

Curriculum Orientations of K-12 Virtual Teachers in Kansas

Nicole S. Babalola

Abstract— This study explored the curriculum orientation preferences of K-12 public school teachers who provided instruction in virtual settings in a midwestern state. An examination of curriculum orientations was conducted using a mixed-methods design. Quantitative assessments data revealed suggest these virtual teachers chose similar curriculum orientations when compared to teachers in brick-and-mortar settings. However, qualitative interviews conducted with a subsample of participants indicated these virtual teachers expressed a choice to use online instruction to meet the needs of students more holistically including family and environment. Furthermore, they emphasized a lack of appropriate professional education, mentoring, and experiences to prepare them to make instructional decision in a virtual environment. The combination of quantitative and qualitative procedures provided a comprehensive understanding of teachers' curriculum preferences and conceptualization. In addition, these results contribute to the growing body of knowledge about K-12 virtual teachers and the importance of understanding the way curriculum is perceived in different settings.

Keywords- *virtual teacher, curriculum orientations, modified curriculum orientation instrument*

I. INTRODUCTION

Over the past decade online learning has been quickly growing in educational settings. As the Internet became widely accessible in the late 1990s, online courses became popular for public high schools. With better accessibility to technology and the Internet, online learning has become a choice for K-12 learners, which is increasing the learning opportunities of many children. This was due, in part, to the school reform movement to improve public education that occurred across the United States (Roblyer & Elbaum, 2000). According to Davis and Roblyer (2005), the demands for virtual schools will continue to increase due to the changes in our society and student population. Virtual schools are enrolling students from kindergarten through 12th grade, thereby increasing the learning opportunities for many children. Currently, many states are taking the lead in using digital learning solutions, such as virtual schools, to help meet key education reform goals. These reform goals include preparing students for the global workforce; strengthening science, technology, engineering, and mathematics (STEM) education; improving teacher

effectiveness; and offering new models for turning around low-performing schools (Clark & Oyer, 2012).

According to Davis and Roblyer (2005) the demand for virtual schools appeared to be an integral feature of changes in our society and student population. For example, virtual school administrators indicated that increasing numbers of students are enrolling in virtual schools because they can select features such as self-paced learning, flexibility in scheduling, credit recovery, courses that are not offered locally, and accelerated learning opportunities (Archambault & Crippen, 2009; Davis & Roblyer, 2005; Rice, 2006). A rationale often used by virtual school administrators addresses accessibility to instruction as well as corrective feedback. A possible benefit of enrollment in a virtual school, expressed by students, is that it matches different learning styles and allows for more one-on-one attention (Hassel & Terrell, 2004).

With all the variability in online programs there is no consistency in program implementation. Although virtual education has been steadily growing in many states, its legitimacy and effectiveness in public education has hindered it from being seen as a viable alternative to brick-and-mortar education. K-12 virtual schools have received mixed reactions from policy developers, researchers and practitioners (Salmani-Nodoushan, 2008). Critics of virtual education identified challenges such as curriculum alignment, teacher training, teacher certification, accreditation, and funding between virtual education and brick-and-mortar schools.

Studies showed the majority of preservice teachers received no exposure to virtual education in their teaching methods courses or in field experiences (Compton, David, and Mackey, 2009; Kennedy, 2010). These trends supported the fact that many new teachers are not aware of how to implement curriculum in a virtual environment. For example, teaching online requires a different set of verbal and nonverbal presentation skills. Davis and Roblyer (2005) claimed that the way in which a teacher plans the content of an online course will affect instruction. Even though virtual education is seen as a viable choice for some students and teachers, there are still questions regarding the use of the curriculum and how it is implemented in virtual settings.

DOI: 10.5176/2345-7163_3.1.65

Regardless of the setting in which a teacher provides instruction, it is generally accepted that teachers develop concepts of curriculum (Eisner & Valence, 1974; McNeil, 1996). These concepts of curriculum are referred to as curriculum orientations. According to teacher education researchers (Cheung, 2000; McNeil, 1996; Pajares, 1992), curriculum orientations are defined as differing beliefs about what schools should teach, how teachers decide what instruction occurs, and how students should learn.

Teachers express certain beliefs about how curriculum should be designed and implemented. The curriculum orientations studied are Cognitive Processes, Academic Rationalist, Technological/Behaviorist, Social Reconstruction, Humanist, and Eclectic. Regardless of the setting in which a teacher provides instruction, virtual or brick-and-mortar, all teachers develop conception of curriculum (Eisner & Valence, 1974; McNeil, 1996). Therefore, if a teacher does not see the value in the curriculum being implemented within the school, they are more likely to change it to fit the curriculum orientation they relate to or not implement it effectively. Little research has been conducted in regards to K-12 virtual teachers' preferences for curriculum orientations, how they differ across the grade levels taught, or how curriculum orientations might change over the career of a teacher due to the virtual teaching environment. Teachers express certain beliefs about the purpose of curriculum, the way it is connected to instruction, and how it related to teaching and learning outcomes.

The way teachers think about curriculum is widely accepted and has an impact on learning for students. As states rapidly increase their virtual programs more teacher need to be prepared to teach online. The state of Kansas has the most online K-12 programs. Unfortunately, Kansas does not require specialized teacher preparation at the pre-service or professional levels as a prerequisite to teaching online professionally. Kansas does not offer a state teaching endorsement to teach online professionally at the pre-service or professional levels, or a teaching endorsement in virtual education. This situation is in direct contrast to the recommendations of International Association for K-12 Online Learning, known as iNACOL (iNACOL, 2009), which clearly states that teachers need to be prepared and trained to develop or facilitate the virtual courses. Teacher beliefs about curriculum are a well-studied area of research on teachers in brick-and-mortar settings, but not teachers in virtual settings. Therefore, this leaves a gap to understand how virtual teachers in Kansas conceptualize curriculum in this setting and how curriculum beliefs affect their curricular decisions

II. BACKGROUND INFORMATION

In 2009, the researcher conducted a brief, informal survey of preservice teachers' perceptions of the degree to which they experienced virtual teaching and learning practices as part of their teacher preparation. The sample consisted of 54 preservice teachers enrolled in two sections

of C&T 301/302, Integration of Technology in the Classroom. Sample participants were provided information on taking courses as online students and asked questions about that experience ("if relevant to their pre-college education"). Participants were also asked about learning how to teach online. Questions focused on learning online pedagogy and instructional design in online learning environments. Other questions focused on field experiences in K-12 online programs and how online curriculum is designed. Results of the survey revealed that only five participants had experienced taking a course online and none of those courses were teacher preparation courses. All of the 54 participants surveyed reported no exposure to learning to teach online in any teacher preparation course. Only two of the participants surveyed reported some exposure to virtual education in their teaching methods courses or in field experiences in teacher preparation courses.

Studies showed the majority of preservice teachers received no exposure to virtual education in their teaching methods courses or in field experiences (Compton, David, and Mackey, 2009; Kennedy, 2010). These trends supported the fact that many new teachers are not aware of how to implement curriculum in a virtual environment. Many initial licensure teachers experienced only face-to-face instruction in their teacher education courses, so pertinent practices were not modeled. Research showed that only 1.3% of teacher education programs prepared preservice teachers for teaching in K-12 online learning programs (Kennedy, 2010). Evidence-based practices for virtual education are missing in teacher education courses (Davis & Ferdig, 2009). Surprisingly, although teacher education programs are driven by rigorous national standards in preparing teachers and other school specialists for classrooms, none were found for online teaching for initial licensure (iNACOL 2011; International Society for Technology in Education (ISTE) 2008; Interstate Teacher Assessment and Support Consortium (INTASC), 2011; National Council Accreditation of Teacher Education (NCATE), 2008; Southern Regional Educational Board (SREB), 2006).

It is generally accepted that virtual education courses, programs, and schools should continue to be a high priority, and that they offer a particularly effective solution for solving a number of persistent problems, such as scarce resources, scheduling issues, and limited space. Programs of online courses are increasingly tailored to the needs of identified groups of students such as homebound, credit recovery, gifted, rural, and so forth (Kennedy & Archambault, 2012). The popularity of online teaching and learning is reflected in steady yearly increases in the number of students enrolling in online courses and programs, and even entire K-12 virtual schools across the United States (including the District of Columbia) (McGrory, 2013, O'Neil, 2006; Watson, Murin, Vashaw, Gemin, & Rapp, 2011). These increases in student enrollment have been identified as indicators that school districts are using online, distance, and virtual options to stretch resources as they struggle to meet specialized student needs and,

simultaneously, to demonstrate adequate academic progress for all learners.

III. PURPOSE OF STUDY

Samples collected from brick-and-mortar settings have been used in previous research on teachers' beliefs and understanding of curriculum orientations. However, the orientations of teachers working in virtual education settings have yet to be explored. Carroll (1997) stated that curriculum orientations of teachers usually determined if technology would be utilized effectively. Technology use in the classroom was emphasized more than a consideration of how the curriculum could be delivered through the use of technology to enhance learning. This, according to Carroll was what caused teachers' frustration when it came to technology.

Despite the research base on brick-and-mortar teachers, no such base exists on virtual teachers' curriculum orientations. The growth of K-12 virtual education is a fertile area for research. Some of the most current topics being studied in virtual education are (a) teacher preparation programs, (b) quality of virtual programs, (c) performance of part-time virtual students vs. that of full-time virtual students, and (d) how best to implement online learning. There is a paucity of empirical studies on how curriculums are designed for online environments.

For-profit companies that direct virtual schools or sell virtual curriculum are currently pushing most of the studies on a significant portion of online learning. Those companies, such as K12, Inc., are doing their own research. These companies can be selective in determining which research is publicized and which studies are kept for internal use. However, the studies are usually not used against them because many virtual programs have a connection to the company's curriculum since it is the exclusive provider of their district curriculum. Empirical studies on the role of curriculum in virtual education, beliefs of teachers in a virtual setting, and values about curriculum are notably absent.

The extent to which teachers in virtual settings identify with the curriculum orientation of the virtual curriculum is not known. The specific research questions guiding this research were:

1. What are the curriculum orientations of K-12 public school teachers in virtual school settings?
2. Are the curriculum orientations of K-12 virtual teachers similar to teachers in brick-and-mortar teachers?
3. What are the teachers in virtual settings' perceptions of curriculum in online learning?

IV. REVIEW OF LITERATURE

The review of literature reviews virtual education as an emerging field, with particular emphasis placed on preparing

teachers to work in virtual environment. In addition, theory and research relative to curriculum orientations is explored, especially as orientations relate to understanding teachers' conceptions of curriculum in online instruction.

A. *Status of Virtual Education*

Even a brief scan of popular media attests to the fact that virtual education has been growing rapidly since its inception in the late 1960s (iNACOL, 2013). It is generally accepted that virtual education courses, programs, and schools should continue to be a high priority, and that they offer a particularly effective solution for solving a number of persistent problems, such as scarce resources, scheduling issues, and limited space. Programs of online courses are increasingly tailored to the needs of identified groups of students such as homebound, credit recovery, gifted, rural, and so forth (Kennedy & Archambault, 2012). The popularity of online teaching and learning is reflected in steady yearly increases in the number of students enrolling in online courses and programs, and even entire K-12 virtual schools across the United States (including the District of Columbia) (McGrory, 2013, O'Neil, 2006; Watson, Murin, Vashaw, Gemin, & Rapp, 2011). As an acknowledgement of the importance of online learning skills, there are state-level statues requiring students to take an online course before graduating from high school (e.g. Michigan, Alabama, New Mexico, and Idaho) (Kennedy & Archambault, 2012).

B. *Advocacy for Specialized Teacher Preparation*

Research on distance, online, and virtual education has focused primarily on curriculum and program characteristics needed for successful student learning rather than on the ways in which teacher preparation and professional education need to change to accommodate curriculum, learning, and instruction in virtual environments (O'Neil, 2006; Roblyer, 2006). Repeated surveys of teacher education programs have demonstrated persistent failure to offer essential coursework, such as instructional methods pertinent to online pedagogy. In fact, many do not offer any teacher education courses online (Archambault, 2011; Kennedy & Archambault, 2012; iNACOL, 2011). For example, Archambault (2011), using a technological framework developed by Mishra and Koehler (2006), surveyed over 600 K-12 educators who taught online. Participants self-assessed their preparation relative to technology, pedagogy, and content. Overall, K-12 online teachers indicated that they believed they were most prepared in the areas of pedagogy, content, and pedagogical content. They reported that they were least prepared in the areas of technology, including technological pedagogical knowledge, technological content knowledge, and technological pedagogical content knowledge, within existing courses, to address topics of importance to virtual teaching.

Although there have been repeated calls for a profound change to occur in the ways in which preservice teachers are being taught and prepared to teach (iNACOL, 2011), there have been only a few notable attempts. Kennedy and

Archambault (2012) found that there are eight states (California, Idaho, Michigan, Nevada, New York, North Carolina, South Carolina, and Utah), where teacher education programs for preservice teachers are actively developing field experiences focusing on virtual teaching. Smith, Clark, and Bloomeyer (2005) reported that current virtual teachers lack the theoretical and practical understanding to teach online and are learning as they go.

Until online teaching is required for accreditation by the National Council for Accreditation of Teacher Education (NCATE), it is generally supposed that institutions of higher education will continue to offer courses, concentrations, and/or local certification voluntarily. NCATE (2008) did not state explicitly that preservice teachers need to learn online teaching and learning methods. Standards require only that preservice teachers understand how to integrate technology effectively into the curriculum for educational purposes (ISTE, 2008). The National Educational Association (NEA) (2006) has found that most teacher preparation programs neither include courses about online teaching, nor conduct classes virtually. Therefore, most of the 86,000 new teachers who enter the profession each year do so without online teaching skills.

Just as today's virtual students develop a set of skills that enables them to thrive in the rich atmosphere of cyberspace, successful online teaching also requires a unique skillset and knowledge base. Wood (2005) quoted Blomeyer's observation that, "(there is a) persistent opinion that people who have never taught in this medium can jump in and teach a class. . . . A good classroom teacher is not necessarily a good online teacher" (p. 36).

Because of their own limited experience as online learners, preservice teachers may have negative attitudes, misinformation, or misconceptions regarding teaching virtually. In addition to providing opportunities to develop pertinent knowledge and skills, teacher preparation programs need to address these potential barriers systematically (Compton, 2009). Compton (2009) argued that schools/colleges and departments of education (SCDE) can provide systematic opportunities to develop highly effective pedagogical practice if online teaching is modeled and skills are taught before initial licensure.

Unfortunately, few preservice teachers experience models of online teaching and learning in their teaching programs. Therefore, many might not know how to identify highly effective online pedagogy and/or curriculum practices. In addition they are less likely to assess the benefits of teaching and learning in online environments (Archambault, 2011).

A glaring omission from the relevant research literature is how teachers' competencies, practices, and beliefs shape online instruction. In particular, K-12 virtual teaching has been relatively unexplored; the majority of studies on this topic have been conducted in higher education (Crys, 2007). For example, the professional literature abounds with recommendations for online practices; however, there is a paucity of empirical evidence supporting these

recommendations and even less empirically supported research (Kennedy, 2012). In addition to the recommended practices mentioned earlier, one might discover writings regarding the status of virtual teaching, advocacy for virtual education, recommended teacher competence, and standards-based instructional practices. In contrast, pertinent research has tended to focus on aspects of student learning in specific virtual settings, such as online environments (Davis, 2009).

It has been stated that teaching methods, as well as instructional decisions, are different in virtual environments (iNACOL, 2011; ISTE 2008; NEA, 2006; SREB, 2006). Because of these differences, four professional organizations have created checklists and standards for teaching online effectively:

1. Southern Regional Education Board *Essential Principles for High-Quality Online Teaching* (SREB, 2003),
2. iNACOL *National Standards for Quality Online Teaching* (iNACOL, 2008),
3. National Education Association's (NEA) *Guide to Teaching Online Courses* (NEA, 2006), and
4. International Society for Technology in Education (ISTE) *What Works in K-12 Online Learning* (ISTE, 2008).

In online instruction, the teacher must combine both instructional and subject-area knowledge with a working knowledge of rapidly evolving online tools for communication and collaboration, content management, and assessment. These will come from experience in virtual settings. It is valuable if teachers have learned online before they teach online so that they know what the student is experiencing (Davis & Rose, 2007). K-12 teachers must be trained to teach online because data suggest that 10% of all courses will be computer-based, and by 2019, at least 50% of courses will be taught online (Christensen & Horn, 2008).

Technology plays a major part in teaching and learning in virtual education. Teachers working in virtual settings use technology frequently and expect students to learn in this formerly unconventional way. Do teachers who frequently use technology for teaching and learning have a certain perspective about curriculum and/or instruction? Are their perspectives similar to or distinct from teachers working in brick-and-mortar settings?

C. *Conceptualizing Curriculum Orientations*

Many curriculum theorists have not clearly defined a unified model of curriculum orientations; thus, the categories used are not standardized. Curriculum theorists have sometimes labeled and grouped the orientations differently, and this has led to some confusion and contradictions. This also makes it difficult for teachers, administrators, and curriculum developers to understand, study, and communicate about curriculum orientations (Eisner & Vallance, 1974; McNeil, 1977; Pinar, 1978; Schubert, 1986; Schwab, 1970).

Above issues aside, there appear to be four generally agreed upon core conceptions that are most frequently associated with curriculum orientations: (a) Academic Rationalist, (b) Behavioral/Technological, (c) Social Reconstruction, and (d) Cognitive Process.

The Academic Rationalist curriculum orientation focuses on traditional academic studies, such as mathematics, science, and literature. It is the earliest-identified curriculum orientation and is concerned with providing opportunities to foster students' learning by studying the important content (Cunningham, Johnson, & Carlson, 1992). What is important is preserving the knowledge, skills, and values of prior generations; therefore, content should focus on enduring knowledge. This orientation is teacher-centered, using lectures, questions, readings, and discussions for instructional purposes. Academic Rationalism emphasizes a focus on learning methodology, intellectual stimulation, attitudes, and values over assessment and specific learning goals.

The Behavioral/Technological (also referred to as Systemic) curriculum orientation is driven by efficiency and planning. The focus is placed on efficient ways to develop learning goals and objectives. To be more efficient, academic content is broken into manageable, measurable goals and objectives. Teachers use specifically designed activities and pedagogy, such as mastery or learner-controlled instruction to foster mastery of the content, driven by learning objectives and goals. This curriculum orientation is a product of behavioral psychology, particularly that of B.F. Skinner, in using operant conditioning for desired behaviors. A teacher who uses this curriculum orientation accepts this core principle and acknowledges personalized instructional practices. It is referred to as the anomaly among the other five curriculum orientations, and it is criticized as relying on means rather than on purposes for learning (Vallance, 2001). Cunningham et al. (1992) contended that the Behavioral/Technological orientation is essentially a technical technique of pretesting, teaching, and retesting. The curriculum allows for social productivity and efficiency in learning predetermined objectives and goals. The technology era and the focus on standards are popularizing this curriculum orientation. In the high-stakes testing environment in America today, many schools are employing this orientation.

The Social Reconstruction orientation emphasizes solving social issues and improving society. Improving inequalities and injustices in society is a goal for students to demonstrate in this orientation. The purpose of this orientation is to create a new and more just society for all citizens, using education to carry out the mission. Lichty and Johnson (2006) believed social issues have many viewpoints, and this orientation incorporates the concept of multiple perspectives. The aim of Social Reconstruction is to assist students in recognizing socially based issues, identifying effects, and generating solutions that reduce problems and ultimately improve society in general. Students learn to think critically about social issues and to

find ways to make a positive impact on the world around them.

The Cognitive Process curriculum orientation enhances the thinking process by developing mental faculties and higher-order thinking skills, such as analysis, evaluation, inference, deduction, and synthesis. The purpose of the orientation is to improve the ability to think effectively. Students learn equally about the process and strategies of learning in context. Exercises that strengthen intellectual processes and cognitive skills are provided to students. A key premise is that skills and abilities are not lost when the information used to facilitate learning is forgotten. Cunningham et al., (1992) suggested, "subject matter is instrumental in the development of these intellectual abilities, but the subject matter is of lesser importance than the development of intellectual power" (p. 4). The development of intellectual skills helps students improve reasoning, problem solving, judgment, and critical skills important to learning within, as well as across, content areas. The focus is on learning to improve cognitive skills for outcomes-based learning, a goal of current educational reform.

A fifth curriculum orientation, Humanist, focuses on developing the whole individual in a learning environment. Humanist curriculum develops students' social and emotional skills in order to become sensitive to humanity and responsible for their decisions. Traditional subjects and facts are taught along with understanding how to learn. Emphasis is placed on the student developing a sense of self-actualization as well as cognitive skills. The underlying theme is cultivating the student's ability for personal growth.

Schwab (1969) developed a curriculum orientation that emphasized a more practical approach and a focus on using curriculum as a vehicle to address and resolve problems locally. Eclectic is, thus, the sixth curriculum orientation, which promotes the notion of the curriculum being embedded in the local community and school level. It is a systemic orientation that consciously selects educational aims from the major curriculum orientations for achievement with the consideration of the constituents. Using a blend of theoretical ideas, the Eclectic curriculum orientation makes provisions for teachers, parents, and students to influence the curricular goals.

D. Exploring Teacher's Curriculum Orientations

Curriculum orientation studies have been conducted to improve teacher preparation and professional practice by understanding teacher beliefs about how they teach and implement instruction. Research indicates that teachers employ curriculum orientations; however, they might use multiple orientations across their careers and in different teaching environments or to address markedly different student needs. Orientations appear to be an implicit feature of teacher preparation and practice; therefore, teachers might not explicitly be aware of the influence of particular orientations on their curriculum decisions and instructional

practices (Babin, 1978; Cheung, 2000; McNeil, 1996; Pajares, 1992).

Overall, studies of curriculum orientation have situated orientations within specific content areas, such as math (Cheung & Wong, 2002), home economics (Cunningham et al., 1992), science (Cheung & Ng, 2000), and technology (Carroll, 1997). Each study was discipline specific and used uniquely designed instruments whose validity and reliability were limited. In addition, operationalizing orientations within a particular discipline also limited generalizability. Many of the studies reviewed focused on how teachers become aware of their orientation and evaluated what that meant in terms of effective teaching and learning.

Several researchers (Cheung & Ng, 2002; Cheung & Wong, 2002, as cited in Crummey, 2007; Foil, 2008; Jenkins, 2006; Reding, 2008) attempted to correct the psychometric and construct issues discussed in the instruments developed in the research reviewed above. Their initial instrument identified certain teacher beliefs about how curriculum is designed, the teaching and learning objectives, content, assessment, teaching strategies, and learning activities. Further refined, the Curriculum Orientation Inventory (COI, Cheung & Ng, 2002; Cheung & Wong, 2002) consisted of 30 items representing five curriculum orientations (Humanist, Academic Rationalist, Cognitive Process, Social Reconstructionist, and Behavioral/Technological), and employed an eight-point Likert scale (Strongly Agree to Strongly Disagree) to measure the different curriculum orientations of classroom teachers in Hong Kong. This study provided evidence of strong correlations between orientations and validity data to support their Curriculum Orientation Inventory (COI).

Mahlis (2007) and others have adapted the COI (hereafter referred to as the Modified- COI) for use with educators in the United States. Results of their studies are summarized in the figure below.

Table 1. Curriculum Orientation Inventory (Modified COI) research and key findings

	Sample	Sample Size	Curriculum Orientation
Crummey, 2007	Alternative Education Teachers	n=95	Social Reconstruction
Foil, 2008	Public School Administrators	n=889	Cognitive Processes
Jenkins, 2007	Public School Teachers (replication of Cheung & Wong (2002))	n=308	Gender differences for Humanist and Eclectic (females significantly higher)
Reding, 2008	Catholic Teachers and Administrators	n=37	Humanist and Eclectic

V. METHODS

A. Participants

Two samples were used in the current study. The primary participants under investigation were K-12 teachers in virtual settings in Kansas who were teaching either full- or part-time in a Kansas public school (grades K-12 were considered). The target population was teachers in virtual programs in Kansas. Only virtual teachers who responded to the invitational email were included in the sample. A sample size of 60 teachers was desired for this study, and 47 responded to the survey. Therefore, the sample consisted of 47 full-time and part-time teachers employed in virtual programs. Teachers working in credit-recovery programs that used web-based courses were not included in this study. In addition, an existing database of 247 brick-and-mortar teachers was used for comparisons to the responses of the teachers employed in virtual settings.

All participants had completed at least one year of virtual/online teaching. Eighty-seven percent of participants had six or more years of overall teaching experience (virtual and brick-and-mortar). The modal age of participants was 31-45 (51.06%) and the primary gender was female (80.85%). The sample of the 247 brick-and-mortar teachers' age was 23-30 (54.84%) and the primary gender was female (81.85%). When the brick-and-mortar sample was matched to the virtual teachers on age and gender, the numbers changed. The matched samples majority age was 31-45 (46.81%) and the majority gender was female (80.85%).

B. Instrumentation

Researchers have acknowledged that teachers employ curriculum orientations and should recognize what influences their curriculum decisions (Babin, 1978; Cheung, 2000; McNeil, 1996). However, there is a scarcity of validated instruments that measure curriculum orientations. The most widely used and notable instrument is the Curriculum Orientation Instrument (COI) developed by Cheung and Wong (2002), based on the writings of Eisner and Vallance (1974) and McNeil (1996) that contained 30 items measuring five curriculum orientations. As mentioned earlier, studies of curriculum orientation have tended to focus orientations within specific content areas. Therefore, it is difficult to generalize results to the population of teachers.

To assess the curriculum orientations of virtual teachers, the researcher utilized three instruments and a semi-structured interview protocol. The first instrument used was the Modified-Curriculum Orientation Inventory (M-COI) (Mahlis et al., 2007). This instrument, based on the initial inventory developed by Cheung and Wong (2002), consists of 36 items, which include a sixth orientation, Eclectic by Schwab (1978), for each of the six curriculum orientations mentioned earlier. The validity and reliability of the Modified-COI has been established by Cheung and Wong (2002) and Mahliss et al. (2007). Similar to the Cheung and Wong scale on which it is based, it employs a Likert-type scale; however, it uses a 5-point

scale. The scale’s meaning has also been modified from “Does Not Represent My Views” to “Represents My Views Exactly.” The Likert-type scale is thought to be more appropriate for the task, and yields interval level data, which allows for more powerful quantitative analyses. Cheung and Wong determined the Curriculum Orientation Instrument was effective for measuring the curriculum orientations of teachers.

The researcher developed a second instrument (Forced-Choice with Descriptors Instrument) to reduce possible influences of measurement issues identified in previous construct validation studies (Mahlios et al., 2007). This instrument employed thumbnail sketches to describe the five core components of each orientation:

1. Aims of curriculum,
2. Concepts of curriculum,
3. Instructional expertise,
4. Instructional methods, and
5. Assessment.

The third instrument contained descriptors of curriculum using language from each of the six curriculum orientations. The descriptors were used to describe the curriculum, and respondents chose the one used in their virtual school/program. The respondent also chose an ideal curriculum from the curriculum descriptors. The two quantitative surveys were used to gather responses to predetermined open-ended interview questions about curriculum orientations.

C. Data Collection Procedures

In addition to the quantitative methods, qualitative methods were used for this study to describe the curriculum views of virtual teachers and how curriculum orientations influence their instructional decision-making. Semi-structured interviews were conducted. The main purpose of the interviews was both to gain a better understanding of how teachers in virtual settings view curriculum and to explore possible orientation-based differences relative to how curriculum was implemented online.

To answer the research questions, the research was conducted in three phases. Each of the phases had a specific goal in order to gather and evaluate the data from the virtual teachers. The phases consisted of: Phase 1- finding virtual teachers in Kansas, Phase 2- administering the instruments, and Phase 3- conducting the interviews. All interviews were then coded and summarized into developed codes by the researcher.

Questions were asked about the current curriculum used in the virtual program and the curriculum design. Virtual teachers shared stories of how the curriculum was modified for students, such as providing alternative assignments, offering other resources to assist students with assignments, and breaking down assignments into smaller parts for struggling students. Teachers discussed their curriculum

orientations and how they are an advantage or disadvantage for the current curriculum in the virtual program.

VI. FINDINGS

A. Results

The data from the survey were calculated for the sample of virtual teachers (N=47) for each of the six orientations: (a) Academic Rationalist, (b) Humanist, (c) Cognitive Process, (d) Social Reconstruction, (e) Behavioral/Technological, and (f) Eclectic, using the online Modified-Curriculum Orientation Instrument (Mahlios et al., 2007) to address research question 1. Means range from 2.96 to 4.07 (highest possible score= 5). Cognitive Process was significantly favored for virtual teachers while Social Reconstruction was the least chosen orientation.

To address research question 2, the survey results of the virtual teachers was compared to a sample of 247 brick-and-mortar teachers and a matched sample of brick-and-mortar teachers out of the 247 participants shown in Figure 1. Cognitive Process is the favored curriculum orientation of both groups. Virtual teachers and brick-and-mortar teachers have similar curriculum orientations shown in Figure 2.

Descriptive Statistics for Samples

	Academic Rationalist		Humanist	Cognitive	Social Reconstruction		Behavioral	Eclectic
<i>Virtual Teachers (n = 47)</i>								
Mean (SD)	3.51 (.57)	3.60 (.67)	4.07 (.48)	2.96 (.84)	4.00 (.50)	3.63 (.60)		
<i>Brick and Mortar Teachers (Total Sample, n = 247)</i>								
Mean (SD)	3.42 (.61)	3.87 (.58)	4.03 (.50)	3.37 (.77)	3.85 (.62)	3.75 (.51)		
<i>Brick and Mortar Teachers (Matched Sample, n = 47)</i>								
Mean (SD)	3.51 (.47)	3.80 (.59)	4.15 (.38)	3.31 (.77)	3.98 (.55)	3.76 (.50)		
<i>Brick and Mortar and Virtual Teachers Combined (n = 294)</i>								
Mean (SD)	3.43 (.60)	3.82 (.60)	4.03 (.50)	3.30 (.79)	3.87 (.61)	3.73 (.53)		

Figure 1. Curriculum orientations for total samples.

Differentiating Features of Curriculum Orientation Profiles of Virtual Teachers vs. Brick-and-Mortar Teachers

	Virtual Teachers	B&M Teachers	Mean Difference	t value	df	p (two-tailed)	Effect Size (Cohen's d)
Academic Rationalist	3.51 (.57)	3.51 (.47)	.00	0.00	92	.99	.00
Humanist	3.60 (.67)	3.80 (.59)	-.20	-1.53	92	.13	-.32
Cognitive Process	4.07 (.48)	4.15 (.38)	-.08	-0.90	92	.37	-.19
Social Reconstruction*	2.96 (.84)	3.31 (.77)	-.35	-2.12	92	.04	-.44
Behavioral/Tech.	4.00 (.50)	3.98 (.55)	.02	0.16	92	.88	.03
Eclectic	3.63 (.60)	3.76 (.50)	-.13	1.14	92	.26	-.23

n = 94 (47 for Virtual Teachers, 47 Brick-and-Mortar Teachers) Matched by Gender and Age

Figure 2. Curriculum orientations for both samples for comparisons.

The initial sample of 47 was reduced to 20 participants who chose to complete a second curriculum-orientations survey. This survey was administered online to the 20 participants. The researcher created a survey that attempted

to “force” participants to choose a dominant curriculum orientation. In contrast to their scores on the Modified-COI, most teachers chose Humanist (35%) as their curriculum orientation when answering the Forced-Choice instrument, followed by Cognitive Process (30%). Curriculum orientation preferences based on the ranking is displayed in Table 2.

Table 2

	Highest Forced-Choice Ranking
Academic Rationalist	20%
Humanist	35%
Cognitive Process	30%
Social Reconstruction	10%
Behavioral/Technlg	10%
Eclectic	15%

n=20 Highest Forced-Choice ranking is greater than 100 because four teachers had a tie in ranking curriculum orientations.

The correlations among the six curriculum orientations using the Modified-COI for virtual teachers indicates that there are moderate relationships between curriculum orientations, which indicates a different pattern than the one found in previous research with brick-and-mortar teacher samples that indicated a weak to moderate correlation (Jenkins, 2006).

Table 3
Correlation between Modified-COI scales and Force-Choice Scales

Academic Rationalist	.13
Humanist	.39
Cognitive	.25
Social Reconstruction	.56**
Behavioral	.22
Eclectic	-.05

***p* < .01. *n* = 20 (content validity established using Modified-COI expert to review test specification and selection of items for Force-Choice scales. Criterion validity evidence uses valid and reliable instrument Modified-COI with the Force-Choice instrument.)

The correlations between pairs of curriculum orientations for this study were distinctively weaker than those found in the primary research conducted by Chueng & Wong (2002). In the current study, only three correlations are not significant. The three correlations found with no significance were those between Humanist and Academic Rationalist (*r*=.13); Behavioral/Technological and Humanist (*r*=.12); and Behavioral/Technological and Social Reconstruction (*r*=.27) which was different from other studies. In Jenkins’s (2006) study there was only one correlation that was not significant, Social Reconstruction and Behavioral/Technological. The correlations of this study range from Eclectic and Behavioral/Technological as the low (*r*=.39) to Cognitive Process and Humanist as the high (*r*=.72). The correlations of the counterpart sample of brick-and-mortar teachers indicate the majority is also moderate. Three of the correlations showed no significant differences. Those with no significance were between Social Reconstruction and Academic Rationalist (*r*=.08),

Eclectic and Academic Rationalist (*r*=.27), and Behavioral/Technological and Humanist (*r*=.23). Interesting enough, the brick-and-mortar teachers displayed a higher correlation between Behavioral/Technological and Academic Rationalist (*r*=.64) and Eclectic and Humanist (*r*=.64). Both teacher groups have the same significant correlations on most scales, which indicate the two groups are alike.

The second method used semi-structured interviews with virtual teachers matching a specific qualification using the data from the online instrument. The results show that the curriculum currently being used in most virtual programs/schools expressed an Academic Rationalist orientation (40%). This aligns with the previous studies that showed Academic Rationalist is the curriculum used most frequently. The second most prevalent curriculum in virtual programs/schools was identified as Behavioral/Technological (35%). Due to high-stakes testing, many curriculums used today focus on measurable objectives with instructional activities and assessments. The ideal curriculum that was chosen as the most favored was Humanist (30%). It is not a surprise that only 5% of participants chose Behavioral/Technological as the ideal curriculum since its apparent focus on the standardized tests is not an acceptable teaching model for most. Eclectic (10%) was the third most-chosen ideal curriculum. Curriculum orientation preferences on the ranking task are displayed in Table 4.

Table 4
Percent of Teachers’ Ranking Each Curriculum Orientation as Their Ideal Orientation

	Percent of Teachers’ Ranking Each Curriculum Orientation as Their Ideal Orientation	
	Current Curriculum	Ideal Curriculum
Academic Rationalist	40%	5%
Humanist	10%	30%
Cognitive Process	5%	25%
Social Reconstruction	5%	25%
Behavioral/Technlg	35%	5%
Eclectic	5%	10%

n = 20 Teachers ranking their curriculum orientation as their ideal curriculum

Ten virtual teachers out of the 20 completing the second survey were identified for an open-ended interview based on their responses to both online surveys, Modified-COI and Forced-Choice, which indicated their strong preference for one curriculum orientation out of the six. The profiles of the interview participants are shown in Table 5. The interviews provided the researcher with rich in-depth information from virtual teachers concerning their perception of curriculum in online learning. Only one teacher out of 10 had a negative perception of the online curriculum as well as a bad experience teaching in a virtual setting. Unfortunately, one teacher was too indifferent with her answers for the researcher to make a clear distinction of

the perception. Overall, the teachers in the sample interviewed had positive experiences and perceptions of curriculum in online learning. It is safe to state that the teachers chose to teach in virtual settings because of the relationships they form with the students, the one-on-one teaching opportunities, parental support provided, and the choices to individualize instruction. These experiences were not able to exist in an existing brick-and-mortar environment, which made these teachers capitalize on the experience and do well with it.

Table 5

Participants for Interviews				
	<i>Modified-COI</i>	<i>F/C</i>	<i>Current</i>	<i>Ideal</i>
1	Eclectic	E	B/T	SR
2	Behav/Techn	B/T	B/T	CP
3	Acad Rat	B/T	B/T	CP
4	Acad Rat	B/T	AR	B/T
5	Cog Pro	CP	H	H
6	Humanist	CP	H	H
7	Humanist	AR	B/T	SR
8	Humanist	H	AR	H
9	Soc Rec/Cog Pro	SR	SR	CP
10	Humanist	H	H	SR

n=10

Participant narratives were divided into 312 individual responses, sorted into four key themes: (a) Curriculum Views, (b) Curriculum Orientations, (c) Virtual Education, and (d) Virtual Training. The 46 non-related responses were not included in the 312 responses. The focal point of the theme, Curriculum Views (9.05% of the responses), was the current curriculum used in the virtual program. This key theme revealed how much control the virtual teacher has with implementing the curriculum. The responses were grouped under this theme because they all looked at the curriculum from the viewpoint of the virtual teacher and how it affected teaching and learning. Curriculum Orientations (44.61% of the responses) showed how the virtual teacher uses the curriculum orientation chosen from the Forced-Choice with Descriptors instrument to make curricular decisions. Responses were grouped to show the influence of the curriculum orientation in a virtual setting. Virtual Education (22.78% of the responses) was a key theme identified from interviews showing the career path of a virtual teacher. It was important to show how much the virtual teacher understood concerning virtual education. Responses identified the appeal of a virtual environment. Virtual Training (20.90% of the responses) was grouped around education, training, and professional development received for teaching virtually. It exposed the way virtual teachers are prepared to teach online and how ongoing training is valued in the virtual school/program. Figure 3 summarizes the key themes derived from the interviews.

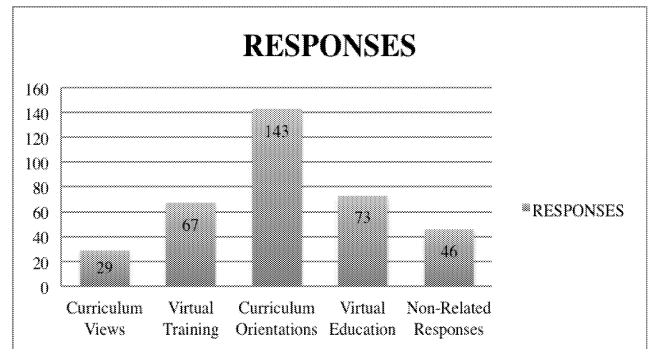


Figure 3. Main themes from interview data

VII. CONCLUSION

This study found that teachers in virtual settings (virtual teachers) generally represent all of the curriculum orientations when using the Modified-COI. Mean scores for all six of the curriculum orientations show that virtual teachers' views of curriculum are distributed across every curriculum orientation to some degree. The results obtained in this study indicate that the virtual teachers' preferences using the Modified-COI were Cognitive Process. The findings of the correlations support the claim that virtual teachers favor certain curriculum orientations more than others. In Cheung's (2000) study of curriculum orientations, teachers tended to choose Academic Rationalist, Humanist, and Behavioral/Technological more often.

The curriculum orientation with the lowest mean score, Social Reconstruction, likely indicates that virtual teachers do not strongly share its view of curriculum. The results shown are in line with similar studies using the Modified-COI (Crummey, 2007; Mahlios et al., 2007; Foil, 2008; Reding, 2008) that support that teachers do not strongly perceive Social Reconstruction as a curriculum orientation that represents their views. One might believe this curriculum orientation has not been fully implemented and researched for teachers to have a strong preference for it.

Other studies conducted by Cheung and Wong (2002) and Jenkins (2006) show that Behavioral/Technological and Humanist curriculum orientations are more typical of modern day teachers. In the current study, the Behavioral/Technological curriculum orientation was the next highest, followed by Eclectic. None of the previous research on curriculum orientations (using a version of the COI) showed Eclectic as being one of the top three favored orientations. This result could indicate that virtual teachers' curriculum orientations are to some extent contextualized, a defining feature of eclecticism. This finding suggests that it could be productive to revisit Schwab's ideas of an Eclectic approach to curriculum (Schwab, 1970). Eclectic as a preferred curriculum orientation choice is hard to substantiate because a teacher usually does not truly have an eclectic view of curriculum. This would suggest that teachers have a solid curriculum orientation and do not change or select elements from the other five curriculum orientations.

A mean score comparison for the curriculum orientations between virtual teachers and brick-and-mortar teachers demonstrate a significant difference for only one orientation, Social Reconstruction. This is an interesting discovery in the research. Brick-and-mortar teachers reported a higher mean score. This could be due to the fact that teachers in this setting would like to see the students have more real-world exposure to problems and have the opportunity to find creative ways to solve local issues. Therefore, teachers in virtual settings are not consumed with specifically teaching for assessment and have some areas to modify the curriculum to include problem-based learning. Thus, it would appear that overall virtual teachers and brick-and-mortar teachers are relatively similar in their conceptions of curriculum.

Results for the online Forced-Choice with Descriptors survey revealed that participants most favor the Humanist orientation out of the six curriculum orientations. One could assume that teachers value assisting students with the development of social, emotional, and academic skills during a time where accountability is the main focus in schools.

The Descriptors section on the Forced-Choice instrument used to identify the curriculum used in the virtual school/program indicated almost all 20 teachers in the sample chose Academic Rationalist as the dominant choice. The 10 interview-participant sample selected Behavioral/Technological more often as the curriculum used. Both curriculum orientation choices disregard the needs of the students, characteristic of the Humanistic orientation, and emphasize curriculum organized around measurable objectives. These choices are based solely on the participants' own perception of the curriculum and not the stated goals and principles of the curriculum they are using for instruction.

The majority of all 20 teachers in the sample chose Humanist as the dominant curriculum of choice. It is important to note that the Humanist curriculum is student-centered and takes into account the whole-child and educational equality for all students. Using this same instrument, interview participants selected Cognitive Processes more often as their ideal curriculum. This sample seeks to develop student's thinking abilities and cognitive skills. This shows all teachers place value on student-centeredness and would select Humanist or Cognitive Processes if given the opportunity. This supports the findings that Humanist had the highest mean score in a study conducted by Jenkins (2006). However, the combination appeals to some teachers for implementing curriculum and making decisions.

Due to the small sample size, the task of identifying themes was relatively straightforward. Teacher perspectives showed many common features. Most prominent from among their narratives was their repeatedly expressed care for and commitment to students and their families. During interviews, all teachers indicated a strong passion for providing the best learning environment to each individual student. This was best exemplified when they were asked

about the attraction to virtual education. Personal histories were surprisingly self-revealing and lengthy. When it comes to modifying the curriculum for students, only one teacher was dissatisfied with the level of control provided to make changes for students when needed.

VIII. LIMITATIONS AND RECOMMENDATIONS

Limitations of this study included the need to increase both sample sizes to increase the statistical power of the analyses. For example, a larger sample size is needed to reduce confidence intervals (Cohen, 1988). Regarding sample size required for a high-quality study, a mechanism should be available at the State's Department of Education to provide accurate totals of virtual teachers in each virtual school/program. This information would be helpful to know when establishing the sample population. Information was not readily available in one centralized location. Both instrumentations provided different findings, which made it difficult to identify dominant curriculum orientations and establish a standard profile for all six orientations. The Modified-COI showed significant differences between the two groups for the Social Reconstruction orientation using mean scores. When identifying the favored curriculum orientation of virtual teachers, results showed Cognitive Process. However, Humanist was the favored curriculum orientation identified using the Forced-Choice with Descriptors instrument. This instrument's goal was to provide one distinct curriculum orientation to create a standard profile to help guide future research. Unfortunately, the Forced-Choice with Descriptors instrument requires more construct validity research. Many participants indicated the curriculum orientation of Eclectic during interviews.

Future researchers are challenged to address the divergence between the two ways of delivering education, online and brick-and-mortar. This study's findings indicated no differences in curriculum orientations. What is not addressed in the study is how the absence of training affects teaching online. A discussion on implementing virtual education experiences at the level of preservice training is needed by newly admitted students in particular. Any discussion to familiarize preservice teachers with virtual education would be a move in the right direction. More K-12 schools are adding a virtual component to provide choice to students, which might call on preservice teachers to teach them.

It was decided that Cognitive Process was the most favored curriculum orientation. Interviews with virtual teachers who identified with this orientation or chose it for their ideal curriculum desired to teach students to become critical thinkers and differentiated instruction the most for students. Comparing virtual teachers to brick-and-mortar teachers showed that most teachers are similar in how they view curriculum. Virtual teachers interviewed provided evidence that they are similar in their thinking to teachers working in brick-and-mortar settings. Looking at the perspectives of online curriculum was especially informative. According to participants' reports, it would

seem that the majority of published online curricula can easily be modified, and that teachers working in virtual settings have the control to do so.

REFERENCES

- [1] Archambault, L. (2011). The practitioner's perspective on teacher education: Preparing for the K-12 online classroom. *Journal of Technology and Teacher Education*, 19(1), 73-91.
- [2] Archambault, L. & Crippen, K. (2009). K-12 Distance Educators at Work: Who's Teaching Online Across the United States. *Journal of Research on Technology in Education*, 41(4), 363- 391.
- [3] Babin, P. (1978). A curriculum orientation profile. ERIC ED 164613.
- [4] Carroll, W. (1997). Technology and teachers' curriculum orientations. *Educational Horizons*, 75(2), 66-72. ERIC EJ537133.
- [5] Cheung, D. (2000). Measuring teachers' meta-orientations to curriculum: Application of hierarchical confirmatory factor analysis. *The Journal of Experimental Education*, 68(2), 149-165.
- [6] Cheung, D. & Ng P. (2002). Science teachers' beliefs about curriculum design. *Research in Science Education*, 30(4), 357-375.
- [7] Cheung, D. & Wong, H. (2002). Measuring teacher beliefs about alternative curriculum design. *The Curriculum Journal*, 13(2), 225-248. doi: 10.1080/09585170210136868.
- [8] Clark, T. & Oyer, E. (2012). *How can SEAs use digital technologies in support of education reform? A white paper*. Carmel, IN: EvalSolutions Inc. and Illinois State Board of Education.
- [9] Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. (2nd ed.). New York, NY: Routledge Academic.
- [10] Compton, L., Davis, N. & Mackey, J. (2009) Field experience in virtual schooling - To be there virtually. *Journal of Technology and Teacher Education*, 17(4), 459-477.
- [11] Crumme, M. A. (2007). Curriculum orientations of alternative education teachers. ProQuest.
- [12] Cunningham, R., Johnson, J., & Carlson, S. (1992, December). Curriculum orientations of home economic teachers. Paper presented at the American Vocational Association Convention, St. Louis, MO.
- [13] Davis, N. E., & Roblyer, M. (2005). Preparing teachers for the "schools that technology built": Evaluation of a program to train teachers for virtual schooling. *Journal of Research on Technology in Education*, 37(4), 399-408.
- [14] Davis, N. E. & Ferdig, R. (2009). Editorial: What is special about teacher education for virtual schooling? *Journal of Technology and Teacher Education*, 17(4), 203-214.
- [15] Eisner, E. W., & Valance, E. (Eds.) (1974) *Conflicting conceptions of curriculum*. Berkeley, CA: McCuthchan.
- [16] Hassel, B. C., & Terrell, M. G. (2004). White paper: How can virtual schools be a vibrant part of meeting the choice provisions of the *No Child Left Behind Act?* Retrieved from http://www.vdoetest.vi.virginia.gov/federal_programs/esea/title1/part_a/how_can_virtual_schools.pdf.
- [17] International Association for K-12 Online Learning (iNACOL). (2009). What can congress and the federal government do to promote quality online learning opportunity for all students? Retrieved from <http://www.inacol.org/resources/publications/inacol-briefing-papers/>.
- [18] International Association for K-12 Online Learning (iNACOL). (2011). National standards for quality online teaching. Retrieved from <http://www.inacol.org/resources/publications/inacol-reports/#3899>.
- [19] International Society for Technology in Education (2008). *What Works in K-12 Online Learning*. Retrieved from www.iste.org/docs/excerpts/K12OLL-excerpt.pdf
- [20] Interstate Teacher Assessment and Support Consortium. (2011). *Model coreteaching standards: A resource for State dialogue*. Retrieved from http://www.ccsso.org/Resources/Publications/InTASC_Model_Core_Teaching_Standards_A_Resource_for_State_Dialogue_%28April_2011%29-x1025.html.
- [21] Jenkins, S. (2006). Measuring Teacher Beliefs about Curriculum Orientations Using the Modified-Curriculum Orientations Inventory. Unpublished dissertation. The University of Kansas, Lawrence, KS.
- [22] Kennedy, K. (2010). The essence of the virtual school practicum: A phenomenological study of pre-service teachers' experiences in a virtual school. Unpublished dissertation. University of Florida, Gainesville, FL.
- [23] Kennedy, K. & Archambault, L. (2012). Offering pre-service teachers field experiences in K-12 online learning: A national survey of teacher education programs. *Journal of Teacher Education*, 63(3), 185-200. doi:10.1177/0022487111433651.
- [24] Mahlios, M., Friedman-Nimz, R., & Peyton, V. (2007). Curriculum orientation inventory, unpublished instrument, University of Kansas, Lawrence, KS. Received via electronic mail.
- [25] McGrory, K. (2013). More high school students in Florida are taking advantage of massive open online courses, or MOOCs. *Miami Herald*, 11.07.13. Retrieved from: <http://www.miamiherald.com/2013/11/07/3738068/more-high-school-students-in-florida.html>.
- [26] McNeil, J. D. (1977). *Curriculum: A Comprehensive Introduction*. Boston: Little Brown.
- [27] Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for integrating technology in teachers' knowledge. *Teachers College Record*, 108(6), 1017-1054.
- [28] National Council for Accreditation of Teacher Education (NCATE). (2008). *Professional Standards for the accreditation of teacher preparation institutions*. Retrieved from http://www.ccsso.org/Resources/Publications/InTASC_Model_Core_Teaching_Standards_A_Resource_for_State_Dialogue_%28April_2011%29-x1025.html.
- [29] National Education Association (NEA) (2006). *Guide to teaching online courses*. Washington D.C.: NEA. Retrieved from <http://www.nea.org/assets/docs/onlineteachguide.pdf>.
- [30] ONeil (2009). How Distance Education Has Changed Teaching and the Role of the Instructor. *Information Systems Education Journal*, 7(48).
- [31] Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*. 62 (3), 307-332.
- [32] Pinar, W. F. (1978). Notes on the curriculum field 1978. *Educational Researcher*, 7(8), 5-12.
- [33] Reding, C. A. (2008). *Curricular orientations of catholic school teachers and administrators*. ProQuest
- [34] Rice, K. (2006). A comprehensive look at distance education in the K-12 context. *Journal of Research on Technology in Education*, 38(4), 425-448.
- [35] Roblyer, M. D., & Elbaum, B. (2000). Virtual learning? Research on the status of virtual high schools. *Learning and Leading With Technology*, 27(4), 58-61.
- [36] Roblyer, M. D. (2006). Online high-school programs that work. *The Education Digest*, 72(3), 55-63.
- [37] Salmani Nodoushan, M. A. (2008). A critique of the brave new world of K-12 education. *Online Submission*, 4, 1-5.
- [38] Schwab, J. (1969). *The practical: A language for curriculum*. Washington, D.C.: National Education Association.

- [39] Schubert, W. H. (1987). *Curriculum: Perspective, paradigm, and possibility*. Riverside, NJ: Simon and Schuster.
- [40] Smith, R., Clark, T., & Blomeyer, B. (2005). A synthesis of new research on K-12 online learning. Naperville, IL: Learning Point Associates. Retrieved from http://www.riversidevirtualschool.net/RVS/Website/Publications/Online%20Teaching%20and%20Learning/A_Synthesis_on_New_Research_on_K-12_Online_Learning.pdf.
- [41] Southern Regional Educational Board. (2006). *SREB essential principles of high-quality online teaching: Guidelines for evaluating K-12 online teachers*. Retrieved from http://www.sreb.org/programs/edtech/pubs/PDF/Essential_Principles.pdf.
- [42] Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2011) *Keeping pace with K-12 online learning: An annual review of policy and practice*. Evergreen, CO: Evergreen Education Group.

AUTHOR'S PROFILE



Dr. Nicole S. Babalola is a Coordinator in the Professional Development Schools (PDS) and lecturer in the School of Education at the University of Kansas, USA. Dr. Babalola has worked with PDS as a university liaison, university supervisor, and instructor. She currently works with four school districts in grade PK-12, to support professional learning, curriculum, community connections, and district initiatives to support student achievement and growth. Dr. Babalola focuses on technology integration of iPads in the elementary classrooms.