VITA

Kimberly J. Tucker

EDUCATION

2014	Indiana State University, Terre Haute, Indiana Ph.D. in Educational Leadership
2008	Indiana State University, Terre Haute, Indiana Ed.S. in Educational Administration
1988	Indiana State University, Terre Haute, Indiana M.A. in English/Language Arts – Secondary Education
1984	Indiana State University, Terre Haute, Indiana B.A. in English/Language Arts – Secondary Education

PROFESSIONAL EXPERIENCE

2010 – present	Clay Community Schools, Brazil, Indiana Superintendent
2008 – 2010	Clay Community Schools, Brazil, Indiana Assistant Superintendent
2007 – 2008	Avon Middle School, Avon, Indiana Assistant Principal
1999 – 2007	Owen Valley High School, Spencer, Indiana Principal/Assistant Principal
1993 – 1999	Edgewood Jr. Hi./High School, Edgewood, Indiana Principal/Assistant Principal
1984-1993	Edgewood High School, Edgewood, Indiana English/Language Arts Teacher

VIRTUAL SCHOOLS AND THE AFFECTIVE DOMAIN

A Dissertation

Presented to

The College of Graduate and Professional Studies

Department of Educational Leadership

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

---

by

Kimberly J. Tucker

May 2014

Keywords: Virtual, learning, affective, secondary, online

COMMITTEE MEMBERS

Committee Chair: Steve Gruenert, Ph.D.

Associate Professor, Educational Leadership

Indiana State University, Terre Haute, Indiana

Committee Member: Todd Whitaker, Ph.D.

Professor, Educational Leadership

Indiana State University, Terre Haute, Indiana

Committee Member: Timothy Rayle, Ph.D.

Assistant Superintendent

Clay Community Schools, Brazil, Indiana

ABSTRACT

The intent of this qualitative study was to explore the following research questions: Does online instruction differ from traditional classroom instruction in regard to the development of affective learning? What emphasis is placed on developing affective skills in the traditional versus the virtual classroom? What instructional techniques are common or different toward developing affective learning in comparison of the traditional and virtual classroom? What specific types of lessons, activities, and assessments do teachers in each format use to ensure affective learning? What perceptions do teachers in the traditional and virtual classroom have with regard to affective learning and the implications with present and future learning in the affective domain through online instruction? Purposeful sampling was utilized to select five traditional classroom teachers and five virtual classroom teachers from Illinois. The state of Illinois was selected because in addition to academic learning standards, the Illinois Department of Education provides specific standards for social and emotional learning (SELS) in all grades. Three themes identified within the data included: acknowledgment and value of the impact of teacher immediacy on student learning, commitment to providing affective learning opportunities within the curriculum, and teacher perceptions about affective learning in online education. The responses showed that teachers in both settings acknowledged that affective learning was highly valued in their instructional programs. Interview analysis showed that teachers in the traditional and virtual settings were aware of the importance of providing affective support and developing affective skills in the classroom. Interview analysis showed that there were many similarities

between traditional and virtual curriculum in the development of instructional methodology to develop affective learning. The perspectives about online versus traditional education were sharply divided along the lines of teacher experience within the virtual platform. Traditional teachers did not believe that the virtual teacher or the virtual classroom could provide the necessary supports to build affective learning. Virtual teachers were much more amenable to online learning. Their perceptions were based on their described successes in the virtual classroom. They reflected on their efforts to build in affective supports and to implement instructional methodology which they believed were successful in developing their students in terms of the academic and affective domains. Overall, the study showed that virtual schools and virtual teachers do place significant emphasis on affective learning and that their overall pedagogy is similar to that of traditional classrooms and traditional teachers. Virtual schools have the capacity to impact student affective learning. Research into the impact that virtual schools have on K-12 students and the affective domain will provide parents with the information needed to place their children in the best-suited learning environment. It will also provide educators with the data to inform and reform instruction to better meet the needs of all K-12 learners.

ACKNOWLEDGMENTS

I would like to thank my family for their encouragement, especially my life coaches, Fred and Mary Jo, who were unconditional in their insistence that my sister, Lori, and I could become anything that we were willing to work toward in life. I hope that my experiences will transcend the spirit of life-long learning to my children, Kyle and Kelly, and my grandchildren, Coleman, Maggie, Connor, and Kailyn. My thanks and love to Pam, who served as a sounding board for all matters educational and personal and who was also a source of friendly competition to be the first to finish the Ph.D. program. Finally, I am grateful to Dr. Timothy Rayle, Dr. Todd Whitaker, and Dr. Steve Gruenert, three scholars and gentlemen, whose research and writings in the field of educational leadership inspire me to be the best leader that I can be every day.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

In 1995, Neil Postman, author, media scholar, and head of Culture and Communications of New York University, was interviewed by a *PBS* journalist. He made the following remark with regard to personal computers:

> I often wonder if this doesn't signify the end of any meaningful community life. I mean, when two human beings get together, they're co-present, there is built into it a certain responsibility we have for each other, and when people are co-present in family relationships, that responsibility is there. You can't just turn off a person. As a matter of fact, I'm one of the few people not only that you're likely to interview but maybe ever meet who is opposed to the use of personal computers in school because school, it seems to me, has always largely been about how to learn as part of a group. School has never really been about individualized learning but about how to be socialized as a citizen and as a human being, so that we, we have important rules in school, always emphasizing the fact that one is part of a group. (Brauen, 1995)

Fast forward 15 years to 2010 and virtual learning and cyber-schools are being heralded as a solution to many problems facing American schools, including overcrowded classrooms, faltering achievement statistics, a lack of access to accelerated and enrichment courses, and the infiltration of societal problems into the classroom, which many parents and students believe is

jeopardizing classroom learning and has been dramatically illustrated in a documentary by Chilcott and Guggenheim (2010) entitled, *Waiting for Superman*.

This study sought to determine what attributes in curriculum and instruction existent in the virtual classroom and the traditional classroom are in common and which attributes are separate to one another regarding learning in the affective domain for K-12 students. The following statistics and insights were completed by International Association for K-12 Online Learning (iNACOL; 2012):

> Forty states have state virtual schools. There were an estimated 1,816,400 enrollments in distance-education courses in K-12 school districts in 2009-10, almost all of which were online courses, 74% of these enrollments were in high school. The types of online courses with the highest enrollments in school districts are credit recovery and dual credit. A total of 74% of school districts with distance education programs planned to expand online offerings over the next 3 years. (iNACOL; 2012, p. 1)
>
> As of late 2011, no state had a full suite of full-time and supplemental online course options for students at all grade levels. Florida, Minnesota, Idaho, and Wisconsin stood out as states with a wide variety of full-time and supplemental options for students across most grade levels. (iNACOL; 2012, p. 2)

Forty-five states and the District of Columbia have adopted the Common Core Standards (CCSS) representing an historic shift in this country to emphasize higher-order skills and the application of knowledge so that all students are challenged to higher levels and are prepared to be successful in a global, knowledge economy. This states-led work has changed the conversation about the country's expectations for all students and the education system itself toward attainment of globally-competitive, world class knowledge and skills (iNACOL, 2012).

A study conducted by Rayle (2011) indicated the following:

> Data from this study in regard to the implementation and effectiveness of online learning indicates that all ability levels of students can benefit tremendously from online learning by lifting the restraint of required seat time and replacing it with required proficiency. Students can move through an online course at their own pace, thus removing the burden of having to wait until every student has mastered a concept before the class can move on. In 2009, virtually every required class needed for graduation was available online in an asynchronous format, allowing students to decide when and where they would attend class, and understood accredited online classes were available 24 hours per day, seven days per week. The research literature suggested that only online courses can give students access to the best teachers and most rigorous and relevant courses regardless of where the student lives or attends school. (p. 140)

Statement of the Problem

Does online instruction differ from traditional classroom instruction in regard to the development of affective learning? Is virtual learning a solution to many of the problems facing traditional schools? And, with consideration to Neil Postman's (Brauen,1995) warning about computers in the educational setting, will virtual learning bring about another type of learning gap in terms of affective skills and the social learning process? Have public schools become so entrenched in academic accountability that they have largely ignored the responsibility to educate the whole child? Finally, what kinds of innovations in technology and in teaching practices within the virtual learning environment will be needed to ensure academic and social developmental success for all cyber-space students?

In an article entitled, "Digital Natives, Digital Immigrants," Prensky (2001) declared that the disconnect between today's students, those who are K through college and their "digital immigrant instructors" is the "single biggest problem facing education today" (p. 2). He warned that today's learner may have a different brain from those students of the past.

Definition of Terms

Asynchronous learning. Communication exchanges which occur in elapsed time between two or more people. Examples are email, online discussion forums, message boards, blogs, podcasts, etc.

Blended course. A course that combines two modes of instruction, online and face-to-face.

Blended learning. Any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace; often used synonymously with hybrid learning (Horn & Staker, 2011).

Brick and mortar schools. Refer to traditional schools or traditional school buildings, as contrasted with an online school.

Credit recovery. Refers to a student passing, and receiving credit for, a course that he or she previously attempted but did not succeed in earning an academic credit towards graduation (Massachusetts Department of Elementary & Secondary Education, 2010).

Cyber school. A formally constituted organization (public, private, state, charter, etc.) that offers full-time education delivered primarily over the Internet; Term used synonymously with the terms "Virtual School," "e-School," and "Online School" in some state policy.

Digital learning. Online or blended learning.

Distance education. General term for any type of educational activity in which the participants are at a distance from each other—in other words, are separated in space. They may or may not be separated in time (asynchronous versus synchronous).

Hybrid learning. See blended learning.

Online learning. Education in which instruction and content are delivered primarily over the internet (Watson & Kalmon, 2005).

Synchronous learning. Online learning in which the participants interact at the same time and in the same space.

The Online Learning Definitions Project (2011). Provided the language defining new terminology, which has grown rapidly since the advent of the Internet and capacity to present online learning. The defined terms are a partial list intended to support this study:

Threaded discussion. A forum that includes a running commentary of messages used by a group to facilitate asynchronous online discussions.

Virtual school. See online school.

Wiki. A restricted or open website developed collaboratively by a community of users, allowing any user to create, add and edit content (iNACOL, 2011).

Status of Research

According to a 2009 study by Cavanaugh, Barbour, and Clark, the amount of published research on virtual school practice and policy is limited. The study further indicated that the majority of what has been written has come from published articles by those who had personal experience in the practice of virtual schooling or from masters' theses and doctoral dissertations. It distinguishes these writings as falling into two main areas of concentration: "the effectiveness

of virtual schooling and student readiness and retention" (Cavanaugh et al., 2009, p. 6). The study concluded with the identification of areas for future research, which were as follows:

> The first area is to establish best practices for online teaching strategies. The second area is to improve upon the identification of characteristics that are necessary for adolescents to be successful in online learning environments and to provide remediation for students who are lacking in these characteristics. The third area concerns how virtual school and brick and mortar school personnel can encourage more interaction between in-school and online classmates. The fourth area is to examine the quality of student learning experiences in virtual school environments, especially those of lower performing students. (Cavanaugh et al., 2009, p. 9)

Practitioners have provided a good deal of information to be considered in research in the area of best practice instruction for virtual schools and the related area of professional development for teachers. In a digital edition of *THE Journal*, Frey (2005), a principal from the Colorado Connections Academy submitted an article that specifically addressed the differences in teaching in the virtual environment. She explained that the focus for the teacher in a virtual school is on supporting the learning coach, typically this is the parent or guardian, and that this new emphasis in professional development "must reflect a paradigm shift" (p. 2). She further related that because the curriculum is student-centered, the focus is on the individual rather than the classroom. Beyond the computer medium, she and her teachers are required to get to know whole families and to interact with parents on a routine basis through email, from phone conversations, and on field trips and club activities sponsored by the school. Two necessary attributes of her teachers are the ability to be proactive and supportive of their students and the learning coaches (Frey, 2005).

Some research has been done to create a predictability model for success with students seeking to enroll in an online learning program or virtual school. Roblyer, Davis, Mills, Marshall, and Pape (2008) did a study called "Predicting Success for Virtual School Students: Putting Research-based Models into Practice." The following information was contained in their findings:

> Virtual schooling has the potential to offer K-12 students increased access to educational opportunities not available locally, but comparatively high dropout rates continue to be a problem, especially for the underserved students most in need of these opportunities. Creating and using prediction models to identify at-risk virtual learners, long a popular topic in distance education, is assuming increasing urgency in virtual schooling. Though many studies have tested the contributions of various factors to online success, this article emphasizes that prediction models must be developed and used in ways that yield findings to support student success rather than prevent students from enrolling. (Roblyer et al., 2008, p. 91)

It is important to note that past studies that hypothesize that the most important contributors to virtual course success are student characteristics that cannot be changed through intervention are less than useful. Such studies could set the stage for preventing students of lower abilities from taking virtual courses at all. This outcome would keep virtual schools from making important contributions to building a better, more equitable and effective educational system (Roblyer & Davis, 2008).

Although there is substantially less research on learner characteristics of the K-12 student versus the adult learner, some of these adult/student factors appear to be similar for the adolescent learner (Rice, 2006). These characteristics include achievement and self-esteem

beliefs and self-efficacy beliefs, responsibility and risk taking, technology skills and access, and organization and self-regulation. Although research may show that these are the observed attributes of the academically and socially advantaged student, these traits are often not in place in the skill sets and self-image of at-risk populations and are certainly less likely to be skills that young students have developed. Very little research exists to detail younger children's successful learner traits, with the exception of some studies that call into play those issues with the affective learning domain. The lack of social interaction may be a significant factor for student performance, student retention, and the student's overall satisfaction in the learning experience (Rice, 2006).

In summary, the field of virtual learning is still a new frontier, with schools coming online continuously and students enrolling at an exponential pace. Practitioners have offered much of the limited research available. A good portion of the research has been to determine what characteristics make for a successful virtual school student. Even the majority of this research has focused more upon adult learners than K-12 students. Researchers acknowledge that much research is still needed to determine whether virtual schools can provide the affective supports necessary to make them a viable option for children of all ages and from diverse backgrounds. Research into the impact that virtual schools have on K-12 students and the affective domain will provide parents with the information needed to place their child in the best-suited learning environment. It will also provide educators with the data to inform and reform instruction to better meet the needs of all K-12 learners.

Research Questions

From the review of the literature, the following questions emerged which served to frame the further basis for research and suggested the need for qualitative investigation.

1. Does online instruction differ from traditional classroom instruction in regard to the development of affective learning?
2. What emphasis is placed on developing affective skills in the traditional classroom?
3. What emphasis is placed on developing affective skills in the virtual classroom?
4. What instructional techniques are common in each format toward developing affective learning?
5. What instructional techniques are different in each format toward developing affective learning?
6. What specific types of lessons, activities and assessments do teachers in each format use to ensure affective learning use?

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter introduces the concept of affective learning as the focus for a comparison of the instructional methodology and curricula within K-12 virtual schools versus K-12 traditional schools. In this review, I define affective learning, argue its necessity for successful learning in both environments, provide the history for the evolution of online learning as a source for affective learning, and finally, begin the process of discovery for what research exists to draw a comparison between the two learning environments.

Definition of Affective Learning

Affective learning is defined by Mosby's Medical Dictionary (2009) as "the acquisition of behaviors involved in expressing feelings in attitudes, appreciations, and values." The affective domain in learning as characterized by Bloom (1956) is represented in a hierarchy of five levels: receiving, responding, valuing, organization, and characterization. Bloom provided a more complete description for each, such as for characterization: generalizes certain values into controlling tendencies, emphasis on internal consistency, later integrates these into a total philosophy or world view. Bloom, Masia and and Krathwohl later categorized these levels into a series of verbs to enable educators to develop learning objectives. Some of these verbs are represented in Table 1.

Table 1

Verbs to Enable Educators to Develop Learning Objectives

Receiving	Responding	Valuing	Organizing	Characterizing
Observe	Willing	Continuing	Crystallize	Ready
Be conscious	Comply	Desire	Form judgment	Revise
Realize	Obey	Grow	Relate	Change
Be sensitive	Look	Feel	Weigh	View
Attend	Engage	Assume	Is realistic	Approach
Listen	Display	Responsibility	Judge	Plan
Discriminate	Practice	Enable	Regulate	Arrive
Be alert	Respond	Initiate		Relay
Prefer	Prefer	Examine		Examine
Assume	Accept			Judge

Krathwohl et.al, 1964

Educational practitioners have been exposed to Bloom's taxonomy, and it is a source for much curriculum development by textbook companies and is also included in the work of state departments of education and local educational institutions to create curriculum for K-12 instruction. However, many educators may struggle to grasp the importance of including higher order social and related cognitive skill development in their own classroom instruction and assessment. This is partly because affective domain-related skills are difficult for educators to articulate and to assess.

> Teachers and learners need to become familiar with the hierarchy of processes and skills within the affective domain and work to internalize how those processes and skills can be observed and assessed in real learning contexts. In traditional curricula, the skills in the affective domain are often neglected because it is assumed that students will discover them on their own. However, the challenges in facilitating active learning show that this is not true. Affective skills typically become an issue when instructors must build rapport and achieve buy-in. Later, the levels of affective challenge that learners can handle will significantly influence the quality of course outcomes. As with skills from other domains, those from the affective domain involve performance improvement, which leads to developmental growth and ultimately the empowerment to challenge oneself in all aspects of life. (Duncan-Hewitt, 2011, p. 214)

The impact that affective states play in learning was examined from the perspective of a constructivist platform. The states included frustration, confusion, neutral, eureka, flow, and boredom. Significant relationships were observed between student learning and the states of boredom, flow, and confusion. Negative correlation was shown between learning and that of boredom and flow of instruction. A positive correlation was shown between confusion and learning, demonstrating that confusion resulting in cognitive disequilibrium is one precursor to "deep learning" (Craig, Graesser, Sullins, & Gholson, 2004, p. 241).

In 1976, Short, Williams, and Christie first introduced the concept of social presence, defining it as "a quality of the medium itself" and Gunawardena and Zittle (1997, p. 65) refined its place in online learning claiming "the act of connecting with others in a new social situation enables us to create social presence or a degree of interpersonal contact" (as cited in Jones, 2007, p. 14). According to Russo and Benson (2005), more research is needed to determine students'

assessments of their own sense of presence and its relationship to course outcome. Also, the factors of social presence as they correspond to instructional design and distance educators provide additional insight to future asynchronous learning (Jones, 2007).

Descriptions for affective learning are

> When the teacher and students interact in a context of openness, the emotional base of each person is honored and accepted without judgment or bias. When the learning situation dignifies the uniqueness of each person, it frees the growth forces within the individual for self-fulfilling pursuits. When teachers and pupils share their feelings, thoughts and actions in an atmosphere of mutual trust, their behavior becomes spontaneous, flexible, open and authentic. When the teacher provides warmth, acceptance and empathy, the learner is free to regard his emotions and personal meanings as legitimate content in learning. When the learning has personal significance for the learner, he can see use for it and will want to venture into new realms of meaning. (Llewellyn & Cahoon, 1965, p. 470)

In distance learning, social presence has been defined as the ability of a participant in a learning community to represent himself or herself socially and emotionally as a real person. Social presence supports cognitive learning and resultant critical thinking processes for the learner. It also has been examined as a possible predictor of learner satisfaction, perceived success level of learning, and quality of the learning experience (Manca & Delfino, 2007).

Affective learning is a component in any cognitive or psychomotor objective and involves attitudes, motivation, and values. Behavioral expressions may include statement of beliefs, self-worth, or opinion. Any behavior that represents an emotional response is representative of the affective domain (Miller, 2005).

Necessity of Affective Learning in Traditional and Online Classroom

According to Schroeder and Cahoy (2010), the difficulty for educators in providing affective learning supports in the classroom is that writing objectives for affective development is not as easy as writing cognitive objectives. Affective objectives are harder to model, detail, process, and assess. The educator may also have a particular philosophical issue, as the educator might not hold with techniques that could be considered classical or operant methods of conditioning. He or she may also fear accusations that they are attempting to indoctrinate students toward political, social, or philosophical views, which may not be in keeping with the individual student's family views. These perceptions may not be completely realistic, as it is often almost impossible to separate cognitive from affective and psychomotor development when teaching in an authentic or real-life learning situation (Schroeder & Cahoy, 2010).

The social theory work of developmental psychologist Jean Piaget also confirmed the general educational objective to provide a socially interactive classroom toward a child's need to experience social exchanges and cooperative learning in order to develop socially and morally but also to attain higher intellectual capacity. Every learning environment has a "social-moral atmosphere that either fosters or impedes children's development and learning" (DeVries, 1997, p. 14).

Schools in America were originally purposed to prepare students to become good citizens (Griffith & Nguyen, 2005). Educated citizens were those who could read, write, perform basic mathematical problems, hold down a job, and think and act as an independent, yet responsible member of society. Today, the expectations for schools are still shaped by government and society but are being more influenced by business and the need to produce workers who are critical thinkers and who are able to take the explosive amounts of information that bombard

their daily experience, determine the value of that information, make sense of it, organize it, and utilize it or to communicate it in an effective manner (Griffith & Nguyen, 2005). These critical thinking skills are not only an extension of the cognitive domain but also because they call into practice the need to make judgments, recall and reclassify relationships and communicate complex social dynamics, the affective domain becomes a central piece in the learning environment of modern day schooling (Griffith & Nguyen, 2005).

Elliot Soloway (as cited in Norris & Soloway, 2009) believed that there are two flaws in Christensen's (2008) work, *Disrupting Class*. Soloway claimed that "the economic gains that accrue from automating FTF come at a loss of educational quality" (as cited in Norris & Soloway, 2009, p. 82). Soloway further maintained that because

> OI is typically an asynchronous process, the students and teachers don't see each other and are potentially geographically remote, therefore limiting any chance of the advantages of OI spoken of in *Disrupting Class* as numerous enough to outweigh the disadvantages. (as cited in Norris & Soloway, 2009, p. 82)

Many schools have experimented with the blend of online and face-to-face teaching; the Chicago Virtual Charter School determined that using one teacher for online instruction with students and another teacher for traditional classroom instruction with those same course enrolled students was not as effective as using the same teacher in both formats. The school did affirm that a blended approach did achieve the best results for students overall (Ash, 2010).

Today's digital generation expects to have learning experiences tailored specifically to them. Search engines provide music, movie, and game selections based on their previously indicated choices. Traditional classrooms too often require them to sit in desks in rows and accept lessons that are not differentiated to their interests or learning levels. Schools are

beginning to turn to technology and differentiated instruction to give students a more personalized learning akin to the digital marketplace that attracts the buying attention of children of all ages. School leaders admit that online learning provides this personalization more successfully than traditional classrooms with 30 students at 30 different learning levels for what are typically short periods of instructional time (Davis, 2011).

Teachers have also experienced online learning for continuing credit and for professional development. A study of 236 elementary teachers by Levenburg and Caspi (2010) sought to discover differences in teacher perceived learning in four environments: informal–face-to-face, formal–face-to-face, informal–online, and formal–online. The findings showed that teachers perceived their learning to be higher when instruction was delivered in a formal–face-to-face setting. Teachers also believed that formal–online instruction provided a higher level of learning; however, no significant differences were found in formal learning between face-to-face and online instruction (Levenburg & Caspi, 2010). A skilled online teacher must possess the traditional attributes, knowledge of subject area and ability to effectively deliver instruction; however, other skills are becoming evident as well including technical savvy, the development of a "digital voice" and the ability to maintain a flexible schedule without sacrificing personal life (Locke, 2011).

Many virtual school instructors are highly qualified and certified within the brick and mortar structures of traditional public schools; however, few states require no special certification or endorsement to teach within a virtual environment. Many virtual schools require on-going professional development or a prerequisite training akin to a preservice teaching program for new teachers entering the virtual school environment (Quillen & Davis, 2010).

A position paper by a veteran educator offered the following opinion of an online educator:

> In particular, online teachers have a moral imperative to consider how the choice or application of technology constrains their interactions with students. Face-to-face instruction enables teachers to readily identify students' attitudes and emotional states and to adjust the instruction accordingly. Such problems are not as readily noticed or solved in online education. (Glenn, 2005, pp. 1-2)

Historical Development of Online Learning

The influence of government has been to advance the creation of virtual schools. In the National Education Technology Plan, the U.S. Department of Education presented a national vision for technology in which virtual schools and e-learning are seen as strategies for attaining key educational goals (Smith, Clark, & Blomeyer, 2005). However, many have argued that the federal government sends a mixed message to schools and the public by promoting on-line learning as an option to traditional brick and mortar schools and touting its early successes (Smith et al., 2005). In fact, the accountability measures in place for both learning environments may actually erode truly successful learning, which encompasses cognitive and affective skill development.

> The No Child Left Behind Act was clearly written from an objectivist viewpoint, as it requires standardized testing to study changes in learner knowledge and skills and holds schools accountable for academic improvement across subgroups. The guidelines for research and evaluation issued by the U.S. Department of Education to support No Child Left Behind also fell clearly into the objectivist camp. Many educators take a more constructivist view. If students do not remain constructively engaged in learning, they

> may drop out or fall behind, ultimately leading to flat test scores and lower graduation rates. (Smith et al., 2005, p. 11)

The growth of virtual schools cannot be given short shrift in terms of its impact on the development of online curriculum and instruction but to the way that the culture of education in traditional schools is being scrutinized for perceived failings to deliver an adequate and appropriate learning environment for students in both the cognitive and affective domains. Many advocates of e-learning are quick to cite the advances in technology, which they believe make virtual school learning superior to traditional classroom learning. They cite improvements for enhancing student interaction such as threaded discussions boards, real-time audio and video communication, and online communities in an effort to replicate traditional classroom interactions (Rice, 2006).

The phrase "just in time learning" is often used to promote virtual instruction; technology enthusiasts' insistence that the revolution of learning is at hand uses two arguments. The first is that the world is changing and education must change as well to prepare students to enter the career market of the new world. The second is that technology provides the necessary enhancements to reshape education, and virtual schools are able to provide the most appropriate platform for these advanced ways to learn (Halverson & Collins, 2009).

The North American Council for Online Learning (NACOL) claimed that online learning is able to provide personalized instruction that is not available to traditionally schooled students (as cited in Gemin & Watson, 2008). They denounced traditional schools for failing to provide the individualized attention and academic support that students need to be successful. Traditional schools are limited in what they can provide students in terms of socialization due to physical attributes such as facility, scheduling, and school and classroom management

techniques according to the NACOL (as cited in Gemin & Watson, 2008). "In a physical school, many procedures and policies are tied to limiting social behavior that is deemed inappropriate or not conducive to the lecture-style learning environment" (NACOL as cited in Gemin & Watson, 2008, p. 4). "They insist that virtual schools have the freedom to create social interaction: The online environment is a natural way for 'Millennial' students to interact" (Gemin & Watson, 2008, p. 5).

Online learning is an innovation that has provided some evidenced-based data for its effectiveness in improving student achievement and educational outcomes for K-12 students. In June 2008, the U.S. Department of Education released a meta-analysis of over 1,000 controlled studies comparing online and face-to-face instruction (Means, Toyama, Murphy, Bakia, & Jones, K., 2010, p. ix) The conclusion indicated that on average, students in online learning conditions performed better than those receiving face-to-face classes. The reasons given for the increased achievement specifically included "increased learning time, innovative curriculum and pedagogy, opportunities for collaboration and reflection, and learner control over interactions with the media" (Dawley, Rice, & Hinck, 2010, p. 12).

Research that has been done with online learning and actual virtual schools has made a distinction between asynchronous and synchronous platforms. In an asynchronous learning platform, students complete the majority of their work offline. Some of this work might be similar to a traditional correspondence course: reading assignments, drafting an essay, conducting an experiment with school-supplied materials, and studying for an exam. "A student is essentially teaching himself or herself or being taught by a parent, with only minimum involvement from a teacher" (Barbour & Reeves, 2008, p. 402).

Barbour and Reeves (2008) described the asynchronous format. They claimed that the asynchronous method of delivery is more common among the statewide virtual schools throughout the United States. They cited curriculum that engaged students in real-world applications and contained challenging content primarily designed to higher levels of Bloom's taxonomy. After the student has finished interacting with the curriculum, the teacher gives written or verbal feedback to improve student performance (Barbour & Reeves, 2008).

Advancements in technology such as Skype and other forms of video conferencing have made it possible for virtual schools to offer a more synchronous platform. More synchronous communication tools such as email and chat rooms, and multimedia technologies such as graphics, video conferencing, and animation, enable the implementation of instructional strategies that are used to engage and facilitate learning. With Internet collaborative activities and information sharing, the virtual school students can experience "learning anytime, anywhere" (Colorado & Eberle, 2010, p. 5).

For many school districts, the decision to develop virtual classrooms was based in financial necessity and not from a sense of innovation alone. For example, the Northern Valley Regional High School District in New Jersey began the development of a virtual classroom to share courses between its two high schools when they were informed that their 2010-11 budget would be reduced by $1.6 million dollars (Furman, 2010). Some of the features in this new virtual class include an instructor interface, which allows the teacher to see and hear students and a student–instructor interface using blended tools such as I-Chat and Adobe Connect. Lessons are recorded in the "e-locker" located on the district's First Class system or within Adobe Connect. The district chose to begin a pilot course with French IV, a low enrollment course in both high school programs. Each student received a laptop equipped with the necessary

communication software and curricular content and the teacher traveled between schools to afford students in each an opportunity for face-to-face and online instruction (Furman, 2010).

Many schools have seen the rapid development of charter schools; however, Colorado's former state education commissioner regarded cyber schools as the "800-pound gorilla of the choice movement" (Glass, 2010, p. 32). One office complex in a building in downtown Phoenix, Arizona, is the site for a virtual charter school, which has more than 3,000 enrolled students and has received more than $20 million from the Arizona Department of Education (Glass, 2010, p. 32). The Arizona Virtual Academy purchased most of the instruction they provide from K12 Inc., a company created by former U.S. Education Secretary William J. Bennett. Politicians across the nation are heralding the successes of cyber charter schools, but many educators are worried that there is something lost to online instruction that can only be captured in traditional in person classrooms (Glass, 2010).

It was estimated that 80% of Internet users experienced some use of virtual world technology by 2011 (Jestice, 2010). Many schools are experimenting with virtual worlds for student education. In virtual world programs such as the Sony Wii, a game program used by people of all ages, or Second Life, the most popular adult virtual world, the users are represented through an avatar, a digital representation of themselves that can move through a virtual landscape. The virtual world allows users to communicate in real time with many other users at once. Proponents of the use of virtual worlds for learning cite advantages such as financial savings, flexibility, and diversity for learners, an increased sense of presence, which exceeds other online learning experiences (Jestice, 2010). Proponents also claim that the new generation of students, who have come to be known as millennial, will be so comfortable with technology that they will prefer a virtual world classroom (Jestice, 2010). Research concerning pedagogical

agents or avatars that provide tutoring to students has not extensively measured social presence in terms of affective impact on learning (Kramer & Bente, 2010).

The definition for distance learning as provided by the U.S. Distance Learning Association (2000) is "the acquisition and knowledge and skills through mediated information and instruction" (para. 1) which encompasses all of the technologies and learning platforms which function at a distance. Asynchronous platforms are defined as being time and distance insensitive. Advancements in technology such as interactive television and computer conferencing allowed for synchronous learning platforms, which allow real-time communication between instructor and student (Sack, 2003).

Researching Online Teaching and Learning

Technology enhancements toward synchronous learning seem to have served to level the playing field between traditional schools and virtual schools. But what research exists to indicate that virtual teachers are utilizing the electronic face-to-face capacity or a real-time learning, dynamic curriculum for enhanced learning in the affective domain?

One recommendation was to

> redirect future research, suggesting that comparative studies tend to be one dimensional in their design, focusing only on the delivery medium (the use of technology versus no technology) rather than the multidimensional aspects of teaching practice and the learning process. (Rice, 2006, p. 438)

Another study questioned the physical contexts of virtual learning, asking whether or not the online documents used to facilitate learning are truly different from those in a traditional classroom and ultimately explained that most research has been concerned with technology and interface and not with content (Swan & Shea, 2005). This would also support further study into

specific online curriculum and teacher-created lessons and assessments to determine similarities and differences from traditional teacher-created lessons.

Fully online courses in K-12 schools are not common instructional practice. The research available about e-learning is almost solely conducted based on postsecondary institutions. As one researcher exclaimed, "online learning or e-learning isn't about digital technology any more than classroom teaching is about blackboards . . . e-learning should be about creating and deploying technology systems that enable constructive human interaction" (Blomeyer, 2002, p. 19). Another researcher pointed out that what little research exists that examines actual, instructional methodology utilized by virtual teachers concludes "that there is almost no evidence to support the claim that instructors who adopt new and emerging technologies also adopt new pedagogy" (Reeves, 2003, p. 51).

Professional development for virtual education is also a rather new phenomenon, which has yet to be fully researched. Teachers in the virtual classroom must develop a set of skills and talents to engage virtual students that are not presently a part of traditional teacher induction programs (Holstead, Spradlin, & Pucker, 2008). Holstead et al. (2008) stated,

> The ability to accurately measure and analyze the innovative practices found in the virtual education realm is absolutely critical to discerning the successes from the failures and in helping determine and promote best practices in online learning. Unfortunately, there is a dearth of scientifically rigorous research being conducted on virtual education programs, and state and local policies governing and monitoring virtual programs have not kept up with the innovation. (p. 9)

According to Glass (2010), teacher quality and authenticity should be the focus for school leaders as they begin to accept the growing success of online education. "Cyber schools are the

800-pound gorilla of the choice movement, although vouchers and charter schools get a lot more attention" (Moloney as cited in Glass, 2010, p. 32). Glass stated further that cyber courses may be just as good as face-to-face instruction but that "only a fool believes everything that can be gained from face-to-face teaching and learning also can be obtained online" (p. 32).

The U.S. Department of Education 2009 release of a study on online research found that instruction that combined online with face-to-face elements gained a larger advantage in student achievement than entirely one or the other (Pape, Revenaugh, & Wicks, 2007). This suggests that the use of blended learning and other strategies to bring students face to face may have implications for achievement in online learning. It could also have implications for traditional classrooms.

Student engagement is the necessary ingredient in accurately assessing academic results. Full-time virtual schools such as the Connections Academy monitor persistence of effort by students. Satisfaction surveys are also collected from students and parents to assess areas such as curriculum, technology, teacher responsiveness, community activities, and more (Pape et al., 2007). Student teachers in the United States may study the affective domain and its importance to student learning, but because of the focus to obtain results from students at a minimal level of academic skill with No Child Left Behind, many teachers do not take the time to teach affective skills (Schroeder & Cahoy, 2010).

Perhaps under external pressures, some school personnel have narrowed their focus on what, to some, matters most—test scores. This has caused some educators to miss the bigger picture. If you focus on student achievement to the exclusion of focusing on students, both may suffer (Gruenert, 2005).

In 2007, the North American Council on Online Learning published standards, which were later revised in 2010 under a new association – iNACOL – the International Association for K-12 Online Learning (iNACOL, 2011). These standards were intended to provide online programs with quality guidelines for course content and course management, student assessment, technology and instructional design. These standards were provided in rubric format with a rating scale. Some of the language representing affective domain included "varied ways to learn," "active learning," "learning styles and preferences," and "higher-order thinking" (iNACOL, 2011, p. 30).

Evaluating the Affective Domain

S. Rice (1977) presented three tools for evaluating the affective domain. These included an attitude checklist, an attitude questionnaire, and a projective indicator. The checklist included a list of multiple-choice questions utilizing a Likert scale. Rice described the use of the questionnaire featuring open-ended questions as a tool for determining problem areas in a course. The projective indicator involved a technique for compiling adjectives used by the student to describe his or her experiences and then scaling the adjectives according to how it fell on a 10-point scale from *very positive* to *very negative* (S. Rice, 1977).

Martin (1989) published a paper that provided a model and checklist for developing instruction for the affective domain. The development process included a needs assessment, writing objectives, a sequence of affective and cognitive objectives, and a selection of instructional procedures followed with a discussion about designing affective evaluation instruments (Martin, 1989).

Prensky (2001) coined the phrase digital natives, digital immigrants. He explained that students today are native speakers in technology due to their constant exposure to digital

products such as video games and the Internet. He claimed that the "single biggest problem facing education today is that 'Digital Immigrant' instructors, who speak an outdated language (that is pre-digital age), are struggling to teach a population that speaks an entirely new language" (Prensky, 2001, p. 2).

Roblyer, Porter, Bielefeldt, and Donaldson (2009) found three reverse impacts to be most prominent in qualitative descriptions by teachers. The first was increased use of technology in the classroom and technology integration in the classroom. The second involved more responsive teaching strategies and a perception by teachers that they are more effective instructors. The third reverse impact was improved communication and an increase in empathy for students. Teachers indicated that students were more open to expressing confusion or misunderstanding about a concept or an assignment via email because they were not embarrassed. The teachers claimed that they were more sensitive to students' needs concerning how long it takes them, when it came to understanding concepts and assignments' (Roblyer et al., 2009).

At Florida Virtual School, the nation's first online high school established in 1997, teachers and administrators interested in working with online learning were required to participate in four days of training with other administrators and students and had to demonstrate an ability to work late hours by undergoing a day and night of continuous training (Dessoff, 2009). The new instructors were also given four additional training sessions throughout the first 60 days of their teaching. Finally, they were assigned an experienced online teacher as a mentor for the first year of teaching. Program administrators with the Cobb Virtual Academy in Georgia used electronic monitoring with course statistics to measure the time spent delivering instruction and the amount of feedback given to students (Dessoff, 2009). Twenty percent of Cobb's online

teachers were retirees or stay-at-home mothers and the other 80% were full-time teachers in Cobb County public schools who taught for the virtual school evenings and weekends (Dessoff, 2009).

Current Research

A new tool for K-12 virtual school researchers was created in the form of a survey and based on a qualitative analysis of K-12 teaching practices that utilized the following interview questions:

> What are the pedagogical practices you use to teach *insert content area (math, science, etc.)* virtual school courses? Why are you using these practices? Drawing from your experience teaching different courses within your content area, do the pedagogical practices you use change based on the virtual school courses and the focus on the content included within it (biology, chemistry, etc.)? If so, how do these practices differ, and why do you use different ones? How do you use different technologies (such as discussion boards, chat tools, wikis, etc.) within the virtual school courses to support your pedagogical practice? How do you use technologies not built into your online course environment (such as web- based tools & resources) to support your pedagogical practices? What are your values/beliefs regarding virtual school teaching, and the pedagogical practices you implement? (DiPietro, Ferdig, Black, & Preston, 2008, p.15)

Research exists that examines the relationship of online learning and critical thinking following affective events spurred from emotion, humor, or self-disclosure. According to Allen (2006), the future design and development of online learning should include strategies with affective components to stimulate critical thinking.

There are those who advocate for the increase in online education and who believe that virtual learning will supplement and perhaps replace face-to-face education. Others believe that traditional face-to-face education will remain superior to online instruction. The U.S. Department of Education released a study that sought to answer four questions with regard to online learning: "How does the effectiveness of online learning compare to that of face-to-face instruction? Does supplementing face-to-face instruction with online instruction enhance education? What practices are associated with more effective online learning," and "what conditions influence the effectiveness of online learning?" (Angiello, 2010, p. 57). Although the study did not control for content and pedagogy, results indicated that students who took all or part of their coursework online demonstrated better performance results on the average than students who took the same courses in a traditional format. The study also indicated that the effectiveness of online learning differed widely according to content and learner types. Finally, the effectiveness of pedagogical practices revealed that the quality of the teacher was the most important factor in student performance regardless of the format for instruction (Angiello, 2010).

Online teachers have provided a significant amount of action research toward defining the issues for effective virtual schooling. Communication and continuous contact were regarded by online teachers as the most difficult and most important component for online teaching (Ash, 2011). Learning to integrate technology without sacrificing a personal approach was also difficult. Teachers who came from a traditional classroom to an online classroom indicated that one of the hardest areas of transition was in allowing students to be self-directed (Ash, 2011).

> In my face-to-face classroom, I am used to being the star, presenting the material, and in an online environment, you can't do that. . . . I wanted to jump into a discussion and take it over, but that's not necessarily helpful for those kids. (Ash, 2011, p. 33)

Empirical studies that have examined the dynamics of teacher-to-student communication have largely been done within traditional classrooms. However, one study in online learning, which hypothesized that immediacy and cohesiveness of the instructor with the student would be positively correlated with affective and cognitive learning, found that instructor immediacy was the singular predictor of affective and cognitive learning (J. D. Baker, 2001).

Leaders of one of the more successful online schools outlined seven core principles, which are fundamental to their success. These include the ability of the teacher—"In any course, the instructor is ingredient #1," (Drummond, 2008, p. 1) as well as teacher training—"teacher-student communication is so essential to the learning experience that we needed to develop our own mandatory best practices teacher training courses for all instructors" (Drummond, 2008, p. 1). Also, a course must include meaningful objectives that are needs based in accordance to student skills and demonstration of mastery of concepts. Other objectives include authentic learning, rigorous expectations, and hands-on experiences for students, and "killer presentations" (Drummond, 2008, p. 43) in every course that engage the learner.

Although online courses and virtual schools have provided limited research with regard to secondary and postsecondary students, elementary courses and K-8 virtual schools have provided even less. In recent years, the number of online elementary students has increased heavily due to home schooling parents who had already some familiarity with web-based instructional materials and online home school curricula. Experts indicate that a major component of elementary level online learning is the parent as learning coach. The limitations for independent social interaction are based in the social maturity of the student, but evidence has shown that younger students still benefit from online social peer interaction in direct opposition to some parents' worry that virtual schooling is socially alienating (Quillen, 2011).

A study by C-Y Lee in 2000 (as cited in Sherry, Cronje, Rauscher, & Obermeyer, 2005) showed that asynchronous platforms result in frustration for students and instructors as well as feelings of isolation and anxiety due to the absent or delayed communication between the participants and in terms of instructor feedback).

Multiple intelligences theory was the subject of a study with virtual schooling and suggests that too often online programs are a mirror of traditional brick-and-mortar classrooms (Rice, 2006); however, more innovation needs to take place in curriculum development, which will integrate multiple intelligences and stimulate an individual student's talents and learning strengths toward the demonstration of higher order thinking (Sawlis, 2010).

The factor of instructor immediacy has been examined in traditional classrooms and is now considered to be a significant factor in online learning. The continuing use of technology to transfer knowledge and the development of more sophisticated media machines must still address the human need for a personalized learning experience including recognition, empathy, interest and enthusiasm (Schutt, Allen, & Laumakis, 2009).

Collaborative learning experiences within distance learning have increased learners' perceptions of social presence. The research also confirms that instructional designers and online teachers need to create socio-affective and collaborative learning environments (So, 2005).

A study by Weiner (2001) involved the specific research question, "How do curriculum development and web-based instruction enhance students' learning?" (p. 44) Her findings revealed that student motivation is the key component to a successful learning experience for adolescent students and that curriculum and instruction must be highly structured to provide support and guidance in a cyberspace classroom. A study by Kim (2005) followed the personal

experiences of three online teachers and found that instructors could enhance the feeling of immediacy through the design of courses that involved interaction with students through learning activities and content materials.

Summary

A review of the literature indicated the need for additional research into the pedagogy of online teachers and the curricular materials and instructional techniques used in daily practice to develop affective learning skills among students. It was also apparent from the literature that teachers in practice in both traditional and online K-12 schooling have not been given a significant voice in describing the challenges and successes of integrating technology with the affective needs of students. Education is rapidly evolving into a high tech platform wherein the high touch of affective learning may determine which teachers are able to become or remain effective.

CHAPTER 3

METHODOLOGY

Statement of Purpose

The purpose of this study was to discover whether virtual school instruction can provide the level of knowledge and skills for students in the affective domain compared to instruction in a traditional school. Teachers in both the traditional classroom and the virtual classroom should recognize that affective learning plays a critical role in the transformation and development of the student as a human being. Affective teaching techniques also increase students' sense of belonging to the group; increase motivation, emotion, interest and intellectual development (Picard et al., 2004).

Researchers are beginning to move beyond the question of whether the online approach to education is as effective as traditional learning and are now delving into the realm of identifying which instructional strategies are most effective for an online learning environment. Swan (2003) argued that the epistemological problem with the no significant difference concept is that it glosses over real differences in the online medium that might be uniquely supportive of particular ways of knowing and learning. "Validating best practices are the most useful and powerful because they can provide clear guidance for structuring and developing more effective online courses" (C. Baker, 2010, p. 2). However, the study of virtual schooling is still a

relatively new phenomenon, and as such, little research has been done on the subject as a whole. With regard to virtual education specific to the affective domain, research is even more scarce.

> Literature related to online learning programs for K-12 students dates to the mid-1990s and builds upon a century of research and practice from K-12 distance education. While K-12 online learning programs have evolved and grown over the past decade, the amount of published research on virtual schooling practice and policy is limited. (Cavanaugh et al., 2009, para. 1)

According to Layton (2011), although the support for virtual schools is increasing politically, there is growing concern that virtual schooling is taking funding and resources from traditional schooling and depriving virtual school students of socialization skills. Glass and Welner (2011) released a publication for the National Education Policy Center. In the publication, they called for increased concerns from policymakers and concluded "intergroup contact is likely to lead to improved intergroup relations, and we do not know whether or how this can be accomplished through virtual schooling" (Glass & Welner, 2011, p. 5).

Research Questions

From the review of the literature, the following questions emerged that served to frame the further basis for research and suggested the need for qualitative investigation.

1. Does online instruction differ from traditional classroom instruction in regard to the development of affective learning?
2. What emphasis is placed on developing affective skills in the traditional classroom?
3. What emphasis is placed on developing affective skills in the virtual classroom?
4. What instructional techniques are common in each format toward developing affective learning?

5. What instructional techniques are different in each format toward developing affective learning?
1. What specific types of lessons, activities and assessments do teachers in each format use to ensure affective learning use?

Grounded Theory

I chose from a range of qualitative processes for data collection; however, grounded theory provided the opportunity for the most systematic, yet flexible guidelines to construct theory from data. It allowed me to learn what occurs in the experiences of teachers and classrooms based on the interviewees' own descriptions and explanations (Charmaz, 2006).

Glaser and Strauss (1967) defined grounded theory research according to the following components:

> Simultaneous involvement in data collection and analysis.
>
> Constructing analytic codes and categories from data, not from preconceived logically deduced hypothesis.
>
> Using the constant comparative method, which involves making comparisons during each stage of analysis.
>
> Advancing theory development during each step of data collection and analysis.
>
> Memo-writing to elaborate categories, specify their properties, define relationships between categories, and identify gaps.
>
> Sampling aimed toward theory construction, not for population representativeness. (pp. 5-6)

Therefore, this study adopted a grounded theory research process, using interview and analysis of curriculum as the basis for data collection.

Sampling

Purposeful sampling was utilized to select 10 practicing educators to be interviewed. According to Strauss and Corbin (1998), the process of selected sampling will help facilitate the development of categories and concepts that lend to thematic consistency. The interviews were divided equally between virtual educators and traditional educators. The state of Illinois was selected for the sampling because the Illinois Department of Education provides standards for social and emotional learning as well as academic learning standards. After initial contact with administrative leaders of several institutions of learning to receive permission to contact teachers generally calling for volunteers to participate, five virtual school educators were chosen from Illinois virtual schools and five traditional classroom teachers were chosen from a traditional Illinois school setting. Virtual school teachers also had blended teaching experience, which allowed additional insight into the crossover techniques employed in both the traditional classroom and the online classroom. Teachers in each group were selected from the core subject area concentrations including language arts, mathematics, science, and social studies from Grades 6 through 12. The subject and grade level configurations allowed a wider cross-section of content expertise within those subject areas typically held to statewide and national academic accountability (Seidman, 2006; Wallen, 2009).

The traditional teachers were interviewed in person due to proximity of travel distance on behalf of the interviewer, and the virtual teachers agreed to be interviewed via phone. Interviews were audio recorded and a transcript was produced to better facilitate the coding process (Kang, 2012). I took handwritten notes to capture other nuances of communication such voice intonation, denoting the respondent's emotional response to the questions (Wallen, 2009). The interviews took about 30-60 minutes, depending on respondents' length of responses to the

questions. The teachers who agreed to be interviewed received an email two weeks in advance with a summary of the research study, an explanation of terminology, and a list of the semi-structured questions to be used in the interview. Standardized open-ended questions were asked to allow participants to give as much detail as they could and to allow me to ask additional questions for clarification or probing (Turner, 2010).

Creswell also made the suggestion of being

> flexible as research questions are being constructed. He made the assertion that respondents in an interview do not necessarily answer the question being asked by the researcher and, in fact, may answer the question that is asked in another question later in the interview. In addition, the researcher must be prepared with follow-up questions or prompts in order to ensure that they obtain optimal responses from participants. (as cited in Turner, 2010, p. 758)

Interview Questions

The questions used for the semi-structured interviews were modified from a set of questions that were originally developed by DiPietro (2010) and utilized in her study (Appendix A). Participants were advised that the focus for the interview would concern their daily instructional techniques, specifically about resources and teaching strategies that they believe enhance students' affective knowledge and skill development. Teachers were also told that they would be asked to describe what assessments, if any, were in place within the curriculum to measure affective learning. The interviewees were advised that the interviews would be audio (video, where possible) taped for transcription and that notes would be taken for purpose of clarification and any necessary additional questions (Kvale, 1996).

Limitations

Limitations potentially existed in the sampling criteria; however, it was necessary to select a program such as the Illinois Virtual Schools, wherein the best opportunity to interview teachers with an established and largely standardized program of instruction and more than a couple of years of work experience in a virtual format could be analyzed. Another limitation was the narrowing of participants to core subject teaching areas, but it allowed for a more manageable analysis of the curriculum.

The research also included a comparison of the available curricular materials and instructional methods utilized by virtual teachers and traditional teachers. I consulted the webpage listing for the Illinois Department of Education. Curriculum was also examined, though limited in scope, on the home page with the Illinois Virtual Schools. National Common Core Standards were referenced with both groups (Creswell, 1994).

Finally, I acknowledged that limitations existed in my own personal experiences as an educator and administrator with experience in the evaluation of both traditional educational programs and virtual educational programs. The potential for bias and the presence of subjectivity toward teachers in the interview process was possible, but I was also completely aware of the necessity to continuously check for said bias or subjectivity when conducting interview and collecting data.

Reliability

The research data taken from interviews utilized member checking; participants were advised that they would have an opportunity to respond to a summary narrative of the information received from them in the interviews. This follow-up took place via email communication (Burke, 2001). Utilizing the member checking allowed the opportunity to verify

results and to make necessary additions to thematic impressions in place (Charmaz, 2006; Seidman, 2006).

Theoretical memoing took place on an ongoing basis and was a significant part of the data analysis process. The memos allowed me to enhance the data toward a conceptual basis (Glaser, 2004) and helped generate hypothesis to emerging theory. According to Glaser (2004), "memoing from the onset captures the 'frontier of the analyst's thinking' as she goes throughout the data and codes, sorts and writes" (p. 13). The literature research, interviews transcripts, discussions with other experts in the field, memos, document study, and follow-up communication by email with the participants represents the core of the data analyzed for this study. As Glaser (2004) stated, "GT [grounded theory] uses all as data." (p. 6).

Data Collection and Analysis of Data

In an effort to more fully embrace the process, I coded the data by hand without the use of electronic qualitative data analysis programs. Open coding to allow more opportunity for a total consideration and reflection on the data was used. After each of the interviews, I invested time to consider and reconsider the data and developed memos and diagrams to determine potential categories and formulate relationships. The use of axial coding became more prominent, as the data became more substantial and alignment of ideas and emerging themes began to surface from the ongoing review and reflection of the categorical lists, memos, diagrams, and discussions with experts, enabled me to create a clear analytic story (Corbin & Strauss, 2008). Member checking and review of the data and coding process by a committee of experienced researchers also helped to maintain transparency and reliability (Turner, 2010).

Summary

In summary, the research methodology for this study was qualitative in design, using a grounded theory approach. Teachers in traditional and virtual school environments were interviewed from a framework of questions related to their instructional philosophies, techniques, and lessons utilized in their classrooms. The data taken from the interviews, a review of the curriculum, and follow-up converstaions were examined and codified, resulting in the establishment of the final product, which is described in Chapter 4.

CHAPTER 4

RESULTS

The intent of this qualitative study was to explore the following research questions: Does online instruction differs from traditional classroom instruction in regard to the development of affective learning? What emphasis is placed on developing affective skills in the traditional versus the virtual classroom? What instructional techniques are common or different toward developing affective learning in comparison of the traditional and virtual classroom? What specific types of lessons, activities and assessments do teachers in each format use to ensure affective learning? What perceptions do teachers in the traditional and virtual classroom have with regard to affective learning and the implications with present and future learning in the affective domain through online instruction?

Purposeful sampling was utilized to select five traditional classroom teachers and five virtual classroom teachers from Illinois. The state of Illinois was selected because in addition to academic learning standards, the Illinois Department of Education provides specific standards for SELS in all grades (Appendix B). The teachers were selected from the core subject areas of math, science, English/language arts, social studies, and the additional subject area of foreign language and from special education. Grade levels ranged from Grade 6 through 12. The traditional teachers were from a small rural middle and high school in eastern Illinois. The virtual teachers were from north and central Illinois, and their students were spread over all areas

of Illinois and the rest of the world, but primarily from the north central part of Illinois and the Chicago region. Due to proximity with travel from interviewer to interviewees, the traditional teachers were interviewed in person; the virtual teachers were interviewed via phone, and in both cases, digital recording was utilized and later transcribed for data collection. Experience of the teachers ranged from first year to more than 30 years. There were six women and four men in total. The virtual teachers had also taught in the traditional classroom for a number of years before becoming virtual instructors. The traditional teachers had no experience with virtual instruction except what they described from their own course-taking experience in university coursework. The interviews were semi-structured using standardized open-ended questions and lasted from 30-45 minutes.

The results of the analysis of the interview data are provided in this chapter. Three themes identified within the data included acknowledging and valuing the impact of teacher immediacy on student learning, having a commitment to providing affective learning opportunities within the curriculum, and teacher perceptions about affective learning in online education. When asked about his or her knowledge or understanding of the Illinois Department of Education Social/Emotional Learning Standards (SELS) only one teacher was familiar because she had an opportunity to help draft the standards, two teachers indicated that they believed they had heard about them in some capacity but were not familiar enough to specifically discuss them. The remainder of the teachers had never heard of the standards. Although the majority of the Illinois educators had no specific familiarity with the IDOE SELS in the academic sense, the information derived from interviews demonstrates an instinctive awareness of affective support strategies within the traditional and virtual classroom and within the curriculum, which is consistent with the goals and related language within the framework of the

SELS. Therefore, analysis and illustration of teaching toward the affective domain also included reference to the Illinois SELS.

Acknowledging and Valuing the Impact of Teacher Immediacy in the Classroom

The theme of teacher immediacy encompassed four smaller sub-themes including establishing rapport through varying methods of communication, getting to know students on a personal level, the teacher acting in multiple roles, and maintaining an interactive presence within the classroom. Teacher immediacy has been linked to affective learning (Christophel, 1990; Frymier, 1994; Kelley & Gorham, 1988.) Many of the techniques utilized by teachers to achieve verbal immediacy are described in the Verbal Immediacy Behaviors Scale (Gorham, 1988) and include conversations with students before and after class; discussions about things unrelated to class with individual students or the class as a whole; using humor; asking questions and encouraging student response; using personal examples; asking students about their feelings about an assignment, due date; or discussion topic; and soliciting student viewpoints or opinions (Appendix C).

Methods of Communication

In Person

Establishing communication in the traditional classroom is often summarized as having in-person, daily dialogue with students. Interviewees with traditional classroom experience frequently talked about the ability to talk to students in class, in the hallway, at school events, and within the community at local businesses, social events, or other local gatherings. A few highlighted their situations of having the daily experience of observing student behavior and social interactions in and outside the classroom. They also acknowledged an understanding of the special circumstances of life or of individual student aptitude, which may require some level

of instructional modification. They further indicated a desire to align their instructional activities toward their students' interests.

The interview with one traditional classroom teacher emphasized the ability to observe students' social behaviors outside of the classroom and to have the ability to help students develop positive social relationships with peers. The teacher's comment, which follows, represents her efforts to monitor a student who has not demonstrated any motivation to engage in her classroom.

> **Traditional English Teacher.** I have a hard time keeping a grip on this kid as to what he is interested in. He recently got a girlfriend and I know her interests very well, so I am kind of wondering. I'm interested to see how that will pan out and it tells me a little bit more about him, knowing her interests compared to his.

Two virtual teachers also related their experiences with maintaining communication with their students on a continuing person-to-person basis in a virtual platform versus traditional and whether their efforts were successful or less personally satisfying:

> **Virtual English teacher.** (When) I had them face-to-face, I could usually find a way to go grab them from their study hall or call their parents, like I do now.
>
> **Virtual Science teacher.** I will tell you that there is something I miss. I miss hallway interaction. When I'm interacting with my (online) students, I do see what they are learning; I do see what they are doing. I have a really great sense of them as students, but I don't see them walking down the hallway, I don't see them hanging out waiting on the bus, just chatting. With many of my students I get a little bit of that, but I have to work really hard to get that. I don't run into them at the football games; I don't see them at the

grocery store. I do find that personally for what satisfies me as a human being–a little sad.

Virtual

Within the virtual classroom, the teachers' efforts to establish rapport through communication involved a host of electronic tools such as email, texting, phone calls, Skype, and discussion board. The following descriptions represent the efforts by virtual teachers to provide academic and social/emotional guidance to students and parents.

Virtual English teacher. Different discussion board questions serve different purposes. Like for instance, the introductory discussion board is to get to know the kids, but it's also to show me that they know how to use the discussion board. It's just their way of saying here's who I am, here's something unique about me, here's where I attend school because our kids attend school all over the place. It gives them a face.

Virtual Science teacher. I email. I give them my Skype, I give them my cell phone, I tell them to call me, text me, email me, Skype me. I don't let them Facebook me, but they do Tweet me. I would say I teach 24/7, 365. I'm available to you on Christmas. Now, I may not answer my phone, but as soon as I answer my phone, I'm going to return the phone call.

Virtual social studies teacher. They'll email me or they will call me, and they will say, "I don't understand this question," or "I'm having trouble understanding what they are looking for . . . can you help me?" Some of those things you can handle with an email response. If they really don't get it, then, I just have to get on the horn and talk to them, walk them through it.

Virtual teachers also face challenges in trying to reach out and reconnect with unmotivated students:

> **Virtual math teacher.** I try to sort it out by first contacting everyone who is associated with him. I try to get a parent to talk to, teachers, counselors, and the school. Typically I have a phone number. The best way to get a response is to text. So, that has become my new favorite way.

Getting to Know Students

Teachers from traditional and virtual classrooms indicated that they made an effort to get to know their students personally, including their interests, family situations, school activities, and social life. As shown below, teachers in both learning formats indicated a commitment to discover and intervene with at-risk factors that could impede a student's ability to be successful:

> **Traditional math teacher.** I know most of their sports, extracurriculars that they are in, as far as their livelihood at home, I know a few of their parent situations at home, and I wish I could know more. But there are still those that slip through, those that don't cause you any problems in class—they do their work, they do ok on tests; I find I like to walk around and ask what's going—any job interviews this weekend, any sports coming up, what are your plans?
>
> **Virtual math teacher**. Another thing about math, most moms and dads can't do the math. They laugh at me when I ask them if they will, particularly in the case where a student is homebound for severe allergies, or health, or for some other reason, and I will sometimes ask the parent to serve as a proctor for exams. I tell them, "All I ask of you is that it is your child doing the work, will you promise to do that for me, and will you take

that responsibility?" And they laugh and say . . . there is no one else in this house that can do it for them is the typical response.

Virtual math teacher. I had a young lady whose mother was in a car wreck and she broke both arms and this girl was having to take her mother to the bathroom and had to do everything for her and she was coming unglued. And we just talked through it, and I told her—the first thing I try to do is take away the pressure from the pacing chart that I sent.

Traditional special education teacher. It was shocking to me in my first year of teaching when I would ask, "What's your mom's phone number?" "I don't know." Some of the kids just don't or some of the times it changes every month, so they get to the point, why bother, because it's going to change. So I get that part of it. Then there are some kids that I know mom has had that number forever, and you need to know that because if you need help, you need to know how to get a hold of somebody in that sense.

Teachers in Multiple Roles

The teacher immediacy sub-theme of teachers in multiple roles was also prevalent in the descriptions of interactions with students and classroom groups among both traditional and virtual teachers. Some roles were not specifically identified but descriptions seemed most closely aligned to counselor, mentor, life coach, entertainer, friend, and disciplinarian. Other roles were specifically labeled by teachers as being that of a role model and like a social worker. These roles, which were described by the teachers, represented affective supports and instruction in the development of social-emotional skills in students under the affective domain. They were evidenced in the following illustrations.

Teacher as Counselor

Traditional social studies teacher. When I've had students come back in, I had one girl who is out of high school now, come in very upset about something that happened in basketball, she came in one day and she came charging into my room and sat down and was just bawling and we talked for a half hour to 45 minutes. She'd been out of middle school a year or two, but she just needed someone to talk to, she knew she could trust me and so she came in and we talked. When I'm talking about the positive adult role models, that student lived within walking distance of this school. In fact, I could step outside and see the house. She made a conscious decision to come here. That's important.

Teacher as Friend

Traditional English teacher. Some of them, the majority of those kids love video games and they spend a lot of their time in their room by themselves on video games. And I know a lot about video games, I don't like them, but I have a fiancé who is a gamer. So I talk to them about video games and I find them books that are about video games, and they even wrote an essay about video games. I pick up what they are interested in, and I talk with them about it, not really caring if it's about our content or not.

Virtual science teacher. I do let them Facebook me once they graduate. I do let them do that, and that's actually how I keep in touch with a number of my students. Even to this day, one of my ex-students was telling me he just graduated from MIT.

Teacher as Entertainer

Traditional math teacher. I've had teachers in the past that it has been a joy to be in their class because they made me laugh—they made me appreciate the subject because they made it fun. So, what I hope to bring to the class is comedy. I want them to laugh. And then it keeps them entertained with me and keeps them on the ball with my subject. They have to be engaged—if they keep watching, they are going to keep listening and they are going to keep learning—they will still want to listen to me because they appreciate me.

Traditional social studies teacher. I try to joke around with the kids a lot. A lot of days where I've planned on getting through x amount of material and we get through almost none of it, but I thought it was very valuable because the kids are asking, maybe it's about a different subject or about something that was going on inside the school, but I've felt it worth taking a day to help them realize something is maybe not a big deal.

Teacher as Disciplinarian

Traditional science teacher. I think a huge part of our job on a regular basis is putting out behaviors that would not be acceptable in the adult world and working on changing those. Constantly, on a regular basis, in this classroom, every day, "that was disrespectful, that was rude, that was inconsiderate, how would you feel if someone did that to you, what was your thinking process when you started to say that, did you really think that wasn't going to hurt someone else's feelings"—getting along with others.

Virtual science teacher. I didn't catch instantly the slightly negative connotation to one of the students' discussion posts and it offended another student, and then the other student fired back. So this went on for about three hours in the afternoon, before I

realized what was going on and immediately, I have the ability on my end to block, so that those posts can't be seen by anybody but me, and then block the student until they talk to me. They both called me later, and I told them we needed to take a deep breath and focus on what we were are trying to look at—analyze, so that we can come to a conclusion on this, not how we are analyzing each other and insulting each other. Both girls came to an understanding that this is appropriate classroom behavior and this is inappropriate classroom behavior. They apologized to each other, and I never had another incident with them after that.

Virtual social studies teacher. I have seen that and I feel like it brings some of the kids that are kind of quiet out, because nobody actually sees them—they know who they are and they can become somebody else. They can contribute things and not be afraid. In a classroom, you feel embarrassed, and they make fun of you, and all that stuff and that doesn't happen online. In either my eighth or ninth year, I've never had anybody bully another student in my course. If anybody would tell me, then I would do something. I did have one that was picking on other kids and making fun of them, and I just said, "If I see it again, you'll just take a zero on the discussion boards. If you can't behave responsibly, you cannot use the boards."

Teacher as Social Worker

Traditional special education teacher. I, for one, am a huge proponent, the joke for all teachers is that we should have gotten a social work degree, as opposed to an education-teacher degree, because I feel a lot of the days the academic, especially for my students, is totally secondary and it's more of what kind of person are you, what kind of choices are you making today, are you being a good friend today, are you building those

leadership skills, building those life skills because I personally am a proponent that that is so much more important. I want to make sure you can work with other people, you know how to problem solve, when you are given this situation, how am I going to think it through critically; it is so hard to measure those types of skills.

Teacher as Mentor

Traditional math teacher. When I tell stories, I'm telling stories that I feel are appropriate with them and how I handle this situation, and they see what type of person I am. I see more of their stories stopping at what they can say in front of me, and maybe they just know that they can't tell that story because I will flip out on them. I am hoping also the students respond more with, "I respect this guy, and I don't want to talk with him about things like that, because he doesn't think that is right." And then make that judgment, "if he doesn't think that's right, maybe I shouldn't either"—I like him; he looks cool, maybe I should be thinking like him more. I hope that is what is happening.

Maintaining an Interactive Presence Within the Classroom

Maintaining an interactive presence in the classroom is another area of teacher immediacy that teachers in both the traditional and virtual classroom indicated were necessary to promote student affective learning. There was purposeful implementation by teachers to provide on-going dialogue between teacher and student and student to students in the classroom through face-to-face classroom discussion, video chats, phone calls, and electronic discussion boards. The examples below also represent alignment with the skill, communicating, which is listed under each core academic subject area and elective area in the Illinois Academic Learning Standards Framework. The skill lists the ability to "actively listen" and to "express and interpret information and ideas" (Appendix C).

Virtual math teacher. If they do their homework, and they send it to me, I talk with them by phone—we work in Elluminate, and I put problems on the white board. I will say, "Please work this problem, talk to me while you are working it." If you can't communicate what you know about mathematics, mathematics is not going to do you much good. I've had students who were scared of math, who were just terrified because they have never been able to get it—and I tell them, I talk them into meeting me in that [Elluminate] classroom, and it's just the two of us. They can see me; they can hear me; no one is judging them, based on what they say, friends sitting in the next row. They seem to feel freer to take the risk of putting an answer out there, a thought out there.

Traditional science teacher. Honestly, I don't know that they like that any more than when they can get into a discussion about something and relate it to themselves. When they all get a chance to talk, it gets a lot more out of the subject area.

Traditional social studies teacher. Kids get a lot from interacting with each other. If it's just you and the kid, they are getting your values, your bias, but they are not going to hear other students values or bias that may differ from theirs, and I think that is an important thing.

Virtual English teacher. Different discussion board questions serve different purposes. It might be an academic question—did you see any literary elements that were used in a significant way in the poem? If so, elaborate. In my class, they have to respond directly to the discussion board before they can even see what anybody else has posted and then they respond to each other, not just connecting to the literature but to each other. I don't get super picky about the grammar and mechanics in the discussion board like I would in

the essays, because I want them to be comfortable here. That's how they communicate. They aren't allowed to just say simply, "I agree or I disagree".

Virtual foreign language teacher. I try to help the weaker students that come to the live sessions. If they can't make it, we set up a one to one. There is that kind of opportunity.

The following represents the teacher use of classroom dialogue to expand cultural boundaries and help students develop attitudes to support global awareness and social awareness. It explores the richness of diversity available to an online student that may not be available within a more ethnically homogeneous traditional classroom.

Virtual foreign language teacher. Culture is sort of one of the four c's we talk about in foreign language. Communication, culture . . . so every unit as far as the upper level that I am doing, there is a culture section. In fact, one of them was about immigration reform. So they had to read an article. We require them to do two or three posts, and responses differ, but you have to give one quality post or comment maybe four or five lines long, in Spanish, and then respond to somebody else. So they do start talking to each other, which is interesting. Then they had to comment in the discussion board in Spanish about their thoughts. We have Hispanic students in Spanish—some people think that is strange—they can speak Spanish on the street, but they don't really know the grammar. So we do get quite a mixture, depending on the school district. Culture really becomes one of the key elements I think in doing Spanish.

Virtual English teacher. The students online, it's just completely different cultures. I had a student from southern Illinois who had never even met an African American, ever. With classes online, I had the kids from a Chicago public school who had never met

anybody from southern Illinois, who had never seen a live cow. So it creates a lot of interesting discussions—they are fascinated by each other, but they are always respectful.

Traditional social studies teacher. We took some time around Martin Luther King Day, and we talked specifically about racism, and I kind of tried to basically get the conversation rolling, and then just let the kids talk about it amongst themselves. With some groups, it worked very well. My second hour class nailed it; they had a very good discussion, and the kids did a really good job. My fifth hour group didn't handle it as well.

Traditional special education teacher. Yes, what is interesting is to know, our students, they kind of get comfortable with each other; they've grown up together, they know each other. We have a student with autism—he doesn't have major outbursts, but the kids know what pushes his buttons, what doesn't. They've gotten to the point where they just ignore it, they keep working, which is very interesting to observe; especially at the beginning of the year, because he might be having a meltdown and they are like, "Hey it's ok, don't worry about it, he's fine, just let it run its course."

Virtual Teachers Describe Differences

Virtual teachers had each talked about the obvious differences in the physical versus brick and mortar classrooms; however, they talked about the similarity in approach with creating successful learning environments for their online students. In response to the question about differences in making applications toward affective learning as it may differ from traditional learning, virtual teachers made the following remarks.

Virtual English teacher. We've learned about "connetiquette," which is network etiquette and how responding and communicating with each other online is so much

different than responding in a face-to-face environment. The skills that they learn for communicating with each other in the online classes—they are different than in a face-to-face classroom. Although I put a lot of value in online learning, it's not perfect, just like face-to-face, by itself, is not perfect. Really, blended learning is, in my opinion, the ideal educational situation for all students; if they can have the opportunity to engage in both. Because, . . . communication is face-to-face and online. They are in a world where they need to have not just a skill here or a skill there. They need all of the above.

Virtual science teacher. We need to provide support; there is a reason we have teachers or mentors or a coach. There is a human element, which is inviting. Sometimes it can be hands off. If things are going great, the guide still has to be there. Unfortunately, because it costs so much less to have a computer teach a kid or rather, not teach a kid, you can get a program, who can offer a course for $25 because there's one teacher for a thousand kids, and they are just signing off and putting in a final grade. The teacher doesn't call the kids; the teacher doesn't check on the kids; the teacher doesn't give the kid any feedback or provide extra lessons, when there is something they are struggling with. There's nothing. It's just $25—here, just go take this class. I find that very disheartening, but we are seeing that with a lot of the vendors that are coming into our state. People went to fully online, and then decided they didn't love it. Then blended learning is all the rage. You think maybe there is a reason for that? And the reason that blended learning is becoming all the rage in a lot of these schools is because our exposure to online, where it's just a course, there is no teacher. Their idea of blended was "we'll put the teacher back in there." Guess what? If you were doing online virtual correctly in the first place, there was always a teacher.

Virtual math teacher. I think online more than any face to face, the teacher has to be organized and accessible; they have to be flexible. I wasn't flexible in my face to face; my students knew exactly what was expected. They were all treated the same; there wasn't a case where Johnny got to turn in his homework a day late. Everybody was expected to have their work done and everybody had the same consequences when they didn't. But online, I can be different than that. Flexibility and organization, technology savvy, I think they really have to know what they are doing with the technology to be able to keep it up and running

Virtual foreign language teacher. They are not going to actually meet people, physically. In my experience, I think they get to know each other almost better, especially with the discussion board that every course has.

Virtual math teacher. Here is the situation we have: we have what is called a rolling enrollment. I have new students joining every two to four weeks. I rarely have more than one student maybe two at the same place at the same time.

Affective Learning Opportunities Within the Curriculum

All teachers interviewed discussed their instructional pedagogy, which had been developed throughout the curriculum including teacher-designed activities, lessons, and assessments versus those that were textbook driven or from other purchased curriculum. Many of the described learning opportunities signified attention to providing affective learning, intertwined with cognitive learning. Many teachers commented specifically about the need to provide lessons that were engaging, relevant, project based, and inquiry based and encouraged students to utilize higher order thinking skills. Other stated emphases were on student creativity and student differentiation by ability level and by student interest or choice. Traditional and

virtual teachers spoke about interactive technology-based activities, which promoted on-going engagement within the learning process. Teacher discussion and examples were consistent with Krathwohl, Bloom, and Masia's (1973) description of affective learning traits including listening attentively and respectfully (receiving), participating in discussion by asking questions or providing information (responding), exhibiting sensitivity to individual and cultural differences, demonstrating problem-solving and conflict resolution (valuing), balancing individual freedom and responsibility to the group, ability to plan and prioritize (organization), and showing self-reliance when working independently and cooperation when working in a group, revising judgment and behaviors (characterization by value) as shown in Appendix E.

Science

> **Traditional science teacher.** I do brain teasers a lot. We almost always open with a discussion question or some kind of video clip. And inquiry based, we just did a worm dissection recently, we read through a pre-lab that gave them an idea of what they needed to be doing. On the day of the lab, they knew the expectation was to come in right away, get in the lab groups, to get back to the tables; they came to me for supplies and materials; they dissected the worms, as they followed along with the written directions in the packet. At the end there were two analysis questions: "What did you get out of this lab?" "What did you think of it?"
>
> **Traditional science teacher.** We were working with the digestive unit and there happened to be an article about New York banning sodas. So we read through the article, and we talked about the pancreas and its job—secreting insulin, and that got more heated on talking about soda, and whether it's healthy or not for you, than anything else we have done.

Virtual science teacher. I am a science teacher—I do make my students do laboratories. That's been an interesting negotiation in online learning, as it develops. Because first of all, the way we do science in the world has changed and the way we do research and access data in the world has changed because of the Internet. Fundamentally it is different. What I have been able to do with my favorite application of Google Hangout is that I hold chemistry laboratory every Monday afternoon. They have to have an adult physical proctor on the other end. I get all of my chemistry students in various parts of the city and connect through Google Hangout and we all do laboratories together. We were all in the room together. They have their little webcam, and I have my web camera. We get face-to-face interaction. The only thing being is that I can't physically reach over and mix the chemicals with them. When we don't have a lab, we actually have what I call "seminar about lab," where we get together again in the Google environment and we talk about what went right, what went wrong, how can we make this better.

Virtual science teacher. I have some students who are taking the general environmental science. I have some students who are great memorizers and they come into that class and they do the multiple choice assessments like gang busters but when we go to the discussion board and they realize there is a back and forth, that's why we call it discussion—that the answer, it is how you build on that, how do you work with other people's information; how do you grow your knowledge? My great memorizers struggle with that. You have to demonstrate to me that you can synthesize your data with this data and take your information and their information and put it together. So the discussion board is the great weed-out for telling which kids really got the higher order thinking

skills and the kids that really don't. It is a world of difference. The ones that don't, their replies will be "I agree," they can't say why they agree.

Math

Traditional math teacher. Even with my algebra [class], I'm trying to get them to use iMovie to show how to graph quadratic functions, but instead of doing iMovie with that right away, I made them do an iMovie on how to do anything and everything they wanted. They could pick their interest, [for example] show people how to wall jump, how to correctly put eye shadow on, how to groom a horse. So it was set to a math standard, because there has to be a procedure; it must be a step-by-step plan of how you do this. In a way [this project] was to just get them to mess with it, so that when I do my video for graphing quadratic functions, they know how to use iMovie, and I don't have to worry about that problem.

Traditional math teacher. When I am introducing a subject, yes, it is lecture. We get them to understand—we need them to see what it is, then we do a lot of project-based. We are trying to get them to do more and more projects. We are trying to get them to understand why it is important in real life—to get them to feel the importance of what they just did.

Traditional math teacher. With geometry we just got done learning right triangles, sine, and cosine, tangent; finding measurement of the side of angles or right triangles. Then I took them and did a project of "detective." The project was "Who Killed Roger Rabbit?" So, I had a dead outline body of Roger Rabbit on the ground, and I would give them like clues from the "lab" of what happened with Roger Rabbit. We found an arrow at an angle of elevation; they had to find the measurement to each tree, then they had to

find where in each tree it came from using tangent. In another envelope from the "lab" they had to find how far the arrow can shoot. Then they had to figure out what the distance from where the shooter was to Roger Rabbit. This was to emphasize how they can use it and we made it enjoyable for them, and they were able to do it and do it quickly.

Traditional math teacher. So, we did another data [project] like "Fish are sick in all the lakes in Illinois," so we had all these lunch bags and we had them filled with rice and pinto beans dotted red, those were the sick ones, they would take a scooper and scoop out at different times and count how many sick fish, that was their data plot. Then they would go to each one and make a scatter plot for each lake and figure out the "line of best fit," make an equation of it, and then they did that manually on their own, then we had them put it on the computer with Excel that makes their own equations, to compare—to see how well they did.

Virtual math teacher. You have a rubric in math that involves solving a problem and typically it has more than one solve the problem, and they have to tell what they did and why they did it. My earliest students taught me the importance of being able to communicate about mathematics, so I have incorporated that instead of discussions—because my class sizes are so very small, typically. I've incorporated journal writing into my curriculum—the types of question may suggest that one of them has three triangles, and I ask them to find the area of each triangle to tell me what method they used and why they chose that method.

Virtual math teacher. I don't know that I could say harder or easier—it's different, very different. I try to incorporate different types of things, projects into my course, not

group projects, but they are projects. Like using pre-calc, using the formulas for families of function to draw a picture, telling me domain and range of the functions. I need to be able to look at their functions and the domain and ranges that they give me, and I should be able to produce the picture without ever having to see it. Gives the person's artistic gifts a chance to really shine.

Social Studies

Traditional social studies teacher. The project itself—they had to interview someone who was at least 65 years old. The purpose of it, I wanted them to see how things have changed in just a relatively short period of time and also have some conversations with people that are from a different generation. The most important thing was I wanted them to start seeing things were not always as they are now.

Traditional social studies teacher. Right now we are talking about the Alamo. I showed a movie today in which William Travis made his famous speech about "Are you going to stay and fight or do you want leave?" We talked, and I tried to express—here's what these guys are doing and the decision they had to make—try to imagine what it would be like to be in that spot.

Traditional social studies teacher. We have done some work in the computer lab especially doing some different geography stuff, map work, that sort of thing. I do have a lot of history channel programs that I use to supplement what we are doing. I am still kind of trying to incorporate more of the technology. Unfortunately, I started teaching before we had any of this, so I'm having a harder time adjusting. Primarily right now we do a lot of note taking on it. I do have some software that we can use for review where

the students can come up and manipulate the software on the board. We do have clickers that we have used a little bit.

Virtual social studies teacher. I like to change projects, so it's not the same old boring answering questions. They make a newspaper for one of them. This is for the colonial period and early American history. They had to do so many articles and they had to add pictures and a banner headline; they had to have a name for their newspaper and a dateline and all that stuff. They seemed to like it, because it's not the same old boring stuff. I have a downgraded rubric for some of these students that I know are serious special ed. issues—writing and spelling is not something that they are familiar with. I help with that if they need help, but some of them are a little beyond that.

Virtual social studies teacher. The first seven units have discussion boards in them. We give them links were they can find information or they can find information on their own. The first unit question—After reading Jefferson's draft and the final draft of the Declaration of Independence, what is your reaction to the fact that he owned slaves? Cite specific examples from the Declaration of Independence. In the links below, explain your opinion. One link claims to evidence that Jefferson has fathered a child born to a slave—a link to Sally Heming's biography, Jefferson-Heming's DNA testing—an online resource. Dispute the report that Jefferson fathered Sally Heming's children. Also, simulations, analyze cartoons.

Virtual social studies teacher. Oh yes. I really enjoyed my work with these kids and some of the writing has been beautiful—some not as much. The last unit was a big discussion board on U.S.—foreign relations, where they had to find articles and analyze

those articles. There are some higher level thinking skills that some of these kids can really handle and others you can water it down a little bit, so they aren't totally frustrated.

Special Education

Traditional special education teacher. At sixth grade and throughout the building, we are starting to do some of the basic, project-based learning. When we do our fraction unit, last year one of the teachers had the idea, "let's make cookies; let's make cookies for the entire building." "We can sell them as a fundraiser type deal." To talk about if you have 2 cups, but we need to quadruple the recipe, how do I do that; if you have a quarter of a cup of sugar and I need to halve that, how do I do that? You tie in some of those academic subjects with things that they do know. It is harder for our kids, because they still don't know the basics—so trying to find that fine line. For this year for area of perimeter we had them make a house plan; they measured it out by using the tile floor. If I make my living room to be an 8x8 room, everybody stand on four corners, this is what 8x8 looks like. Is that enough to put a couch, TV, chair? So, visually seeing it, and then trying to put it on paper in terms of something that in the future might be more useful to them other than just on a paper worksheet. Instead of "here's how you find perimeter, here's a worksheet, good luck.

Language Arts/English

Traditional English teacher. Bloom Balls. These are based on Bloom's taxonomy. These are an example of how I would take symbol and make it more structured, based on the Taxonomy. There are 12 pentagons that make the whole sphere. There are two tasks per level of thinking. So, two of them are remembering, two of them are analyzing, two of them are creating. They did them in groups, so they had to decide who had to do what

tasks; they each cut the same amount, so it was fair. It allowed the kids who are creative to do the creative ones; the kids who are maybe struggling a little bit could do the easier-remembering ones.

Traditional English teacher. We just did a lesson recently from *Life Lessons from Atticus Finch*. He's like the ultimate moral being. They got so into it. I gave a quote from the book that illustrated a life lesson or a moral or a theme. They had to give me the context, "Where in the book does this appear and give me the meaning?" And then had to give me a real life example in their own life of when they experienced that lesson or they encountered that situation that would teach them that lesson, or wished they would have thought of what Atticus thought of in that time. Then at the end they had to choose one that they were particularly connected to and write an extended response—where they expanded the three elements of context, meaning and real life example. So that's kind of an example of the affective.

Virtual English teacher. All the courses are on a platform. When we first started we used E-College. In this case, the vendor for our platform is Desire to Learn. So the students will go through the course, clicking on links either chronologically or thematically. The lectures are placed online. There is a syllabus at the beginning. There is course outline so the students know how they need to navigate. In my classes everything is done linearly. At the very beginning, I have a course introduction with some videos that say, here are the steps that you will want to take as you go through the course; next click on this link and they will click on the next link, and it's the syllabus or the course outline, and then they will click on the next link. Then they will introduce themselves in a discussion forum online. All the instructions tell them what questions to

answer, how many tiers they need to respond to a minimum. There is a rubric board that tells them what they need to do minimally to receive an A or B or C. Then they go onto Unit 1, and it is set up the same way. So after that introduction unit, they can see pretty easily how to navigate through the course. So, my course may start with lecture followed by a link to reading materials, followed by a link to discussions about that reading, followed by a link to project options, vocabulary. They will take a unit test, and they become familiar with the way a unit looks and when they go to the next unit—it looks the same.

Foreign Language

Virtual foreign language teacher. Obviously, you are not sitting in front of a classroom. For example, my courses have seven units. Each unit would have an audio vocabulary. They all have links where you click the symbol and you actually hear the words. It's sort of an online dictionary. There is definitely the opportunity to hear the Spanish. I recommend they hear the words, say the words, just like I would in a class. For the upper level there is an emphasis—a lot of grammar review and readings. We are trying to get them to read more in Spanish. We have the Elluminate online classroom so they can hear me, ask questions. In the online environment—it's the old fashioned telephone. I say, "Call me up." There are three basic ways they can communicate, but they are calling me all the time sometimes. At the lower level they have lots of writing assignments. Each unit does have a timed exam. Most of them are multiple choice—fill in the blank and a short essay—to see how they can write in Spanish. There is a semester exam.

Perceptions about Affective Learning in Online Education

Teachers who had never taught in an online classroom were highly skeptical of the ability to provide affective supports or to incorporate affective learning instruction in an online environment. Much of their skepticism was based on their own negative experiences with online learning. The virtual teachers were aware of limitations with online learning including the difficulty in providing collaboration or group projects for students. However, they defended their ability to maintain strong affective support with the use of Elluminate, Skype, email, and text and telephone communication and to provide social-emotional learning experiences for students through the use of discussion boards and other web-based learning platforms.

Traditional Teachers' Perceptions with Online Education

> **Traditional science teacher.** That goes back to life groups, to "I can't work with this person." So there is tolerance that goes along with it. If you are sitting in a room by yourself, in a virtual classroom, you don't necessarily have to tolerate the other people. When you go to a real job, in the real adult world, you don't know how to tolerate anyone or get along with anyone, because you've never had to.
>
> **Traditional math teacher.** In public school, especially in secondary, I think that [collaborative activity] is hugely needed. And that's why we do a lot of group work. I don't rely on myself with my math subjects all the time, I have two other math teachers here that I greatly appreciate and call whenever I need help; you need team players and you need people to help you, and if you are doing everything online . . . .
>
> **Traditional science teacher.** That would scare the heck out of me—to have a virtual classroom setting with a dissection, I think. With dissection tools, especially, with any lab really, where there is anything dangerous, I think for one—kids get kind of scared out

of what they are doing—they almost need that—let me take your hand and the dissection scissors—let's do this together

Traditional science teacher. Not offending one another, even though you are bouncing ideas off of each other; I don't think you can replicate that with a virtual classroom. I don't know how that would be done.

Traditional science teacher. You can see body language over Skype, but it is not the same as being face-to-face with them. The stuff that they are drawing on a piece of paper or body language that you catch while they are in classroom instruction—it's part of our job to look out for the safety of everyone else. The little things that they are saying when they don't think you are listening—the little under the breath comments. I think that stuff would be very hard to catch in a virtual classroom as well.

Traditional science teacher. My online class—we did have Blackboard discussion from time to time, which I hated. We were taking the class through Illinois State, but my professor was in Kentucky, and he would submit videos of himself teaching or telling us the assignment, or 40-minute lectures and then write a paper about it. Honestly, I feel like that does create a little resentment—at least on my part. I couldn't take him seriously on a video. If you had a question, you had to email him later and ask him about it as opposed to just raising your hand. I guess I am a more personable person; I like to be there; I like to see your face; I like to hear what you have to say; I like to see the emotion come across your face.

Traditional science teacher. I truly think they will be missing out on a lot. The social stuff has a lot to do with what kids learn in school, and I think it affects a lot of what they become when they are adults, and it's scary to think we would have hundreds of students

sitting at home on a computer by themselves. I think that social and emotional interaction is just as important as academics.

Traditional social studies teacher. I am currently enrolled in my master's program. One of our classes was done almost completely online. One class session, then everything was done online. The way it was supposed to work, everyone was supposed to post to the website, respond to what other people were posting, create a conversation, and then the professor posted a lecture online that you had to answer questions on. What it ended up being, nobody really carried on a conversation; you posted the bare minimum in order to get a grade, and you moved on. Everybody in class said it was a waste of time. I don't feel like I learned anything.

Traditional social studies teacher. If you are relying on email or text messages or instant messages you miss the tone, you miss the inflection, there is so much of that, I think you miss it both ways. I would think that doing the virtual stuff, you would be very conscious of time; you would want to condense it all very much. Where here, we have an hour, and if we don't finish today and we spill over to tomorrow, it's not a big deal.

Traditional social studies teacher. But I think given access to technology today (and I've had conversations with younger teachers about this), the content (and this is going to contradict something I said earlier), I think the content is becoming less important because students have such instantaneous access to information. But it is what you do with that information, how do you synthesize it? How do you apply it? That, I think would be very difficult to do in that virtual setting. It seems to me that a virtual setting would be much better for almost the rote memorization.

Traditional social studies teacher. I think there is something to having a teacher in a classroom.

Traditional social studies teacher. I don't think you can see real collaborative learning doing it that way.

Traditional social studies teacher. There are the more social values, common values in society that need to be talked about. Learning that ability to work together, to tolerate each other, that has to be done inside the classroom. You will have an entire culture of people who couldn't collaborate, who couldn't communicate, who couldn't work together.

Traditional special education teacher. No, I think there's a huge piece, like you and I having this conversation now, there's a huge piece to that human interaction that face-to-face contact.

Traditional social studies teacher. A comment I made earlier—education has to change, we have to adapt to the 21st century, the days of relying on reading, writing, and arithmetic are quickly fading away. Our strengths must be in teaching kids to synthesize material, teaching kids to analyze material, teaching kids to work collaboratively, teaching kids to work in those groups—is something they are not going to get anywhere else.

Traditional special education teacher. I think that trust is a good things; I think there are so many things that you are reading from me right now. If we were to Facetime on our phones or Skype, you could pick up a few things here or there, but how I'm sitting in the chair, my body language, you don't pick those things up. I hope that it doesn't get to the point that it's my kids or these kindergarten kids/preschool kids who are getting 75%

of their instruction delivered online, because we are already starting to see these kids lose a piece of the affective, just with these technology advances that we have.

Traditional English teacher. I hear kids every day, "Why am I going to use class time; I can just go home and do it in five minutes." Why not just do it online then? But for affective skills, there is something to be said about face-to-face dialogue.

Traditional math teacher. All virtually at home, that's not going to be fun for me as a teacher. I enjoy the kids, being with the kids. We did Kahn Academy in class. We had them do systems of equations, story problems, they have to make two equations from a story and then solve where two lines meet. We did some easy ones, then made them watch Kahn Academy, and then they took a Kahn Academy test. And I could see their progress online but I [as the facilitator] was just there twiddling my thumbs.

Traditional math teacher. Yes. With the online thing, some of them didn't like it because they were bored. With a math [course], it was watching a guy lecture; there's no hands-on, like with science, you could have cool science experiments that you could see online—with math, it's just lecturing.

Traditional math teacher. With me, you get hands-on lessons, you get projects that they will get to feel real-life scenarios—compared to a lecture or a real life scenarios on a video; they actually get to put things in their hands to actually apply this knowledge. With technology, they could see how it affects them in real life and how to use it in real-life compared to on a piece of paper or on the click of a button.

Traditional math teacher. You can't see if the kids having bad day, not going to get that online.

Traditional math teacher. Compared to an email from your teacher, where there is no emotion, no engagement. This person doesn't care about me; he cares about my assessment. He cares about what I am doing in that class, not about how I am feeling.

Traditional math teacher. With virtual, they are not going to get that social aspect like they are going to get in a public school.

Traditional special education teacher. We try to do some group stuff, we try to teach that you may like a person, but there are times that you are not going to like somebody that you have to work with, and you're not going to have choice about that, and you are going to have to put your differences aside and learn to deal with it, and just work through it.

Virtual Teachers' Perceptions With Online Education

Virtual English teacher. Unfortunately, the majority of the kids don't really invest themselves in the discussions. They do what they are required to do. They go back and respond like they are required to respond. But I doubt that they really go back and see what other people—two weeks later they are not going to go back to that discussion board to see what anybody else has said. Unless it is only the really engaged student, the ones who go back to a discussion board before they take a unit test, because a lot of the questions, that are in the discussion board, are also going to be questions that are addressed on the unit tests. So, they are going to go and see what the other students have written and go, "oh, that's a good one; I'm going to keep that in mind for my essay."

Virtual science teacher. I would say to them, [skeptics] "How many of your child's Facebook friends have they ever met in person? How many of your child's Twitter followers have they ever met? They are having the same interactions with each other that

they are having with any other teenager. That is different; it is harder for adults because we weren't raised in a society that had social media. We weren't raised in a society where you could be acquaintances and friends with people you had never seen. But they are very used to and very comfortable with communicating with people they have never seen. They will find platforms in ways to communicate that I wasn't even aware of. They will find ways outside the classroom, and I can even say this year for the first time, two of my former students are getting married, and they met in my class.

Virtual science teacher. Just like in the face-to-face classroom, you have to prep them. You have to tell them at the beginning and say, "Here are our expectations to how we treat each other." "Here are our expectation for this classroom and how we are going to behave, so that we all get along."

Virtual English teacher._I have had students in my classes who thrived in the online world but could not succeed in the face-to-face classroom. I've had students who have had serious medical issues or who have had babies and couldn't leave the house, and the online classroom becomes their way to still get that education and hopefully have success in the future had that not been offered. I have students who just don't complete the courses. The schools will try to communicate with them once or twice, and then they quit. They are in high school; they should know better. There is no other way I can try to communicate with them, I've called, I've emailed; I've done whatever I can. I'll do it every two weeks until the end of the semester or until my boss says, "Stop, that's enough."

Virtual science teacher. We are educating people. People are just people; they are not perfect; they are not imperfect; they are just people. People are fundamentally individual,

and anytime you are in a system that is treating as though they are not, you are doing it wrong. If you are treating them like they are all the same, and they are all supposed to get the same benchmarks, the same places, and be prepared for the same jobs, you are doing it wrong. We are in a system where people think schools are factories turning out widgets that are all the exact same shape or size, and people aren't widgets. I don't care if you do it in a blended environment, in a face-to-face environment, in a virtual environment. If you remember that they are people first, and the content that you are trying to teach is secondary; I think you get a lot farther with them.

Virtual science teacher. Well, I can give you positive, and I can give you negative. I think we are going to do it wrong first. Because I think that the world is not ready to be told the right way. The world has to do it wrong and then come to its own conclusion. I sound a little bit negative. These vendors come in, and I can say this as a parent who lives in a district where my son was asked to take one of these courses, where there is no teacher interaction, where basically it's a correspondence course, that just happens to be delivered electronically. You see that happen, and they are totally and completely lost. You just took a kid, who was already struggling in a face to face school, who didn't get it the first time around, and they were stuck in the basement and told to do it by themselves.

Virtual English teacher. With my online kids, it's not that they are confronting them face-to-face, but they have to think about how is this other kid going to feel or how is this Chicago kid going to feel if I say this. . . . I would think there is even more of an awareness in the online classes. Not just awareness, but there is more activity that would promote more cultural diversity and tolerance and awareness. The biggest problem that I see though for online learning is the cost of technology. The students need more access

to technology in order for it to continue to be a fair and consistent value to students. It is hard to promote virtual learning when there are students especially in rural areas that still do not have access to the technology. There are several classes that I know of that only one or two or maybe four students are taking it. They are not even in the same place in the class. How do you get them to collaborate? It's not an easy thing to do. It may just not be feasible, but I think for the future that it's something that really needs to be considered.

Virtual social studies teacher. There is one kid I haven't been very successful with. She is a twin and her sister is a really good student. This girl could care less about anything. I think the parents are—I don't know what they are going to do with her. She is a senior, but she didn't pass any of her classes this year. She stayed home half the time; it was bad. She did one unit for me and did a beautiful job; the writing was good. She'd just rather get a job and work, even though it doesn't pay much. That's the biggest failure that I have seen. She still has until two weeks into June; they've had fourteen weeks.

Virtual social studies teacher. Some of these kids just want to get the work done. Some of these kids want to graduate early and go right onto college.

Virtual social studies teacher. Then there are the kids that have some mental issues that they can't interact with people very well . . . they might panic or whatever.

Virtual social studies teacher. In fact, some of their communication in the introductory board, they can introduce themselves to the other kids…what their favorite things to do are and the kids will respond to those things. So, there is a social component.

Virtual foreign language teacher. Would I want everything to be totally virtual? Probably not; just like at the university, five-six years ago, there was resistance to letting the underclassman take online classes. But gradually, that has changed. The students love them. They usually say they learn as much, and they probably get to know each other better, because in an actual classroom with thirty people, how much do they really get to know each other? Some just don't talk— in the discussion boards; they have to participate. I think we are getting to the point where these online classes are getting pretty close to what we do on site.

Summary

This chapter provided the overview of analysis of qualitative data from interviews with five traditional classroom teachers and five virtual classroom teachers. Three themes emerged from the study: (a) acknowledging and valuing the impact of teacher immediacy on student learning, (b) commitment to providing affective learning opportunities within the curriculum, (c) teacher perceptions about affective learning in online education. The data showed that teachers in both settings acknowledged that affective learning was of significant importance in their instructional program.

Teachers provided focused response to the research questions which included: What emphasis is placed on developing affective skills in the traditional versus the virtual classroom? Does online instruction differ from traditional classroom instruction in regard to the development of affective learning? What instructional techniques are common or different toward developing affective learning in comparison of the traditional and virtual classroom? What specific types of lessons, activities, and assessments do teachers in each format use to ensure affective learning? What perceptions do teachers in the traditional and virtual classroom have with regard to

affective learning and the implications with present and future learning in the affective domain through online instruction?

Interview analysis showed that teachers in the traditional and virtual settings were very aware of the importance of providing affective support and developing affective skills in the classroom. The theme, acknowledging and valuing the impact of teacher immediacy on student learning, was central to the evidence from teacher response and was further broken down into sub-themes under the theme of teacher immediacy: establishing rapport through varying methods of communication, getting to know students on a personal level, the teacher in multiple roles, and maintaining an interactive presence within the classroom. The efforts by teachers in both the traditional and virtual classroom to provide affective support for students' emotional and social development were well evidenced in their stated examples and demonstrate a willingness to nurture and protect students in and outside the classroom setting and to provide guidance in their social and emotional learning.

Interview analysis showed that there were many similarities between traditional and virtual curriculum in the development of instructional methodology to develop affective learning. Teachers in both groups utilized technology, project-based learning, group discussion, and online learning tools. Teachers in the traditional classroom utilized group discussion and group projects to a large degree and indicated that they believed that these instructional methods were important to building affective skills, including listening to other opinions, getting along with others within the group dynamic, accepting one's individual responsibilities within the group, and valuing the final product as a collaborative effort by a group. Virtual teachers also used discussion boards and other technology to provide opportunities for group discussion. The majority of descriptions indicate that online discussion was typically not in real time but did allow students who were

motivated beyond listing the required number of responses to become immersed in the development and extenuation of the given topic. Virtual teachers admitted that group collaboration was often difficult in a virtual classroom due to time and space and due to factors such as rolling enrollment of students; however, they described instructional methodology available with technology such as the Google lab, wherein students could come together as a group and participate in an activity in real time. The online methods described also had the capacity to provide students an opportunity to build affective skills including receiving and considering the opinions of others, respecting and valuing the individual's responsibility to the group in terms of observing protocols for sharing ideas and contrary opinions. Virtual teachers gave examples of their students building peer relationships within an online platform. Virtual teachers and traditional teachers also provided examples within the curriculum wherein topics such as prejudice, courage under fire, and societal and environmental concerns were especially chosen to impact affective learning with regard to understanding and valuing cultural differences and the students' continuing formation of character.

The perspectives about online versus traditional education were sharply divided along the lines of teacher experience within the virtual platform. Traditional teachers did not believe that the virtual teacher or the virtual classroom could provide the necessary supports to build affective learning. Traditional teachers cited their own personal dissatisfaction with online course-taking at the university level. They described their experiences with discussion boards and video instruction as non-engaging and not useful to their learning. The descriptions of teachers within their online experiences served to color their perception of teachers in the online platform as uncaring and not responsive to student needs. Traditional teachers believed that the impact of online education could be harmful to future generations. The lack of face-to-face

contact and communication was cited as a compelling shortcoming in online learning, which they believed was detrimental to a student's social-emotional growth and future ability to connect and collaborate successfully with others in adulthood. They were largely unconvinced that any instructional technique or technology could replicate the engagement that a live teacher in a traditional classroom could command.

Virtual teachers were much more amenable to online learning. Their perceptions were based on their described successes in the virtual classroom. They reflected on their efforts to build in affective supports and to implement instructional methodology that they believed were successful in developing their students in terms of the academic and affective domains. Although virtual teachers defended the merits of online education for those students who may have physical, emotional, or family structure obstacles that make traditional school impossible or who have educational goals that require more flexibility, they indicated that they believed that virtual schooling had limitations. Some of these limitations were beyond teacher control such as virtual school vendors who place unrealistic enrollments with one teacher or in some cases of fully digital curriculum, no actual teachers. The lack of access to technology for students and the lack of training for teachers in virtual learning were also cited by virtual teachers. Virtual teachers indicated that their classrooms were often subject to the same problems as traditional classrooms with regard to the unmotivated student who never responds to instruction or participates fully in the discussion boards or the student who becomes a dropout, despite all the efforts by the teacher to connect with him or her. The virtual school teachers, who had all been traditional classroom teachers, indicated that the traditional classroom had its obvious advantages with face-to-face communication, but also stated that they had learned a great deal from their virtual teaching experience, which they had transferred back to their traditional methodology in

terms of technology such as the “flipped classroom.” A couple of virtual teachers said that they believed the best format for learning was the blended classroom because it provided the best of both worlds. One virtual teacher relayed her belief that virtual learning was here to stay, but that the future success of virtual education would be contingent upon course developers’ and virtual teachers’ understanding that every student is unique and that learning needs to address the individual needs of the child first and the content second.

CHAPTER 5

IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

The purpose of this study was to discover whether virtual school instruction provides the level of knowledge and skills for students in the affective domain compared to instruction in a traditional school. The questions considered most pressing for educators, administrators, and parents who make decisions impacting the education of their students and children to resolve were as follows: Is virtual learning a solution to many of the problems facing traditional schools? Have public schools become so entrenched in academic accountability that they have largely ignored the responsibility to educate the whole child? Finally, what kinds of innovations in technology and in teaching practices within the virtual learning environment and the traditional environment are needed to ensure academic and social developmental success for all students? The importance of this inquiry was supported by earlier research on teacher pedagogy:

> Teachers in both the traditional classroom and the virtual classroom should recognize that affective learning plays a critical role in the transformation and development of the student as a human being. Affective teaching techniques also increase students' sense of belonging to the group; it increases motivation, emotion, interest and intellectual development. (Picard et al., 200, p. 253)

The study of the literature sought to define affective learning, discover prior research that would argue its necessity for successful learning in both environments, examine the history of the evolution of online learning as a source for affective learning, and determine what research exists and what research is still needed to draw a comparison between the two learning environments. The definition of the affective domain as it relates to student learning includes the manner in which students deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes (Krathwohl et al, 1973). Krathwohl et al.'s (1973) learning taxonomy frames affective levels in terms of student behaviors such as listening attentively and respectfully (receiving), participating in discussion by asking questions or providing information (responding), exhibiting sensitivity to individual and cultural differences, demonstrating problem-solving and conflict resolution (valuing), balancing individual freedom and responsibility to the group, ability to plan and prioritize (organization), and showing self-reliance when working independently and cooperation when working in a group, revising judgment and behaviors (characterization by value).

This framework and the modification of a set of questions, which were originally developed by DiPietro (2010) and utilized in her study, served as the basis for the qualitative study and methodology described in Chapter 3. The study, which involved a grounded theory research process, analyzed data from interviews and a review of the Illinois state social and emotional learning curriculum. Through purposeful sampling, five traditional classroom teachers and five virtual classroom teachers were selected from Illinois. The state of Illinois was selected because in addition to academic learning standards, the Illinois Department of Education also provides specific standards for social and emotional learning in all grades. The teachers were selected from the core subject areas of math, science, English/language arts, and social

studies and the additional subject areas of foreign language and from special education. Analysis of the data resulted in the recognition of three themes, which were described in Chapter 4 and were emphasized utilizing direct and indirect commentary from the teacher interviews. The three themes identified within the data included acknowledging and valuing the impact of teacher immediacy on student learning, commitment to providing affective learning opportunities within the curriculum, and teacher perceptions about affective learning in online education. The study was significant in negating some misconceptions that teachers were not attentive or purposeful with the implementation of affective supports in the classroom. A researcher from a previous study concluded, "In traditional curricula, the skills in the affective domain are often neglected because it is assumed that students will discover them on their own" (Duncan-Hewitt, 2011, p. 214.)

The teachers interviewed in this study were very deliberate in their efforts to provide affective supports whether they were face-to-face with students in the tradional classroom or employing technology to build trust and on-going communication. They demonstrated a willingness to surrender their curricular plans and even personal schedule to accommodate the needs of students. Teachers provided means of communication including email, Skype, cell phone numbers and permitted contact day and night and on holidays. They were empathetic to students' need to discuss things of personal relevance to student life beyond what was included in the daily lesson or what might have been the plan for content coverage on a particular day.

The theme of teacher immediacy was also very representative of the teachers' descriptions of their methodology in both the traditional and virtual classroom. This concept was represented in previous research regarding online learning.

Studies examining the dynamics surrounding teacher to student communication have largely been done within traditional classrooms. One study on online classrooms by J. D. Baker (2004) hypothesized that immediacy and cohesiveness of the instructor with the student, would be positively correlated with affective and cognitive learning. J. D. Baker's (2004) study found that instructor immediacy was the singular predictor of affective and cognitive learning.

Teachers in virtual and traditional classrooms were equally concerned with establishing close and continuous communication with their students, getting to know students personally, ensuring that students in the class were given multiple opportunities to exchange dialogue, and were working with the teacher and collaboratively with other students on group projects, which was described as maintaining an interactive presence in the classroom. The other related sub-theme to teacher immediacy, which was depicted in descriptions by both virtual and traditional teachers, had to do with teachers assuming different roles in accordance with student needs. These roles, which included mentor, counselor, friend, entertainer, disciplinarian, and social worker, are probably familiar territory for most traditional teachers; however, it was evident that the expectation to continue to serve in these capacities was accepted by virtual teachers and that they were committed to utilizing whatever technology or curricular means were available to them.

> **Traditional math teacher**. When I tell stories, I'm telling stories that I feel are appropriate with them and how I handle this situation, and they see what type of person I am.

This was also supported in the earlier research. In distance learning, social presence has been defined as the ability of a participant in a learning community to represent himself socially and emotionally as a real person. Social presence supports cognitive learning and resultant

critical thinking processes for the learner. It also has been examined as a possible predictor of learner satisfaction, perceived success level of learning, and quality of the learning experience (Manca & Delfino, 2007).

The second theme, teacher commitment to providing affective learning opportunities, was also well represented in the curriculum described by traditional teachers and virtual teachers. This attention to provide a curriculum which was rich in affective learning was evident in many of the activities and assignments.

Teachers explained that they often chose particular content such as a classic literary work to explore themes and morals, wherein students were required to take that same moral message, analyze a character's moral motivations or cite passages which illustrated a moral decision, and then make application to instances in their own lives where a similar moral dilemna may have occurred.

Prior studies have shown that online curriculum must be particularly focused on capturing and maintaining the student's attention and engaging the student to stay motivated in a virtual platform. A study by Weiner (2001) revealed that student motivation is the key component to a successful learning experience for adolescent students and that curriculum and instruction must be highly structured to provide support and guidance in a cyberspace classroom. A study by Kim (2005), which followed the personal experiences of three online teachers, found that instructors could enhance the feeling of immediacy through the design of courses, which involved interaction with students through learning activities and content materials.

Virtual teachers described some of those strategies to keep online students engaged. They often described their efforts to frequently change up the curriculum to feature new and student centered projects such as the creation of a newspaper based in Colonial times to illustrate

American historical events. They indicated that these were a substitute for lecture and discussion based activities that had been a part of their traditional instruction.

The last theme was perhaps the most compelling for the future of virtual schooling. The study found that teacher perceptions about affective learning in online education differed significantly between the opinions of traditional teachers and the opinions of virtual teachers. Traditional teachers seemed convinced that online education could not provide the affective supports and affective learning for virtual students that they believed were achievable in a traditional classroom. The majority of traditional teachers based their opposition to online education for their students on the basis of their described negative experiences with university level course taking. They also characterized their beliefs that curriculum in online education was not engaging, not personalized and in some cases, detrimental to the welfare of students.

Traditional teachers who had taken online courses toward undergraduate and advanced degrees indicated that they had not had very satisfying experiences in terms of discussion board assignments and the ability to dialogue, in general, with other students in the class or the professor. The descriptions for online learning were mostly negative in context with traditional learning with some insistence that it was a waste of time and that they often felt like they had not learned anything. Traditional teachers praised their own efforts in the classroom by comparison to failed online experiences by claiming that their lessons provided hands-on, authentic, and practical learning for their students. The traditional science teacher was particularly skeptical of whether lessons involving dissection could be successful in an online format.
Traditional teachers also did not believe that teachers in the online platform were capable or even concerned with providing the kind of nurturing, affective supports that they indicated were a large part of their efforts with traditional students.

Traditional math teacher. Compared to an email from your teacher, where there is no emotion, no engagement. This person doesn't care about me; he cares about my assessment. He cares about what I am doing in that class, not about how I am feeling.

Although the disposition of traditional teachers toward virtual schooling is somewhat discouraging, it is in keeping with prior research. A study by Levenburg and Caspi (2010) with 239 elementary teachers sought to discover differences in teacher perceived learning in four environments: informal–face-to-face, formal–face-to-face, informal–online, and formal–online. The findings showed that teachers perceived their learning to be higher when instruction was delivered in a formal face-to-face setting.

The difference in perceptions toward online education with virtual teachers appeared to be due, in part, to the fact that all of the virtual teachers had taught in traditional classrooms and had been teaching in a virtual platform for at least a few years, so they had "walked the talk." Each virtual teacher had been given a fair amount of control over their curricular content and had become experienced at building in affective supports through technology. Many of the comments by virtual teachers were very practical in terms of the obvious limitations of virtual versus. face-to-face instruction; however, the general perception was that virtual education was a good option for students and one in which students could be quite successful.

Virtual English teacher. I have had students in my classes who thrived in the online world but could not succeed in the face-to-face classroom. I've had students who have had serious medical issues or who have had babies and couldn't leave the house, and the online classroom becomes their way to still get that education and hopefully have success in the future had that not been offered.

Virtual foreign language teacher. Would I want everything to be totally virtual? Probably not; just like at the university, five-six years ago, there was resistance to letting the underclassman take online classes. But gradually, that has changed. The students love them.

Virtual teachers indicated that they dealt with the same issues as traditional classroom teachers in terms of unmotivated students and those children who struggled academically and socially. They were honest about their failings.

Virtual social studies teacher. There is one kid I haven't been very successful with. This girl could care less about anything. I think the parents are—I don't know what they are going to do with her. She is a senior, but she didn't pass any of her classes this year. She stayed home half the time; it was bad.

The problems that have contributed to some negative publicity about virtual schools were also described by virtual teachers and they were very critical themselves.

Virtual science teacher. These vendors come in, and I can say this as a parent who lives in a district where my son was asked to take one of these courses, where there is no teacher interaction, where basically it's a correspondence course, that just happens to be delivered electronically. You see that happen, and they are totally and completely lost. You just took a kid, who was already struggling in a face-to-face school, who didn't get it the first time around, and they were stuck in the basement and told to do it by themselves.

Implications

Teacher Sense of Efficacy

Some obvious implications for furthering the successful expansion of virtual schooling or online learning, based on these teacher perceptions, are the awareness and understanding that

teachers themselves need to have a sense of efficacy about virtual learning. No matter what programs the school might use, effective educators will make it work, and ineffective educators will not. The variable is not the program, but teachers and how they implement it (Whitaker, 2004.)

The opinions expressed by traditional and virtual teachers reveal striking differences in individual efficacy that are a part of the teacher's commitment to affective learning within a virtual platform. The move by administrators to cast just any traditional teacher into an online platform could spell disaster for an evolving virtual school program.

Affective Supports for Teachers

Teachers need to have their own affective supports to help them generate positive experiences with their own professional development toward effective instruction in an online environment. Virtual teachers also described the issues that occur whenever online courses are put forth with unreasonable enrollments or with no plan for teacher support within the curriculum. These factors make it unlikely that even the most efficacious teacher can successfully provide affective learning opportunities for students. The teachers in this study were all very cognizant of the importance of affective learning. This is also based in the research.

Teacher Recognition of Importance of Affective Learning

The effectiveness of pedagogical practices revealed that the quality of the teacher was the most important factor in student performance regardless of the format for instruction (Angiello, 2010). My experience as a teacher and administrator has long made it clear that highly effective teachers appreciate the need to educate the whole child, whether they are serving students in the traditional or the virtual classroom. Teachers who make the effort to develop rapport with

students and to get to know each on an individual basis typically have better results, not only academically but in terms of classroom management. It would seem counter-intuitive for successful teachers in the online realm to behave any differently toward their students.

Recommendations and Conclusions

Affective Learning Holds Important Relevance in Future Online Learning

Affective learning should continue to hold as important relevance as academic learning in the future study of virtual schooling. Students hold perhaps the most important key to describing enhancements that are necessary to making their online educational experiences successful. It would have been interesting to have interviewed some of the students who were a part of the virtual and traditional classroom experiences of the teachers in this study. Would students recognize their teachers' efforts to personalize the learning experience? Do they find the learning to be engaging? Would they affirm the social and emotional support that teachers indicate is provided to them?

Student Perceptions Also Critical to Reframing Affective Supports

Former studies have often attempted to cull out students who did not fit the mode for virtual schooling. This flies in the face of our nation's attempt to democratize education for the masses.

It is important to note here that past studies that hypothesize that the most important contributors to virtual course success are student characteristics that cannot be changed through intervention are less than useful. Such studies could set the stage for preventing students of lower abilities from taking virtual courses at all. This outcome would keep virtual schools from making important contributions to building a better, more equitable and effective educational system (Roblyer & Davis, 2008).

I think that the experiences of students will determine the fate of virtual schools. I hope that educators will continue to value the impact that affective learning has on student success in both the traditional and virtual classroom. I hope that administrators value the teachers who work diligently to provide affective learning.

REFERENCES

Affective learning. (2009). *Mosby's medical dictionary* (8th ed.). Retrieved from http://medical-dictionary.thefeedictionary.com

Allen, J. A. (2006). *Analysis of affective behaviours and critical thinking events in online learning* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3227636)

Angiello, R. (2010). Study looks at online learning vs. traditional instruction. *The Education Digest, 76*(2), 56-59. Retrieved from http://www.eddigest.com

Ash, K. (2010). Blended learning seeks the right mix: Schools combine virtual and face-to-face teachers to meet student needs. *Education Week, 30*(4), 8. Retrieved from http://www.edweek.org

Ash, K. (2011). Teachers make the move to the virtual world. *Education Digest, 76*(5), 32-34. Retrieved from http://www.eddigest.com

Baker, C. (2010). The impact of instructor immediacy and presence for online student affective learning, cognition, and motivation. *The Journal of Educators Online,* 7(1), 1-46. Retrieved from http://www.thejeo.com/Archives/Volume7Number1/BakerPaper.pdf

Baker, J. D. (2004). An investigation of relationships among instructor immediacy and affective and cognitive learning in the online classroom. *The Internet and Higher Education*, 7(1), 1-13. Retrieved from http://www.journals.elsevier.com

Barbour, M., & Reeves, T. C. (2008). The reality of virtual schools: A review of the literature. *Computers & Education, 52*, 402-416. Retrieved from http://www.academia.edu

Blomeyer, R. L. (2002). *Online learning for K-12 students: What do we know now?* Naperville, IL: Learning Point Associates. Retrieved from http://www.ncrel.org

Bloom, B. S. (1956). *Taxonomy of educational objectives.* Boston, MA: Allyn & Bacon.

Brauen, M. (Producer), & Hunter-Gault, C. (Interviewer). (1995, July 25). Interview with Neil Postman: Visions of cyberspace. *MacNeil/Lehrer Hour.* Retrieved from http://www.pbs.org/newshour/bb/cyberspace/cyberspace_7-25.html

Cavanaugh, C. S., Barbour, M. K., & Clark, T. (2009). Research and practice in K-12 online learning: a review of open access literature. *International Review of Research in Open and Distance Learning, 10*(1). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/607/1182

Charmaz, K. (2006). *Constructing grounded theory.* Thousand Oaks, CA: Sage.

Chilcott, L. (Producer), & Guggenheim, D. (Director). (2010). *Waiting for superman* [Motion picture]. United States: Internet Movie Database.

Christensen, C. M. (2008). *Disrupting class*. New York, NY: McGraw Hill.

Colorado, J. T., & Eberle, J. (2010). Student demographics and success in online learning environments. *Emporia State Research Studies, 46*(1), 4-10. Retrieved from http://academic.emporia.edu/esrs/vol46/colorado.pdf

Corbin, A. S., & Strauss, J. M. (2008). *Basics of qualitative research: techniques and procedures for developing grounded theory* (3rd ed.). Los Angeles, CA: Sage.

Craig, S. D., Graesser, A. C., Sullins, J., & Gholson, B. (2004). Affect and learning: An exploratory look into the role of affect in learning with Auto Tuto. *Journal of Educational Media, 29,* 241-250. Retrieved from http://www.memphis.edu/psychology/graesser/publications/documents/CJEM_29_3_07lores.pdf

Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education, 39,* 323-340.

Davis, M. (2011). Moving beyond one-size-fits-all. *Education Week, 30*(25), 10-11. Retrieved from http://www.edweek.org

Dawley, L., Rice, K., & Hinck, G. (2010). *Going virtual! 2010: The status of professional development and unique need of K-12 online teachers.* Boise, ID: Boise State University, Department of Educational Technology. Retrieved from http://edtech.boisestate.edu/goingvirgual/goingvirtual3.pdf

Dessoff, A. (2009). The rise of the virtual teacher. *District Administrator, 45*(2), 23-26. Retrieved from http://www.districtadministration.com

DeVries, R. (1997). Piaget's social theory. *Educational Researcher, 26*(2), 4-17. doi: 10.3102/0013189X026002004

DiPietro, M. (2010). *Virtual school pedagogy: The instructional practices of K-12 virtual school teachers.* Retrieved from http://baywood.com

DiPietro, M., Ferdig, R. E., Black, E. W., & Preston, M. (2008). Best practices in teaching k-12 online: Lessons learned from michigan virtual school teachers. *Journal of Interactive Online Learning, 7*(1), 10-35. Retrieved from http://www.ncolr.org

Drummond, G. (2008). Success in online education: Creating a roadmap for student success. *Distance Learning, 5*(4), 43-48.

Duncan-Hewitt, W. (2011). *Pacificcrest faculty development series.* Retrieved from http://pcrest2.com/measuerment/modules/2_3_6.pdf

Frey, B. (2005). *A virtual school principal's to-do list*. THE Journal, 32(6), 34. Retrieved from http://thejournal.com

Frymier, A. B. (1994). A model of immediacy in the classroom. *Communication Quarterly, 42,* 133-144.

Furman, J. (2010). Implementing the synchronous classroom. *AASA Journal of Scholarship and Practice, 7*(3), 68-75. Retrieved from http://www.aasa.org

Gemin, J., & Watson, B. (2008). *Promising practices in online learning.* Retrieved from http://www.inacol.org

Glaser, B. G. (2004). *Remodeling grounded theory.* Retrieved from http://www.qualitative-research.net

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory.* Chicago, IL: Aldine.

Glass, G. V. (2010). Potholes in the road to virtual schooling. *School Administrator, 67*(4), 32-35. Retrieved from http://www.aasa.org

Glass, G. V., & Welner, K. G. (2011). *Online K-12 schooling in the U.S.* Boulder, CO: University of Colorado, National Education Policy Center. Retrieved from http://www.nepc.colorado.edu

Glenn, R. (2005). *The distancing question in online education.* Retrieved from http://www.innovateonline.info/index.php?view=article&id=13

Gorham, J. (1988). The relationship between verbal teacher immediacy behavior and student learning. *Communication Education*. 37, 40-53.

Griffith, K., & Nguyen, A. (2005). Are educators prepared to affect the affective domain? *National Forum of Teacher Education Journal, 16*(3), 1-4. Retrieved from http://www.nationalforum.com

Gruenert, S. (2005). Correlations of collaborative school cultures with student achievement. *NASSP Bulletin, 89*(645), 43-55. Retrieved from http://bul.safepub.com

Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction with computer-mediated conferencing environment. *American Journal of Distance Education, 11*(3), 8-26. doi: 10.1080/08923649709526970

Halverson, A., & Collins, R. (2009). *Rethinking education in the age of technology.* New York, NY: Teacher's College Press.

Holstead, M. S., Spradlin, T. E., & Pucker, J. A. (2008). *Education policy brief - promises and pitfalls of virtual education in the United States and Indiana.* Bloomington, IN: Indiana University, Center for Evaluation & Education Policy. Retrieved from http://ceep.indiana.edu

Horn, M., & Staker, H. (2011). *The rise of K-12 blended learning.* San Francisco, CA: Innosight Institute. Retrieved from http://www.innosightinstitute.org/media-room/publications/educationpublications/the-rise-of-k-12-blended-learning/

International Association for K-12 Online Learning. (2011). *National standards for quality online courses*. Washington, DC: Author. Retrieved from http://www.charterschooltools.org

International Association for K-12 Online Learning. (2012). *Fast facts about online learning.* Washington, DC: Author. Retrieved from http://www.inacol.org

Jestice, R. J. (2010). *Learning in virtual worlds: Results from two studies* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3434732)

Jones, B. J. (2007). *The relevance of social presence on cognitive and affective learning in an asynchronous distance learning environment as identified by selected students in a community college in Texas.* Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3296414)

Kang, H. (2012). Training online faculty: A phenomenology study. *International Journal on E-Learning, 11,* 391-406. Retrieved from http://www.krex.kstate.edu/dspace/bitstream/2097/13085/KanglJEL2012.pdf

Kim, H.-Y. (2005). *Can a faceless teacher be close to students?: The lived experience of online instructors in higher education* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3164996)

Kelley, D. H., & Gorham, J. (1988). Effects of immediacy on recall of information. *Communication Education, 37,* 198-207.

Kramer, N., & Bente, G. (2010). Personalizing e-learning: The social effects of pedagogical agents. *Educational Psychology Review, 22*, 71-87. Retrieved from http://www.editlib.org/p/72965

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1973). *Taxonomy of educational objectives, the classification of educational goals. Handbook II: Affective domain.* New York, NY: David McKay.

Kvale, S. (1996). *Interviews - An introduction to qualitative research interviewing.* Thousand Oaks, CA: Sage.

Layton, L. (2011, October 24). Study raises questions about virtual schools. *The Washington Post*. Retrieved from http://articles.washingtonpost.com

Levenberg, A., & Caspi, A. (2010). Comparing percieved formal and informal learning in face-to-face versus online environments. *Interdisciplinary Journal of E-Learning and Learning Objects, 6*, 323-333. Retrieved from http://www.ijello.org/

Llewellyn, A. C., & Cahoon, D. (1965). Teaching for affective learning. *Educational Leadership,* 469-472. Retrieved from http://www.ascd.org

Locke, M. (2011). Creating future teachers. *Scholastic Administrator, 11*(1), 36-38.

Manca, S. D., & Delfino, M. (2007). Learners representation of their affective domain through figurative language in a web-based learning environment. *Distance Education, 28*(1), 25-28. Retrieved from http://www.academia.edu

Martin, B. L. (1989). A checklist for designing instruction in the affective domain. *Educational Technology, 29*(8), 7-15. Retrieved from http://www.eric.ed.gov

Massachusetts Department of Elementary & Secondary Education. (2010). *FY 2010 technology competitive grants (application forms).* Retrieved from www.doe.mass.edu/edtech/grants/fy10/776narrative.doc

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K., (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies.* Washington, DC: U.S. Department of Education, Center for Technology in Learning.

Miller, M. (2005). *Teaching and learning in affective domain.* Retrieved from http://projects.coe.uga.edu/epltt/index.php?title=Teaching_and_Learning_in_Affective_Domain

Norris, C. S., & Soloway, E. (2009). Disrupting class misses the point. *District Administrator*, *45*(8), 82. Retrieved from http://www.districtadministration.com

Online Learning Definitions Project. (2011). Retrieved http://www.inacol.org

Pape, L., Revenaugh, M., & Wicks, M. (2007). *Measuring outcomes in K-12 online education programs: The need for common metrics.* Presented at the 23rd Annual Conference on Distance Teaching & Learning, Madison, WI: Board of Regents of the University of Wisconsin-Madison. Retrieved from http://www.uwex/edi/disted/conference

Picard, R. W., Papert, S., Bender, W., Blumberg, B. Breazeal, C. Caballo, D. et al. (2004). Affective learning - a manifesto. *BT Technology Journal, 22,* 253-269. Retrieved from http://www.media.mit.edu

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1-6. Retrieved from http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

Quillen, I. (2011). Making e-learning elementary; Younger students have different needs. *Education Week, 30*(15), 10-13. Retrieved from http://www.edweek.org

Quillen, I., & Davis, M. (2010). States eye standards for virtual educators: Experts say many states and national education groups are behind the curve in addressing the issue of teacher quality for the online classroom. *Education Week, 30*(4), 3-5. Retrieved from http://www.edweek.org

Rayle, T. W. (2011). *Principal perceptions about the implementation and effectiveness of online learning in public high schools in Indiana* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3453915)

Reeves, T. C. (2003). Storm clouds on the digital education horizon. *Journal of Computing in Higher Education, 15*(1), 3-26.

Rice, K. (2006). A comprehensive look at distance education in the K-12 context. *Journal of Research on Technology in Education, 38,* 425-448. Retrieved from http://www.iste.org/JRTE

Rice, S. (1977). Techniques for evaluating affective objectives. *Engineering Education, 67,* 395-397.

Roblyer, M. D., & Davis, L. (2008). Predicting success for virtual school students: Putting research-based models into practice. *Online Journal of Distance Learning Administration*, *11*(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter114/roblyer114.html

Roblyer, M.D., Davis, L., Mills, S. C., Marshall, J., & Pape, L. (2008). Toward practical procedures for predicting and promoting success in virtual school students. *The American Journal of Distance Education, 22*(2), 90-109. Retrieved from http://www.tandfonline.com/

Roblyer, M. D., Porter, M., Bielefeldt, T., & Donaldson, M. (2009). "Teaching online made me a better teacher": Studying the impact of virtual course experiences on teachers' face-to-face practice. *Journal of Computing in Teacher Education, 25*(4), 121-126. Retrieved from http://www.iste.org

Russo, T., & Benson, S. (2005). Learning with invisible others: Perceptions of online presence and their relationship to cognitive and affective learning. *Educational Technology & Society, 8*(1), 54-62. Retrieved from http://www.ifets.info/journals/8_1/8.pdf

Sack, J. (2003). *The virtual high school: An historical analysis of one e-learning model* (Doctoral dissertation). Retrieved from http://scholarship.shu.edu

Sawlis, C. L. (2010). *Replacing brick and mortar schools: The importance of adding multiple intelligences to virual learning* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3389705)

Schroeder, R., & Cahoy, E. S. (2010). Valuing information literacy: Affective learning and the ACRL standards. *Libraries and the Academy, 10*(2), 127-146. Retrieved from Project MUSE database.

Schutt, M., Allen, B. S., & Laumakis, M. A. (2009). The effects of instructor immediacy behaviors in online learning environments. *The Quarterly Review of Distance Education, 10*(2), 146. Retrieved from http://www.infoagepub.com

Seidman, I. (2006). *Interviewing as qualitative research.* New York, NY:Teachers College Press.

Sherry, L., Cronje, J., Rauscher, W., & Obermeyer, G. (2005). Mediated conversations and the affective domain: Two case studies. *International Journal on E-Learning, 4*(2), 177-190. Retrieved from http://www.editlib.org

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications.* New York, NY: Wiley & Sons.

Smith, R., Clark, T., & Blomeyer, R. (2005). *A synthesis of new research on K-12 online learning.* Naperville, IL: Learning Point Associates.

So, H. J. (2005). *Examining the relationships among colloborative learning, social presence, and satisfaction in a distance learning environment* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3204278)

Strauss, J. C., & Corbin, J. M. (1998). *Basics of qualitative research* (3rd ed.). Los Angeles, CA: Sage.

Swan, K. (2003). Learning effectiveness: What the research tells us. In J. Bourne & J. Moore (Eds.) *Elements of quality online education, practice and directions* (pp. 13-45). Needham, MA: Sloan Center for Online Education.

Swan, K., & Shea, P. J. (2005). The development of virtual learning communities. In S. R. Goldman (Ed.), *Asynchronous learning networks: The research frontier* (pp. 239-260). New York, NY: Hampton Press.

Turner, D. W. (2010). *Qualitative interview design: A practical guide for novice investigators.* Retrieved from http://www.nova.edu/ssss//QR/QR15-3/qid.pdf

United States Distance Learning Association. (2000). *Distance learning fact sheet*. Retrieved from http://www.usdla.org/facts-and-figures/

Wallen, J. R. (2009). *How to design and evaluate research in education.* New York, NY: McGraw-Hill.

Watson, J. F., & Kalmon, S. (2005*). Keeping pace with K–12 online learning: A review of state-level policy and practice.* Naperville, IL: Learning Point Associates. Retrieved from http://www.learningpt.org/pdfs/tech/Keeping_Pace2.pdf

Weiner, C. (2001). *A new alternative: Adolescent students study in cyberspace* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3041422)

Whitaker, T. (2004). *What great teachers do differently.* Larchmont, NY: Eye on Education.

APPENDIX A: INTERVIEW QUESTIONS

1. What pedagogical practices guide you in teaching (insert subject area) to your students?
2. Within those practices, what specific instructional strategies or curricular resources do you draw from the affective domain to engage students, ensure their intellectual and emotional presence within the learning and to build the kind of higher order thinking skills outlined in instruments such as Bloom's Taxonomy?
3. Based on your experience, when you have taught in other subject areas or in different grade levels within a subject, have you changed your pedagogical practice and your focus on the content included with it?
4. Based in your experience in both the traditional classroom and a virtual or hybrid classroom, has it been the case that you have differed in your instructional approach and guiding pedagogy? If so, what have been the differences from traditional instruction and virtual instruction?
5. Does technology play a significant role within your pedagogical practice?
6. How do you measure students' achievement in higher order thinking, problem solving, engagement in the learning process -typically referred to as affective domain?
7. What emphasis do you place on affective learning within the classroom?
8. Virtual learning is growing exponentially, what are your beliefs about how traditional classrooms and virtual classrooms are able to connect with students and bring about achievement in the affective domain?

APPENDIX B: ILLINOIS DEPARTMENT OF EDUCATION – SOCIAL EMOTIONAL LEARNING STANDARDS FRAMEWORK

Social Emotional Learning Standard Goals: Learning Standard Early Elementary Late Elementary Middle/Jr. High Early H.S. Late H.S.

Goal 1: Develop self-awareness and self-management skills to achieve school and life success.

Why this goal is important: Several key sets of skills and attitudes provide a strong foundation for achieving school and life success. One involves knowing your emotions, how to manage them, and ways to express them constructively. This enables one to handle stress, control impulses, and motivate oneself to persevere in overcoming obstacles to goal achievement. A related set of skills involves accurately assessing your abilities and interests, building strengths, and making effective use of family, school, and community resources. Finally, it is critical for students to be able to establish and monitor their progress toward achieving academic and personal goals.

Goal 2: Use social-awareness and interpersonal skills to establish and maintain positive relationships.

Why this goal is important: Building and maintaining positive relationships with others are central to success in school and life and require the ability to recognize the thoughts, feelings, and perspectives of others, including those different from one's own. In addition, establishing positive peer, family, and work relationships requires skills in cooperating, communicating respectfully, and constructively resolving conflicts with others.

Goal 3: Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.

Why this goal is important: Promoting one's own health, avoiding risky behaviors, dealing honestly and fairly with others, and contributing to the good of one's classroom, school, family, community, and environment are essential to citizenship in a democratic society. Achieving these outcomes requires an ability to make decisions and solve problems on the basis of accurately defining decisions to be made, generating alternative solutions, anticipating the consequences of each, and evaluating and learning from one's decision making.

APPENDIX C: GORHAM'S VERBAL IMMEDIACY BEHAVIORS SCALE

The instructor uses personal examples or talks about experiences he/she has had outside of class

The instructor asks questions or encourages students to respond

The instructor gets into discussions based upon something a student brings up even when this doesn't seem to be part of his/her lecture plan

The instructor uses humor in the course

The instructor addresses students by name

The instructor addresses me by name

The instructor gets into conversations with individual students before or after class

The instructor has initiated conversation with me before, after or outside of class

The instructor refers to class as "our" class or what "we" are doing

The instructor provides feedback on my individual work through comments on papers, discussions etc.

The instructor calls on students to answer questions, even if they have not indicated that they want to talk.

The instructor asks how students feel about an assignment, due dates or discussion topics

The instructor invites students to telephone or chat sessions outside of class if they have questions or want to discuss something

The instructor asks questions that solicit viewpoints or opinions

The instructor praises students' work, actions or comments

The instructor will have discussions about things unrelated to class with individual students or with the class as a whole

The instructor is addressed by his/her first name by the students

Gorham, J. (1988). The relationship between verbal teacher immediacy behavior and student learning. *Communication Education, 37,* 40-53.

APPENDIX D: ILLINOIS ACADEMIC LEARNING STANDARDS

English Language Arts
Error! Bookmark not defined.
Express and interpret information and ideas.
Communication is the essence of English language arts, and communication surrounds us today in many forms. Individuals and groups of people exchange ideas and information—oral and written—at lunch tables, through newspapers and magazines, and through radio, television and on-line computer services. From the simplest, shortest conversations to the most complex technical manuals, language is the basis of all human communication. A strong command of reading, writing, speaking and listening is vital for communicating in the home, school, workplace and beyond.

Mathematics
Express and interpret information and ideas.
Everyone must be able to read and write technical material to be competitive in the modern workplace. Mathematics provides students with opportunities to grow in the ability to read, write and talk about situations involving numbers, variables, equations, figures and graphs. The ability to shift between verbal, graphical, numerical and symbolic modes of representing a problem helps people formulate, understand, solve and communicate technical information.
Students must have opportunities in mathematics classes to confront problems requiring them to translate between representations, both within mathematics and between mathematics and other areas; to communicate findings both orally and in writing; and to develop displays illustrating the relationships they have observed or constructed

Science
Express and interpret information and ideas.
Scientists must carefully describe their methods and results to a variety of audiences, including other scientists. This requires precise and complete descriptions and the presentation of conclusions supported by evidence. Young science students develop the powers of observation and description. Older students gain the ability to organize and study data, to determine its meaning, to translate their findings into clear understandable language and to compare their results with those of other investigators.

Social Science
Express and interpret information and ideas.
To gather a range of opinions and determine the best course of action, students must interpret information. To study and draw conclusions about social science issues, students need to read and interpret textual and visual information, be able to listen carefully to others, and be able to organize and explain their own ideas using various media.
http://www.isbe.state.il.us/ils/Default.htm

APPENDIX E: LEARNING TAXONOMY – KRATHWOHL'S AFFECTIVE DOMAIN

Affective learning is demonstrated by behaviors indicating attitudes of awareness, interest, attention, concern, and responsibility, ability to listen and respond in interactions with others, and ability to demonstrate those attitudinal characteristics or values which are appropriate to the

Level and Definition	Illustrative Verbs	Example
Receiving refers to the student's willingness to attend to particular phenomena of stimuli (classroom activities, textbook, music, etc.). Learning outcomes in this area range from the simple awareness that a thing exists to selective attention on the part of the learner. Receiving represents the lowest level of learning outcomes in the affective domain.	asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses	Listening to discussions of controversial issues with an open mind. Respecting the rights of others. Listen for and remember the name of newly introduced people.
Responding refers to active participation on the part of the student. At this level he or she not only attends to a particular phenomenon but also reacts to it in some way. Learning outcomes in this area may emphasize acquiescence in responding (reads assigned material), willingness to respond (voluntarily reads beyond assignment), or satisfaction in responding (reads for pleasure or enjoyment). The higher levels of this category include those instructional objectives that are commonly classified under "interest"; that is, those that stress the seeking out and enjoyment of particular activities.	answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes	Completing homework assignments. Participating in team problem-solving activities. Questions new ideals, concepts, models, etc. in order to fully understand them.

Valuing is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior. This ranges in degree from the simpler acceptance of a value (desires to improve group skills) to the more complex level of commitment (assumes responsibility for the effective functioning of the group). Valuing is based on the internalization of a set of specified values, but clues to these values are expressed in the student's overt behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable. Instructional objectives that are commonly classified under "attitudes" and "appreciation" would fall into this category.	completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works	Accepting the idea that integrated curricula is a good way to learn. Participating in a campus blood drive. Demonstrates belief in the democratic process. Shows the ability to solve problems. Informs management on matters that one feels strongly about.
Organization is concerned with bringing together different values, resolving conflicts between them, and beginning the building of an internally consistent value system. Thus the emphasis is on comparing, relating, and synthesizing values. Learning outcomes may be concerned with the conceptualization of a value (recognizes the responsibility of each individual for improving human relations) or with the organization of a value system (develops a vocational plan that satisfies his or her need for both economic security and social service). Instructional objectives relating to the development of a philosophy of life would fall into this category.	adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes	Recognizing own abilities, limitations, and values and developing realistic aspirations. Accepts responsibility for one's behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Prioritizes time effectively to meet the needs of the organization, family, and self.

Characterization by a value or value set. The individual has a value system that has controlled his or her behavior for a sufficiently long time for him or her to develop a characteristic "life-style." Thus the behavior is pervasive, consistent, and predictable. Learning outcomes at this level cover a broad range of activities, but the major emphasis is on the fact that the behavior is typical or characteristic of the student. Instructional objectives that are concerned with the student's general patterns of adjustment (personal, social, emotional) would be appropriate here.	acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verifies	A person's lifestyle influences reactions to many different kinds of situations. Shows self-reliance when working independently. Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence.

APPENDIX F: DEMOGRAPHICS IN YEARS OF EXPERIENCE FOR TEACHERS

Subject	Years of Experience	Gender
Trad. Math	5	Men
Trad. English	1	Woman
Trad. Science	1	Woman
Trad. Soc. Studies	16	Men
Trad. Spec. Ed.	3	Men
Virtual Math	39	Women
Virtual English	18	Women
Virtual Science	16	Women
Virtual Soc. Studies	41	Women
Virtual Foreign Language	41	Men