

ABSTRACT OF CAPSTONE

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The Graduate School
Morehead State University

March 13, 2014

AN INVESTIGATION OF TEACHER CANDIDATE PERCEPTIONS:
USING 21ST CENTURY TOOLS AND
CLINICAL MEDICAL MODEL PRACTICES TO TEACH
CLASSROOM MANAGEMENT SKILLS

Abstract of capstone

A capstone submitted in partial fulfillment of the
Requirements for the degree of Doctor of Education in the
College of Education
At Morehead State University

By

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Wilmore, Kentucky

Committee Chair: Carol Christian, Assistant Professor

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March 13, 2014

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This study investigated the value of utilizing 21st century learning tools to prepare teacher candidates at Asbury University's School of Education to effectively manage a classroom. Asbury University is a small faith-based institution located approximately fifteen miles south of Lexington, Kentucky. This study utilized techniques that are commonly used in the medical/clinical model to prepare physicians. The researchers provided classroom management clinical learning experiences using avatars, video analysis, and simulations/role plays to determine if these three 21st century teaching tools better prepared candidates to meet the demands they will likely face when they enter the classroom as a first year teacher. The study's findings indicated that teacher candidates were very positive about their participation in all three clinical training experiences and indicated that their feeling of preparedness to effectively implement classroom management was enhanced as a result of the authentic training module.

KEYWORDS: 21st Century Teaching Tools, Classroom Management, Avatars, Medical Model, Teacher Preparation Gaps, Simulations, Video Analysis

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DEDICATION

The three researchers involved in this study want to dedicate this work to our Lord Jesus Christ. We acknowledge Him not only as our Lord and Savior but also as our inspiration for the work done on this project. As the ultimate teacher, He provides the example that we strive to emulate in our own teaching. We thank God for providing and opening the doors that made this opportunity possible for us and for the future opportunities this will allow us.

There are special individuals in the lives of each of the three researchers to whom this study is dedicated. Those individuals are detailed in the three sections that follow.

Helen J. Rader

In loving memory of my parents, Wallace and Betty Rehner, who modeled excellence in their teaching and missionary service. I could not have completed this work without the constant encouragement and support from my husband, J.P. I hope this research will be an inspiration and legacy for my children, Kristina, Paul, Brittney, and my grandchildren, Ephraim, Moses, Phyllina, James and Bram. My prayer is for this study to open doors for further research in teacher preparation programs.

James P. Rader

Education has been my life. I dedicate this capstone dissertation to my parents, Paul and Kay Rader, my two sisters, Edie Moon and Jennie Purvis, my wife, Helen, and our three children, Kristina, Paul and Brittney. All of them are

outstanding educators who have inspired me with their dedication to teaching and learning and their tenacious love of their students. They have all played a major part in keeping me on my educational journey and giving me the encouragement to complete this study.

David R. Riel

I would like to dedicate this work to all of the educators that have influenced my life. Those educators would include both of my parents, Robert and Eleanor, who nurtured my love for learning, my two children, Jeffrey and Melissa, who both chose to devote their life work to the teaching of children, and to my wonderful wife of forty years, Debby, who has taught me so very much about life and how to live that life in a way that let's others see Christ in all that I do. I am very thankful for Dr. Bonnie Banker who believed in me as a young college student and was willing to invest in me. I can only imagine what a fabulous future lies ahead for my grandchildren, Brayden, Reva, Carson, Norah, Isaiah and Raylan. I know that God has a life filled with wonderful blessings for each of them.

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Chapter One: Introduction/Executive Summary

Many teacher candidates leave university teacher preparation programs with the knowledge and skills needed to teach content specific material. Teacher candidates are equally equipped to teach using multifaceted instructional strategies using differentiated pedagogical methods. However, school administrators across the country concur that a highly qualified classroom teacher who is ill prepared in classroom management skills and techniques is of limited value until those skills are developed (Klassen & Chiu, 2010). Teachers can be trained in good classroom management skills during the early years of teaching, but the learning of P-12 students can be negatively impacted during the teacher's professional growth process. Poor classroom management skills of educators impact students' self-esteem, attendance, the number of recorded disciplinary infractions and loss of instructional time as students are sent to in-school suspension rooms. All of the negative consequences of weak classroom management skills can begin the downward spiral of inappropriate student behavior that leads to increased failure and dropout rates (Marzano, 2003). The time spent in mentoring teachers, the time spent by administrators dealing with irate parents, the cost to districts in suspensions and the time spent in professional development to get teachers "in the know" is a drain both financially and in terms of human resources (Graziano, 2005). Teacher preparation programs must ask themselves:

1. What can be done to more effectively prepare aspiring teachers to better manage classrooms?

2. What can be done to assist teacher candidates with their feelings of preparedness to adequately manage students?

The answers to these two critical questions will likely inform university leaders with insights needed to provide better training for the development of more qualified teachers. Also, it is possible that the answers will provide insights needed to better counsel those candidates without the necessary teaching dispositions into another career path.

Traditionally, teacher preparation instruction has been teacher-directed and theory-based. Teacher candidates study textbooks and engage in discussion on the implementation of best practice, but few opportunities exist that allow teacher candidates to be placed in situations that allow them to put theory into practice prior to student teaching. Waiting this late for authentic classroom experiences is too late.

This traditional model no longer provides teachers with the adequate skills and dispositions needed to effectively manage students in today's classrooms. Teacher education faculty must be committed to better prepare this new generation of educators to effectively handle the vast number and types of student behaviors with which teachers must contend on a daily basis. Twenty-first century teachers address a far different classroom landscape than teachers of previous centuries. Teachers must be ready to deal with learners who have emotional, physical, psychological, or

cognitive damage from growing up in dysfunctional homes that may include drugs, poverty and/or abuse (Cooper, 2010).

Teacher candidates need clinical experiences more often and much earlier in their preparation if they are to secure the needed skills. The infusion of authentic learning experiences throughout the educator preparation training could better prepare aspiring teachers to effectively manage students. Recent instructional technological advances provide the tools to make these authentic experiences a reality. This new design includes expanded structured field experiences known as clinicals and specific targeted field activities that culminate with a project documenting the acquired knowledge, skills, and dispositions. In clinical-based preparation, the focus is on learner-based instruction emphasizing the value of each student's achievement (Blue Ribbon Panel Report, 2010). The inquiry-based method of instruction creates the pedagogical framework with an emphasis on project-based learning in each course. Using authentic experiences and clinical practices helps teacher candidates to think and respond like a teacher when faced with challenging classroom management situations.

U.S. Secretary of Education, Arnie Duncan (2010) noted,

“The report of NCATE's Blue Ribbon Panel marks the most sweeping recommendations for reforming the accreditation of teacher preparation programs in the more than century-long history of our nation's education schools. America needs an entire system of excellent [teacher preparation] programs, not a cottage industry of exemplary initiatives. Future teacher

preparation programs should instead emulate the model of medical education. They would be fully-grounded in clinical practice, with evidence-based knowledge interwoven with academic content and professional courses” (p. 1).

As a result of the Blue Ribbon Panel Report (2010) and in support of the clinical model, universities were challenged to increase student involvement in more real-time experiences that are authentic. The Blue Ribbon Report supported the need for authentic clinical experiences and an increase in the required clinical hours in educator preparation programs.

Problem Statement

Teacher candidates are exposed to an insufficient number of authentic classroom management experiences during educator preparation training. Historically, the curriculum design of teacher preparation programs was built upon a theoretical understanding of managing behavior with limited experiences to learn and respond in advance of program completion (Shih, 2013).

Purpose of this Study

The purpose of this study is to prepare teacher candidates in classroom management skills using 21st century tools. The research of O’Neil & Stephenson (2011) reveals low classroom management self-efficacy is linked to teacher attrition, burnout and reduced student learning outcomes. This capstone investigates teacher candidate’s perception about their feeling of preparedness to effectively implement

classroom management techniques through the use of three 21st century tools.

This capstone will provide information that may be useful to teacher education programs that are considering the infusion of more authentic clinical experiences using these 21st century tools. This study supports the work of (Walker & Dotger, 2013) with the intent to develop the skills that will close the gap between the preparation of teachers and the reality of teacher performance in the classroom by novice teachers (Rubenstein, 2010).

Significance of the Study

The evidence continues to mount that novice teachers lack the necessary skills, especially classroom management skills (He & Cooper, 2011) to operate effectively in the classroom during their first years in a teaching position. The onus is on the university educator preparation programs to focus on the needs of the 21st century learner that now occupy our classrooms around the country and develop a program that will equip the teacher candidates through school embedded clinical practicum experiences. The NCATE (2010) report states those teacher preparation programs need to do the following to prepare teacher candidates:

Provide real-world context for developing a whole constellation of complex skills that are orchestrated differently in different contexts, including the full range of students' cognitive and social-emotional developmental needs—and what the circumstances are in the classroom at the time. (p. 10)

School embedded clinical practicum experiences will facilitate better prepared teacher candidates as they strive to meet the demands of their first classroom by

providing authentic experiences that mirror the circumstances educators will encounter in the classroom.

Research Question

This study addressed the following research question: what impact did classroom management training modules, using 21st century tools and clinical medical practices, have on teacher candidates' perceptions in the development of classroom management skills?

Executive Summary

In summary, this study will examine the implementation of authentic experiences for teacher candidates using 21st century learning tools and how, when infused into the preparation of teachers through their clinical experiences, help aspiring teachers feel better prepared. The specific 21st century tools used in this study included:

1. Simulation laboratory experiences
2. Avatar classroom
3. Video analysis

Teacher candidates enrolled in a classroom management class during the fall semester of 2013 participated at the University of Kentucky's Medical School Learning Center for the simulation section of this research. Teacher candidates interacted with formally trained standardized individuals (student and parent) in simulation experiences.

For the second phase of this capstone, teacher candidates had an extensive video analysis experience in partnership with Pace University that incorporated the use of multimedia resources such as videos of parent teacher encounters as well as videos of experts' perspectives in conducting a parent-teacher conference.

The third and final phase of this capstone study partnered teacher candidates with the University of Central Florida's TLE™ avatar classroom where they taught a lesson to five middle school avatars.

Definitions of Terms

1. **Clinical-based preparation** as defined by Asbury University.
 - Focuses on student learning and how P-12 learners learn
 - Prepares an educator to design, assess, analyze, diagnose, and prescribe
 - Provides an intentional and prescribed curriculum and experiences for practice, analysis, and research
 - Builds a bridge between theoretical models and contextualized practice
 - Creates a paradigm shift for the profession through a foundational skill of “learning to learn”
 - Prepares Asbury to build strong P-12 partnerships and partner schools
 - Incorporates 21st century thinking skills of innovation, collaboration, creativity, critical thinking, communication, and problem solving
 - Educators can:
 - Use assessment and data to change teaching practice

- Embed all forms of technology to engage learners
- Differentiate instruction for all learners
- Work in professional communities
- Provides two types of experiences
 - Intentional laboratory experiences in courses (simulations, teaching clinics, practice teaching, learning walks, virtual observations, etc.)
 - Extended school-embedded experiences outside of courses (instructional rounds, peer observation, co-teaching and coaching by mentor teacher)

2. 21st century learning environments (2009)

- Creates learning practices, human support and physical environments that will support the teaching and learning of 21st century skill outcomes
- Supports professional learning communities that enable educators to collaborate, share best practices and integrate 21st century skills into classroom practice
- Enables students to learn in relevant, real world 21st century contexts (e.g., through project-based or other applied work)
- Allows equitable access to quality learning tools, technologies and resources

- Provides 21st century architectural and interior designs for group, team and individual learning.
- Supports expanded community and international involvement in learning, both face-to-face and online

3. **Avatars-** According to Merriam Webster, avatars are an electronic image that represents and is manipulated by a computer user. There were five avatar students in the TLE classroom that interacted with the teacher candidates who participated in this study.

4. **Simulations-** Acting out or mimicking an actual or probable real life condition, event (outcomes), or situation to find a cause of a past occurrence, or to forecast future events of assumed factors. A simulation may be performed through a staged rehearsal. (Businessdictionary.com)

5. **TeachLivE™ (TLE)-** The avatar lab is a mixed-reality teaching environment supporting teacher practice in pedagogy and content. TLE developed at the University of Central Florida, is currently being implemented across 22 campuses in the United States and growing. Each university partner uses the TLE Lab in a unique manner depending on the needs of their students, teachers, professors, and community stakeholders. The TLE Lab provides pre-service and in-service teachers the opportunity to learn new skills with the avatar classroom and to craft their practice without placing “real” students at risk during the learning process (TeachLivE™, n.d.).

6. **IHE**- This acronym is used for institutions of higher education.

7. **SI**- These initials are used when referring to the standardized individual or actor that plays the part of the student or parent in the simulation process.

8. **Net Generation**- According to the US Department of Defense, Net Generation are individuals who are aged 13-29. They are ambitious, innovative, enjoy teamwork, and understand technology.

9. **Interactor**- a puppeteer who has the ability to manipulate different avatars by using multiple voices, movements, and personalities to replicate student behavior. The interactor controls the avatar students that interacted with our teacher candidates in the TLE sessions.

Chapter Two: Review Of Literature

This chapter provides the review of literature that serves as the foundational structure of this capstone. This study focuses on the implementation of various elements used in the medical clinical model in teacher preparation for teaching classroom management skills using more 21st century tools. The three bodies of research that underpin this study are as follows: preparation for teaching classroom management skills, the medical/clinical model for teaching and learning, and 21st century teaching tools available for teaching classroom management skills.

Conceptual Framework

Twenty-first century teaching must change to meet the needs of 21st century learners. Various tools available through instructional technology can provide teacher preparation programs with “in the moment, real time experiences” in order that students and instructors can engage in meaningful discussion on how to handle classroom behaviors as they occur. Teacher candidate’s need more clinical or classroom experiences to draw upon to better prepare them to be the lead instructor in a full classroom of students. Student behaviors and attitudes reflect societal changes. Twenty-first century teachers no longer teach to a majority of students who come to school from two parent family homes that are well-behaved and disciplined. The behaviors today that teachers face in schools are many, varied, and complex. In order to teach mandated content, educators must understand and know students, be skilled in controlling or managing the classroom, and be able to respond to difficult classroom situations in order for real learning to take place. Bidwell (2013)

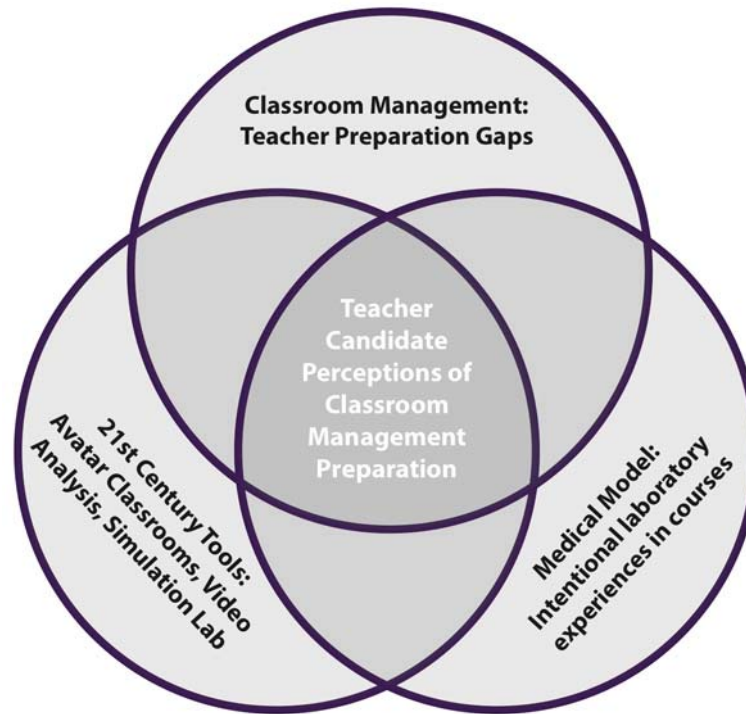
summarized the findings of a study done by the National Council on Teacher Quality of 105 teacher preparation programs across the United States. Bidwell (2013) noted that:

"Regrettably, we could not identify a single program in the sample that did well addressing all research-based strategies, identifying classroom management as a priority, strategically determining how it should be taught and practiced, and employing feedback accordingly" (p. 1).

Additionally, the NCTQ President, Kate Walsh stated:

"What we thought was most disturbing is what a disservice this is to the future teachers" (Bidwell, 2013, p. 1).

The conceptual framework and three bodies of research guiding this study are graphically displayed on the following page.

Conceptual Framework

This study provides:

1. A review of literature that examines the gaps in preparation of teacher candidates for classroom management.
2. The clinical model, used in the preparation of doctors, when emulated in teacher preparation programs can better facilitate the training of teacher candidates in classroom management skills.

3. Lastly, this study examines current twenty-first century teaching tools being used to create more authentic classroom management experiences to better prepare teacher candidates. A detailed description of each is provided below.

Gaps in Preparation of Teacher Candidates for Classroom Management

The first area to examine is the effectiveness of teacher preparation training in identifying and developing the necessary skills of teacher candidates prior to entering the classroom. Teacher education programs have been under pressure in recent years to reassess their responsibility in training students to become outstanding teachers. This paradigm shift emphasizes the need to collaborate with the local school districts and cooperating teachers. The goal is to develop the skills necessary to close the gap between the preparation of teachers and the performance of novice teachers in the area of classroom management (Rubenstein, 2010).

Despite several field placements and minimal classroom management courses, teacher candidates do not experience the realities of public schools (Dotger, 2013). Novice teachers, in their first couple of years, commonly talk about the “gap” between the nature of their teacher preparation programs and their actual experiences as licensed professionals (Korthagen & Kessels, 1999). What they thought teaching was going to be during their university training did not align with the reality of their daily experiences as a practicing teacher (Dotger, 2013). The gap between teacher education and teacher practice will continue to grow until the way teacher candidates are trained closely aligns with the challenges presented in classrooms.

The classroom of the novice teacher (1-3 years of experience) continues to be a

place where there are great variances between effective and ineffective teaching. As Lee (2011) learned in his study of novice teachers, stress tends to be high in these classrooms depending upon the quality of the teacher education preparation programs that molded them. Many of these young teachers, without exposure to authentic practicum experiences in their teacher-training, struggle with the stress of heavy workloads, content knowledge and parent-teacher interactions (Lee, 2011). Novice teachers also tend to lack the maturity to embed critical reflection into their work and teaching (Holloway, 2011). Moreover, the question of how resilient the novice teachers are links back to their preparation in their teacher education program and their ability to develop self-efficacy and emotional competence (Tait, 2008). Additionally, the impact of mentor teacher programs that pair an experienced teacher with their novice counterpart continues to be explored. Pitton (2006) stated:

“All roads point back to the preparation of teachers as presented in the Blue Ribbon Report: School-embedded experiences help teachers develop content-specific and general teaching skills and explore opportunities for candidates to become active members of learning communities, develop skills and dispositions associated with teaming, and work with parents within the community” (p.10).

Thus, teacher candidates heading into the classrooms will develop skill sets that will have a direct impact on student learning.

The plight of the novice teacher has been qualitatively and quantitatively studied more closely in recent years and the conflict between perception and reality

has emerged, highlighting a dearth of classroom skills centered on the need for nurturing student relationships, handling conflict and classroom management (He, 2011). One program in particular, the Boston Teacher Residency Program, responded to the NCATE Blue Ribbon Panel's recommendations by placing a teacher candidate in a three year residency program with a mentor teacher. At the end of this placement, the candidates had a master degree, initial certification and the chance for a public school positions in Boston. Rubenstein (2007) interviewed a fourth grade teacher, who completed the program. The teacher noted:

“Being in a classroom from the first day of school to the last day of school and seeing all those little things that go on during the day was huge in making me a better teacher. I felt like I had already been a teacher when I entered the classroom my first year” (p. 1).

This is an example of the type of skill building and school embedded program that university teacher education programs are beginning to acknowledge as best practice in the field of teacher preparation. As the NCATE (2010) defined it:

“A clinical curriculum will provide the prospective teacher with real responsibilities, the opportunity to make decisions and to develop skills to analyze student needs and adjust practices using student performance data while receiving continuous monitoring and feedback from mentors” (p. 10).

The evidence continues to mount that novice teachers lack the necessary skill set to operate efficiently in the classroom during their first years in a teaching position. One of the areas that teacher education programs are seeing as critical to the

mission of equipping the teacher candidates for their clinical practicum experience and beyond is in the area of classroom management. Classroom management is at the core of every teacher education program in U.S. universities and colleges. A great deal of time and effort is being dispensed into classes for the purpose of teaching undergraduate, graduate and alternate certification students classroom management theory and best practice. Teacher candidates and novice teachers are armed with skills that include training in the areas of behavior management, developing a positive classroom climate, classroom rules development, a system for documenting behavior issues, intervention strategies and behavior modification. Current literature on classroom management has revealed several themes. A review of teacher attrition data, has revealed that there is a growing belief by school administrators that classroom management and student behavior management issues for the ill-prepared novice teacher is one of the key factors that has led to teachers leaving the profession (Ovando & Trube, 2000).

The first theme centers on a growing number of teachers who have gained an alternative certificate through institutions of higher education (IHE) and other certification programs. In recent years, according to the 2010 United States Department of Education Report called *Preparing and Credentialing the Nation's Teachers* noted there have been 68,000 teachers credentialed annually through alternative certification programs compared with the 167,000 teachers annually credentialed through IHE's. Several studies on classroom management have compared these two certified groups. Schonfeld and Feinman (2012) conducted a

study of 252 first year New York City public school teachers. Seventy percent of the sample population in this study was alternatively certified through the New York City Teaching Fellows program, the rest traditionally certified teachers. The study found that the alternative certified teachers were more likely to experience stressors such as violent incidents and classroom management problems. This may or may not have been a result of inferior training in the alternative certification programs according to a 2011 study by Karen Hammerness. Hammerness (2011) used qualitative data regarding preparation required by 31 childhood teacher education programs and survey data from 460 program graduates to analyze new teachers' preparation for classroom management in New York City. The teachers in traditional programs indicated they encountered more foundational knowledge in their classroom management courses, while early entry teachers had more opportunities to learn practical, concrete classroom management strategies. Judy Peters (2012) study of pre-service teachers in Australia confirms Hammerness' conclusions. Her study indicated that although pre-service teachers from institutions of higher education (IHE) felt confident and competent to manage student behavior they had a narrow conception of classroom management strategies.

It is clear from the various studies that traditional teacher certification programs have had a stronger impact on the efficacy of pre-service and novice teachers in classroom management than alternative certification programs. This was confirmed by Linek, Sampson and Haas (2012) in their study of the first year teaching experiences of two groups of public school teachers enrolled in an induction

program at the beginning of the year. This study found that at the beginning of the year, alternative certification teachers did not know about curriculum, lesson planning, classroom management, or how to work with students; while traditionally certified teachers were concerned about differentiating instruction, meeting individual student needs and managing student behavior. At the end of the year, alternative certification teachers had learned about the lesson cycle, classroom management and teacher certification exams while traditionally certified teachers were comfortable with their classroom management techniques and more concerned with becoming a more reflective practitioner. The study affirms the great need for classroom management programs to be more effective in all teacher preparation programs particularly in the alternative certification setting.

The second theme that emerged in classroom management has been the need to implement stronger programs in student behavior management within classroom management. O'Neill, S. C. & Stephenson, J. (2011) reviewed twenty-five peer reviewed articles on classroom management self-efficacy and found that low self-efficacy in classroom management has been linked to teacher attrition, burnout, and reduced student learning outcomes. They found that if teacher preparation programs did not include classes on classroom management that the confidence level of the pre-service teachers in their student management skills was low. In their study, the group of pre-service teachers that were given classroom management instruction went in to their student teaching placements with a perceived preparedness and confidence in using the classroom management strategies and models. Another study of pre-service

teachers conducted in Australia, by Sempowicz and Hudson (2011), found that a mentoring program for classroom management that focused on various data sources such as lesson plans, pre-service teacher reflections, mentor reports, and video and audio-recorded interviews produced very favorable results for the mentee who was able to effectively implement classroom management strategies.

A broader study on the impact of classroom management on self-efficacy was developed by Klassen and Chiu (2010) in which the authors sought to examine the relationships among teachers' years of experience, teacher characteristics (gender and teaching level), three domains of self-efficacy (instructional strategies, classroom management, and student engagement), two types of job stress (workload and classroom stress), and job satisfaction with a sample of 1,430 practicing teachers in the United States. This study found that teachers with greater workload stress had greater classroom management self-efficacy, whereas teachers with greater classroom stress had lower self-efficacy and lower job satisfaction. Finally, and quite instructively Klassen and Chiu (2010) found teachers with greater classroom management self-efficacy or greater instructional strategies self-efficacy had greater job satisfaction.

The third theme that emerged from the issue of developing classroom management skills in the classroom was professional development training for pre-service and novice teachers that focused on classroom management. Engel (2013) reported in a survey of 368 principals in the Chicago Public Schools that principals looked for teachers who care about students, have content knowledge, are willing to

go beyond contractual obligations and have classroom management skills.

Unfortunately, many pre-service and novice teachers enter the early years of teaching with more reactive rather than proactive strategies for managing behavior in their classrooms according to Shook (2012). Shook's findings indicated that participants in this study planned and used rules and routines for general classroom management but relied on reactive strategies for problem behavior. Thus the importance of effective school support for novice teacher's development of classroom management skills was evaluated in research developed by MacSuga and Simonsen (2011). This study examined the importance of professional development practices that concluded in-depth training such as modeling, role play, self-assessment and consultation in combination with self-monitoring and performance feedback increased teachers' use of evidence-based classroom-management strategies and the teacher's ability to better manage the classroom.

Medical/Clinical Model

In 2010, the National Council for the Accreditation of Teacher Education (NCATE, 2010) released a report from the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning. Since its release, this report has been the subject of much discussion in higher education. The report calls for a revolutionary transformation and move to a clinical model of teacher preparation. As a part of the report, the panel advocates for the clinical model to reflect what has become common practice in the preparation of physicians. Specifically, the NCATE (2010) report stated:

“Clinically based education programs can take some lessons in integrating laboratory experiences, embedded clinical learning and course work from medical preparation. In some programs, medical students follow a cohort of patients from the day they enter medical education to the day they complete their training, even as they take coursework and work with simulated patients in the course of their preparation” (p. 10).

Educators across professional disciplines are investigating several fields, including medicine, to learn about the impact of clinical preparation on training (Ralph 2008). Ralph’s research found that there are some similarities and differences in the clinical models used across the professions of clergy, engineers, lawyers, nurses, physicians and K-12 teachers. This research suggested that studying the clinical model could have far reaching benefits for higher education. Additionally, Brown (2011) found that there is more value in clinical experiences for medical students than there is in formal lectures.

Deketelare (2006) suggested that there are a variety of variables that impact the value of these clinical experiences. It is important to realize the characteristics of the students themselves, the training setting, and the interaction between them needs to be assessed as they all contribute to the value of the clinical experience.

Prince (2005) stated that universities need to prepare students for their clinical experiences. The medical field has learned that a majority of students feel as though they are not adequately prepared for the transition to a clinical model. Clinical models are not likely to be as effective if institutions do not adequately prepare students

beforehand. Rose (2008) learned that the issues of boundaries and cross-race concerns can be inhibitors to the clinical model and there are several things that educators need to be mindful of as they move in this direction. This study, as well as one done by Kalen (2010), found that students need to be provided with mentors during the clinical experience. Also, this same study proved it to be of greater value if mentors are not attached directly to the courses that students are taking so the mentor can serve in the capacity of an encourager as well as a facilitator.

There are some documented clinical strategies that have been found to be both effective and ineffective. Dornan (2007) found that students did not prefer to participate in a self-directed clinical model; but rather, preferred to receive guidance and direction from faculty. A separate study by Dornan, (2005) reported that students primarily became self-directed when there was a lack of support in their training. Medical students, however, value the experience of learning from their peers (Field, 2007). In this study, senior medical students provided support to less experienced students with whom they were working. These students felt more comfortable coming to senior students than going to faculty for advice.

Two strategies that have proven to be effective in the medical field are concept-based learning activities (Nielsen, 2009) and simulations (Jeffries, 2008). Both of these initiatives proved to be valuable in preparing medical students for their clinical experiences. These and similar strategies can now be emulated in teacher education preparation programs.

In 1963, a doctor at the University of Southern California by the name of Howard Barrows started utilizing standardized patients to enhance the preparation of future physicians. A standardized patient is an actor or real patient trained to present distinct symptoms and communicate questions/concerns to medical professionals in training physicians, nurses, and physical therapists in a consistent, standard manner (Barrows & Abrahamson, 1964). Since this time, medical education institutions have increasingly employed simulated interaction pedagogy to prepare future medical professionals to accurately diagnose and communicate diagnoses/treatment regimens to patients. Today, over 95% of U. S. medical education institutions employ medical simulations to teach and assess the clinical skills of future medical professionals (Coplan, Essary, Lohenry, & Stoehr, 2008). In the same way, educators are examining this prototype in preparing “practicing teachers” using simulation experiences.

The value of assessment of the clinical model is crucial and assessment results appear to depend upon the role of the person being surveyed. In the medical field, when patients, students, and teachers were surveyed, it was discovered that students are the most critical piece when it comes to assessing their performance, with the patients being the most complimentary (Braend, 2010). In this study, teachers fell somewhere in the middle. Teachers were found to give students much more specific feedback than patients did. Dotger (2013) states the experience provides the medical students and the medical faculty opportunities for later analysis on potentially differing approaches to the same set of medical circumstances. This type of learning

experience is intentionally designed to mirror the reality of spur-of-the moment professional interactions that occur. The immediate feedback, reflection, and analysis of the experiences that the medical students are given, are woven into the clinical learning experiences.

Dotger (2013) has partnered with the Clinical Skills Center at SUNY Upstate Medical University to develop clinical experiences for teacher candidates. He believes teacher candidates are not fully prepared for dealing with today's parents, students, colleagues, and community members. Dotger has spent the last six years using simulations at the Medical Center to close the gap between teacher preparation and teacher practice. Actual classroom experiences with real, worried and angry parents, disruptive or difficult students to name a few provided the opportunity for students to learn these important skills needed in managing a classroom. Too often teachers leave the profession before they learn how to deal with all of the difficult issues required of them. Experiences that expose aspiring teacher education students to real situational experiences are limited throughout most teacher preparation programs until the final semester of student teaching. Dotger (2013) has focused his work on developing clinical simulations that approximate actual situational events with standardized students and parents that support teacher learning and development. Dotger's studies train actors to serve as the standardized individual (SI's) that follow a scripted situation that allows the teacher candidate to experience an authentic encounter with a student or parent. His research gives teacher educators the conceptual knowledge, procedures and tools to react effectively to clinical

simulations. When implemented correctly, clinical simulations provide teacher candidates with opportunities to practice and develop their professional knowledge, decision-making, and classroom management skills.

The research summarized above suggests that there is much to be gained by studying the lessons learned in the medical field. This will ultimately benefit teacher candidates, as well as the public and private P-12 schools that partner with universities, in the development, implementation, and assessment of higher education's clinical preparation models (Ralph, 2008). When implemented correctly, clinical simulations provide novice teachers with opportunities to practice classroom management and develop their professional knowledge and decision-making skills.

21st Century Tools and Techniques for Teacher Preparation

Teacher preparation programs must continue to ask, "What new opportunities can training programs offer students to better prepare teacher candidates for the many challenges they will face with regard to classroom management?" This part of the literature review focuses on multiple ways teacher preparation programs are using 21st century tools to provide clinical experiences of varying kinds to more effectively prepare teacher candidates for today's classrooms.

Teacher candidates in this generation are referred to as "digital natives." Technology and access to learning through technology and gaming is a natural part of their lives and learning experiences. Sim Hub, Second Life, Virtual Patients (VPs), TLE and Student Simulators are different virtual learning platforms created by different universities and programmers to provide more practice or clinical hours for

students to improve their teaching skills prior to being the teacher in charge of one's own classroom.

Poulton and Balasubramaniam (2011), Skiba (2009), Antonacci and Modaress (2008) found simulators offered this generation of teacher candidates ways to develop their clinical reasoning and problem solving skills. In these studies, simulators provided experiential learning and immersed students in a virtual environment that was non-threatening. Their virtual environments added another dimension to simulations allowing for role-playing, collaboration, and real-time interactions between students and faculty. This study found that student experimentation in higher-level cognitive thinking, such as interpreting, analyzing, discovering, evaluating, acting, and problem solving occurred in the virtual environment experiences.

According to Harrison (2009), Second Life, a 3 D virtual world program, has increasingly been used as an educational tool. Several colleges have created virtual campuses that allow student to explore and attend classes using virtual reality for training. Harrison found that more than 200 educators and about 200 universities are using Second Life. For medical teachers, virtual patients (VPS) were used to train their medical students. These universities embedded virtual patient practice times in Second Life into the curriculum that included problem-based learning as a core component of lectures, tutorials, seminars and assessment tools.

Cheong (2010) studied the effect of practice teaching in Second Life on the change of teacher candidates' efficacy, and the difference of changes between

individual teaching practices and collaborative teaching practice in their teaching efficacy. His research suggests that pre-service teachers can gain valuable teaching practice in Second Life and that collaborative practice teaching was more effective than individual approaches to practice teaching. Practicing in Second Life increased the candidate's efficacy in the classroom but not on improving student outcomes.

The University of Central Florida has pioneered TLE simulators and the opportunity to customize their pre-service learning experience in a controlled virtual environment. Kolowich (2010) writes about the history, benefits, and purposes of University of Central Florida's TLE program. Dr. Steve Bronack, founder and director of the SimHub said, "TLE has the potential to impact important teacher development and quality issues in significant ways" (TLE, n.d.). Bronack believes with the correct focused training for teacher candidates, there will be a direct correlation with the learning experience for the students. It is clear that simulations provide a realistic classroom setting that includes authentic student behavior so the teacher candidate can develop management and problem resolution skills. It offers controlled, sophisticated focused instruction, practice, and rehearsal.

The simulation team at the University of Central Florida has partnered with the twenty-two other universities to enhance their teacher education program (Kolowich, 2010). The simulator can be customized to enable the avatar student classroom to reflect varied classroom demographics that offer developing teacher candidates genuine, broad, and varied opportunities for experience and practice. Professors in the education program believe ten minutes in the simulator experience is

equal to one hour of teaching in a real classroom. Furthermore, they have created a virtual classroom that seems so real that it can dramatically improve how prepared a novice first year teacher will be by the time they enter the classroom. Kolowich (2010) found the training will reduce teacher turnover by weeding out likely candidates for burnout and chaotic classrooms. The biggest question posed in this same study is whether the TLE teacher training system actually improves student learning. This study provides data proving that the Avatar classroom changes and improves teaching practice. However, there is need for more long-term studies to measure whether the students in the classes that are taught by TLE-trained teachers actually learn better, and whether the success gap can be traced to being trained through the TLE simulations (Kolowich, 2010)

In a recent study, using the TLE Lab, seventy-one teacher candidates participated in a pilot study to measure their ability to handle the first day of school. Each candidate had to enact a written classroom management plan during a 10-minute microteaching experience in a virtual environment. Behind the scenes, a trained Interactor portrayed and controlled all five Avatars simultaneously and calibrated the responses of each student to correspond with the teacher's behaviors, attitude, and requests. Each avatar student had a specific, unique personality. The trained interactor worked with the course instructor to develop the session objectives for the teacher candidates. Some of the objectives for the course included developing teaching candidates to foster a sense of classroom community, build excitement about the work to be done during the year and establish clear expectations for student

behavior. The most successful microteaching sessions were those characterized by interpersonal warmth, support for student autonomy, and expressions of interest in students. The simulation with the Avatars produced dispositions and behaviors in the candidate that otherwise would have remained invisible to the instructor. Candidates rated the lab as an effective learning tool but had mixed opinions about its realism. The simulator provided situational awareness that promoted the development of classroom management skills. TLE can be used in individual ‘coaching sessions’ or in a ‘studio’ model where candidates perform an instructional task in front of their peers. Both models allow for immediate feedback; video recordings of sessions support individual and group reflection. This new technology for teaching and learning about classroom management in experiential settings helped prospective teachers put their knowledge into action without negatively impacting an actual student while they learn.

Girod & Girod (2008) recognized the power of high quality practice for teacher education programs through simulations. They found their simulation experiences, called Cook School District, played a role in helping candidates become more aware of and perform several critical skills necessary to effectively connect teacher actions to the learning of each student. This program utilized hypothetical teaching scenarios, interviews, and reflective writing samples from the teacher candidates to indicate the training’s effectiveness. Dotger (2013) created simulations designed to situate teacher candidates in realistic professional environments. Teacher candidates encounter teaching ‘problems of practice’ for which they could not

reasonably predict or prepare. This practice helps refine an aspiring teacher with the needed professional knowledge, skills, and dispositions.

Several similar studies, Feledichuk's (2009), Tyler-Wood and Periathiruvadi (2011) focused on e-learning opportunities to develop diversity awareness, cultural sensitivity, and content area specific skills in their education students. Their studies created and used authentic situations and avatars to build knowledge in an e-learning environment. The teacher candidates were exposed to authentic learning environments to strengthen diversity awareness skills through avatar simulations. Various situations were presented along with different student behaviors that allowed teacher candidates opportunities to solve problems that mirrored authentic situations that teachers encounter daily in real classroom settings.

Tyler-Wood and Periathiruvadi (2011) through project Simulation-Enhanced Training for Science Teachers (SETS) sought to improve training for elementary level science teachers using a simulated classroom (simSchool) as a laboratory experience. In the simulated classroom, divergent populations and students with disabilities were emulated. The research aimed to improve teaching effectiveness of pre-service science and special education teachers to improve the science achievement of students, especially students with disabilities. Teacher candidates watched/played demos of a simulated classroom and were able to think critically about teaching students with varying strengths and needs.

Researchers Elford, Carter, and Aronin (2013) at the University of Kansas used a bug-in-ear Bluetooth device during every teaching session in order to provide

coaching to four secondary teachers in a TLE (Dieker, Hynes, & Smith, 2008) virtual classroom. The goal of the session was for the teacher to practice giving positive feedback to students (avatars). Using the bug-in-ear coaching method changed how teacher candidates addressed disruptive behaviors and also improved the positive feedback to students in their charge. Although this method of coaching teachers and teacher candidates is not widely used, the benefits that emerged from the immediacy of the feedback had positive effects on instructional practice, regardless of the amount of teaching experience. In this scenario the coach provided the training, modeling, and feedback and guided reflections at the end of each session with the teacher candidate. The goal was to increase the use of positive feedback in order to improve disruptive behavior. The percentage of good behaviors increased when participants were coached remotely, with positive feedback increasing from 20% to 30 % for all participants and all sessions. The teachers in this study expressed that the avatar students seemed so real in their behavior and responses that it was easy to believe they were like real students. They felt five minutes in the simulator was not enough time and teacher candidates felt more time would have been beneficial if possible.

In a recent study by Walker and Dotger (2013), video-based case materials and simulations were used to assess teacher candidate's readiness and skill to communicate with parents. The video-cases were developed from common school-home partnership themes where teachers or leaders frequently interacted with parents around topics of discipline, academic progress, serving students with special needs, and curriculum decisions. Candidates were asked to evaluate two videos that

captured how a teacher addressed the challenge in a parent-teacher conference. The teacher candidates were provided the opportunity to choose which model did a better job and then justify their choice. Dotger and Walker (2013) found candidates felt highly confident about their ability to communicate with student's families; however, their actual level of skills did not align with their efficacy level. Participation in the simulations gave candidates and professors a better sense of the candidate's actual skill level, knowledge and dispositions for good communications with parents. This study has contributed to the field of teacher education because it shows how specific skills practice for teacher candidates in areas such as: conducting a successful parent-teacher conferences, classroom management, teaching diverse learners and teaching special needs students can be improved by using 21st century teaching techniques and tools to enhance teacher preparation programs.

Using 21st Century teaching techniques and tools has drawbacks and expenses. Universities have been able to use and incorporate these teaching tools that require a high level of technology and trained actors through various grants, course fees or special funding. There have been other setbacks and hurdles for using simulators and avatars to teach teachers. Teoh (2011) found some concerns with Second Life and virtual experiences when some pre-service teachers did not find the simulations useful for teaching and learning with high school students in particular. Teoh (2011) and Skiba (2009) stressed the importance of teacher preparation programs taking a precautionary approach when adopting the use of virtual environments for teaching and learning. This study found some hurdles and

challenges to consider when enriching a program with virtual technologies especially when technology fails. Challenges include: learning how to build systems and programs for practical simulations, the cost and difficulty of obtaining hardware and programmers, and making sure technology support for faculty as well as students. Some students and faculty had a significant learning curve, particularly those who were not Net Generation students who grew up with video games and virtual worlds. These students reported concern about interacting with avatars and acquiring the basic skills necessary to use the virtual environment.

Summary

The review of literature supports the need for teacher preparation programs to examine their instructional practices and methodologies for teaching classroom management skills. Preparation programs that continue to teach the theory of classroom management without the practical application and practice of using classroom management in real time simulations are antiquated. With 21st century teaching and technology tools, educator preparation programs can create live situations for aspiring teachers to respond to and learn from before they are in complete command of their own classrooms. For teacher preparation programs to successfully prepare teacher candidates, more situational experiences patterned from the medical clinical model need to be embedded throughout teacher preparation programs.

This capstone hypothesizes that when teacher candidates are given more opportunities to practice classroom management skills using simulations, avatars, and

videos analysis, their feeling of preparedness to effectively implement classroom management skills will be enhanced by these experiences. The goal of this capstone was to measure the perceived impact of three training modules developed to provide more authentic clinical experiences in classroom management. This study surmises that simulations, avatars, and video analysis provide more non-threatening experiences and a place to practice and rehearse developing classroom management skills without hurting an actual student in the process. The training experiences provide teacher candidates the opportunity to practice, reflect, discuss, and preview their experiences in managing a classroom of students while receiving immediate feedback from teacher preparation instructors. The 21st century tools that use avatars and simulations provide students the opportunity to test their skills in reaction to the many different experiences a teacher would encounter during the first year of teaching. The end goal of this capstone is to find ways to better prepare teacher candidates to handle the specific student and parent challenges that can negatively impact student learning, if not handled properly. This study will inform clinical practice and provide leverage for implementing simulations, avatars, and video analyzes as used in the medical field to prepare and provide essential rehearsal and feedback for teacher candidates to improve their classroom management skills.

Chapter three describes the methods used for organizing and structuring each of the training modules, the methods used for gathering data from the teacher candidates after each clinical training module, and the qualitative measures used in determining the perceived impact of the value of the preparation experiences using

simulations, avatars, and videos analysis. This qualitative study will measure teacher candidate perceptions of preparedness in effective classroom management skills and whether or not these innovative experiences served to better prepare the teacher candidates involved in this study.

Chapter Three: Methodology/Procedures/Collaboration Methods

This chapter describes the research question, context of the study, sample of subjects used for the study, research design, instruments, procedures, analysis plan and limitations inherent in this study.

Research Question and Purpose

The research questions is: what impact did classroom management training modules, using 21st century tools and clinical medical practices, have on teacher candidates' perceptions in the development of classroom management skills? The purpose of this study is to prepare teacher candidates in classroom management skills using 21st century tools. The research of O'Neil & Stephenson (2011) reveals low classroom management self-efficacy is "linked to teacher attrition, burnout and reduced student learning outcomes" (pg. 261-291). This capstone investigates teacher candidate's perception about their feeling of preparedness to effectively implement classroom management techniques through the use of three classroom management training modules using 21st century tools and clinical medical practices. This study hypothesized that the perception of teacher candidate's involved as subjects in this study, using 21st century tools to teach classroom management skills, would be enhanced as a result of the authentic training events.

This capstone will provide information that may be useful to teacher education programs considering the infusion of more authentic experiences using 21st century tools. This study supports the work of Walker and Dotger (2013) with the intent to develop the skills that will close the gap between the preparation of teachers

and the reality of teacher performance in the classroom by novice teachers (Rubenstein, 2010).

Context/Sample: Asbury University Teacher Candidates

Teacher candidates in the Asbury University School of Education entering their final of year of training before student teaching were chosen for the conduct of this study. The delivery systems and the teacher training systems for these students have changed radically in their four years at the institution.

Between the years of 2010 and 2013, the School of Education at Asbury University experienced a 67% growth in enrollment. Expansion of programs and delivery systems contributed to the escalation in candidates interested in educator preparation. At this writing, the School of Education offers two different delivery approaches to attainment of the undergraduate degree: (1) an elementary program in Adult Professional Studies with an enrollment of 120 candidates, and (2) a residential program with 22 licensure areas with 192 students. In the graduate program, there are 13 different certification areas with an enrollment of 115 students. The School of Education teacher candidates exceed 400. The School of Education offers residential programs on the Wilmore campus, commuter programs on the Jessamine County Career and Technology Center campus, and distance learning on the Orlando, Florida campus. During the 2011-2012 academic year, three online programs were launched: Principal Preparation, Teacher as Leader, and Elementary Education.

As a School of Education, the faculty has been challenged to prepare our nation and world's most precious resource, our children and youth. Responding to

this call to service, the Asbury education faculty became committed to better prepare this new generation of educators to have high regard for the “minds, hearts, and spirits” of each and every learners. To accomplish this purpose, the faculty endeavored to teach candidates to value the learning of every student in the classroom by incorporating professional instructional practices that encourage relational community within the classroom, pique the inner desire to learn, emphasize full engagement of the learner, focus on ensuring the competencies of each learner, and encourage the God-given talents of every individual within the schooling context.

In 2010, the Asbury School of Education moved into a clinical-based model of teacher preparation (Blue Ribbon Panel Report, 2010). The design included expanded structured field experiences, known as clinicals that include scheduled seminars, specific targeted field and clinical activities, and a culminating project documenting the acquired knowledge, skills, and dispositions. A description of Asbury’s clinical model can be found in Appendix A. The professional education curriculum courses were restructured in order to accommodate the field experiences and provide room for an additional course for all candidates addressing how to deliver differentiated instruction to meet the needs of all learners (Levine, 2010). A curriculum alignment of all professional courses was one component of this process moving towards project-based learning in each course (Levine, 2010).

In clinical-based preparation, the focus has been on learner-based instruction emphasizing the value of each student's achievement (Blue-Ribbon Panel Report, 2010). The inquiry-based method of instruction creates the pedagogical framework,

with an emphasis on project based learning in each course. Using authentic experiences and clinical practices, the goal has been to help every candidate in education to "think like a teacher" and transition to becoming an effective educator by developing skills to design instruction, assess student learning, analyze student progress and achievement, diagnose learning needs and prescribe personalized learning plans (Berry, 2010).

Two features define the types of clinical experiences in Asbury's program: (1) course-embedded school experiences in each course with a range of authentic activities, and (2) school-embedded experiences in each program that include multiple school-based experiences (Levine, 2010). Clinical-based preparation bridges the gap between the theory in courses and school practice by targeting authentic experiences and making direct connections to conceptual understandings (Berry, 2010). As a candidate experiencing clinical-based preparation, 21st century skills of innovation, collaboration, creativity, classroom management, critical thinking and problem solving will be emphasized in courses and clinical experiences (Berry, 2010). Within courses there are planned clinical opportunities that include classroom management simulations, case study methodology, guided authentic experiences such as walkthroughs, mentoring, tutoring, targeted observation, and shadowing, and professional teaching practice. Candidates are expected to complete authentic projects and reflect upon their professional growth in each experience. This planned curriculum is delivered in developmental stages enabling the candidate to master appropriate skills sets for each professional area of preparation.

Historically, Asbury's School of Education, accredited by the Education Professional Standards Board (EPSB) in Kentucky and the National Association for Colleges of Teacher Education (NCATE), has been on the forefront of innovation in the state and national level. The conceptual framework for the unit includes specific information and a timeline, which detail the development of the program from 1993 until the present.

During the course of the 2010-2011 academic year, the Asbury School of Education faculty explored research in the changing practices of educator preparation leading them to these conclusions:

- 1) We must prepare a new generation of educators using the technology resources indicative of the 21st century.
- 2) We must bridge the gap between "theory and practice" in professional preparation by recognizing the need for contextualizing the "learning to teach" within the authentic environment of the classroom.
- 3) We must view our professional field as a "clinical" field as practiced in psychology, nursing, and medicine for many years. This approach could be accomplished by providing increased opportunities for our teacher candidates to practice teaching and to focus on candidate abilities to differentiate instruction so as to better meet the individual needs of each student.

- 4) We must incorporate “inquiry-based” pedagogical approaches within all program components and be as intentional in field and clinical outcomes as we currently are in course goals.
- 5) We must provide a more integrative preparation program for the candidate by using project-based learning in each course to help future educators experience the effectiveness of the intentional and targeted design of instruction that more closely aligns with the brain’s connectivity structure.
- 6) We must increase our graduates’ ability to more effectively navigate all aspects of classroom management as it relates to students, colleagues, and parents.

A total of 16 teacher candidates participated in our classroom management study. Five of the teacher candidates were seeking middle school/high school certification while the remaining 11 candidates were seeking elementary education certification. The participants included 13 females and 3 males. Each of these teacher candidates had completed the 201 and 301 teacher training clinical blocks, which included a group of three to four education courses that supported their clinical practicum experience. The teacher candidates, at the time of the study, were all enrolled in the 401 block of education courses that precedes their student teaching semester. Classroom management is among the classes offered in this 401 block of classes. All of the elementary education candidates and one of the middle school certification candidates comprised the 11 teacher candidates enrolled in the class and

participating in the study. The remaining 5 teacher candidates were secondary education and had taken classroom management during a previous semester.

Describing the Classroom Management Training Modules

Teacher candidates are exposed to an insufficient number of authentic classroom management experiences during teacher preparation training. Historically, the curriculum design of teacher preparation programs was built on a theoretical understanding of managing behavior with limited experiences to learn and respond in advance of program completion. Three factors that appear to contribute to this situation include:

- Teacher preparation faculty members do not know enough about the medical model and how it is related to the implementation of the clinical model in the practicum experiences for teacher candidates.
- Teacher preparation faculty do not know enough about the 21st century learning techniques needed to provide appropriate clinical experiences for teacher candidates in the classroom.
- Teacher preparation faculty members need to create and embed experiences and instruction in the specific classroom management skills needed by teacher candidates through the clinical model.

Because more specific classroom management experiences need to be embedded in the training of teacher candidates, this study was created to determine what impact three different classroom management training modules using 21st

century tools and clinical medical practices would have on teacher candidates' perceptions in the development of their classroom management skills.

Classroom Management Simulations

Using a model that has been employed by medical schools across the country, the researchers of this capstone project collaborated with the University of Kentucky's College of Medicine Learning Center to host two simulations involving standardized parents and students interacting with the teacher candidate subjects. The Standardized Patient Program Coordinator organized a group of actors to be trained to act in the simulation as the standardized student and the standardized parent. The first training before the actual simulation experience was a conference Skype call with a professor and researcher at Syracuse University's School of Education. This contact is a researcher in the area of educational simulations. Several days were spent prior to enacting the simulations in training the actors and researchers in the operating procedure for the simulation. Information about the standardized student involved in the classroom management simulation was shared with the teacher candidate and provided context and meaning to the experience for the students. The teacher candidates were also given a pre-simulation instrument after having read the two simulations entitled, "The Casey Butler Story" (disruptive student) and the "The Jim Smithers Story" (irate parent). On the day of the simulation three to four subjects entered the staging rooms simultaneously in order to encounter the standardized student (Casey Butler) and irate parent (Jim Smithers). This encounter was recorded in each room, burned on to a DVD, and handed to the teacher candidate as they

departed the building. After the simulation, each subject returned to a conference room where they completed a post-simulation instrument. One week following the simulation, a follow up feedback meeting was held and recorded where the subjects shared their thoughts about the experience. Finally, a SurveyMonkey® questionnaire was sent out to the students to attain feedback on the overall experience with the simulations.

TLE: Avatar Virtual Classroom

The University of Central Florida pioneered TLE avatar simulators and the opportunity to customize their pre-service learning experience in a controlled virtual environment. It is clear from the research that simulations provide a realistic classroom setting that includes authentic student behavior so the teacher candidate can develop management and problem resolution skills while offering controlled, sophisticated focused instruction, practice, and rehearsal (Dotger, 2010).

The simulation team at the University of Central Florida partnered with Asbury to create simulation experiences. The simulator was customized so that the avatar student classroom reflected varied classroom demographics and needs, offering the teacher candidates' genuine, broad, diverse and varied opportunities for experience and practice.

During this capstone study each teacher candidate had to react to two written classroom management plans during a 10-minute microteaching experience in a virtual classroom environment. Behind the scenes, a trained interactor portrayed and controlled all five avatars simultaneously and calibrated the responses of each student

to correspond with the teacher's behaviors, attitude, and requests. Each avatar student had a unique personality trait common among school-aged students. The trained interactor worked with the researchers for this study to develop the session objectives for the teacher candidates. The two objectives for the course teacher candidates focused on included establishing clear expectations for beginning of the year procedures and student behavior expectations at the beginning of a unit. Before entering the TLE session the teacher candidates were given the objectives for each session. These objectives guided lesson plan preparation for the session.

Immediately following the avatar experience, teacher candidates responded to a feedback questionnaire administered by the researchers of this study. Candidates discussed their perceptions on the impact of and lessons learned from this simulation experience. Additional qualitative data were collected through candidate responses on a survey administered via SurveyMonkey® related to the experiences gleaned from both TLE sessions. The entire group also participated in a video recorded class discussion providing information to assist in further analyzing the value of this training.

Video Based Teacher Conference Analysis

Dr. Joan Walker, a professor in the School of Education at Pace University collaborated with Dr. Ben Dotger to create a classroom management experience that uses video analysis of Dotger's parent-teacher simulations. To begin Walker's video analysis experience, each teacher candidate used text-related video based case materials to assess a teacher's readiness to communicate with different families.

Each teacher candidate rated the teacher's skill in parent communication and then responded to a description of a classroom-based challenge regarding one student's behavioral and academic performance. Each teacher candidate analyzed two videos of a teacher and how the teacher handled the parent challenge in a parent-teacher conference. The teacher candidates chose which model of handling the parents situations they felt was more effective and why (Walker, 2012). Following completion of the two video modules, each teacher candidate was directed to respond to questions on SurveyMonkey® related to their learning experiences of analyzing the two Walker videos. The final feedback experience came in the classroom where teacher candidates participated in a recorded group discussion that provided data on their perceptions about the value of analyzing videos for training.

Research Design

This mixed methods study examined the impact of three classroom management training experiences, using 21st century tools, on teacher candidate perceptions of their preparedness to deal with classroom management issues. The clinical simulations involved standardized parents and teachers. TLE avatar classroom management training involved reacting to avatars and the video provided an opportunity for analysis of parent teacher conferences. Qualitative data gathering allowed a detailed story to emerge from the information from surveys, interviews and other data (Adler & Adler, 1987). Qualitative methods relied extensively on a rich, in-depth description of the phenomenon through content document reviews and interviews that used direct quotes from participants who described the phenomenon

(Patton, 2002). Quantitative data were used to determine the teacher candidate perception of the experience using a 7-point Likert scale (7 – Strongly Agree, 6 – Moderately Agree, 5 – Slightly Agree, 4 – Neither Agree Nor Disagree, 3 – Slightly Disagree, 2 – Moderately Disagree, 1 – Strongly Disagree).

Instrumentation

The sources, SurveyMonkey® questionnaires, individual interviews, candidate reflections and focus groups used to gather and triangulate data for this study were built on the qualitative and quantitative data retrieved following the UK Clinical Simulations, UCF TLE Avatar Lab experiences and the Pace University video analysis sessions that focused on the entire classroom management training experience. All of the data from the sources were collected from August 29 through December 4, 2013.

Each teacher candidate was administered a pre and post classroom management SurveyMonkey® questionnaire at the beginning and end of the study. A copy of the survey can be found in Appendix B. This questionnaire was developed by the researchers of this study aligned and adapted from the Danielson Framework for Teaching Evaluation Instrument to address specific areas of classroom management: dealing with disruptive students, irate parents, difficult students and overall classroom management efficacy. Quantitative data were used to determine the teacher candidate perception using a 7-point Likert scale. Teacher candidates were asked whether they felt adequately prepared to manage specific classroom management situations as a result of these innovative experiences. The questions

focused on disruptive students, irate parents, student interruptions and conferencing with parents and students. At the conclusion of the three classroom management training experiences, eight teacher candidates were randomly selected for a targeted focus group session. A series of questions, developed by the researchers of this capstone, were used to determine the impact and value of the training on their perception of using these tools to better prepare them for classroom management. In addition, these questions centered on the usefulness of the trainings, the order of the trainings, and if and how they should be embedded in university teacher preparation programs. A copy of the questions asked can be found in Appendix C. At the conclusion of each training experience the teacher candidates were given a post SurveyMonkey® questionnaire that asked them to reflect on their perception of the experience. A copy of the questions asked can be found in Appendix D. These questions were slightly modified for each experience. For example, question number 10, “This training with (video analysis, avatars, simulations) felt realistic and authentic.” was modified to include the specific training they had just completed.

UK Clinical Simulations

The UK Clinical Simulations were conducted on two separate days, September 19 and October 16, 2013. Pre and post teacher reflections for the two simulations with standardized individuals were collected from teacher candidates before and after the experiences. A copy of the questions asked can be found in Appendix E, Appendix F, Appendix G and Appendix H. The questions used to gather information were developed in collaboration with Dr. Ben Dotger from the

University of Syracuse School of Education. A post experience survey was administered to teacher candidates at the conclusion of both simulations. This survey was adapted from the Danielson Framework for Teaching Evaluation Instrument. The focus of the questions in both surveys centered on how simulations helped teacher candidates grow, if the simulations were realistic, how the training supported their learning and which training was the most beneficial to the preparation as a teacher candidate. Quantitative data were used to determine the teacher candidate perceptions in using simulations to learn classroom management skills. A 7-point Likert scale rating was used to gather this quantitative data. Additionally, the Standardized Parent (SP) gave feedback to our teacher candidates rating them on their performance during their parent conference. A copy of the questions asked can be found in Appendix I.

UCF TLE

The UCF TLE avatar experience was held on two separate days: November 4 and December 3, 2013. Lesson objectives were developed for the two avatar classroom session. A copy of the session objectives can be found in Appendix J and Appendix K. Post training SurveyMonkey® questions were administered to the teacher candidates to collect quantitative data on their experience as mentioned earlier. These questions were developed and adapted by the researchers from the Danielson Framework for Teaching Evaluation Instrument. A set of post training open-ended reflection questions was administered to teacher candidates, after each of the two experiences, to gather qualitative data. A copy of these questions can be seen

in Appendix L and Appendix M. The questions were developed by the researchers of this capstone in collaboration with the TLE University of Florida team. The teacher candidates were given a classroom management self-assessment rubric that was adapted from the Danielson model. A copy of this rubric can be seen in Appendix N. At the conclusion of both TLE experiences, a focus group session led by the researchers of this study was scheduled to collect teacher candidate feedback following the experience. Questions from this session were developed by the researchers of this study to determine the impact of the training modules on teacher candidate perceptions in preparing them with the needed classroom management skills. Questions focused on how did the avatar lab training support their learning as a teacher candidate, how realistic was the lab experience and what were the greatest challenges in participating in the experience. Quantitative data were used to determine the teacher candidate perception of using avatar TLE training to learn classroom management skills using a 7-point Likert scale.

Pace University Video Analysis

The teacher candidates completed the Pace University video analysis modules during November 2013. The post training SurveyMonkey® questionnaire was completed by the teacher candidates following the video analysis experiences as mentioned earlier. This questionnaire was developed by the researchers of this study and adapted from the Danielson Framework for Teaching Evaluation Instrument. Teacher candidate post video analysis reflections questions were asked after viewing the video case studies. These questions can be seen in Appendix O. At the

conclusion of both video analysis experiences a focus group session led by the researchers of this study was held to gather teacher candidate feedback. These questions can be seen in Appendix P. Questions from this session were developed to discuss the impact of the training on their perception classroom management skills. Questions gathered data on how teacher candidates learned through observation, new ways of interacting with parents, and benefits of viewing two contrasting parent teacher conferences with different results. Quantitative data were used to determine the teacher candidate perception of using video analysis to learn classroom management skills using a 7-point Likert scale.

A summary of all of the training activity experiences can see seen in Table 1.

Table 1

A Summary of all of the Training Activity Experiences

Area	Activity Description
UK Clinical Simulations	Pre-simulation orientation and Skype training sessions with actors, research team and a university professor familiar with this study to discuss the character's back story, history and progression through the simulation.
	Pre-simulation orientation with research team and teacher candidates to familiarize them with the simulation.
	Teacher candidates sign up for 30-minute simulation sessions with the research team.
	The day of the simulations four students arrived each 30-minute block to simultaneously enter the rooms where the simulations would take place with four different actors.

Each simulation session was recorded on DVD and distributed to the teacher candidates at the conclusion of the simulation.

A post-simulation questionnaire was distributed to the students to complete before departure.

An actor feedback video was used in their preparation room to record their feedback on the teacher candidate's performance in their simulation room.

Teacher candidates and the research team met as a group a week later for a focus group session and debrief.

TLE Avatar
Lab

Pre-avatar lab orientation and Skype training sessions involving the research team, the avatar interactor and UCF support staff overseeing the TLE lab was used to discuss technical issues in setting up a lab on site at Asbury. Additionally, the meeting was used to have the research team familiarize themselves with the avatar class and the process for teaching an on line class.

Pre-simulation orientation with research team and teacher candidates to familiarize them with the simulation.

Teacher candidates sign up for 10-minute avatar sessions with the research team.

The day of the avatar TLE experience four students arrived at the beginning of the hour to prepare to enter the TLE lab their ten-minute lesson.

Each avatar TLE session was recorded on DVD.

A post-simulation questionnaire was distributed to the students to complete before departure.

Teacher candidates and the research team meet as a group a week later for a focus group session and debrief.

Pace University Video Analysis	<p>Pre-video analysis orientation and Skype training sessions with the research team and a university professor familiar with this study to discuss the parent teacher conference video analysis modules.</p> <p>Pre-video analysis orientation in a computer lab with research team and teacher candidates to familiarize them with the video analysis procedure and to log in.</p> <p>The teacher candidates were given a month long window to complete two of the video analysis modules on line from their own computers.</p> <p>A post-video analysis questionnaire was distributed to the teacher candidates to fill out after they completed the two video analysis modules.</p> <p>Teacher candidates and the research team meet as a group after completion of the video analysis modules for a focus group session and de-brief.</p>
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The Pre SurveyMonkey® questionnaire was administered to the teacher candidates before the commencement of the three classroom management experiences: UK Clinical Parent-teacher simulations, the University of Central Florida TLE avatar classroom management lab and the Pace University on line video analysis modules. Following the completion of the final video analysis module by the teacher candidates they completed the Post SurveyMonkey® questionnaire. Following the UK Clinical Simulations, each teacher candidate participants completed a Post SurveyMonkey® questionnaire and followed by the completion of a post training reflection after each simulation experience. At the conclusion of the two simulations, a focus group session was held to gather additional feedback. Survey

and interview data were gathered to assess if the simulation experience had afforded teacher candidates a stronger, positive perception of their own classroom management efficacy in dealing with irate students and parents in difficult situations.

Following the conclusion of the UCF TLE Avatar Lab experiences teacher candidates completed a Post SurveyMonkey® Questionnaire and followed by a post training reflection after each avatar TLE experience. Final feedback came from a targeted focus group session with open-ended questions that allowed, teacher candidates to talk about the quality of the experience of teaching and controlling avatars students on line. All survey and interview data were gathered to assess if the TLE experience had influenced the teacher candidate's perception about their feeling of preparedness to effectively implement classroom management techniques.

The final classroom management experience for the teacher candidates, Pace University's on line video analysis of the effectiveness of strategies used during parent teacher conferences included a post SurveyMonkey® questionnaire, a post training reflection paper and a targeted focus group. The focus of the feedback was to ascertain how the teacher candidates felt about watching classroom management techniques being employed in a parent-teacher meeting after being a part of a live session. Additionally, survey and interview data were gathered to assess if the video analysis experience had influenced the teacher candidate's perception about their feeling of preparedness to effectively implement classroom management techniques.

Targeted focus group interviews were conducted. Recorded candidate comments were transcribed. The teacher candidates were encouraged to respond

openly to the questions. The researchers used questions to guide the discussion using open-ended questions to probe for information. Data was gathered using a coded analysis of transcribed focus groups, individual interviews and written and verbal responses to a structured guide.

Table 2

Data Analysis Plan

Research	Question	Instruments	Analysis Technique
RQ1	This capstone investigates teacher candidate's perception about their feeling of preparedness to effectively implement classroom management techniques through the use of three 21 st century tools.	Pre and Post Classroom Management Experience SurveyMonkey® Questionnaire	Descriptive Statistics, One way ANOVA, Cohen's d
		Post Classroom Management Experience Individual Teacher Candidate Interviews	Coded themes of individual interviews using a structured guide
		UK Simulation Post SurveyMonkey® Questionnaire	Coded themes of the candidates written responses to a structured guide
		UK Simulations Post Training Reflections	Coded themes of the content analysis of a transcribed focus group
		UK Simulations Post Training Focus Group	Coded themes of a focus group using a structured guide
		UCF TLE avatar Lab Post Training SurveyMonkey® Questionnaire	Coded themes of the candidates written responses to a structured guide

UCF TLE avatar Lab Post Training Reflections	Coded themes of the content analysis of a transcribed focus group
UCF TLE avatar Lab Post Training Targeted Focus group	Coded themes of a focus group using a structured guide
Pace University Video Analysis Post SurveyMonkey® Questionnaire	Coded themes of the candidates written responses to a structured guide
Pace University Video Analysis Post Training Reflections	Coded themes of the content analysis of a transcribed focus group
Pace University Video Analysis Post Training Targeted Focus Group	Coded themes of the content analysis of a transcribed focus group

External Validity

Validity establishes the efficacy of a research project. This study established validity using university professors familiar with this study to develop survey and focus group questions

In an effort to guarantee validity, the three researchers solicited the assistance of a known expert for each one of the three tools being studied. The Standardized Patient Program Coordinator from the University of Kentucky's College of Medicine Learning Center assisted with the implementation of the two simulation lab experiences. Additionally, an author and associate professor at Syracuse University assisted with the implementation of this phase of the training. An associate professor

at Pace University served as the consultant for the implementation of the video analysis segment of the study. The University of Central Florida (UCF) and the entire staff at the TLE facility at UCF provided guidance in implementing the avatar phase of the study in a manner that would facilitate valid findings. Following the advice of these outside consultants assured validity in that the tools were implemented in a manner that was consistent with the way they were implemented in other studies that proved their effectiveness.

To secure the volunteer participants for the study, a faculty associate not connected to the study, met with the potential participants to explain the parameters of the study and to secure their informed consent. For the study to be valid it was critical that the teacher candidates volunteered to participate without feeling pressure from any of the three researchers of this study.

The focus of this study centered on the perceptions of participants about their preparedness to implement effective classroom management skills and the impact the three 21st century teaching modules had on those perceptions. Validity was strengthened in that the teacher candidates were able to experience firsthand the three teaching tools and apply the learning gained through their use as opposed to experiencing the tools for teaching classroom management theoretically.

So as to not impose any personal bias on the results of the study, the assistance of statisticians who are experts in both qualitative and quantitative data analysis were consulted on a regular basis in both formal and informal gatherings to discuss strategies for securing, recording, and analyzing data. This was particularly

important for creating coding rubrics for the qualitative data to avoid imposing personal biases upon the data reflecting student perceptions.

Extensive research was done on numerous 21st century teaching tools utilized by a variety of universities for the teaching of classroom management skills. Finding tools that had been documented by other studies, as being useful for the purpose being researched in this study, was paramount if the findings of this research were to result in valid conclusions.

The SurveyMonkey® tool was utilized for the pre and post questionnaires administered in this study to determine the perceptions that the teacher candidates had both before and after experiencing the three 21st century teaching experiences. This survey tool helped to assure that the responses were completely anonymous and that the participants did not try to respond, as they believed the researchers wanted them to respond.

It is believed that the strategies detailed above all contributed to results that were valid and therefore accurate in the conclusions drawn about the effectiveness of the three 21st century experiences. The researchers believe the measures used to assure validity has resulted in their research to be valid and if replicated would provide similar results. The implementation of 21st century teaching experiences, including the three in this study, will contribute to the earnest attempt by teacher educators to help teacher candidates believe that they are prepared to handle classroom management situations they most assuredly will face in today's public and private school classrooms.

Collaboration Methods

It is important to understand the three authors involved in this project all work in the School of Education at Asbury University. The three doctoral candidates entered this collaborative project with the understanding they be prepared to ensure that work on this project represented their collaborative efforts in every way possible. Work was divided equally in both research and writing. Numerous hours were spent collectively crafting questions, administering surveys, gathering data, determining results and findings and participating in sessions with students and the various university partners.

All researchers of this capstone have come to the conclusion of this study equally knowledgeable about all aspects of the study. Standing weekly meetings were regularly schedule to work on this project. Monday morning meetings were held from January 2013 until the completion of the study in the spring of 2014.

Dropbox® proved to be a very valuable computer application utilized by the researchers for this project. All relevant documents were stored using this tool to ensure the researchers were accessing all documents and all revised iterations.

It is with a sense of confidence that the researchers conclude this work with a strong bond of oneness. We look forward to continuing collaborative work as we strive to find ways to infuse the work of this study into our teacher education program and to continue our research into additional ways to improve and enhance the Asbury University School of Education.

Limitations of the Study

All studies have limitations. Several limitations of this dissertation are provided below.

1. The sample size of the study was limited to the ten students enrolled in Classroom Management for the fall of 2013 that agreed to be a part of this study. Additionally, five secondary education majors agreed to ensure a better distribution of elementary, secondary and P-12 majors.
2. The study focuses only on the clinical model currently in place at Asbury University.
3. The length of time does not permit a longitudinal study of Asbury's current clinical practices since it began in the spring of 2012. It is a goal of the authors that data will continue to be collected to add to this body of research.
4. Due to the small sample size, generalizability could be limited.
5. Literature about clinical models in higher education teacher preparation programs is limited.
6. Teacher candidates in the study only experienced the avatar lab and the simulations lab on two separate occasions each.
7. The teacher candidate sample was not demographically diverse as they were 100% Caucasian and twelve of the 16 participants were females.
8. Facility limitations at the University of Kentucky meant that occasionally students who had experienced the simulation lab had brief interactions with teacher candidates who had not yet experienced the lab.

9. Technical difficulties with the University of Central Florida's avatar lab meant that there was twenty-seven days between the first TLE experience and the second experience.
10. It is difficult to conclude that any improvement or regression in student's perceptions of preparedness can be attributed solely to their experiences with the three 21st century training tools used in this study. Other factors could include: what has been learned in other education classes and what they have learned during clinical placements that they have experienced during the duration of this study.
11. The costs related to implementation of needed technology to work with avatars and standardized parents/students may require additional course fees.

Summary

Chapter three provides a description of the three 21st century learning tools and how those tools were utilized for this study. Chapter four details both the qualitative and quantitative methods implemented to assist with data gathering and analysis. These methods were chosen to allow meaning to emerge that described the impact the three teaching experiences had on the perceptions of the teacher candidates about their preparedness to effectively manage a classroom.

Chapter Four: Results

The intent of this study was to investigate the preparation of teacher candidates in classroom management skills using 21st century training. At the center of this study has been an investigation of new, authentic approaches to teaching classroom management to teacher candidates. Results reflect the perceived effectiveness of the three 21st century classroom management training experiences used in this study by the teacher candidates that included simulations, avatars and video analysis.

The research question guiding this dissertation has been: what impact did classroom management training modules, using 21st century tools and clinical medical practices, have on teacher candidates' perceptions in the development of classroom management skills?

Quantitative Results

Quantitative results presented below include data analyses related to the pre and post study statements correlated to the teacher candidates' perceptions of their classroom management efficacy.

The data in Table 3 below details the responses given by the study participants on both the pre and post study statements.

Table 3

Detailed Summary of Pre and Post Test Responses

			Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree	Slightly Agree	Moderately Agree	Strongly Agree
I feel adequately prepared to effectively manage classroom situations that might arise during my first year of teaching.	Pre	Count	0	1	5	0	5	5	0
		Percent	0.00%	6.25%	31.25%	0.00%	31.25%	31.25%	0.00%
	Post	Count	0	1	1	0	6	7	1
		Percent	0.00%	6.25%	6.25%	0.00%	37.50%	43.75%	6.25%
I feel confident dealing with a disruptive student.	Pre	Count	0	1	4	2	8	1	0
		Percent	0.00%	6.25%	25.00%	12.50%	50.00%	6.25%	0.00%
	Post	Count	0	1	1	0	7	5	2
		Percent	0.00%	6.25%	6.25%	0.00%	43.75%	31.25%	12.50%
I feel prepared to adequately address the needs of a special education student who has behavioral issues.	Pre	Count	0	3	5	3	5	0	0
		Percent	0.00%	18.75%	31.25%	18.75%	31.25%	0.00%	0.00%
	Post	Count	1	2	3	1	6	2	1
		Percent	6.25%	12.50%	18.75%	6.25%	37.50%	12.50%	6.25%
I feel adequately prepared to effectively facilitate a conference with an irate parent.	Pre	Count	0	3	7	3	2	1	0
		Percent	0.00%	18.75%	43.75%	18.75%	12.50%	6.25%	0.00%
	Post	Count	0	0	0	2	5	6	3
		Percent	0.00%	0.00%	0.00%	12.50%	31.25%	37.50%	18.75%
I feel adequately prepared to effectively manage a verbal altercation between two of my students.	Pre	Count	0	0	4	2	7	3	0
		Percent	0.00%	0.00%	25.00%	12.50%	43.75%	18.75%	0.00%
	Post	Count	0	0	0	0	7	8	1
		Percent	0.00%	0.00%	0.00%	0.00%	43.75%	50.00%	6.25%
The training I received in the Asbury education program has given me the classroom management skills I need to begin my teaching career.	Pre	Count	0	1	1	6	6	2	0
		Percent	0.00%	6.25%	6.25%	37.50%	37.50%	12.50%	0.00%
	Post	Count	0	0	1	2	8	4	1
		Percent	0.00%	0.00%	6.25%	12.50%	50.00%	25.00%	6.25%
I know what to do when students interrupt my teaching.	Pre	Count	0	0	1	1	10	4	0
		Percent	0.00%	0.00%	6.25%	6.25%	62.50%	25.00%	0.00%
	Post	Count	0	0	2	0	6	6	2
		Percent	0.00%	0.00%	12.50%	0.00%	37.50%	37.50%	12.50%
I have had sufficient experiences practicing my classroom management skills.	Pre	Count	0	1	4	5	5	1	0
		Percent	0.00%	6.25%	25.00%	31.25%	31.25%	6.25%	0.00%
	Post	Count	0	1	1	1	6	5	2
		Percent	0.00%	6.25%	6.25%	6.25%	37.50%	31.25%	12.50%
If a special needs student is in my class, I possess the necessary skills to conference effectively with his/her behavior.	Pre	Count	1	1	6	3	5	0	0
		Percent	6.25%	6.25%	37.50%	18.75%	31.25%	0.00%	0.00%
	Post	Count	0	2	1	4	4	4	1
		Percent	0.00%	12.50%	6.25%	25.00%	25.00%	25.00%	6.25%
I will know what to do to defuse the situation when conferencing with an angry parent.*	Pre	Count	0	2	5	4	3	1	0
		Percent	0.00%	13.33%	33.33%	26.67%	20.00%	6.67%	0.00%
	Post	Count	0	0	1	1	8	3	3
		Percent	0.00%	0.00%	6.25%	6.25%	50.00%	18.75%	18.75%
If students are fighting in my classroom I am	Pre	Count	0	1	4	1	7	2	1
		Percent	0.00%	6.25%	25.00%	6.25%	43.75%	12.50%	6.25%

Post	Count	0	0	1	0	10	3	2
confident in my ability to positively manage the situation	Percent	0.00%	0.00%	6.25%	0.00%	62.50%	18.75%	12.50%

* Only 15 respondents completed this item

The data in Table 4 were analyzed using a one-way ANOVA with pre-test and post-treatment scores. Data revealed significant differences among statements 2, 4, 5, 8, 9, and 10. Among the items found to be statistically different, effect size was calculated to determine the amount of variance able to be attributed to the training intervention. Using Cohen (1998) as a guideline, each corresponding effect size was deemed to be large. Specific results were as follows: statement 2, “I feel confident dealing with a disruptive student.” ($F(1, 30) = 5.45, p = 0.026$ and $\eta^2 = .154$). Statement 4, “I feel adequately prepared to effectively facilitate a conference with an irate parent.” ($F(1, 30) = 34.09, p < 0.001$ and $\eta^2 = .532$). Statement 5, “I feel adequately prepared to effectively manage a verbal altercation between two of my students”, ($F(1, 30) = 11.44, p = 0.002$ and $\eta^2 = .276$). Statement 8, “I have had sufficient experiences practicing my classroom management skills.” ($F(1, 30) = 7.003, p < 0.013$ and $\eta^2 = 0.189$). Statement 9, “If a special needs student is in my class, I possess the necessary skills to conference effectively with his/her behavior.” ($F(1, 30) = 4.49, p = 0.043$ and $\eta^2 = 0.130$). Statement 10, “I will know what to do to defuse the situation when conferencing with an angry parent.” ($F(1, 30) = 16.50, p < 0.001$ and $\eta^2 = 0.363$). The statements ranked from most significant to least significant are as follows:

#4 - I feel adequately prepared to effectively facilitate a conference with an irate parent. (Tied with question number 10)

#10 - I will know what to do to defuse the situation when conferencing with an angry parent.

#5 - I feel adequately prepared to effectively manage a verbal altercation between two of my students.

#8 - I have had sufficient experiences practicing my classroom management skills.

#2 - I feel confident dealing with a disruptive student.

#9 - If a special needs student is in my class; I possess the necessary skills to conference effectively with his/her parent.

#6 - The training I received in the Asbury education program has given me the classroom management skills I need to begin my teaching career. (Tied with question number 11)

#11 - If students are fighting in my classroom I am confident in my ability to positively manage the situation.

#1 - I feel adequately prepared to effectively manage classroom situations that might arise during my first year of teaching.

#3 - I feel prepared to adequately address the needs of a special education student who has behavioral issues.

#7 - I know what to do when students interrupt my teaching.

Table 4

Analysis of Variance Table of Pre-test Scores and Post-treatment Scores

Item	Pre-Test		Post-Test		<i>p</i>
	M	SD	M	SD	
1. I feel adequately prepared to effectively manage classroom situations that might arise during my first year of teaching. (ALL)	4.50	1.41	5.25	1.24	0.121
2. I feel confident dealing with a disruptive student. (Avatar/SIM)	4.25	1.13	5.25	1.29	0.026
3. I feel prepared to adequately address the needs of a special education student who has behavioral issues. (General)	3.63	1.15	4.19	1.68	0.278
4. I feel adequately prepared to effectively facilitate a conference with an irate parent. (SIM/Video)	3.44	1.15	5.63	0.96	<.001
5. I feel adequately prepared to effectively manage a verbal altercation between two of my students. (SIM)	4.56	1.09	5.63	0.62	0.002
6. The training I received in the Asbury education program has given me the classroom management skills I need to begin my teaching career. (ALL)	4.44	1.03	5.13	0.96	0.06
7. I know what to do when students interrupt my teaching. (Avatar)	5.06	0.77	5.38	1.15	0.373

8. I have had sufficient experiences practicing my classroom management skills. (ALL)	4.06	1.06	5.19	1.33	0.013
9. If a special needs student is in my class, I possess the necessary skills to conference effectively with his/her parent. (SIM/Video)	3.63	1.20	4.63	1.45	0.043
10. I will know what to do to defuse the situation when conferencing with an angry parent. (SIM/Video)	3.73	1.16	5.38	1.09	<.001
11. If students are fighting in my classroom I am confident in my ability to positively manage the situation. (SIM)	4.50	1.37	5.31	0.95	0.06

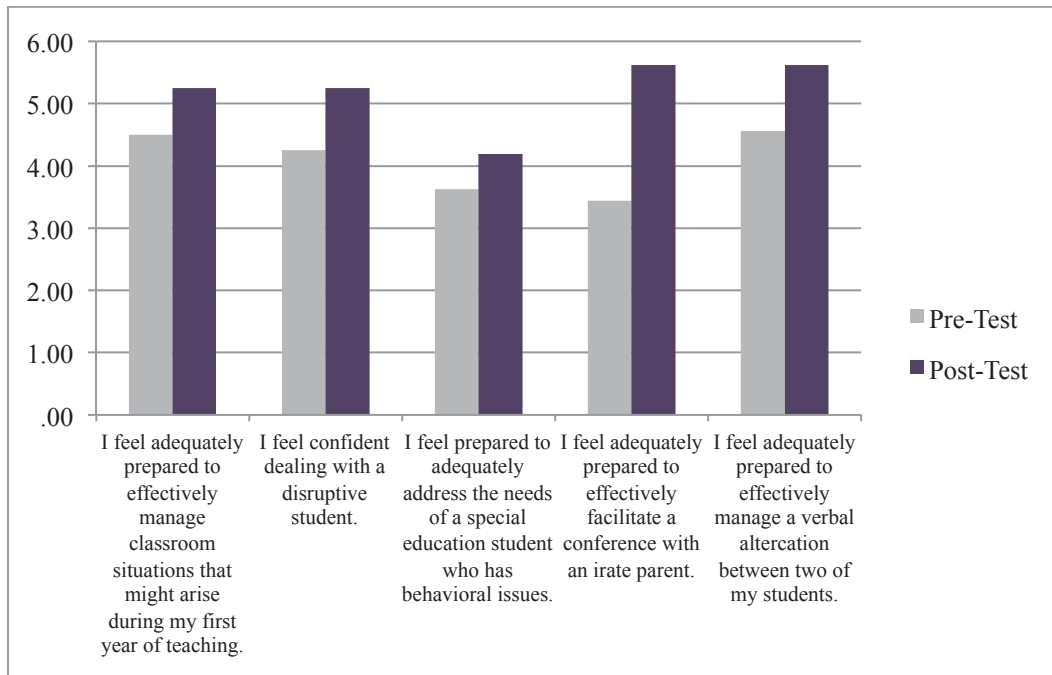


Figure 1- Pre and Post Mean Scores from Teacher Candidate Survey, Items 1-5

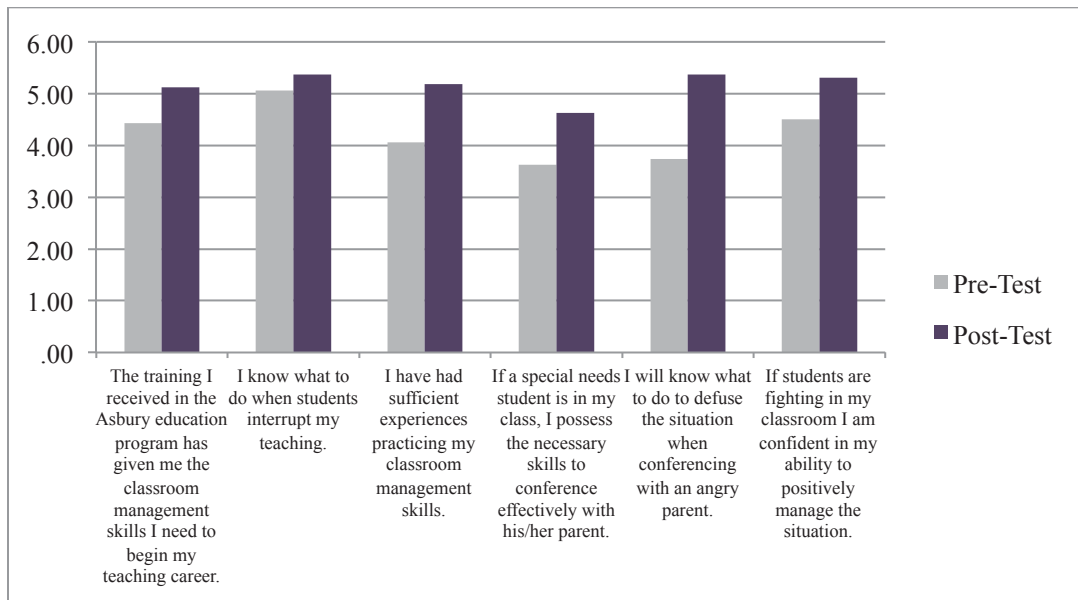


Figure 2 - Pre and Post Mean Scores from Teacher Candidate Survey, Items 6-11

Qualitative Results

The capstone relied on qualitative data analysis to inform the researchers whether to continue or revise practices in the preparation of teacher candidates in classroom management. Triangulation of multiple sources of data occurred that included focus groups, debriefing sessions, open-ended questionnaires and individual interviews that were conducted with candidate participants as a part of this study. All of the aforementioned sessions were recorded and comments transcribed. Eighty-three pages of transcribed notes were collected as evidence for results and findings. Participants names were replaced with a coding system in order for the researchers to blindly code the results. Each of the researchers read all of the qualitative data and identified the themes that became most prominent. In an effort to ensure inter-rater reliability the researchers compared themes and agreed upon four themes. The four prominent themes that emerged were:

1. Tools/Lessons Learned
2. Preparation/Lack of Preparation
3. Relevant/Realistic
4. Obstacles/Frustrations/Barriers

The researchers then reread all of the qualitative data and coded the responses of the study participants according to the four identified themes. Those results were assimilated into a master document that summarized the number of times each of the study participants mentioned each of the four themes. Those results are represented in Tables 5 - 7. (E= elementary, MS=middle school, HS= high school; M= male, F=

female and the number indicated the number of comments assigned to each individual.)

An analysis of the qualitative data collected in each of those four areas revealed the following:

1. Tools/Learning – When study participants mentioned new schema and teaching practices gained through their participation in any of the three classroom management training experiences, those comments were coded for tools (T) or learning (L). There were a total of thirty-five student comments about this theme. Interestingly, nine of the ten elementary study participants made a statement about tools/lesson learned. Several of the teacher candidates mentioned learning more or needing to know more about relating and communicating with students. They realized the importance of student teacher relationships and drilling deeper when identifying a problem. Several of the teacher candidates mentioned the importance of the partnerships that exists between the teacher and the parents in the education of the students. The participants mentioned that these experiences caused them to start reflecting more deeply and thoroughly on their classroom management practices that they will likely encounter with parents and students in the future. As data from this theme was further analyzed it became apparent that the study participant comments about this theme were overwhelmingly positive. Representative student comments about this theme included:

Table 5

Student Comments: Tools and Lessons Learned

<i>Participant</i>	<i>Tools/Lessons Learned Contextualized Student Quotes</i>
ES 6 M	I need to improve on relating with students.
ES 3 F	I should have taught more quickly---I would establish rules more firmly
ES 4 F	I should have been more observant
ES 2 F	This made me realize that I need to work on my communication skills. I would like to learn some methods to help a student open up. Is it really my responsibility to decide if this student has deeper problems? I haven't seen or met this student before?
ES 9 M	I need to improve on how I communicate with the students. I need to be more intentional about the questions that I ask. Not so much silence. I liked that there were only five students in the avatar classroom because it is easier with a small classer to implement what you think is good classroom management.
ES 1 F	I found out I probably didn't take this situation far enough. I think I should have probed further, I just didn't know how to handle it. I need to address misbehaviors more consistently
ES 8 F	I think it's important to understand that conferences are two-sided. It's not just a one-sided conversation so you can't just go into it with like this is what's happening with your child in the classroom. You have to remember that they may be doing the same thing at home but in a different way so you can talk with the parents about what they do to help in the same something you doing the classroom can work it home so it's more like a... It's more of a conversation then A lecture of all the things that need to happen... It's a partnership.

MS 2 F	<p>For me it's helpful just to know what I would do and what I wouldn't do. Sometimes I don't think about that... About what I would've or wouldn't do... it kick starts you're thinking. You start thinking about what you would do in this situation. And the processing of how you want to handle things in the future.</p> <p>Proximity is such a huge classroom management tool and this micro lesson just established that fact even more. How does a teacher handle misbehavior when proximity cannot be utilized? How do we discipline or reprimand without embarrassing the student or wasting essential instructional time?</p>
MS 1 F	<p>The video analysis was a brainstorming for me... Like what I do and how should I do it... And then the UK simulations were hands-on... With little information what are you going to do, what is your style of teaching... What's the first thing you've got to say.. And then I think that the avatars brought more self-reflection. I realize that I am definitely relying a lot on proximity and what do I do when I don't have that.</p>
MS 1 F	<p>I have to remember not to discipline by embarrassing the student in front of the class. I need to quietly address the situation.</p>
HS 2 F	<p>I loved it. I thought it was so great. I've already taken a class in classroom management and just in those four scenarios, I think I learned more than in the classroom. It was really great to have a practical experience of dealing with people. I thought the scenarios at UK were awesome. I really liked the avatars, too.</p> <p>I really loved being a part of the study and I think it contributed greatly to my education. I think it was great. I think I learned more during these four simulations than I get in my classes. It was so practical and experiential and I think that the simulations were very realistic. They were very believable and I think that the avatar students... It was really good to have the variety of students in the classroom and the different behaviors that are common in the classroom. Overall I really enjoyed it.</p>
HS 3 M	<p>How do you "break the shell?" What is the priority of enforcing the rules vs. knowing the student? So what, really, is the priority of the teacher?</p> <p>I need to improve my pacing and include all students in discussions</p>

2. Preparation/Lack of Preparation – Whenever a participant commented on how prepared or how unprepared they felt they were to participate in a classroom management training experience the comments were coded for preparation or lack of preparation with a (P). This could include preparedness either in terms of being prepared for the logistics of the training tool or their professional knowledge in handling the situation facing them. There were several comments made by the study participants that suggested that greater thought needed to be given to how much information was shared with them in preparation for each experience. Another frequent comment centered on the participants being overwhelmed by the experience itself and not feeling prepared to know how to address the situation they faced. The students identified the need for more feedback from the researchers before and after each experience in order to learn more classroom management strategies for dealing with students and parents. One teacher candidate felt it would have been beneficial to spend several classes on instruction about how to approach conferences, key questions to ask, perspectives to take, definite, “do’s and don’ts,” for each situation. A revelation to them was that there are multiple ways of handling a given situation. They appreciated being able to learn classroom management strategies in class but they also felt they need more time to practice them in a situation that allows them to make mistakes without impacting an actual student or parent. Allowing the participants to have two experiences in each of the training module helped them feel more prepared and less intimidated the second time they faced the same experience. Representative comments coded for this theme include:

Table 6

Student Comments: Preparation or Lack of Preparation

Participant	<i>Preparation or Lack of Preparation Contextualized Student Quotes</i>
ES 5 F	I might need to work on watching all the students while I talk to one of them. For the most part, I thought it went as planned.
ES 1 F	To be a good enough experience, you need to prepare us with what to do and teach us how to have some strategies before we go into the experience. I didn't feel prepared.
ES 2 F	Is it really my responsibility to decide if this student has deeper problems? I haven't seen or met this student before. I need to establish rules and protocol first.
ES 2 F	If this method of teaching were to be used in class in the future, then I think it would be beneficial to spend several classes on instruction about how to approach conferences, key questions to ask, perspectives to take, definite do's and don't. Even though these simulations stressed me out a little bit, I do think that they were helpful.
ES 6 M	I would have enjoyed the videos first. Then go into the simulations. I liked the actors. We spend so much time in class talking about strategies but we need more time to practice them. Some of the simulations would have been better. The face to face is better. There aren't as many limitations with real people.
ES 3 F	I would go as far as to say that this experience (videos) should be something you do in our 201 clinical block way back at the beginning of the program. A parent teacher conference and I thought that was even a little bit more helpful because you can interact with the teacher after so this was something you should do even before you do the see a parent-teacher conference or do a parent teacher conference.
ES 1 F	I think it was good too because a lot of the time people are so caught up in being prepared and being ready and having all the data, and it is important to have all the data and evidence. You have to have all those things that are necessary for teaching but I think it was good to show that you can't get caught up in all those things on all levels not just with conferences.
MS 1 F	But being prepared is not enough you have to connect with the people you're trying to reach. Yes, she (the actor) was a great 15-year-old. I

	had to ask her questions to get info from her. She didn't necessarily volunteer information. I expected it to be this way, so I prepared about two pages of questions that I could ask her.
MS 2 F	<p>I actually felt like I was very clear with my expectations. The students (avatar) were respectful but then I felt like they were getting bored because I kept talking.</p> <p>I would do the videos first. It's not as hands-on but it gives you instructions on how to do it and you are still getting instruction about what you should do parent-teacher conference. You can still get feedback about your style of teaching. What should Mr. or Mrs. so-and-so have done? So you're still thinking critically about the experiences. It's not like oh no you're in the hot seat and panic. Probably the avatars should come next. And then the hands-on things at UK.</p>
HS 2 F	Even though the simulation was completely different, the fact that I knew what the environment was going to be like and I kind of knew what to expect from the experience... and even if that was completely different from the first one... when practicing at school and stuff ... I knew about the actors, so when it was someone completely new, then it's really different and it went really well, I thought.
HS 3 M	With the simulations there were a few things that weren't clear to me as I was going in as far as what I needed to do to be prepared for it. And what I needed to be thinking about. For example, with the parent teacher conference, right before asking what kind of thoughts I needed to be thinking about, what I was referencing like the board had approved the book. Just better prepared having more background.
HS 4 F	The UK simulations because I have never thought about how to practice that and I know that will come up on a daily basis. I guess I always thought about the teaching aspect but not all the other things that go along with it. There's so much more that comes with teaching.

3. Relevant/Realistic – Study participants’ comments were coded forty-five times about the realistic nature of an experience and/or how relevant the experience seemed in terms of mirroring what they might experience in an actual classroom. As seen in Table 8 below, this theme garnered the most comments from the study participants. This fact would suggest that the goal of this study, to provide teacher

candidates with authentic teaching experiences using 21st century tools, had, at least in part, been reached. A teacher candidate commented that it was an excellent experience to prompt her thinking in what she had done and what she would do differently the next time. Another teacher candidate said she was confident in all of the theory she had learned but the opportunity to experience the situation from the inside and out was extremely valuable. Many stated that the actual practice was better because it provided situational awareness that was practical and realistic. Several teacher candidates believed that they learned more from this experience than they did from their classroom management course because of the realistic, practical and experiential nature of each training tool. One participant thought it was really good to have the gender and ethnic diversity of the students in the avatar classroom and the different behaviors they exhibited that are common to a real classroom. As can be seen by the student comments included below, the study participants were very descriptive in describing how surprised they were at how relevant or realistic a particular experience was to them.

Table 7

Student Comments: Relevant or Realistic

<i>Participant</i>	<i>Relevant or Realistic Contextualized Student Quotes</i>
ES 8 F	This was a very eye-opening experience and I believe that if I were to do it again I would do it differently, but I think that this was excellent experience to prompt my thinking in what I would do differently and how I would get to the root of the issue next time.

ES 2 F	I think it has its benefits. Especially if you keep the real-life things the session when you actually do it yourself. I mean I know I get the theory but it's just so different when you're in there I can know this inside and out. I think the actual practice was better. I think it's good but learning only through observation is not enough after three years of being in the Ed. program you've talked about it so many times. At that point you know what the right answers are.
ES 4 F	It's really good because it's an easy way to reach visual learners because you can't create those things in our classroom here. Sometimes you can in your placement classrooms but if you had pointed videos I think that'd be really good and easy to do
ES 6 M	When I first started I didn't really know what I was getting into. The very first module that we did with Casey I did not really enjoy. I don't know I just really felt that we're elementary major and I felt the situation was a little bit unrealistic. If you were at a p-12 school you might come across it. But for the most part, you don't usually deal with that kind of stuff as an elementary major. But other than that, I really did like the study. I really liked the parent-teacher conference and I liked the avatar introducing your classroom rules the first day of class. I thought those were really good. I like those, so overall the general thoughts I have towards it are very positive.
ES 7 F	<p>I really do think it was beneficial to me in my learning process... as far as being able to actually be in situations and be in scenarios and not with other students ... but with real actors who have been trained and were not my friends... and therefore I was just being intimidated when I should be intimidated and not intimidated when I shouldn't be intimidated. It was a lot more real. It gave me a better feel for the realities of teaching. I really like that. I think it was definitely worth it. It was frustrating at times with the parent teacher conference. The only reason we knew what we were getting ourselves into before we got there is because one person was in the scenario and then he told the rest of us about it. We were supposed to get it in class and we didn't, so if that had been the case, I probably would've thrown punches in that parent-teacher conference because I wouldn't know what was going on.</p> <p>My real world connections engaged them and I affirmed what they liked and who they were</p>
ES 7 F	Yeah I thought there was a lot of value because when I came out of the first one with the student thing, I thought I did a horrendous job and I didn't want to watch the video. But I did watch it and I thought I did actually really well because I was looking at it and I didn't get to the

	<p>heart of the issue, but I handled her very caringly and she never took it bad and I just felt that's the reality. You can't get to the heart of every student. So actually, when I went back and looked at it, I thought I did a very good job and I felt like I left feeling like I didn't. And with the parent teacher conference, I think it was good because I left very emotional and being able to go back and watch it, I was able to say, I think I really handled myself well here and it showed that the reality is I did well under the pressure I was put under.</p> <p>And part of what made that experience so realistic is I was talking to an older man and somebody I didn't know, but if you can still create a simulation and create that opportunity then I would say definitely do it.</p>
MS 1 F	<p>It (simulation) was an incredible experience for sure. I haven't had classroom management yet, but even from the people who have had it, they said they learned so much more... as far as practical and realistic scenarios... things like that... they learned more from this experience than they did from the whole semester of class. So I can imagine how helpful this would be to have this in the class.</p> <p>I think the students (avatar) knew that I meant business</p>
HS 2 F	<p>I really like the UK simulations because they were actual people so I can actually engage with them and make eye contact with them and they responded and they had emotion in the voice as to what was going on, their feelings, and I just thought I can relate to them more. I did though really enjoy the avatars with the teaching because we got to experience A different behaviors that the students exhibit and it's like how do I deal with this so I think if somehow you could combine the two experiences I think that would be really cool.</p>
HS 3 M	<p>I just would never want these to replace instructional time so I really hope it doesn't replace classroom instruction. I think they're excellent assessment pieces. You can assess what students have learned about classroom management through these kinds of simulations.</p> <p>I think my avatar students liked my content and enjoyed the discussion. I feel that I connected with Kevin but struggled with Maria.</p>
HS 2 F	<p>I thought it was a very realistic scenario... not that it's relevant for me because I'm a math student, but the whole parent coming in and having a discussion about curriculum issues was very realistic</p> <p>I really loved being a part of the study and I think it contributed</p>

	greatly to my education. I think it was great! I think I learned more during these four simulations than I get in my classes. It was so practical and experiential and I think that the simulations were very realistic. They were very believable and I think that with the avatar students... It was really good to have the variety of students in the classroom and the different behaviors that are common in the classroom. Overall I really enjoyed it.
HS 4 F	It was more realistic than I thought it was going to be. I thought going through it with an actor would be strange, but it was actually pretty realistic. I expected her to be more confrontational.

4. Obstacles/Frustration/Barriers – Study participants identified various struggles, frustrations, obstacles, and barriers related to their participation in the training. When comments occurred in this category those comments were coded for obstacles (O), frustrations (F) or barriers (B). Some comments focused on the inadequacy of the technology involved in running the avatar experience or accessing the video analysis site. One of the frustrations was the time that elapsed (four weeks) between the two avatar sessions. The researchers had planned to have these two avatar classroom sessions scheduled to be two weeks apart, but due to technology challenges, they were delayed and re-scheduled for a later date. Some teacher candidates expressed frustration that there was not enough of a direct correlation between the strategies being learned in their courses and the simulation or programs being experienced. Several teacher candidates felt rushed during the ten-minute avatar simulation. Another barrier with the avatar classroom was the inability to use manipulatives, choral responses and proximity as instructional strategies. Some of the obstacles that surfaced during the avatar experience focused largely on what the

students were not able to do rather than adapting their classroom management strategies to the uniqueness of the experience. Other comments were about the fact that the participants wanted specific feedback about how they did in each of the three experiences. Representative comments coded for obstacles, frustrations or barriers include:

Table 8

Student Comments: Obstacles/Frustrations/Barriers

<i>Participants</i>	<i>Obstacles/Frustrations/ Barriers Contextualized Student Quotes</i>
ES 2 F	When we did the modules we hadn't learned any or enough strategies first. Here are some strategies to use in class and then go into the modules and apply them in the situation. With them being at the same time we hadn't talked about it yet. Direct correlation. Let's talk about this, here are the strategies, learn specific strategies and now we are going to apply. You defer to what you already know what to do.
ES 4 F	The avatar classroom didn't feel real because I wasn't able to use manipulatives with my math lesson. I was trying to implement what I had learned in my methods class but I couldn't make it as engaging as I wanted to because I couldn't use the manipulatives. Something needed to feel a little more real. I can't teach math just verbally!
ES 1 F	<p>I didn't mind teaching the avatar students but it wasn't real enough for me and I couldn't do people on a screen and pretend that they were real people. I couldn't get over that it wasn't real. I can't stand there and look at a screen and implement a new strategy. Maybe if there was something new I could try, like a new strategy, then I could have practiced that. If it was a specific skill to practice that would have been more practical for me.</p> <p>It is safe environment to practice something specific to practice. This would have been a good way to practice interview skills. One on one type of interaction with a student.</p>

	<p>I struggled with not knowing what to do in this situation. We need more strategies. I just did what I already knew what to do so it wasn't that helpful. Because the modules came before we had some of those strategies taught to us. Have more of a direct correlation between the strategies and the simulation or program.</p>
ES 3 F	<p>In a normal classroom there are more the five students. That could be good and bad. It was a save environment to practice your classroom management skills rather than real children.</p>
ES 5 F	<p>The ten minutes seemed like a little useless. By the next time we had a session with them (avatar students), I couldn't remember their names. A longer time with them would've been better and set a better foundation with them. In a real classroom, I would never go in and just say you need to be quiet. I'm going to take your recess away. There is nothing I can give or take away in this setting. CJ had her phone out and originally I said we would have taken it away. I couldn't take her phone away. Verbal and she didn't listen so I didn't have.</p> <p>In a normal classroom I would be able to move closer to the back of the room and back row to get them more included. Lots of management techniques I would've used in a normal classroom that I could not use in the avatar room.</p>
ES 8 F	<p>I think we should implement things I learned during methods not something I learned this semester. I think they could be really helpful but more of a one on one conference. Something that feels a little more real. To teach math verbally is not how I would teach this. I would use manipulatives with them and I couldn't do that with them. It didn't feel real especially for teaching math. It went against what we are taught to do. You wouldn't want me to teach without manipulatives.</p>
ES 3 F	<p>Get more feedback from professors and our actual students. We needed more of that. Not necessarily from the actors because that doesn't have credibility with me. I would want someone with credentials to give me feedback so that next time I can learn and react differently.</p>

ALL	<p>Technology, hands on opportunity for individual expression was not possible as a group</p> <p>I would have liked to make a PowerPoint or slideshow with the avatar classroom</p> <p>The whiteboard for certain things. I didn't know we could send the handouts to them (avatar students) beforehand.</p> <p>Technology and proximity was impossible!</p> <p>I felt rushed, which probably made the students feel like I didn't care. If I had more time to introduce content, I think there would have been more engagement.</p>
ES 6 M	<p>I think it was really great. I wish that the avatars could have choral response I like to use that a lot. Or even if they could do a little bit more with their hands... Altogether it was great</p>
HS 1 F	<p>For me... and you can ask them ...I was probably in there for way too long. I think it should've been a realistic situation... I felt like I did get down to the bottom of the issue... I felt like we went through everything, but I would've really only had about half the time to talk to the student (Casey). And we were talking for a while before we actually even got into the to the issue... we were like wondering around and then we finally got to it.</p>
HS 3 M	<p>I wish that she (Casey) would've dialogued with me more, but a lot of students just won't and that's okay, so I'm not sure if I really would've done too much differently for that particular incident. But I would probably have tried to draw it out if I wasn't getting to the bottom of it. I would hopefully follow-up later with that student and with that student's teachers in that moment. I probably would've drawn it out 20 minutes. I probably could've been more concise with the student and I probably would've followed it up later. And that doesn't mean I didn't care about the student. But, I think I could've finished stronger.</p>

Table 9 is a summary of the coded qualitative results. The sixteen students are coded as to whether they are elementary (ES), middle school (MS) or high school (HS) in the first column. Each time a candidate made a comment that fit into any of the four themes it was tallied and then the tallies were added and recorded on the

chart. The columns labeled for each of the four themes indicate the number of times a candidate had a recorded comment for that particular theme.

Table 9

Summary of the Coded Qualitative Results

Students	Gender	Tools or Lessons Learned	Preparation or lack of preparation	Relevant or Realistic	Obstacles Frustrations Barriers
ES 1	F	1	3	3	3
ES 2	F	1	1	2	1
ES 3	F	3	0	1	0
ES 4	F	1	0	0	1
ES 5	F	1	3	1	2
ES 6	M	1	2	2	1
ES 7	F	1	3	2	2
ES 8	F	3	0	1	3
ES 9	M	2	1	0	0
ES 10	F	0	1	0	0
MS 1	F	1	1	2	0
MS 2	F	3	3	3	0
HS 1	F	4	5	7	3
HS 2	F	5	5	11	3
HS 3	M	5	4	5	3
HS 4	F	4	4	2	2

KEY

ES - Elementary teacher candidate

MS- Middle school teacher candidates

HS – High school teacher candidates

M – Male teacher candidates

F – Female candidate

Figures 3 and 4 graphically represent the actual number of responses given by each of the study’s sixteen participants in each of the four themes that emerged. A review of the data included in this table reveals that high school teacher candidates made more comments about the trainings than either the elementary or middle school participants. This was particularly true about the themes regarding relevancy and the realistic nature of the experience. It also revealed that female students had more to say about the experiences than did the male students.

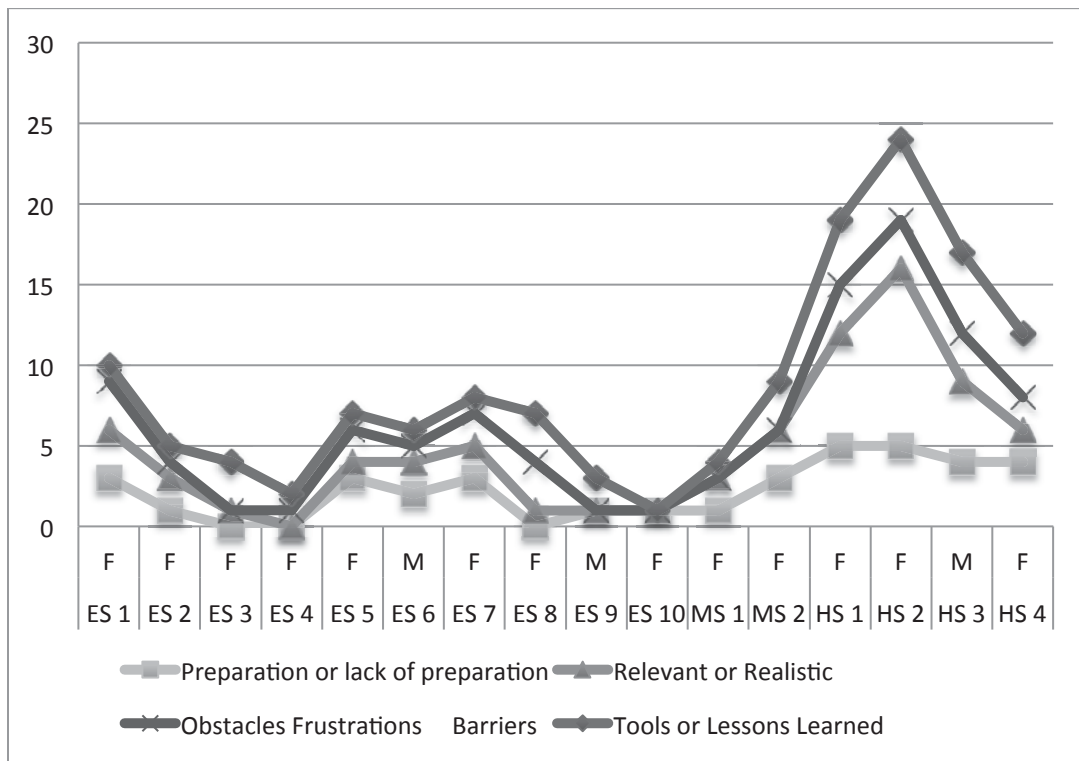


Figure 3 - Graphic Representation of Responses Given by Themes

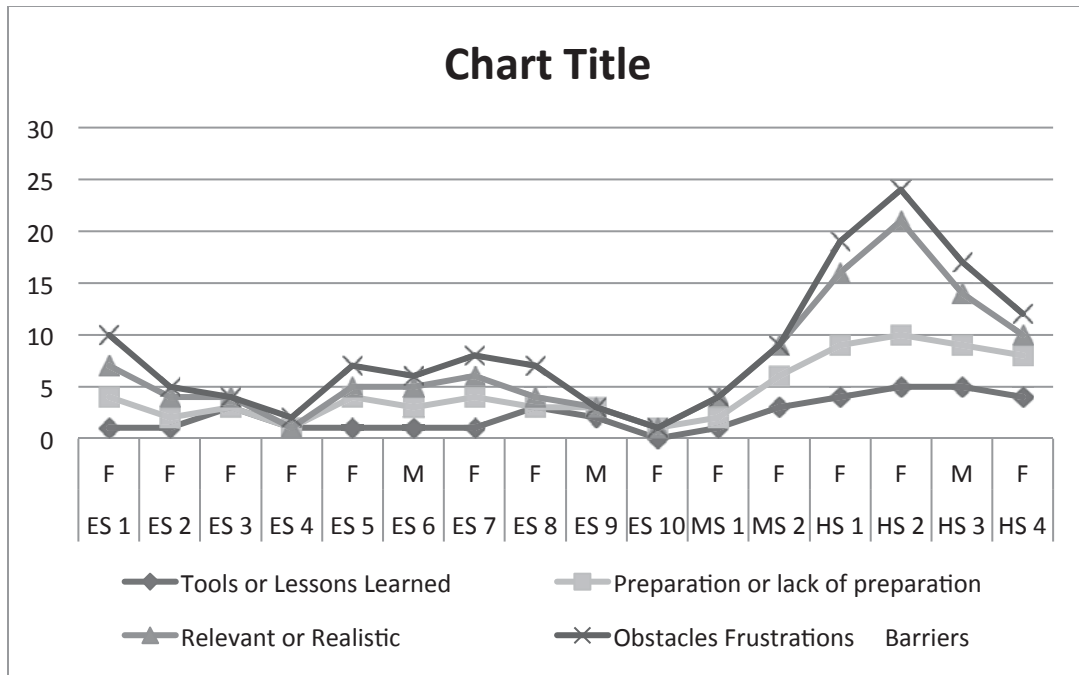


Figure 4 - Graphic Representation of Responses Given by Themes

Although it was not specific to answering the research question addressed in this study, the researchers were able to do further analysis of the data to gather information about the three separate experiences that the teacher candidates had as well as the use of these tools in general. While providing some valuable insights into this study, these details potentially provide the basis for much future research. A generalized analysis of qualitative data about the three individual learning experiences as well as general feedback about the total experience follows.

Simulations

Study participants gave the simulation experiences with the standardized individuals the highest rating. More qualitative feedback was generated about this experience than either of the other two. Students frequently commented that the

simulations with the actors were the most realistic and contributed to their confidence in dealing with an angry parent or a disruptive student. Several of them actually exited the experience crying as it had such an emotional impact on them. Each of the simulations were tape recorded and transcribed and several study participants shared that the experience was so realistic that they had even forgotten that they were being video-taped. There were a number of the participants who felt like they had not been adequately prepared in class for this experience. The researchers intentionally limited the amount of information that was provided to the participants as per the recommendation of the outside consultant familiar with implementing simulation experiences for teacher candidates. Certain details about the simulations are intentionally withheld so that students are caused to respond without the opportunity to give lengthy thought about how to react. When asked specifically about the sequencing of the three learning experiences, the study participants stated that simulations should be the last training tool and suggested that it be incorporated into the curriculum just prior to the beginning of their student teaching experience.

Avatars

The teacher candidates were consistent in their belief that this experience was not as valuable as the simulation experiences. Technology difficulties during implementation of these sessions contributed to this feeling. Additionally, the teacher candidates did not feel as though it was as realistic as was the other experiences. When teaching the avatar students it was not possible to ask them to get up and move and it was difficult to use proximity as a classroom management strategy during this

experience. Teacher candidates were not able to have the avatar students perform tasks like changing seats, reading chorally, or handing over a cell phone to the teacher.

Video Analysis

Study participants commented on the video analysis experience fewer times than they did about the other two. This was the third and final tool utilized for this study and feedback gathered from the participants indicated that it should have been the first training tool implemented. Students liked this tool because it did not cause them to react in real time. It afforded them the opportunity to give some thought as to how they would handle a specific classroom management situation. They also commented that the videos were extremely realistic which assisted them in contemplating how they would react when faced with a similar situation. Technology difficulties accessing the videos contributed to the participants' frustration for this training tool. The participants viewed the video analysis as a softer approach to gained experience that significantly altered their perception of their preparedness to handle parent teacher conferences.

Chapter Five: Conclusions, Implications And Recommendations

The research question guiding this study was: what impact did classroom management training modules, using 21st century tools and clinical medical practices, have on teacher candidates' perceptions in the development of classroom management skills? Data gathered for this study suggests that the increased use of 21st century tools and clinical medical practices has, in fact, the potential to improve teacher candidates' perceptions about being prepared to successfully handle the classroom management situations that they most assuredly will face when they begin their career as a teacher.

Although a small sample size limits generalizability, the data suggests that this type of training might be more beneficial for high school teacher candidates than it would be for elementary or middle school candidates. There were more comments attributed to high school candidates than there were for the other two areas. This might be attributed to the fact that both of the simulations were more applicable to high school students. The five avatar students in the simulation were middle school students and therefore were more relevant to the middle and high school teacher candidates.

Sample size limits generalizability, but the results indicate that female teacher candidates benefitted from this type of training more than male teacher candidates. In all four of the coded themes there were more comments attributed to females than males.

Quantitative Findings

Results from the pre and post survey were used as the quantitative data for this study. An analysis of some of the results from some of the key statements follows.

Item 1: I feel adequately prepared to effectively manage classroom situations that might arise during my first year of teaching.

This item is worthy of consideration in that it addressed the overall question being researched in this study. Student pre and post responses were not statistically significant for this statement. Several possible explanations include:

1. This statement was too broad. There are many aspects to classroom management. This study looked at a limited number of classroom management experiences. Responses might have been statistically significant had the statement been limited to the specific skills focused on in this study.

2. The question might actually measure an increased awareness by the study participants in what they do not know about classroom management. Teacher candidates may have entered into the study feeling overly confident about their classroom management skills only to realize their actual limitations.

The six items that proved to be statistically different are important to consider in that they yielded a series of explanations for their statistical behavior. A summary analysis of each of these statistically significant statements follows:

Item 2: I feel confident dealing with a disruptive student.

This item that aligned with the avatar experience and scripted simulations, showed a statistical difference that can be attributed to the experience the students

gained by engaging disruptive students and applying interventions during the two training modules. Triangulation with qualitative data related to these two experiences with disruptive students support the quantitative findings.

Item 4: I feel adequately prepared to effectively facilitate a conference with an irate parent.

This item that aligned with the scripted parent-teacher conference simulations and the video analysis of parent-teacher conferences, yielded the highest statistical difference and pointed toward a marked improvement in the teacher candidates perception of how they could handle an irate parent in a parent-teacher conference. This can be directly attributed to the harrowing face-to-face experience they managed in the scripted parent teacher simulation. The two experiences, video analysis and simulations, served as a soft and hard approach to gained experience for the teacher candidates that significantly altered their perception of the preparedness to handle parent teacher conferences.

Item 5: I feel adequately prepared to effectively manage a verbal altercation between two of my students.

This item that was closely linked to the student-teacher simulation, revealed the third highest statistical difference as the teacher candidates demonstrated in their responses that they gained confidence in their ability to handle a difficult student. The student-teacher simulation was a face-to-face encounter with a high school girl in trouble and despite the fact that over 50% of the teacher candidates were seeking

elementary certificates they demonstrated in their responses that their confidence in their ability to deal with this situation was significantly changed.

Item 8: I have had sufficient experiences practicing my classroom management skills.

This item that touched on all three-classroom management experiences, demonstrated that these experiences had positively affected their perception of the comprehensiveness of their classroom management training. Further questions arise from this statistical difference such as: should these trainings be embedded in to teacher education classroom management courses? Is their feeling of confidence in their classroom management skills based solely on the application of these three experiences in to their training regimen?

Item 9: If a special needs student is in my class, I possess the necessary skills to conference effectively with his/her parent.

This item linked with the simulations and the video analysis, had a statistical difference that was significant largely because of the experience gained from both the hard and soft approaches to parent-teacher conferencing that emerged from these two trainings. The researchers believe that engaging the parents, whether a special needs student was involved or not, provided the necessary experience for the teacher candidate to feel prepared for a similar situation in the future.

Item 10: I will know what to do to defuse the situation when conferencing with an angry parent.

This item that aligned with the simulation and video analysis had exactly the same statistical difference as item number four. This can be attributed to the fact that the statements both address engaging an upset, difficult parent in a parent-teacher scenario. In both cases the teacher candidates experienced an encounter that rarely finds its way in to a teacher preparation classroom management class. The realism of the irate parent encounter in the simulation uncovered many questions for the teacher candidate but also, as demonstrated by their responses to the questionnaire, gave them a strong sense of confidence in their ability to handle an angry parent.

The quantitative data reveals that a significant statistical difference occurred when the teacher candidates were given practice in specific difficult situational aspects of classroom management. The statistical difference was considerably smaller when general themes of classroom management were the focus of the training. Conversely, the statistical difference was considerably greater when specific themes of classroom management were the focus of the training.

Qualitative Findings

Findings indicate that the use of 21st century tools has the potential to help teacher candidates increase their awareness of their inability to handle classroom management situations. An analysis of qualitative data about the three individual learning experiences as well as general findings about the total experience follows.

Simulations

Study participants gave the simulation experiences with the standardized individuals the highest rating. More qualitative feedback was generated about this

experience than either of the other two. Students frequently commented that the simulations with the actors were the most realistic and contributed to their confidence in dealing with an angry parent or a disruptive student. Several of them actually exited the experience crying as it had such an emotional impact on them. Each of the simulations were tape recorded and transcribed and several study participants shared that the experience was so realistic that they had even forgotten that they were being video taped. There were a number of the participants who felt like they had not been adequately prepared in class for this experience. The researchers intentionally limited the amount of information that was provided to the participants as per the recommendation of the outside consultant familiar with implementing simulation experiences for teacher candidates. Certain details about the simulations are intentionally withheld so that students are caused to respond without the opportunity to give lengthy thought about how to react. When asked specifically about the sequencing of the three learning experiences, the study participants stated that simulations should be the last training tool and that it be incorporated into the curriculum just prior to the beginning of their student teaching experience.

Avatars

The teacher candidates were consistent in their belief that this experience was not as valuable as the simulation experiences. Technology difficulties during implementation of these sessions contributed to this feeling. Additionally, the teacher candidates did not feel as though it was as realistic as was the other experiences. When teaching the avatar students it was not possible to ask them to get up and move

and it was difficult to use proximity as a classroom management strategy during this experience. Teacher candidates were not able to have the avatar students perform tasks like changing seats, reading chorally, or handing over a cell phone to the teacher.

Video Analysis

Study participants commented on the video analysis experience fewer times than they did about the other two. This was the third and final tool utilized for this study and feedback gathered from the participants indicated that it should have been the first training tool implemented. Students liked this tool because it did not cause them to react in real time. It afforded them the opportunity to give some thought as to how they would handle a specific classroom management situation. They also commented that the videos were extremely realistic which assisted them in contemplating how they would react when faced with a similar situation. Technology difficulties accessing the videos contributed to the participants' frustration for this training tool. The participants viewed the video analysis as a softer approach to gained experience that significantly altered their perception of their preparedness to handle parent teacher conferences.

General Qualitative Findings

Participants commented that they desired feedback about the appropriateness of the way they handled a classroom management situation and the preferred method for handling that situation. The researchers were intrigued by the notion that teacher educators have conditioned teacher candidates to believe that there is an ideal, right,

preferred or expected way to handle every specific classroom management situation. The researchers would suggest that teacher educators need to help teacher candidates understand and feel comfortable with the notion that every classroom management challenge is situational and that successful teachers are able to appropriately analyze the details of the moment to develop the most effective and appropriate strategy to utilize. Teacher candidates need additional experiences to help them understand that classroom management is not prescriptive.

Qualitative data gathered during this study has led the researchers to conclude that the order in which the tools are utilized with the teacher candidates is important. Candidates commented that they wish that the video analysis tool would have been utilized first in the study rather than last. They also stated that the simulation activity should have been the final tool used, as it was the most intimidating and had the most potential to expose their lack of preparedness to effectively handle the situation. The researchers found it interesting that several of the study participants commented that they wished, in fact, that the three tools researched in this study had been introduced in the exact opposite order that they had been during the study.

Qualitative data collected from this study's participants suggests that the use of 21st century tools may have its greatest value in being able to assess the skills of teacher candidates. While these authentic experiences are great teaching tools, the candidates expressed that there was potentially more benefit in using them to assess their skills after being taught the classroom skills in more traditional ways.

Summary of Quantitative and Qualitative Findings

- Using 21st century training tools can improve the teacher candidates' perception about their classroom management skills.
- The tighter the focus of classroom management situational training the greater the impact has on the perception of improved classroom management skills.
- The more authentic or realistic the training is the more likely it is to result in improved perception of classroom management skills.
- Teacher candidates desire feedback on their classroom management skill level after each 21st century training experience.
- Training can increase the awareness of what teacher candidates do not actually know about classroom management skills.
- Sequencing of the classroom management training experiences has implications on its perceived effectiveness by the teacher candidates.
- The 21st century classroom management training experiences can be used to supplement traditional classroom management instruction for assessment and/or practice.

Implications

The researchers believe that the results of this study have implications for both Asbury's School of Education and other schools of education everywhere. Those implications will be summarized below in the section entitled Implications for Practice. It is hoped that teacher educators will continue to respond to the call for

embedding more authentic clinical experiences into their programs. Additionally, the researchers hope that this study will provide teacher educators with the research base they need to begin to take the steps necessary to implement 21st century teaching tools and clinical medical practices. We believe that preparing teacher candidates in this way will benefit the P-12 students whom we serve.

While there were some conclusions that the researchers were able to make as a result of this study, it seemed to expose more questions than it did actual answers. Those questions will be summarized below in the section entitled Implications for Further Study. The researchers are hopeful that teacher educators will continue to research best practices that may strengthen our teacher preparation programs. There is much more to be learned from the study of both 21st century tools and clinical medical practices. The researchers of this study are, in fact, committed to continue their research and would urge other teacher educators to do the same.

Implications for Practice

The results of this study would suggest that implications for practice in teacher education programs would include the eight items that follow.

1. Teacher education programs would be strengthened if they would include more authentic clinical techniques to engage teacher candidates with meaningful classroom experiences during their preparation programs. The data gathered during this study serves to document that teacher candidates felt that they greatly benefited from being exposed to these 21st century teaching tools.

2. Feedback from the participants in this study indicates that teacher education programs should be careful to scaffold the infusion of 21st century tools into their programs. The participants in this study, when questioned, indicated a strong need for a sequencing of the tools where the more basic ones were introduced first and the more intense or more realistic were infused later. They felt a strong need to have the opportunity to hone their skills before being put into authentic situations where those skills would be put to the test.

3. Related to number two above is the idea that authentic classroom management experiences should be infused into a variety of teacher preparation classes. While this study involved primarily students enrolled in a specific classroom management class, the participants frequently mentioned the need to have similar experiences scaffolded in all of their education classes.

4. The researchers of this study were surprised by the eagerness of the study participants to provide feedback about their experiences with the three 21st century tools. As a frame of reference, the study participants completed the final post assessment survey and participated in the final focus groups and individual interviews during the final two weeks of the fall of 2013 semester. This is one of the busiest times for them as they prepare to complete the semester's assignments, prepare for final exams and get ready for Christmas break and yet they willingly and even eagerly took time to participate in the feedback sessions. It was obvious to the researchers that the student participants appreciated being asked about the experiences they had in this study. Teacher educators should frequently take time to ask teacher candidates to

provide feedback about the education experiences that they have had and should use the input that they receive to modify their programs as appropriate.

5. Student's perceptions about their own preparedness would be strengthened if more authentic clinical experiences would be embedded into their teacher training programs. While this study could not conclude that teacher candidates actually had better skills, it could conclude that students perceived that they had better skills. Assuming that there is value in students' perceptions of their abilities, schools of education would be advised to infuse these tools into their programs. Specifically, teacher candidates' perceptions about their ability to handle an irate parent, a disruptive student, or a conference with the parent of a special needs student could all be strengthened through the use of avatars, simulations, and/or video analysis.

6. Although the study participants valued their involvement in this study they did sometimes indicate their desire to receive more feedback about how they performed in their interaction with the 21st century tools. Teacher candidates have a high desire to know exactly what it is that they are expected to do in a given situation and want feedback on how what they did compares to what the ideal would be. Obviously there is not always a right or wrong way to handle a given situation but the feedback received in this study would at least suggest that students want to clearly know what the parameters are when faced with being asked to effectively handle a classroom management situation.

7. Related to number seven above is the teacher candidates' desire to be better informed prior to their interaction with a 21st century tool. Teacher educators

should understand that a good explanation about and orientation to the authentic experience being planned for the teacher educators will do much to help the candidates achieve the maximum benefit from the experience. If candidates are able to spend less time trying to orientate themselves to the training tool they will have more time to actually engage with it.

8. The final implication for practice that the researchers of this study found had to do with the grade appropriateness of the tool. Some tools may be useful for the training of P-12 students while other tools may be better suited for specifically elementary trained teacher candidates or secondary or middle school teacher candidates. If these training experiences are to be truly authentic, teacher educators need to ensure that the training experiences mirror what a specific teacher candidate is likely to experience in their classroom.

Implications for Further Research

The following are suggestions for further research studies to expand the body of knowledge in classroom management for teacher preparation programs.

Further research is needed to see if this training actually improved the skills that teacher candidates received as a result of receiving classroom management training with 21st century tools. This study did not attempt to find out if teacher candidates actually acquired better skills in their ability to effectively handle classroom management situations. It only reported on their perceptions of their ability to effectively handle classroom management situations. While there certainly is value in teacher candidates having good perceptions about their ability to

effectively handle classroom management situations there may be even greater value in finding ways to determine if these 21st century teaching tools contributed to the candidates actually coming away with stronger skills.

A study of additional 21st century learning tools might reveal that there are other tools that could prove effective in training teacher candidates in how to effectively manage a classroom. This study focused on three specific 21st century tools that were identified by the researchers during their literature review as potentially effective. Research was not done to determine if these three are, in fact, the most effective tools when giving students training in classroom management. Further research may reveal that there are more effective tools or if one of the three tools studied in this research is more effective than the others.

A longitudinal study could provide data on the effect of these 21st training tools on the academic growth of P-12 students. The primary goal of education is student learning. Further research should be done to determine if using 21st century teaching tools and clinical medical practices in the training of teacher candidates actually translates into improved student learning in P-12 classrooms.

Further research is needed on exactly where in teacher education programs these tools should be embedded. Should the tools be used specifically in classes that are primarily clinical? Which 21st century tools would be more effective early in the teacher education program and which ones would be better used near the end of a candidate's program? Which specific professional courses could be strengthened the

most through the use of these tools? These are just a few of the questions that, if answered, could benefit teacher preparations programs.

One of the fascinating aspects of learning is that very often the more we know, the more we want to know. As our knowledge base increases it sometimes results in even more questions. That happened to the researchers of this project and they look forward to not only advancing their own research but also to learning about future information that is gained on this topic from other researchers.

Conclusion

The data gathered both quantitatively and qualitatively suggests that the use of specific 21st century tools can improve candidates' perceptions of their preparedness to effectively handle classroom management situations. Pre and post survey results were statistically significant on six of the statements that dealt with specific tools used in this study. Combining this data with the frequent comments from teacher candidates about the value of their participation in this study makes it easy to conclude that there is great value in utilizing 21st century tools and clinical medical practices in the preparation of teachers by schools of education.

It is critical that teacher educators model life-long learning for teacher candidates. Finding more authentic ways to educate teacher candidates in effective practices can be enhanced with the infusion of 21st century teaching tools into teacher education programs. As we work to answer the call of NCATE's Blue Ribbon Panel (2010) to become more clinical in our practice we will be taking steps to be certain that the students in our public and private schools across the nation are staffed with

teachers who have benefited from training with 21st century teaching tools and clinical medical practices.

References

- Adam, E. D. (1993). *Fighter cockpits of the future*. Proceedings of 12th DASC, the 1993 IEEE/AIAA Digital Avionics Systems Conference, 318-323.
- Antonacci, D.M. & Modaress, N. (2008). Envisioning the Educational Possibilities of User-Created Virtual Worlds. *AACE Journal*, 16(2), 115-126. Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/24253>
- Atkinson, T. (2009). Teaching and Learning. *Techtrends: Linking Research & Practice To Improve Learning*, 53(3), 30-32. doi:10.1007/s11528-009-0285-7
- Avatar. 2014. In *Merriam-Webster.com*. Retrieved February 10, 2014, from <http://www.merriamwebster.com/dictionary/avatar>
- Berry, B. (2010). *The Teachers of 2030: Creating a Student-Centered Profession for the 21st Century*. Carboro, NC: Center for Teaching Quality.
- Barrows, H. S., & Abrahamson, S. (1964). The programmed patient: A technique for appraising student performance in clinical neurology. *Journal of Medical Education*, 39, 802-805.
- Bidwell, A. (2013). *Classroom management prevalent in teacher prep programs - sort of*. Retrieved from <http://www.usnews.com/news/articles/2013/12/10/classroom-management-prevalent-in-teacher-prep-programs--sort-of>
- Braend, A., Gran, S., Frich, J., & Lindbaek, M. (2010). Medical students' clinical performance in general practice - Triangulating assessments from patients, teachers and students. *Medical Teacher*, 32(4), 333-339.

- Brown, J. M., Patel, M., Howard, J., Cherry, G., & Shaw, N. J. (2011). Changing clinical practice: Significant events that influence trainees' learning. *Education For Primary Care, 22*(1), 25-31.
- Cheong, D. (2010). The effects of practice teaching sessions in second life on the change in pre-service teachers' teaching efficacy. *Computers & Education, 55*(2), 868-880.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Coplan, B., Essary, A. C., Loheny, K., & Stoehr, J.C. (2008). An update on the utilization of standardized patients in physician assistant education. *The Journal of Physician assistant Education, 19* (4) 14-19.
- Cooper, R. (2010). *Those Who Can, Teach*. (12th ed.). Boston, MA: Wadsworth Cengage Learning.
- Deketelaere, A., Kelchtermans, G., Struyf, E., & De Leyn, P. (2006). Disentangling clinical learning experiences: An exploratory study on the dynamic tensions in internship. *Medical Education, 40*(9), 908-915.
- Dornan, T., Boshuizen, H., King, N., & Scherpbier, A. (2007). Experience-based learning: A model linking the processes and outcomes of medical students' workplace learning. *Medical Education, 41*(1), 84-91.
- Dornan, T., Hadfield, J., Brown, M., Boshuizen, H., & Scherpbier, A. (2005). How can medical students learn in a self-directed way in the clinical environment? Design-based research. *Medical Education, 39*(4), 356-364.

- Dotger, B. (2013). *Clinical simulations for teacher development. A companion manual for teachers*. Charlotte: Information Age Publishing, Inc.
- Dotger, B. (2013). *"I had no idea!": Clinical Simulations for Teacher Development*. Charlotte: Information Age Publishing, Inc.
- Duncan, A. U. S. Department of Education, (2010). *Secretary Arne Duncan's remarks to national council for accreditation of teacher education*. Retrieved from website: <http://www.ed.gov/news/speeches/secretary-arne-duncans-remarks-national-council-accreditation-teacher-education>.
- Elford, M., Carter, R., & Aronin, S. (2013). Virtual Reality Check. Teachers use bug-in-ear coaching to practice feedback techniques with students avatars. *Innovation* (Feb. 2013) Vo. 34 No. 1 (pg 40-43). www.learningforward.org
- Engel, M. (2013, Feb)). Problematic Preferences? A Mixed Method Examination of Principals' Preferences for Teacher Characteristics in Chicago. *Education Administration Quarterly* 49 (1), 52-91.
- Feledichuk, D. (2009). Using Authentic Situations and Avatars to Build Knowledge in an E-Learning Environment. In T. Bastiaens et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2009* (pp. 254-259). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/32472>.
- Field, M., Burke, J., McAllister, D., & Lloyd, D. (2007). Peer-assisted learning: a novel approach to clinical skills learning for medical students. *Medical Education*, 41(4), 411-418.

- Foley, J.A. & McAllister, G. (2005). Making It Real: Sim-School a Backdrop for Contextualizing Teacher Preparation. *AACE Journal*, 13(2), 159-177. Norfolk, VA: AACE. Retrieved from <http://www.editlib.org/p/5955>.
- Graziano, C. (2013). *Public Education Faces a Crisis in Teacher Retention*. Edutopia. <http://www.edutopia.org/schools-out>
- Girod, M. & Girod, G.R. (2008). Simulation and the Need for Practice in Teacher Preparation. *Journal of Technology and Teacher Education*, 16(3), 307-337. Chesapeake, VA: SITE.
- Glenn, W. J. (2006). Model versus Mentor: Defining the Necessary Qualities of the Effective Cooperating Teacher. *Teacher Education Quarterly*, 33(1), 85-95.
- Grove, K., Odell, S., & Strudler, N. (2004). Technology Mentoring: A Cooperating Teacher and Student Teacher Case Study. *Action in Teacher Education*, 28(1), 85-93.
- Gurl, T. (2011). A model for incorporating lesson study into the student teaching placement: What worked and what did not? *Educational Studies* (03055698), 37(5), 523-528. doi:10.1080/03055698.2010.539777.
- Hammerness, K. (2011). Classroom Management in the United States: A View from New York City. *Teaching Education* 22 (2), 151-167.
- Harrison, D. (2009, February 18) *Real-life teaching in a virtual world*. Campus Technology. Retrieved from <http://campustechnology.com/Articles/2009/02/18/Real-Life-Teaching-in-a-Virtual-World.aspx>

- He, Y., Cooper, J. (2011). Struggles and Strategies in Teaching: Voices of Five Novice Secondary Teachers. *Teacher Education Quarterly*, DOI: <http://www.teqjournal.org/index.htm>.
- Hitz, R., & Walton, F. (2004). Strengthening Teacher Preparation over Time: A History of University of Hawai'i Teacher Education Programs, 1986-2003. *Educational Perspectives*, 36(1-2), 26-33.
- Holloway, S. M., & Gouthro, P. A. (2011, Feb). Teaching Resistant Novice Educators to be Critically Reflective. *Discourse: Studies in the Cultural Politics of Education*, 32 (1), 29-41.
- Jeffries, P. (2008). Quick reads. Getting in S.T.E.P. with simulations: simulations take educator preparation. *Nursing Education Perspectives*, 29(2), 70-73.
- Johnson, K. A. (2003). "Every experience is a moving force": identity and growth through mentoring. *Teaching & Teacher Education*, 19(8), 787.
doi:10.1016/j.tate.2003.06.003.
- Kalén, S., Stenfors-Hayes, T., Hylin, U., Larm, M., Hindbeck, H., & Ponzer, S. (2010). Mentoring medical students during clinical courses: A way to enhance professional development. *Medical Teacher*, 32(8), e315-e321.
doi:10.3109/01421591003695295.
- Kilpatrick, J. (2010). *Clinical preparation is imperative to improve schools, boost teacher quality*. Retrieved from http://www.educationnews.org/pr_releases/93142.html

- Klassen, R., & Chiu, M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741-756.
- Kolowich, S. (2010). *Avatars to Teach the Teachers*. Inside Higher Ed.
Retrieved from
<http://www.insidehighered.com/news/2010/07/07/avatars#ixzz2USWWjYu2>
- Korthagen, F. A., & Kessels, J.P. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher, 28* (4), 4-17.
- Lee, Y., Patterson, P., Vega, L. A., (2011) Perils to Self-Efficacy: Perceptions and Teacher-Preparation Quality among Special Education Intern Teachers. *Teacher Education Quarterly*, DOI: <http://www.teqjournal.org/index.htm>.
- Levine, M. (2010). Developing Principles for Clinically Based Teacher Preparation. *Commissioned by NCATE*.
- Linek, W., Sampson, M., Haas, L., Sadler, D., Moore, L., Nylan, M. (2012). The Impact of Teacher Preparation: A Study of Alternative Certification and Traditionally Prepared Teachers in Their First Year of Teaching. *Issues in Teacher Certification 21* (2), 67-82.
- MacSuga, A. & Simonsen, B. (2011). Increasing Teachers' Use of Evidence-Based Classroom Management Strategies through Consultation: Overview and Case Studies. *Beyond Behavior 20* (2), 4-12.
- Marzano, Robert, Marzano, Jana, & Pickering, Jana (2003). *Classroom Management That Works: Researched Based Strategies for Every Teacher*. Alexandria,

VA: Association For Supervision and Curriculum Development.

National Council for Accreditation of Teacher, E. (2010). *Transforming Teacher Education through Clinical Practice: A National Strategy to Prepare Effective Teachers*. Report of the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning.

Nielsen, A. (2009). Educational innovations. Concept-based learning activities using the clinical judgment model as a foundation for clinical learning. *Journal of Nursing Education, 48*(6), 350-354.

O'Neill, S. C. & Stephenson, J. (2011). The Measurement of Classroom Management Self Efficacy: A Review of Measurement Instrument Development and Influences. *Educational Psychology 31* (3), 261-299.

Peters, J. (2012, Sep). Are They Ready? Final Year Pre-Service Teachers' Learning about Managing Student Behavior. *Australian Journal of Teacher Education 37* (9).

Pitton, D. (2006). *Mentoring novice teachers: fostering a dialogue process*. Thousand Oaks: Corwin.

Plonczak, I. (2010). Videoconferencing in Math and Science Preservice Elementary Teachers' Field Placements. *Journal of Science Teacher Education, 21*(2), 241-254.

Poulton, T., & Balasubramaniam, C. (2011). Virtual patients: A year of change. *Medical Teacher, 33*(11), 933-937. doi:10.3109/0142159X.2011.613501

- Prince, K., Boshuizen, H., CPM, & Scherpbier, A. (2005). Students' opinions about their preparation for clinical practice. *Medical Education*, 39(7), 704-712.
- Ralph, E., Walker, K., & Wimmer, R. (2008). The Clinical/Practicum Experience in Professional Preparation: Preliminary Findings. *McGill Journal of Education*, 43(2), 157-172.
- Rose, G. L., & Rukstalis, M. R. (2008). Imparting Medical Ethics: The Role of Mentorship in Clinical Training. *Mentoring & Tutoring: Partnership In Learning*, 16(1), 77-89.
- Rubenstein, G. (2007). *Boston Teacher Residency: Real-World Training and Cost Incentives Keep Teachers Teaching* . Retrieved from <http://www.edutopia.org/schools-of-education-boston>.
- Sempowicz, T., & Hudson, P. (2011, Aug). Analysing Mentoring Dialogues for Developing a Preservice Teacher's Classroom Management Practices. *Australian Journal of Teacher Education* 36 (8), 1-16.
- Shih, R. (2013). New report says that teacher preparation programs are coming up short . *StudentsFirst*, doi: <http://www.studentsfirst.org/>
- Shook, A. (2012). A Study of Preservice Educators' Dispositions to Change Behavior Management Strategies. *Preventing School Failure* 56 (2), 129-136.
- Skiba, D. J. (2009). Nursing Education 2.0: A Second Look at Second Life. *Nursing Education Perspectives*, 30(2), 129-131.

- Social Smarts (2003). *Financial Impact of Classroom Discipline and Behavior Management*. Retrieved from http://www.socialsmarts.com/financial_impact_poor_soc.cfm
- Tait, M. (2008, Fall). Resilience as a Contributor to Novice Teacher Success, Commitment, and Retention. *Teacher Education Quarterly*, 35 (4), 57-75.
- The Partnership for 21st Century Skills (2009). *Learning Environments: A 21st century skills implementation guide*. Retrieved from http://www.p21.org/storage/documents/p21-stateimp_learning_environments.pdf
- TeachLivE™, (n.d.). Retrieved from <http://sreal.ucf.edu/TLE/>
- Tyler-Wood, T. & Periathiruvadi, S. (2011). Avatars in Virtual Classroom for Training Teachers: Comparing real kids with their virtual avatars. In M. Koehler & P. Mishra (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2011* (pp. 2005-2007). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/36597>.
- U.S. Department of Defense (2014). Net Generation definition retrieved from <http://dodcio.defense.gov/Home/Initiatives/NetGenerationGuide/NormsandCharacteristicsOfTheNetGeneration.aspx>.
- U. S. Department of Education (2010). *Preparing and Credentialing the Nation's Teachers*. The Secretary's Eighth Report on Teacher Quality Based on Data Provided for 2008, 2009, 2010 1-97. Retrieved from

<http://title2.ed.gov/TitleIIReport11.pdf>

Walker, J. & Dotger, B. (2013). Because Wisdom Can't be Told: Using Comparison of Simulated Parent-Teacher Conferences to Assess Teacher Candidates' Readiness for Family-School Partnership. *Journal of Teacher Education*, 63(1) 62-75. <http://www.sagepub.com>

Appendices

Appendix A

Summary of the Clinical Experience Required of The Teacher Candidates at Asbury University

Within the sequence of education courses, multiple clinical experiences occur prior to the professional student teaching semester. The Education Unit delivers structured clinical experiences at least three separate times. These clinical experiences are “blocked” with specific education courses so that participants will be able to connect, in public school classrooms, the material that they have been learning in the companion education courses.

ED/EDA 201

Students enroll in this clinical experience course during the same semester as they are enrolled in Introduction to Education, Human Growth and Development, and Technology for Education. Students are in schools for a minimum of 60 hours and in every case spend time in a diverse school. These hours are documented through TaskStream and students must have a proficient rating from their cooperating teacher for each of the Kentucky Teaching Standards that are addressed in this course. Students spend time in elementary, middle school, and secondary classrooms as a part of these 60 hours. Their required experiences include time observing, participating, and actual teaching.

ED/EDA 301

Students enroll in this clinical experience course during the same semester that they are enrolled in the methods courses that correspond to their major field of study. Students are in schools a minimum of 75 hours where they are required to teach mini units in their content area. These hours are documented through TaskStream and students must have a proficient rating from their cooperating teacher for each of the Kentucky Teaching Standards that are addressed in this course. Students are also formally observed at least one time by their Asbury University supervisor. The teacher candidates’ required experiences include time observing, participating, and actual teaching.

ED/EDA 401

Students enroll in this clinical experience during the semester just prior to their student teaching semester. They are placed in the classroom where they will begin their student teaching during the subsequent semester. Students are in schools a minimum of 75 hours and are enrolled in the companion courses of Classroom Management, Learning Performance Assessment, and Interventions for Differentiated

Learning. These hours are documented through TaskStream and students must have a proficient rating from their cooperating teacher for each of the Kentucky Teaching Standards that are addressed in this course. Their required experiences include time observing, participating, and actual teaching.

Student Teaching

Students are enrolled in this final clinical experience following the completion of all required education courses. They are in schools a minimum of 70 full days where a cooperating teacher and an Asbury University supervisor mentor them. Students must demonstrate mastery of all ten of Kentucky's Teaching Standards as well as Asbury's dispositional standard. Students create an online portfolio, which demonstrates their proficiency in each of these standards. Their Asbury University Supervisor formally observes students a minimum of four times. Additionally students attend seven professional seminars during the same semester that offer support, encouragement, and feedback to candidates during the professional experience.

Appendix B

21st Century Classroom Management Training - Fall 2013 Pre & Post- SurveyMonkey® Assessment Questions

Please respond to the following statements with:

- 7 – Strongly Agree
- 6 – Moderately Agree
- 5 – Slightly Agree
- 4 – Neither Agree Nor Disagree
- 3 – Slightly Disagree
- 2 – Moderately Disagree
- 1 – Strongly Disagree

1. I feel adequately prepared to effectively manage classroom situations that arise during my first year of teaching.
1 2 3 4 5 6 7
2. I feel confident dealing with a disruptive student.
1 2 3 4 5 6 7
3. I feel prepared to adequately address the needs of a special education student who has behavioral issues.
1 2 3 4 5 6 7
4. I feel adequately prepared to effectively facilitate a conference with an irate parent.
1 2 3 4 5 6 7
5. I feel adequately prepared to effectively manage a physical altercation between two of my students.
1 2 3 4 5 6 7
6. The training I received at Asbury has given me the classroom management skills I need to begin my teaching career.
1 2 3 4 5 6 7
7. I know what to do when students interrupt my teaching.
1 2 3 4 5 6 7
8. I have had sufficient experiences practicing my classroom management skills.
1 2 3 4 5 6 7
9. If a special needs student is in my class, I possess the necessary skills to effectively manage his/her behavior.
1 2 3 4 5 6 7
10. I will know what to do to defuse the situation when conferencing with an angry parent.
1 2 3 4 5 6 7
11. If students are fighting in my classroom I am confident in my ability to positively manage the situation.
1 2 3 4 5 6 7

Appendix C

Individual Teacher Candidate Interviews

(Used at the end of the study)

1. What general thoughts and feelings do you have about being a part of this study?
2. What would be the best order for the trainings that you received? Why?
3. How could this training have been improved?
4. What training module/s would you embed in ED 201, 301, and 401?
5. Which of these training modules was the most useful to you? Why?
6. Which of these training modules was the least helpful to you? Why?

*This site was used to shuffle and randomly chose the teacher candidates for survey

<http://www.superteachertools.com/instantclassroom/groupsnew/2013/11/capstoneparticipants/>

Appendix D

Post SurveyMonkey® Questions After All Three Training Module

1. This training (*video analysis, avatars, simulations*) has contributed to giving me the classroom management skills needed to begin my teaching career.
2. This training (*video analysis, avatars, simulations*) helped to prepare me to deal with an angry parent.
3. This training (*video analysis, avatars, simulations*) helped to prepare me to deal with a student who has been involved in fighting or verbal altercation.
4. This training (*video analysis, avatars, simulations*) improved my confidence in my ability to handle an irate parent.
5. The training (*video analysis, avatars, simulations*) has improved my confidence in my ability to handle a student involved with fighting or a verbal altercation.
6. This training (*video analysis, avatars, simulations*) helped me know what to do when an angry parent approaches me about classroom or curricular issues.
7. This training (*video analysis, avatars, simulations*) helped me to know what to do when a student is caught fighting or has had a verbal altercation.
8. This training (*video analysis, avatars, simulations*) gave me sufficient practice in handling an angry parent.
9. This training (*video analysis, avatars, simulations*) gave me sufficient practice in handling a student who has been fighting or using inappropriate language.
10. This training (*video analysis, avatars, simulations*) was realistic.
11. This training (*video analysis, avatars, simulations*) supported my learning in classroom management.
12. I would like to try this training (*video analysis, avatars, simulations*) again.

Appendix E

Pre-simulation Teacher Reflection Guide- Casey Butler

1. Based on the information provided in this Teacher Interaction Protocol, what topic(s) do you intend to focus on during your conference with Casey Butler?
2. Describe your approach to the conference with Casey. What information/data will you use to assist you?
3. Do you have any specific observations, notes or statements you wish to document before this clinical simulation begins?

Appendix F

Post Reflection Questions about Standardized Student- Casey Butler Simulation

Questions adapted from Clinical Simulations for Teacher Development by Dr. Ben Dotger

1. Reflecting on your conversation with Casey. What are your initial thoughts and feelings?
2. Did the conference with Casey occur as you had anticipated? Was it the type of conference that you expected?
3. Were you able to accomplish your goals? If not, what prevented you from doing so?
4. What were your strengths in this clinical simulation? Briefly describe the portion of the simulation where you exhibited this professional strength.
5. Did this clinical simulation highlight any professional, knowledge or dispositional skills on which you need to improve? If so, briefly describe them.
6. Are there specific questions, statements, dilemmas or situations that arose in your clinical simulation that you want to raise for discussion during the larger group debriefing process? (List below. If possible, include a time signature from the video recording of your simulation.)

Used with permission from Ben Dotger (2010).

Appendix H

Post Simulation Teacher Reflection Guide- Smithers Case

1. Reflecting on your conversation with Mr. Smithers, what are your initial thoughts and feelings?
2. Did the conference with Jim Smithers occur as you had anticipated?
3. Were you able to accomplish your goals? If not, what prevented you from doing so?
4. What were your strengths in this clinical simulation? Briefly describe the portion of the simulation where you exhibited this professional strength.
5. Did this clinical simulation highlight any professional skills, knowledge base(s), or dispositions on which you need to improve? If so, briefly describe the specific portion of the simulation where you struggled or were unsure of how to proceed.
6. Reflecting on your meeting with Mr. Smithers, do you have any new or different perspectives on your professional responsibilities, policies, or expectations? Additionally, did this simulation result in new perspectives on school or school district policies?
7. Are there specific questions, statements, dilemmas, or situations that arose in your clinical simulation that you want to raise for discussion during the larger group debriefing process? (List below. If possible, include a time signature from the video recording of your simulation.)

Appendix I

SI Feedback (Mr. Smithers) on teacher candidate's conference results

Mark only one response per item.

Rating Scale

A = Strongly Agree
 B = Agree
 C = Neutral
 D = Disagree
 E = Strongly Disagree

**The Standardized Parent (SP) feedback for teacher candidates.
 Circle the scale that fits your response.**

ABCDE - The teacher used open-ended questions?

ABCDE - The teacher did not interrupt me during the conference?

ABCDE - The teacher made the effort to understand my point of view?

ABCDE - The teacher listened to me and was willing to think about an alternative assignment?

ABCDE - The teacher summarized his/her understanding of my concerns?

ABCDE - The teacher responded to my questions and/or concerns appropriately?

ABCDE - The teacher made me feel comfortable and at ease?

ABCDE - The teacher displayed empathy and compassion?

ABCDE - I would recommend this teacher to other parents?

ABCDE - I was satisfied with my conference?

Additional Comments that would help our teacher candidate. (Strengths and areas for growth for teacher candidate)

*These questions are adapted for our parents conference simulation from the forms used by standardized patient (SP) to evaluate medical students at the UK medical center.

Appendix J

TLE TeachLivE™ Session 1 Objectives

Session Planning Template

Requester Information

Name:	Helen J. Rader	University:	Asbury University
Department:	School of Education	Class:	EDA
Date:	Nov 6	Duration Period in EST :	10:00-1:00
Facilitator			
Name:	Helen Rader	Phone Number:	859-967-6660

Description of the Session

Highlight One: **Generation 3** Adult Avatar

Is this session a demonstration? YES **NO**

Will session be recorded? **YES, for research (See form below)**
 YES, for media (Please contact TeachLivE for approval)
YES, for student feedback (See from below)
 NO

Session will focus on: CONTENT or PEDAGOGY or **BOTH**

Session Details:

Nov. 6- Candidates will be asked to assume that it is the first day of school and they are meeting their new students for the first time. Some of the areas that will be addressed will be welcoming the students to class, making expectations clear and engaging the students. They will demonstrate this in the Teach Live lab. Their performance will be recorded on video for self-reflect and research and teaching purposes.

The students will target their teaching to a 5th grade class or a 9th grade class to meet the MS age of the avatars. Most of our students are Elementary majors or secondary majors. Students will incorporate several individual classroom management strategies using the following structures.

1. An Introduction to the class & school year
2. Establish a sense of classroom community and rules
3. Transition to a subsequent first activity

Specific language and behavior from the teacher candidate should include: using language of community (we, us, our); fostering a level of excitement (speaking clearly and enthusiastically about the work the class will do); establishing expectations (explaining what students should do when they arrive

each day); and presenting a calming, reassuring and open presence (smiling, speaking slowly and clearly actively listening to students questions).

Behaviors that teacher should avoid include: using primarily authoritarian language (i.e. you will do...if you don't I will); (i.e. speaking in blank, unclear or vague ways about the work to be done across the year); failing to establish clear expectations (i.e. not addressing what students should do when they arrive each day); and nervously or too rapidly using developmentally inappropriate vocabulary.

Number of Participants:

Scheduled activities or participants in session:

*** LESSON PLANS AND RUNNING ORDER (IF APPLICABLE) MUST BE SENT **ONE WEEK** BEFORE THE SCHEDULED SESSION***

Behavior Level

Choose the Preferred Behavior Escalation Level

Behavior Level: 0-----**1**-----2-----3-----4-----5

0 = no classroom misbehavior

1 = mild misbehavior -> distraction, fidgeting, inattention at **low** frequency

2 = mild/moderate misbehavior -> distraction, fidgeting, inattention, mild resistance at **low** frequency

3 = moderate misbehavior -> distraction, fidgeting, inattention, resistance at **medium** frequency

4 = moderate / intense misbehavior -> distraction, fidgeting, inattention, resistance, bullying behavior at **medium** frequency

5 = intense misbehavior -> distraction, fidgeting, inattention, resistance, bullying behavior at **high** frequency including personal attacks towards teacher and students

1st Goal/Objective for Participants

Description:

Candidates will offer students an engaging introduction to the class/school year.

Measurement:

Candidates should foster a level of excitement about learning (i.e. speak clearly and enthusiastically about the work the class will do); in relation to this I will like any one of the avatars to challenge the teacher with the trigger/question, "Why we gotta learn this stuff anyway?" The candidate should have a compelling or at least

fairly legitimate explanation that goes beyond external reasons (e.g., we get tests on it). If the avatars aren't satisfied with the explanation they could continue to press the question.

Note: The teacher candidates may reference any of the major subject areas- this is a classroom management class of students seeking certification in a number of areas.

Importance: x Essential Important Desirable

2nd Goal/Objective for Participants

Description:

Candidates will establish a sense of classroom community and community rules/norms (procedure); these could focus on norms for talking in class, how to behave toward each other, how to come and go out fo the classroom, **etc.**

Measurement:

Candidates should present a calm , reassuring and open presence. They should also use the language of community and in relation to this goal I would like any one of the avatars to violate a rule that has been established in order to see how the candidate responds to the misbehavior. The avatars should test the waters to see how the teacher reacts or they might simple forget the rule.

Importance: x Essential Important Desirable

3rd Goal/Objective for Participants

Description:

Candidates help the class successfully transition to a subsequent activity.

Measurement:

Candidates should establish clear expectation about what students should do next; in relation to this goal I would like any one of the avatars to question the teacher's instruction (ask the teacher to repeat the instructions or to clarify their instructions) You may actually need to ask these questions depending on how well the candidate performs. The avatars should feel like they know exactly what to do next and why and that the teacher has informed them of these things in a relaxed, clear way.

Importance: xEssential Important Desirable

Please send this form and attach any additional required materials -at least a week prior to

your session

If you plan on recording the session(s) email this form with the next section completely filled out to obtain the needed signatures a minimum of one week prior to your scheduled time.

Send to: TeachLive@ucf.edu

Appendix K

TLE TeachLivE™ Session Objectives

Session Planning Template

Requester Information

Name:	Helen J. Rader	University:	Asbury University
Department:	School of Education	Class:	ED 410 Classroom Management
Date:	Nov 11	Duration Period in EST :	10:00 to 1:00
Facilitator Name:	Helen Rader	Phone Number:	859-967-6660

Description of the Session

Highlight One: **Generation 3** Adult Avatar

Is this session a demonstration? YES **NO**

Will session be recorded? **YES, for research** (See form below)
 YES, for media (Please contact TeachLivE for approval)
YES, for student feedback (See from below)
 NO

Session will focus on: CONTENT or PEDAGOGY or **BOTH**

Session Details:

Nov 13 the teacher candidates will be asked to teach the beginning of a micro lesson in their content area. Some of the areas that will be addressed will be welcoming the students to class, making expectations for this new unit clear and engaging the students. They will demonstrate this in the Teach Live lab. Their performance will be recorded on video for self-reflect and research and teaching purposes.

The students will target their teaching to a 5th grade class (ES majors) or a 9th (HS majors) grade class to meet the MS age of the avatars. Most of our students are Elementary majors or secondary majors. Students will incorporate several individual classroom management strategies using the following structures.

1. An Introduction to the new unit of study
2. Establish a sense of classroom community and rules
3. Transition to a subsequent first activity

Specific language and behavior from the teacher candidate should include: using language of community (we, us, our); fostering a level of excitement (speaking clearly and enthusiastically about the work the class will do); establishing expectations (explaining what students should do when they arrive each day); and presenting a

calming, reassuring and open presence (smiling, speaking slowly and clearly actively listening to students questions).

Behaviors that teacher should avoid include: using primarily authoritarian language (i.e. you will do...if you don't I will); (i.e. speaking in blank, unclear or vague ways about the work to be done across the year); failing to establish clear expectations (i.e. not addressing what students should do when they arrive each day); and nervously or too rapidly using developmentally inappropriate vocabulary

Number of Participants:

*** LESSON PLANS AND RUNNING ORDER (IF APPLICABLE) MUST BE SENT **ONE WEEK** BEFORE THE SCHEDULED SESSION***

Behavior Level

Choose the Preferred Behavior Escalation Level

Behavior Level: 0-----1-----2-----3-----4-----5

0 = no classroom misbehavior

1 = mild misbehavior -> distraction, fidgeting, inattention at **low** frequency

2 = mild/moderate misbehavior -> distraction, fidgeting, inattention, mild resistance at **low** frequency

3 = moderate misbehavior -> distraction, fidgeting, inattention, resistance at **medium** frequency

4 = moderate / intense misbehavior -> distraction, fidgeting, inattention, resistance, bullying behavior at **medium** frequency

5 = intense misbehavior -> distraction, fidgeting, inattention, resistance, bullying behavior at **high** frequency including personal attacks towards teacher and students

1st Goal/Objective for Participants

Description:

Candidates will teach a micro lesson in their content area and introduce the first activity of the

lesson.

Measurement:

Candidates should foster a level of excitement about starting this new unit (i.e. speak clearly and enthusiastically about what they will be learning and why); in relation to this **I would like any one of the avatars to challenge the teacher with the trigger/question, “Why we gotta learn this stuff anyway?” The candidate should have a compelling or at least fairly legitimate explanation and real life connection or purpose for this lesson that goes beyond external reasons (e.g., we get tests on it).** If the avatars aren’t satisfied with the explanation they could continue to press the question.

Note: The teacher candidates may reference any of the major subject areas- this is a classroom management class of students seeking certification in a number of areas.

Importance: x Essential Important Desirable

2nd Goal/Objective for Participants

Description:

Candidates will establish a sense of classroom community. The students should feel secure about the direction the lesson is going and community norms (procedures or rules); these could focus on norms for talking in class, how to behave toward each other, etc.

Measurement:

Candidates should present a calm, reassuring and open presence (i.e., smiling, speaking slowly and clearly, actively listening to student questions); they should also use the language of community (i.e., using the words 'we', 'us', and 'our'); in relation to this goal. **I would like any one of the avatars to violate a rule that has been established (e.g., talking out of turn, interrupting, fidgeting) in order to see how the candidate responds to the misbehavior.** The avatars should ‘test the waters’ to see how the teacher reacts or they might simply forget the rule. Either way, the teacher should assume the best and re-teach the rule.

Importance: x Essential Important Desirable

3rd Goal/Objective for Participants

Description:

Candidates help the class successfully transition to a subsequent activity.

Measurement:

Candidates should establish clear expectations about what students should do next (i.e., give a clear explanation of how students should move from their current activity to the next one); in relation to this goal **I would like any one of the avatars to question the teacher’s instruction (e.g., ask the teacher why, or to repeat the instructions, or to clarify their instructions).** You may actually need to ask these questions depending on how well the candidate performs. The avatars should feel like they know exactly what to do next and why, and that the teacher has informed them of these things in a relaxed, clear way.

Importance: x Essential Important Desirable

Please send this form and attach any additional required materials -at least a week prior to your session

If you plan on recording the session(s) email this form with the next section completely filled out to obtain the needed signatures a minimum of one week prior to your scheduled time.

Send to: TeachLive@ucf.edu

Appendix L

Post Avatar Session 1- Reflection Questions

1. Reflecting back on this experience, what are your initial thoughts and feelings about what went well?
2. What do you think you could improve on? Did the class go as you had anticipated?
3. What misbehaviors did you notice or struggle with? Did this clinical experience highlight any professional skills you might need to work on?
4. What positive behaviors did you notice?
5. How could you tell the students were engaged in your lesson? When were they not engaged?
6. Which student did you feel you made a strong connection with? Why?
7. Which student did you struggle the most to make a connection with? Why?
8. What tools could you use to better implement your lesson and engage the students?
9. What might have detracted from your lesson? How did pace affect the engagement of the students?
10. How well did each student understand the material you discussed? How did you come to these conclusions?
11. If behavior was an issue, what could you do differently next time to have a different outcome?
12. Are there specific questions, statements, dilemmas, or situations that arose in your classroom that you want to raise for discussions during the larger group debriefing process?

Appendix M

Post Avatar Session 2- Reflection Questions

1. Reflecting back on this experience, what are your initial thoughts and feelings about what went well with your micro lesson?
2. What do you think you could improve on? Did the class go as you had anticipated?
3. What misbehaviors did you notice or struggle with? Did this clinical experience highlight any professional skills you might need to work on?
4. What positive behaviors did you notice?
5. How could you tell the students were engaged in your lesson? When were they not engaged?
6. Which student did you feel you made a strong connection with? Why?
7. Which student did you struggle the most to make a connection with? Why?
8. What tools could you use to better implement your lesson and engage the students?
9. What might have detracted from your lesson? How did pace affect the engagement of the students? How did you try to monitor Sean's desire to talk all of the time?
10. How well did each student understand the material you discussed? How did you come to these conclusions?
11. If behavior was an issue, what could you do differently next time to have a different outcome? How did you try to draw Maria into your lesson?
12. Are there specific questions, statements, dilemmas, or situations that arose in your classroom that you want to raise for discussions in class?

Appendix N
Classroom Management Self-Assessment Rubric
Avatar Virtual Classroom (Adapted from Danielson)

	Below Expectations	Meets Expectations	Exceeds Expectations
Statement of purpose/vision	My target is unclear, overly long or punitive in tone	I offer a brief explanation of the targets; positively stated rationale for plan; my statement is clear and easy to understand.	My statement and target about this unit is clear, inspirational, and contains unifying concepts.
Rules & Consequences	My rules are vague, unclear, unenforceable or overly strict; consequences seem disproportionate; no links to course material	I clearly identified positively stated succinct set of rules; consequences are logically related to rules; explains how rules are communicated to others; clear links to course material (e.g., behaviorist theory)	My rules are designed to empower and connect students and teachers and to protect time for learning.
Procedures & Routines	I conveyed little sense of what it would be like to be a student in the classroom; little or no attention to critical moments or steps for regaining cooperating.	I clearly described “a day in the life”; connects procedures to course material on motivation (e.g., self-determination theory, TARGET, Maslow’s hierarchy, extrinsic and intrinsic)	I have created procedure and routines throughout the lesson with components that fostered a highly motivational learning environment.
Reflections about this lesson	I have limited evidence of metacognition; no tracking of thinking about classroom management over time.	I included observations about self as manager; clearly identifies similarities/difference in thinking about classroom management over time.	I made insightful comments suggesting careful attention to issues of “power” and “love” and self-awareness as a classroom leader.

The best thing about my management plan is:

How can my plan be more effective?

Appendix O

Video 1 Analysis Post Reflection Questions

1. Watch the opening sequence here. Would you agree that Ms. Bernard was very effective at getting the conference off to a good start?
2. Now watch how Mrs. Turner and Ms. Bernard exchange information. Do you agree that Ms. Bernard was very successful at sharing information about the situation with the parent?
3. Click here for some behind-the-scenes background about what's going on in Mrs. Turner's personal and professional life. Do you agree that Ms. Bernard was successful at gathering the relevant aspects of this information? [If you have any advice for Ms. Bernard use the forum]
4. Now watch how Ms. Bernard and Mrs. Turner decide what to do next. Do you agree that Ms. Bernard was very successful at suggesting a plan of action? [If you have any advice for Ms. Bernard use the forum).
5. Consider the entire conversation and Ms. Sharp's disposition during the conference. Would you agree that she was very successful at maintaining a positive relationship with Mrs. Turner? If you have any advice for Ms. Sharp write your response in the forum.
6. Ms. Sharp was very successful at accepting Mrs. Turner's emotions. Do you agree? If you have any advice for Ms. Sharp write your response in the forum).
7. Ms. Sharp was very successful at managing the flow of the conversation. [If you have any advice for Ms. Sharp use the forum).

Video 2 Analysis Post Reflection Questions

1. Watch the opening sequence here. Would you agree that - second time around - Ms. Bernard was very effective at getting the conference off to a good start? [If you have any comments on Ms. Bernard's performance use the FORUM]
2. Now watch how Mrs. Turner and Ms. Bernard exchange information. Do you agree that, this time, Ms. Bernard was very successful at sharing information about the situation with the Mrs. Turner? [If you have any comments on Ms. Bernard's performance use the FORUM]
3. Click here to remind yourself of the background about what's going on in Jennifer Turner's life. Second time around, Ms Bernard was successful at gathering the relevant aspects of this information the situation with the parent. Do you agree? [If you have any comments on Ms. Bernard's performance use the FORUM]
4. Now watch how Ms. Sharp and Mrs. Turner decide what to do next. Do you agree that, this time, Ms. Sharp was very successful at suggesting a plan of action? [If you have any comments on Ms. Sharp's performance use the FORUM]
5. Consider the entire conversation and Ms. Bernard's disposition during the conference. Would you agree that she was very successful at maintaining a positive relationship with Mrs. Turner? [If you have any advice for Ms. Bernard use the FORUM]
6. Second time around, Ms. Bernard was very successful at accepting Mrs. Turner's emotions. [If you have any comments on Ms. Bernard's performance use the FORUM]

7. Ms. Bernard (second time around) was very successful at managing the flow of the conversation. [If you have any comments on Ms. Bernard's performance use the FORUM]
8. Now watch two videos: First, watch how Ms. Sharp describes the conference to a colleague later that afternoon. Secondly, watch Mrs. Turner's impression of the meeting here.

Appendix P

Focus Group Questions After the Video Analysis

1. How effective is learning through observation and video analysis?
2. How were you able to learn more about how a teacher begins a parent teacher meeting by watching these videos?
3. Were you able to learn about teacher empathy towards a parent's emotional state by watching these videos?
4. Were you able to see when a teacher owns the authority, propels the "momentum" of the conversation through this training?
5. How beneficial is observing a conference like this vs. actually participating in a conference yourself?
6. How were you able to see how a teacher maintains a positive relationship with the parent?
7. How did this experience allow you to learn new ways to interact with the parent that you might not have learned otherwise?

VITA

HELEN J. RADER

Date of Birth: February 22, 1958

Place of Birth: Portland, Oregon

EDUCATION

May, 1980 Bachelor of Science in Physical Education
Asbury College
Wilmore, Kentucky

August, 1994 Master of Science in Educational Leadership
Troy State University
Troy, Alabama

August, 1997 Master of Arts in Curriculum and Instruction
University of Southern Mississippi
Hattiesburg, Mississippi

Pending Master of Science in School Counseling
Eastern Kentucky University
Richmond, Kentucky

Pending Doctor of Education
Morehead State University
Morehead, Kentucky

PROFESSIONAL EXPERIENCES

2010-Present Assistant Professor
Asbury University
Wilmore, Kentucky

2007-2010 High School Counselor
Seoul Foreign School
Seoul, Korea

1997-2007	Elementary Teacher Seoul Foreign School Seoul, Korea
1992-1996	Physical Education Teacher Seoul Foreign School Seoul, Korea
1989-1992	Kindergarten Teacher Seoul Foreign School Seoul, Korea
1987-1989	Professor Hannam University Taejon, Korea
1980-1982	Physical Education Seoul Foreign School Seoul, Korea

HONORS

1980 Who's Who in American Colleges

PUBLICATIONS

Rader, H. (2007). Expanding Research Opportunities for First Graders: How to effectively teach and help your students write and present their research project, The Banner.

VITA

JAMES P. RADER

Date of Birth: July 11, 1961
Place of Birth: Flushing Long Island, NY

EDUCATION

May, 1983 Bachelor of Science in Physical Education
Asbury College
Wilmore, Kentucky

August, 1984 Master of Science in Physical Education
Eastern Kentucky University
Richmond, Kentucky

August, 1997 Master of Education in Curriculum and Instruction
University of Southern Mississippi
Hattiesburg, Mississippi

August, 2006 Master of Science in Educational Leadership
Eastern Kentucky University
Richmond, Kentucky

Pending Doctor of Education
Morehead State University
Morehead, Kentucky

PROFESSIONAL EXPERIENCES

2009-Present Assistant Professor of Education
Asbury University
Wilmore, Kentucky

2008-2009 Assistant Principal
Seoul Foreign School
Seoul, Korea

1989-2008 High School Social Studies Teacher
Seoul Foreign School
Seoul, Korea

- 1987-89 K-12 Physical Education Teacher
Korea Christian Academy
Taejon, Korea
- 1984-87 Instructor of Physical Education & Athletic Director
Young Harris College
Young Harris, Georgia

HONORS

- 2013 KIAC Volleyball Coach of the Year
Kentucky Intercollegiate Athletic Conference
Richmond, Kentucky
- 2012 Seoul Foreign School Alumni of the Year
Seoul Foreign School
Seoul, Korea
- 2011 KIAC Volleyball Coach of the Year
Kentucky Intercollegiate Athletic Conference
Richmond, Kentucky
- 2011 NCCAA Mideast Region Coach of the Year
National Christian College Athletic Association
Kissimmee, Florida
- 2006 Asbury College Volunteer of the Year
Asbury College
Wilmore, Kentucky
- 2004 Phi Delta Kappa Distinguished Teacher
Phi Delta Kappa Korea Chapter
Seoul, Korea
- 2001 The University of Chicago Outstanding High School Teacher
University of Chicago
Chicago, Illinois

VITA

DAVID R. RIEL

Date of Birth: April 19, 1953

Place of Birth: Steubenville, Ohio

EDUCATION

May, 1975 Bachelor of Arts in Elementary Education
Asbury College
Wilmore, Kentucky

May, 1977 Master of Education in Elementary Administration
Xavier University
Cincinnati, Ohio

Pending Doctor of Education
Morehead State University
Morehead, Kentucky

PROFESSIONAL EXPERIENCES

2009-Present Assistant Professor
Asbury University
Wilmore, Kentucky

2004-2009 Superintendent
Fort Recovery Local Schools
Fort Recovery, Ohio

1986-2003 Principal
New Richmond Elementary School
New Richmond Exempted Village School District
New Richmond, Ohio

1980-1986 Principal
Pierce Elementary School
New Richmond Exempted Village School District
New Richmond, Ohio

- 1976-1979 Teacher, Adult Basic Education
Clermont County Office of Education
Batavia, Ohio
- 1975-1980 Teacher, Grades 5 and 6
Monroe Elementary School
New Richmond Exempted Village School District
New Richmond, Ohio

HONORS

- 2008 President
Fort Recovery Chamber of Commerce
Fort Recovery, Ohio
- 2006 President
Northwest Ohio Educational Research Council
Lima, Ohio
- 2001 Administrator of the Year
Clermont County Chamber of Commerce
Batavia, Ohio
- 1996 Distinguished Principal Runner-up
Ohio Association of Elementary School Principals
Columbus, Ohio
- 1996 Educator of the Year
Clermont 2001
Batavia, Ohio
- 1995 State Committee
Ohio North Central Association
Columbus, Ohio
- 1988 Quality Initiative Award
Special Education Regional Research Center
Cincinnati, Ohio
- 1984 Hall of Fame Runner-up
Ohio Association of Elementary Principals
Columbus, Ohio