed their absence. Their absence from the standards in this study lends credence to the study design: the lack of emergence of any one theme implies the absence

in reality of a practice or idea to which that theme is connected. This study revealed an absence of the themes "K-12 virtual [instructors] need to be tolerant of imperfections" and "Perceptions about online instruction" and the three child themes "Online instruction misconceptions", "Technology misconceptions", and "Technology knowledge and expertise" from within the Georgia OTE Standards.

By identifying requirements as a part of K-12 OTE preparation practices in the State of Georgia, the results of this study succeed in identifying a void in K-12 OTE preparation practices that all participants in this study believe the current standards need to fill. These findings reflect those of Shepherd, Bollinger, Dousay and Persichitte (2016). In that study, the authors created new virtual education courses working in conjunction with the State of Wyoming's department of education. Courses offered in the State of Wyoming prior to the study mirrored those here in Georgia in that both states had utilized a one-size-fits-all course design approaches. The authors' newly designed courses in Wyoming echoed the sentiments of participants in this study in that instructors believe in moving beyond a one-size-fits-all design to one that prepares K-12 virtual instructors for the realities and multiple roles associated with working in K-12 virtual environments.

RECOMMENDATIONS AND PLANNING IMPLICATIONS

With enrollment in K-12 virtual schools projected to continue to rise in the State of Georgia and in other states across the nation, conducting research similar to the present study will help identify new virtual education paradigms and challenges as they arise. Staying abreast of new developments and challenges in K-12 online learning and instruction in the State of Georgia is key. Examining these through open discussions in USG institutions of higher learning and in research similar to this study will go far in identifying and addressing new ways to develop and structure future K-12 OTE preparation practices in ways that provide timely and deeper development of K-12 virtual instructor candidates for careers in K-12 virtual education settings. Since this study was conducted, the GaPSC has rewritten the Georgia OTE standards, and a new analysis comparing the emergent themes from participant interviews with the revised standards would prove informative.

The findings from this study highlighted perceived shortcomings with Georgia's current K-12 OTE preparation practices and could serve as the rationale for conducting a study similar to that of Shepherd et al. (2016). In that study, the authors created new virtual education courses working in conjunction with the State of Wyoming's department of education. The resulting courses targeted many of the same technological and instructional challenges faced by K-12 virtual instructor candidates as highlighted by participants in this study, including communication issues (i.e., facilitating student interactions in synchronous and asynchronous delivery or supporting and engaging online learners effectively) and issues with tool implementation and use owing to a lack of mastery with design theory. One way to do this would be to include input from actively employed K-12 virtual instructors so that training procedures recognize and reflect the realities of K-12 virtual education environments.

Other recommendations for future studies include research that will expand the course offerings for preparing instructors and the administrators who will supervise them for careers in K-12 virtual settings both within the state of Georgia and potentially in other states as well. One USG teacher educator in this study stated that a Georgia K-12 virtual school administrator had once shared their frustration at being unable to find training specific to instructors in their field. This USG teacher educator said that they agree with the administrator's call for developing training that helps K-12 virtual school administrators with skill sets needed in their field. Several authors (Dexter, 2011; Leonard & Leonard, 2006; McLeod, 2011; McLeod, Bathon, & Richardson, 2011; McLeod &

Richardson, 2011) have researched this very topic. They noted that the current focus on technology as related to school leadership still remains more heavily focused on the technology tools themselves than on training school leaders to understand how to approach transforming learning environments via the use of rich and powerful technologies. While educational leadership is a different field than that of K-12 teacher preparation, these fields are at the heart of educational and instructional practices regardless of the academic setting. It is only logical to conduct research that furthers the growth and development of both where K-12 online learning environments are concerned.

LIMITATIONS

The context of this study automatically precluded that its findings would be limited to the particular beliefs, perceptions, and experiences of its participants. The small number of participants in this study also qualified as a limitation since the knowledge, beliefs and perceptions of one individual cannot be generalized at all to the entire population of K-12 virtual administrators in the same virtual school or even in the state of Georgia.

CONCLUSION

K-12 online teaching endorsement programs have existed for nearly a decade in different University System of Georgia institutions. To date, perceptions surrounding their design and to what degree candidates emerge ready to teach in an online or virtual environment have not been examined. The findings showed that taking steps to redesign the state's K-12 OTE standards using input from actively employed K-12 virtual instructors would provide insight for creating K-12 OTE standards that more accurately reflect the realities of K-12 virtual education environments.

This qualitative case study also addressed a gap in the literature. Study outcomes identified the necessary or desired knowledge, skills, and dispositions that participants believed or perceived as necessary in preparing K-12 OTE candidates to become virtual instructors in the state of Georgia. K-12 virtual instructors need training that prepares them for more than instruction in virtual settings given the high demands that virtual instruction places on them (Ferdig et al., 2009; Shepherd et al., 2016).

The findings in this study showed that K-12 OTE program design addresses instructor preparation but falls short when it comes to customization for other types of K-12 online positions such as instructional designers, educator trainers, or even virtual school administrators. The conclusion is that leaving out any one of these aspects of K-12 OTE candidate preparation will hamper the efforts of any program to prepare its candidates fully and well for a career in K-12 online teaching.

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Interview Questions for University System of Georgia Teacher Educators:

1. I am interested in knowing about your beliefs and perceptions as a teacher educator regarding K-12 teacher preparation and instruction. I also am interested in the experiences you have had preparing K-12 teacher educators to become face-to-face and virtual instructors. What types of experiences have you had preparing K-12 educators for face-to-face instruction, and what have they been like? What types of experiences have you had preparing K-12 educators for virtual instruction, and what have they been like? (Probing question if necessary: Is there anywhere else that you have worked in K-12 online education? Is there anything else that you have done?)

2. What are the particular skills that you believe a K-12 virtual teacher needs to work in an online classroom? What particular knowledge do you believe a K-12 virtual teacher needs to work in an online classroom? What particular dispositions (attitudes or beliefs) do you believe a K-12 virtual teacher needs to work in an online classroom? In which ways do you believe that the skills, knowledge, and dispositions that a K-12 virtual teacher needs for working in an online classroom differ from the ones that face-to-face K-12 teachers should have?

3. Could you please tell me about an instance where an educator trained by you and hired by a K-12 virtual school in Georgia was a success story and why? What do you believe contributed to that teacher's success?

4. Could you please tell me about an instance where an educator trained by you and hired by a K-12 virtual school in Georgia struggled or experienced challenges? What do you believe contributed to the teacher's struggles and/or challenges?

5. What else can you tell me about how your institution prepares virtual K-12 teachers? What other characteristics and skills can you think of that the program at your institution promotes?

Interview Questions for Georgia K-12 Virtual School Administrators:

1. I am interested in knowing about your beliefs and perceptions about K-12 online teacher preparation and instruction from an educational leadership perspective. I also am interested in the experiences you have had as an administrator in a K-12 online learning environment. What types of experiences have you had, and what have they been like? (Probing question if necessary: Is there anywhere else that you have worked in K-12 online education? Is there anything else that you have done?)

2. What are the particular skills that you believe a K-12 virtual teacher needs to work in an online classroom? What particular knowledge do you believe a K-12 virtual teacher needs to work in an online classroom? What particular dispositions (attitudes or beliefs) do you believe a K-12 virtual teacher needs to work in an online classroom? In which ways do you believe that the skills, knowledge, and dispositions that a K-12 virtual teacher needs for working in an online classroom differ from the ones that face-to-face K-12 teachers should have?

3. Could you please tell me about an instance where a teacher hired to work at your virtual school was a success story and why?

4. Could you please tell me about an instance where a teacher hired to work at your virtual school struggled or experienced challenges and what that was like?

5. Is there anything that you have to do post-hire to prepare virtual K-12 teachers to teach at your school? What characteristics and skills does the program at your institution promote?

Interview Questions for Georgia K-12 Virtual Educators:

1. I am interested in knowing about your beliefs and perceptions about K-12 online teacher preparation and instruction from a virtual educator perspective and the experiences you have had as an educator in a K-12 online learning environment. What types of experiences have you had, and what have they been like? (Probing question if necessary: Is there anywhere else that you have worked in K-12 online education? Is there anything else that you have done?)

2. What are the particular skills that you believe a K-12 virtual teacher needs to work in an online classroom? What particular knowledge do you believe a K-12 virtual teacher needs to work in an online classroom? What particular dispositions (attitudes or beliefs) do you believe a K-12 virtual teacher needs to work in an online classroom? In which ways do you believe that the skills, knowledge, and dispositions that a K-12 virtual teacher needs for working in an online classroom differ from the ones that face-to-face K-12 teachers should have?

3. Is there anything that you had to do post-hire to prepare for becoming a virtual instructor at your school?

4. If so, what are the characteristics and skills that this additional training promoted?