**Examining Alabama Teacher of the Year Nominee Applications: Toward a Prototype of Expert Teaching**

by

Quebe Merritt Bradford

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Approved by

Carey Andrzejewski, Chair, Associate Professor of Educational Foundations,
Leadership, and Technology
Lisa A. W. Kensler, Associate Professor of Educational Foundations, Leadership, and
Technology
Deborah L. Morowski, Associate Professor of Elementary Education
Maria Witte, Professor of Educational Foundations, Leadership, and Technology

Abstract

Because of the complex nature of teaching (Gün, 2014), studying teacher expertise is no easy task. Many researchers have contributed to our understanding of teacher expertise by comparing expert teachers to non-experts (i.e., Ho & Liu, 2005; Qiong & Yujing, 2009). In their call for a reconceptualization of teacher expertise, Sternberg and Horvath (1995) suggested that researchers study teacher expertise using a categorization, prototype model, which they believed would "allow us to adopt a fuller, more inclusive understanding of teacher expertise" (p. 9). Using small sample sizes (N<20), three research teams conducted studies using Sternberg and Horvath's model (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004). They found that expert teachers shared six central tendencies: confidence, classroom community, positive teacher-student relationships, a student-centered approach, leadership and service, and content mastery. Gün (2014) added one additional central tendency, which he termed persistence.

In an effort to replicate and extend the prototype teacher expertise research, I conducted a qualitative, grounded theory study of teacher expertise. Analyzing their application packets, which included essays, stakeholder letters, and teaching exemplars recorded in video format, I studied four Alabama teachers who had reached the semi-

finals or higher in the Alabama Teacher of the Year program. I addressed this research question: How were 2009-2013 Alabama Teacher of the Year applications similar?

I found that the expert teachers share seven central tendencies: These teachers exhibited confidence in themselves and their colleagues; promoted classroom community by increasing student input in decision-making; fostered positive teacher-student relationships, practiced a student-centered approach; led teachers and other stakeholders in educational decision-making and served the larger community; met indicators that supported content mastery; and persisted in setting high standards for themselves and for students collectively and individually.

I concluded that because teaching is a complex profession, basic standards of professional competence are necessary; however, organizing the beliefs and practices of expert teachers into a prototype, as suggested by Sternberg and Horvath (1995) informs the work of school administrators and experienced teachers by providing guidance in determining professional development needs.

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List of Abbreviations

AAC        Alabama Administrative Code

AQTS       Alabama Quality Teaching Standards

CCSS       Common Core State Standards

IRB        Institutional Review Board

PCK        Pedagogical Content Knowledge

PCR        Parent-Child Relationship(s)

TSR        Teacher-Student Relationship(s)

CHAPTER 1: NATURE OF THE STUDY

In their study of state and national award-winning teachers of at-risk and highly mobile students, Grant, Stronge, and Popp (2008) said:

> What we have known intuitively all along, we now know empirically: There is a direct, measurable link between teacher effectiveness and student success….What we need to better understand, however, is what the most effective teachers *do* which results in substantial academic growth of students. (p. 2)

Because of the extremely complex nature of teaching (Gün, 2014) and the changing demographics of students (Grant, Stronge, & Popp, 2008), studying teaching is no easy task. However, focused studies can allow teachers to reflect and provide insight. "Teachers may become more reflective when they are encouraged to engage in personal theorizing through their own critical reflections" (Gün, 2014, p. 86). These critical reflections of beliefs, along with observations of practice, can allow researchers to more fully understand teacher expertise.

In an effort to study what Alabama Teacher of the Year nominees believed and practice, I conducted a qualitative study, analyzing teachers' application packets. Regarding appropriate uses for the qualitative methodology,

Glaser and Strauss (1967) said, "the crucial elements of sociological theory are often found best with a qualitative method, that is, from data on structural conditions, consequences, deviances, norms, processes, patterns, and systems" (Glaser & Strauss, 1967, p. 18). Likewise, the critical elements of education can be addressed using a qualitative methodology that encourages the use of videos, essays, and letters to study patterns of expert teachers. My personal experiences as an educator as well as other researchers' conclusions that further research was needed on this topic (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004; Sternberg & Horvath, 1995) solidified my decision to conduct this study using a qualitative method.

One of the first steps in conducting a qualitative study is to consider the role of the researcher in the study (Creswell, 2013) and engage in self-study (Pinnegar & Hamilton, 2009). The experiences, knowledge, and assumptions, as well as the ethical, political, and social views of the researcher influence the theories the researcher identifies with and ultimately uses to undergird her study (Creswell, 2013). "A close tie does exist between the philosophy that one brings to the research and how one proceeds to use a framework to shroud his or her inquiry" (Creswell, 2013, p. 15). The collection of experiences, knowledge, assumptions, and viewpoints shape the researcher and color the lens by which the researcher views the research (Creswell, 2013). These "deeply rooted" pieces of self "shape how we formulate our problem and research questions to study and how we seek information to answer questions" (Creswell, 2013, p. 18). Thus, it is necessary

that I, the researcher, provide a glimpse into the pieces of myself that affect the way I view teaching and learning.

## Experiences of the Researcher

My teaching experiences include teaching English and journalism at a middle school and two high schools in a large metropolitan area for almost 10 years. I taught eighth through twelfth grade students who represented an array of backgrounds and interests. My experiences taught me that building relationships with students, encouraging them to attend school daily, and helping them develop toward their individual goals were very important practices to many of my students. Many students were more engaged in the lesson if I worked hard to connect the content to the real world, using instructional strategies to support their learning.

It was during my stint as an English teacher in the Ninth Grade Academy of the largest high school in my city that I was nominated for Alabama Teacher of the Year. Chosen as the representative for my school, I was selected as the county and state district five teacher of the year. The following year, I was asked to serve as a judge on the Alabama Teacher of the Year panel. Teachers were required to submit packets that included teaching philosophies, stakeholder letters of support, educational histories and biographies, teacher of the year messages, community involvement essays, and education trends and solutions essays. As a judge, I combed through several thick packets, scoring teachers based upon set judging criteria (see Appendix 1). As I read through packet after

packet, I began to notice similarities: Expert teachers all seemed to share common traits. Thus, I became interested in studying the teachers more systematically because I wondered if expert teachers truly shared common beliefs.

After reading the teachers' essays and letters that stakeholders had written about them, I felt compelled to study the rich, complex nature of teacher expertise. I began to research the topic and noted that most research regarding expert teachers had been conducted using a model where expert teachers were contrasted with novice teachers. Fewer studies juxtaposed expert teachers exclusively, noting their similar qualities. Thus, I sought to add to the body of research that studied teacher expertise using a comparison model rather than a contrast model. I conducted this research in hopes of improving my practice as a district instructional leader, a role in which I coach and mentor content specialists and collaborative teachers.

## Problem

Researchers have discussed the difficulty in capturing a comprehensive list of qualities of expert teachers (Berliner, 1976; Welker, 1991). Some researchers emphasized differences between expert and novice teachers (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) or compared more experienced pre-service teachers to less experienced pre-service teachers (Byra & Sherman, 1993). However, fewer researchers have studied teacher expertise

by noting similarities among expert teachers (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004).

Sternberg and Horvath (1995) suggested a reconceptualization of teaching expertise by using a categorization, prototype model to categorize the qualities of these teachers. They suggested that researchers find the central tendencies of expert teachers, creating categories based on teachers' similarities (Sternberg & Horvath, 1995). Sternberg and Horvath (1995) defined a category as "a set of objects, [people, or traits] that are perceived to be similar—'seem to go together'" (p. 9). Furthermore, a prototype "represents the central tendency of all the examples in the category" and is a "summary representation" of all who belong to the category (Sternberg & Horvath, 1995, p. 9). The categorization model could allow for variability within the central tendencies, thus encouraging individuality within the complexities of teaching as well as rich dialogue on teaching expertise (Sternberg & Horvath, 1995).

Since the publication of the work of Sternberg and Horvath (1995), researchers Smith and Strahan (2004), Li, Huang, and Yang, (2011), and Gün (2014) conducted categorization, prototype studies of teacher expertise using a combined sample size of less than 20. Thus, more research was needed to replicate and extend the research on this topic. These researchers (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004) affirmed the need for more studies of teacher expertise that compared expert teachers to each other in an

effort to note the "family resemblance" within the group (Sternberg & Horvath, 1995, p. 9).

## Purpose

The purpose of this study was to explore similarities in the 2009-2013 Alabama Teacher of the Year applications; replicate past studies of teacher expertise that used a categorization, prototype model; and ground a theory of expert teaching.

## Research Questions

1. How were 2009-2013 Alabama Teacher of the Year applications similar?
   a. What words and phrases did teachers use to describe their practice?
   b. What meanings did these teachers attach to these descriptions?
   c. What concepts related to teaching appeared across participants?
   d. How were these concepts categorized and integrated into a prototype that represents the central tendency of these teachers?

## Programs that Recognize Teachers as Experts

There are a few programs that seek to recognize teachers as experts. Three of the most prominent programs recognized in the state of Alabama are the Alabama Teacher of the Year, the National Teacher of the Year, and the National Board for Professional Teaching Standards programs. All three programs are highly lauded in teaching circles and are considered distinct honors. Because the applications of Alabama Teacher of the Year nominees are

the primary focus of this study, and because this program is heavily lauded, the Alabama Teacher of the Year program will be discussed in great detail.

**Alabama Teacher of the Year Program**

The Alabama Teacher of the Year Program is sponsored by the Alabama Board of Education and the Alabama State Department of Education. The program's purpose is "annually to honor and recognize excellence in the teaching profession by identifying outstanding Alabama classroom teachers at local, district, and state levels" (Alabama State Department of Education, 2013-2014). Only full-time, public school teachers in P-12 are eligible for the appointment. The Alabama Teacher of the Year winner takes a sabbatical from teaching duties and becomes a full-time ambassador for teaching. Duties include public speaking, professional development trainings, and article writing (Alabama State Department of Education, 2013-2014).

Alabama Teacher of the Year applicants must follow a prescribed process in order to be considered for the award. First, the nominee must be selected by a teacher-of-the-year selection committee housed at the school site. The committee should include the principal, a parent organization member, a teacher, a student representative, and a counselor or librarian (Alabama State Department of Education, 2013-2014). The committee, under the supervision of the principal, decides upon a nominee, sends the name to the system-level teacher-of-the-year selection committee, and instructs the nominee to complete the application. At its foundation, the views of teachers, students, parents, and

administrators are all taken into account when recognizing the school level

nominee for the Alabama Teacher of the Year Program.

The system-level teacher-of-the-year committee should be composed of

the superintendent, a school board member, a parent organization member, an

elementary teacher, and a secondary teacher. The system-level teacher-of-the-

year committee considers all applicants and then selects a nominee, whose

name is forwarded to the state department of education.

The state of Alabama is divided into eight state board of education

districts. See Appendix 2 for a visual reference. A district- level teacher-of-the-

year committee considers all nominees within the district and forwards the

nominee's name to the state-level committee. Each district-level committee is

composed of a district representative on the Alabama State Board of Education,

the local superintendent, a local board of education member, two business

representatives, a current District Elementary Teacher of the Year, a current

District Secondary Teacher of the Year, and the dean of education from a college

or university (Alabama State Department of Education, 2013-2014). Since there

are eight state districts, and a nominee is selected from the elementary sector

and the secondary sector, a total of 16 teachers are selected to the state's sweet

16 contest. For the purpose of this study, I asked the 16 district teacher-of-the-

year winners for 2008-2014 to participate.

District winners are narrowed down further to the final four contestants.

The Alabama Teacher of the Year and Alternate Alabama Teacher of the Year

are selected by a committee composed of the Alabama State Board of

Education, State Superintendent of Education, Alabama Association of Colleges of Teacher Education, Alabama Association of School Boards, Alabama Congress of Parents and Teachers, Alabama Education Association, A-Plus Education Partnership, Alabama Milken Educators' Network, Council for Leaders in Alabama Schools, School Superintendents of Alabama, and media and business community personnel (Alabama State Department of Education, 2013-2014). The application of the person named Alabama Teacher of the Year is forwarded to the National Teacher of the Year program for consideration.

**National Teacher of the Year Program**

The National Teacher of the Year Program began in 1952. The program recognizes excellence in teaching in pre-kindergarten through twelfth grade. The program outlines the following criteria for selection:

> Inspire students of all backgrounds and abilities to learn; have the respect and admiration of students, parents, and colleagues; play an active and useful role in the community as well as in the school; and be poised, articulate, and possess the energy to withstand a taxing schedule (Council of Chief State School Officers, 2012).

The National Teacher of the Year is chosen from the state teachers of the year.

**National Board for Professional Teaching Standards**

The National Board for Professional Teaching Standards is a national teacher training program that focuses on "establishing the definitive standards of accomplished teaching and the process by which the profession would certify whether or not a teacher had met those standards" (National Board for

Professional Teaching Standards, 2015). Founders of the organization believed that practitioners should "have a primary role in determining standards of entry, practice, and advancement" (National Board for Professional Teaching Standards, 2015). In esteemed professions such as law and medicine, practitioners set the standards of practice, while states put in place procedures for licensure (National Board for Professional Teaching Standards, 2015). "In education, in the absence of such profession-driven standards and because teachers are paid with public dollars, states have virtually become the sole determiner for what teacher preparation and development should include" (National Board for Professional Teaching Standards, 20135). The National Board for Professional Teaching Standards sought to set the standards of practice in education (National Board for Professional Teaching Standards, 2015).

**Political Acknowledgements**

One criticism of the Alabama Teacher of the Year program has been its inherent political nature. I acknowledge that deserving teachers may be overlooked, and less deserving teachers may be selected as school-based winners. However, the effects of politics were minimized in this study because of hierarchical safeguards. Teachers selected for this study underwent a vetting process of being selected as their school winner, school district winner, and state district winner. For instance, a state district winner from Montgomery competed with teachers in his or her school, the 53 schools in Montgomery County, and the 15 regions in state district five, which included Sumter, Choctaw, Washington,

Marengo, Clarke, Perry, Dallas, Wilcox, Monroe, Autauga, Lowndes, Montgomery, Macon, Bullock, and Pike counties. (See Appendix 2 for a visual representation of the state districts.)

Committee members for the state district competition were made up of previous teacher of the year winners and representatives from the state department of education, school district central offices, and schools. As a safeguard against favoritism, the committee evaluated applications for candidates outside of their district. The guidelines state, "Each committee will evaluate applications from a district other than its own" (Alabama State Department of Education, 2013-2014). Therefore, previous state district teachers of the year could not serve as judges for the school districts where they received the award. The final teacher of the year winner for the state competed with teachers in up to 171 school districts. Therefore, the hierarchical nature of the competition increased the difficulty of selecting winners based upon personal or political affiliation. Thus, while this study was not inclusive of all expert teachers, it was likely exclusive of non-expert teachers.

Another criticism of the Alabama Teacher of the Year program is the underrepresentation of non-core academic teachers. However, a review of the state winners revealed that teachers represented various subjects and grade levels. See Table 1 for a list of Alabama Teacher of the Year winners, 2008-2014 as well as the subjects they taught.

Table 1

*Alabama Teachers of the Year, 2008-2014*

| Alabama Teachers of the Year 2008-2014 | | | | |
|---|---|---|---|---|
| Year | Name | School | District | Subject |
| 2014-2015 | Ann Marie Corgill | Cherokee Bend Elementary | Mountain Brook | 4th grade |
| 2013-2014 | Dr. Alison Grizzle | P.D. Jackson Olin High | Birmingham City | Math |
| 2012-2013 | Suzanne Culbreth | Spain Park High | Hoover | Math |
| 2011-2012 | Dr. Gay Barnes | Horizon Elementary | Madison | 1st grade |
| 2010-2011 | Phil Wilson | Ogletree Elementary | Auburn City | Music |
| 2009-2010 | Yung Bui-Kincer | Booker T. Washington Magnet High | Montgomery County | Science |
| 2008-2009 | Roy Hudson | Shades Valley High | Jefferson County | Theater |

**Framework for Study**

I used three lenses to ground my study. First, I used the prototype lens of teacher expertise to help me narrow down the participants in my study. Sternberg and Horvath (1995) said that researchers should only include teachers in the study who "are perceived to be similar—'seem to go together'" (p. 9). They noted that expert teachers "bear a family resemblance" (Sternberg & Horvath, 1995, p. 9), and should be studied using comparison. Thus, I set the parameters of my study by only including teachers who had been selected by peers, administrators, other teacher of the year nominees, and committee members as expert teachers. When expert teachers are studied exclusively, and not in conjunction with their non-expert peers, researchers can analyze those points of similarity and note the

central tendencies of the group (Sternberg & Horvath, 1995, Smith & Strahan, 2007, Gün, 2014).

A second lens I used was the categorization model proposed by Sternberg and Horvath (1995) and executed by Smith and Strahan (2004) and Gün (2014). Smith and Strahan (2004) found that the expert teachers in their study shared six central tendencies: confidence, classroom community, positive teacher-student relationships, a student-centered approach, leadership and service, and content mastery. Gün categorized teachers' pedagogical and affective attributes using the same categories as Smith and Strahan (2004). However, he added one category, persistence. I used their combined prototype as a priori codes for analyzing the beliefs and practices of expert teachers after I had analyzed the data using memoing, open coding, axial coding, and selective coding.

The third lens I used was the Criteria for Judging the Alabama Teacher of the Year Candidates set forth by the Alabama Department of Education, which administers the program. See Appendix 1 for the Criteria for Judging the Alabama Teacher of the Year Candidates (Alabama Teacher of the Year Application, 2012-2013). The judging criteria are important because they indicate the areas that Alabama education leaders value in educators. The major categories include the following: education history, professional biography, community involvement, philosophy of teaching, education issues and trends, Alabama teacher of the year message, and letters of support.

**Significance of the Study**

The quest to define and describe expert teachers is heightened by the nationwide crisis to reform public education (Sternberg & Horvath, 1995). In Alabama, lawmakers sought to provide private school options to combat perceived public school expert teacher shortages and perceived shortfalls in students' academic achievement through the creation of the Alabama Accountability Act of 2013. The act was created to "encourage educators to work harder" (Graves, 2013, p. 3) and to provide "an escape route to school children trapped in failing schools" (Alabama Republican Party, 2013, p. 1). "Working harder" for many school districts means providing meaningful professional development to teachers. Through this study, I sought to ground a theory of expertise by noting the central tendencies of expert teachers. The tendencies can be used as major topics for professional development and teacher reflection.

In addition to its role in informing policy and practice, the results of this study also add to the body of qualitative research on expert teachers that use a categorization, prototype lens. The sample sizes of the five qualitative studies in which researchers studied expert teachers exclusively (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004) are small, including a combined 28 teachers. Smith and Strahan (2004) studied three expert teachers; Ainley & Luntley (2006) studied six expert teachers, and Andrzejewski (2008) studied four expert teachers. In addition, Li, Huang, and Yang (2011) studied five expert teachers, and Gün (2014) studied 10 expert teachers.

Ainley and Luntley (2006) and Andrzejewski (2008) used alternate lenses to study expertise aside from the prototype view. Thus, the three studies that used the prototype view (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004) combined to include 18 participants. In this study, I included four participants, thus adding to the combined number of participants in studies of teacher expertise using the prototype view.

Glaser and Strauss (1967) said that there are five major "jobs" of theory in sociology. These jobs also hold in the field of education and are applicable to this study. Glaser and Strauss (1967) said:

> The interrelated jobs of theory in sociology are: (1) to enable prediction and explanation of behavior; (2) to be useful in theoretical advance in sociology; (3) to be usable in practical applications—prediction and explanation should be able to give the practitioner understanding and some control of situations; (4) to provide a perspective on behavior—a stance to be taken toward data; and (5) to guide and provide a style for research on particular areas of behavior. (p. 3)

Because teachers' beliefs and practices are complex, further study is needed (Gün, 2014) to predict, explain, apply, and guide our knowledge of teacher expertise. The results of this study were significant because they provided a grounded theory of teacher expertise that practitioners can test, analyze, and apply.

**Assumptions**

I based this study upon several assumptions, strands of information that I took "for granted relative" to the study (Roberts, 2010, p. 139).

1. Teachers' application statements honestly represented their beliefs and practices.

2. Alabama teacher of the year nominees were deemed experts based upon peer and administrative recommendation.

3. The videos that teachers submitted represented the day-to-day teaching and learning environments in their classrooms.

4. The letters of support provided by stakeholders genuinely represented those stakeholders' perspectives.

**Definitions of Key Terms**

1. **Category**- "A set of objects, [people, or traits] that are perceived to be similar—'seem to go together'" (Sternberg & Horvath, 1995, p. 9).

2. **Grounded Theory**: "The discovery of theory from data" that is "systematically obtained and analyzed" (Glaser & Strauss, 1967, p. 1).

3. **Prototype**- "Represents the central tendency of all the examples in the category;" "summary representation" of all who belong to the category (Sternberg & Horvath, 1995, p. 9).

**Organization of the Study**

I organized the remainder of the study into four chapters. Chapter two provides a review of the literature regarding expert teachers and the qualities they possess. Chapter three details the procedures used to study the practices and beliefs of expert teachers. Chapter four provides analysis of the data and a discussion of the findings. Chapter five provides a summary of the findings, conclusions, and recommendations for further study. Finally, I included appendices and references.

CHAPTER 2: LITERATURE REVIEW

In this chapter, I provided a review of the literature of expert teachers' beliefs and practices by summarizing the varied definitions and criteria for determining the nature of teacher expertise and reviewing the approaches researchers have used to study teacher expertise. Particularly, I focused on researchers who studied expert teachers using a categorization, prototype model. Maslow reasoned:

> If we want to know how fast a human being can run, then it is of no use to average out the speed of a 'good sample' of the population; it is far better to collect Olympic gold medal winners and see how well they can do. (1971, p. 6)

Likewise, if researchers want to study excellence in teaching, then it is of less use to average out the practices and beliefs of a "good sample" of all teachers; it is more useful to study the beliefs and practices of expert teachers and analyze their central tendencies.

The quest to define and describe teacher expertise is heightened by the nationwide focus on reforming public education (Sternberg & Horvath, 1995). In Alabama, lawmakers sought to provide private school options to combat

perceived public school expert teacher shortages and perceived shortfalls in students' academic achievement through the creation of the Alabama Accountability Act of 2013. Challenged and overturned, the act was upheld by the Alabama Supreme Court on March 2, 2015. Legislators created the act to "encourage educators to work harder" (Graves, 2013, p. 3) and to provide "an escape route to school children trapped in failing schools" (Alabama Republican Party, 2013). "Working harder" for many school district leaders means providing meaningful professional development to help teachers improve. Sternberg and Horvath (1995) concluded, "If American public schools are to become centers of excellence, then their most important human resource (i.e., teachers) must be effectively developed. To know what we are developing teachers toward, we need a model of teaching expertise" (p. 9). Such a model should guide the work of administrators by helping them focus on specific professional development that can help more experienced teachers. In addition, it should help teachers reflect upon their practice and determine areas that need improvement.

The literature bears witness to the massive research efforts to broaden understanding about teacher expertise. Bucci (2004) noted, "The field of education is bursting with expert studies that focus on a variety of themes and offer abundant conclusions that can be applied to teacher education" (p. 83). However, the litany of studies offer varied ideas about what it means to be an expert teacher (Bucci, 2004). The discussions that researchers are having about teacher expertise are occurring in a public way now more than before (i.e., discussions of teacher performance or merit pay [Eberts, Hollenbeck, & Stone,

2002; Muralidharan & Sundararaman, 2009; Springer, et. al. 2011]). Bucci (2004) said, "Research on expert teachers and expert teaching strongly influences the direction of contemporary education" (p. 83). Thus, the need to replicate and extend past studies of teacher expertise continues to heighten. Through further study, researchers can continue to refine a teacher expertise model.

## Nature of the Problem

Researchers have noted the difficulty in capturing an exhaustive list of qualities of expert teachers (Berliner, 1976; Welker, 1991). Some researchers emphasized differences between expert and novice teachers (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) or compared more experienced pre-service teachers to less experienced pre-service teachers (Byra & Sherman, 1993). However, fewer researchers have compared the beliefs and practices among expert teachers (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004).

Furthermore, in their call to reconceptualize teacher expertise, Sternberg and Horvath (1995) cautioned that few expert teacher researchers have fashioned their studies through the expert teacher prototype approach, thus additional research was needed. They explained, "Experts bear a family resemblance to one another, and it is their resemblance to one another that structures the category 'expert'" (p. 9). In a three-participant qualitative case study, Smith and Strahan (2004) acted upon Sternberg and Horvath's recommendations for further study and compared expert teachers' beliefs and

practices by juxtaposing expert teachers and organizing their commonalities into categories. The work of Smith and Strahan (2004) is of interest because the researchers used a qualitative approach that allowed similarities to surface organically. In addition to Smith and Strahan (2004), two other research teams (Gün, 2014; Li, Huang, and Yang, 2011) used a categorization, prototype lens to study teacher expertise. However, combined, these researchers included less than 10 participants. Thus, additional research is needed to validate and extend their findings.

## Defining Teacher Expertise

Teaching is a complex field that requires many simultaneous processes such as "supporting understanding, building and maintaining rapport, and managing the classroom" (Anderman, Andrzejewski, & Allen, 2011, p. 984). Researchers have demonstrated the difficulty in defining and setting criteria for reaching the expert level. Feldon (2006) said, "Intensive debate exists in many disciplines regarding the appropriate criteria for the identification of experts" (p.2). Whereas some researchers purport that the performance of an expert is consistently superior to that of a non-expert (i.e., Dawes, 1994), others maintain that a more holistic view of expertise is more appropriate (Sternberg & Horvath, 1998).

Whereas defining teacher expertise is difficult for instructional leaders, researchers, and other stakeholders, it is often even more difficult for teachers themselves. In fact, some of the behaviors that catapult teachers into the

expertise terrain are largely unconscious. "Concerns about experts' awareness of their own expertise and the strategies used to capture unconscious knowledge are arguably the most important research issues associated with cognitive task analysis" (Clark, et. al, 2008, p. 590). Because further study is needed about how expert teachers define expert teaching and classify expert teachers, observations and reviews of expert teachers' beliefs and practices may help unlock portions of their unconscious knowledge.

Feldon (2006) reviewed and summarized studies that provided definitions of expertise. He organized expertise into four dimensions: knowledge, strategy, working memory, and skill automaticity. First, he noted that experts' quantity and accuracy of knowledge affect their levels of expertise. "Expert performance is a product of experience-based knowledge that can be recalled quickly and consistently and then deployed" (Feldon, 2006, p. 2). Experts possess knowledge that is organized and structured efficiently. Thus, the domain-specific knowledge requires less cognition to access.

Secondly, Feldon (2006) found that an expert's ability to strategize is an important dimension of expert cognition. When problem-solving, novices reason inductively to determine their strategy, while "experts solve problems deductively by manipulating their mental models to identify optimal solutions based on the requirements of the task and the task constraints" (p. 3). Likewise, Ericsson and Kintsch (1995) said, "In contrast [to novices], all types of experts tend to spend a substantial amount of time reviewing the problem, considering constraints, and decomposing the problem into a sequence of sub-problems that can be solved

independently or with minimal interaction" (p. 5). When problem-solving, experts

study the possible layers of depth and think carefully about strategies that will

alleviate the problem and its sub-problems.

Thirdly, teacher experts possess a strong working memory within their

subject-specific domains. Feldon noted that an expert's working memory may not

perform at a heightened level in all facets of life. "Experts perceive situations in

their domain through the filter of their extensive experience. In contrast, novices'

schemas are not refined with regard to domain tasks" (Feldon, 2006, p. 5).

Therefore, the lens of expertise provides a context for situations that occur within

the domain.

Finally, skill automaticity impacts expertise. "Automaticity is the execution

of effortless cognitive procedures that are acquired through the consistent,

repeated mapping of stimuli to responses" (Feldon, 2006, p. 5). Experts are able

to carry out procedures unconsciously while working toward conscious goals

(Aarts & Dijksterhuis, 2003). Teacher experts are guided by situational norms—

"rules and standards that are understood by members of a group or society, and

that guide behavior without the force of laws" (Aarts & Dijksterhuis, 2003, p. 27).

Experts are able to adhere to situational norms in an unconscious, automatic

fashion (Feldon, 2006).

When experts possess high levels of knowledge, strategy, working

memory, and automaticity, they are able to free up "limited cognitive resources to

accommodate atypical features or other added cognitive demands" (Feldon,

2006, p. 8). Thus, experts are able to maintain classroom norms while effectively handling individual challenges.

## Assessing Teacher Expertise

Whether through formal or informal means, assessing teacher expertise has been traditionally left to students, teachers, and administrators in school systems. In their matriculation through school, students are exposed to a plethora of teachers who employ various strategies across different subjects over a lengthy period of time (Kunter & Baumert, 2007). Thus, students should be considered a worthy group to provide insight about teacher expertise (Clausen, 2002; De Jong & Westerhof, 2001).

Teachers also are consulted for their expertise in noting exemplary teaching. In fact, some researchers indicated that teachers are the most worthy of pinpointing teacher expertise (Kunter & Baumert, 2007; Mayer, 1999; Porter, 2002). "Teachers, with their professional training and knowledge, are experts on various instructional approaches, methods, and lesson features" (Kunter & Baumert, 2007). Indeed, some school systems are trending toward in-house professional development provided by peers because teachers are more receptive to strategies and approaches that their peers have used with the same types of students. In their study of professional development practices and challenges in the United States, Wei, Darling-Hammond, and Adamson (2010) said:

> Rather than investing in episodic and disconnected professional
> development workshops on the topics that matter most for improved

student achievement, state and federal policies should place a priority on more sustained, intensive, and school-based professional development designs shown as effective by research. (p. 39)

Teacher consultation and collaboration are key practices for teacher improvement (Wei, Darling-Hammond, & Adamson, 2010).

Some researchers (Aleamoni, 1999; Gentry, Gable, & Rizza, 2002; Greenwald, 1997) discounted teachers and students as evaluators of teacher quality because they found that teacher and student responses differed in determining the quality of instruction. These researchers (Aleamoni, 1999; Gentry, Gable, & Rizza, 2002; Greenwald, 1997) contended that if both teacher and student responses were to be valid, responses should have been similar when given the same scenario.  Teacher popularity and grading leniency (Aleamoni, 1999; Greenwald, 1997) or socio-economic status (Aleamoni, 1999; Gentry, Gable, & Rizza, 2002) were cited as factors that skewed students' responses. Thus, researchers (Aleamoni, 1999; Gentry, Gable, & Rizza, 2002; Greenwald, 1997) discounted teachers and students as reputable sources for determining teacher quality.

However, Kunter and Baumert (2007), in their study of teacher and student responses regarding expert teaching, found that teacher and student responses both were valid. They found that in student and teacher ratings, teachers focused on their "use of tasks and methods," while students focused on "their teacher's support in personal and learning matters" (Kunter & Baumert, 2007, p. 231). They concluded that "student and teacher ratings are best suited

to tapping different aspects of the learning environment" (Kunter & Baumert, 2007). Thus, teachers may be better able to evaluate the use of instructional strategies, and students may be better able to evaluate teacher-student-relationships and support.

Likewise, Urdan (2003) found that when teachers and students viewed recordings of classroom footage, they interpreted the results differently, with each group honing in on specific activities or task, and Clausen (2002) found that teachers, students, and observers tended to view classroom experiences using three very different perspectives. The work of Kunter and Baumert (2007), along with Urdan (2003) and Clausen (2002) verified that teachers and students both can evaluate teacher expertise, with each group focusing on a different aspect of teaching.

Whereas providing instructional feedback is not a traditional role of teachers and students, administrators evaluate teachers as a regular part of their duties (Derrington, 2011). "The principal's role as supervisor and evaluator of teachers will continue as a fundamental component of the teacher assessment process" (Derrington, 2011, p. 51). As the instructional leaders in schools, administrators provide guidance on instructional goals (Lynch, 2012).

### Studies of Teacher Expertise

Researchers have questioned how expert teachers should be studied, and many researchers have contrasted expert teachers against pre-service, novice, or experienced teachers (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) or

compared more experienced pre-service teachers to less experienced pre-

service teachers (Byra & Sherman, 1993). See Table 2 for an overview of studies

that used the contrast model to explore the nature of teacher expertise.

*Table 2*

*Overview of studies that used the contrast model for studying teacher expertise*

| Author(s) and Year | Purpose of the Study | Data Sources | Participants | Major Findings |
|---|---|---|---|---|
| Byra & Sherman (1993) | "To describe the planning and interactive thoughts and decisions of less and more experienced pre-service teachers" (p. 46). | Videotapes of lessons, audiotaped verbal reports from think alouds, and stimulated recall sessions | Twelve pre-service teachers, six more experienced teachers, and six less experienced teachers | When lessons veered from the initial plan, more experienced pre-service teachers made adjustments to their lesson plans to allow for the changes, whereas less experienced teachers were more rigid. |
| Carter, Cushing, Sabers, Stein, & Berliner (1987) | To explore differences in how expert teachers, novice teachers, and "postulant" teachers "perceive, understand, monitor, and process information in classrooms" (p. 25). | Transcriptions and audio recordings of oral and written structured interviews | Eight experts, six novices, and six postulants | There were key differences in how expert, novice, and postulant teachers perceived and processed visual classroom information. "In general, experts appeared to possess comparatively richer schemata for ascribing meaning to visual classroom information" (p. 25). |

*Table 2*                                                                                   *(continued)*

*Overview of studies that used the contrast model for studying teacher expertise*

| Author(s) and Year | Purpose of the Study | Data Sources | Participants | Major Findings |
|---|---|---|---|---|
| Gonzalez & Carter (1996) | "To examine cooperating teachers' and student teachers' interpretations of the same teaching events" (p. 39). | Interviews | Thirteen cooperating teacher-student teacher dyads | -Although student teachers and cooperating teachers recalled the same memorable classroom events, they focused on different variables. -"Cooperating teachers… were quick to express their concerns for pacing, timing, student ability, involvement, and achievement…" (p. 42) |
| Ho & Liu (2005) | To compare the decision-making processes of expert teachers with that of novice teachers during the planning, teaching, and reflection period | Semi-structured interviews, observations, videotapes, stimulated recall sessions, and artifacts | Two novice teachers and two expert teachers | -Expert teachers were better able to verbalize their reflections in depth than were novices. -Expert teachers were better able to make immediate decisions to meet the needs of students. -Expert teachers' practices were consistent with their beliefs. |

*Table 2*                                                                    *(continued)*

*Overview of studies that used the contrast model for studying teacher expertise*

| Author(s) and Year | Purpose of the Study | Data Sources | Participants | Major Findings |
|---|---|---|---|---|
| Livingston & Borko (1989) | To explore differences in how expert teachers and student teachers thought, planned, taught, and improvised in the classroom setting | Field notes of classroom observations, interviews, transcripts of audiotaped planning and post-observation interviews, and copies of artifacts (e.g., planning documents) | Three student teachers and their respective cooperating teachers | "Novices may possess insufficient knowledge and skills to adopt the routines and actions of expert teachers or to learn effectively from their own experiences in the classroom" (p. 39). |
| Qiong & Yujing, (2009) | To compare and contrast expert and novice teacher dialogue | Classroom observations and video recordings | 16 novice teachers and 16 expert teachers | Expert teachers tended to use more analytical questioning, and novice teachers tended to use lower order questioning during instruction. |
| Westerman (1991) | To compare the decision-making of novice teachers to that of expert teachers before, during, and after instruction | "Audiotaped planning interviews, videotapes of lessons, stimulated recall interviews, post-teaching interviews, delayed self-reports, and relevant printed materials" (p. 292). | Five student teachers and their respective cooperating teachers | Expert teachers focused on learning from students' perspectives, making adjustments to their lesson as needed, while novice teachers focused on adherence to the lesson plan. |

Carter et. al. (1987) found differences in how expert, novice, and pre-service teachers perceived and processed visual classroom information. After showing all three groups single images and videos, they found that experts were better able to note relationships among pieces of visual information when compared to novice and pre-service teachers (Carter, et. al., 1987). They concluded, "In general, experts appeared to possess comparatively richer schemata for ascribing meaning to visual classroom information" (Carter, et. al., p. 25).

Similarly, Westerman (1991) compared student teachers, who were characterized as novice teachers, to cooperating teachers, who were characterized as expert teachers, in an effort to determine how the teachers contrasted in decision-making before, during, and after teaching. Westerman (1991) found that expert teachers focused on learning from students' perspectives, while novice teachers focused on adherence to the lesson plan. Expert teachers were more inclined to adapt their lessons to meet the needs of students, while novice teachers were more rigid (Westerman, 1991).

Indeed, classrooms are fast-paced, multi-dimensional environments in which several variables interplay simultaneously. Studies that contrast expert teachers with novice teachers are valuable because they "illustrate the complexity of interactive decision-making in classroom settings" (Gün, 2014, p. 77).

As mentioned previously, many researchers have contrasted the expert teacher to a non-similar person such as a lay person or a pre-service, novice, or experienced teacher (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991). However, fewer studies have been conducted to examine teacher expertise using a comparative model (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004), and even fewer have used a categorization, prototype model to study teacher expertise (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004). In a comparative, prototype model, expert teachers' qualities and practices are analyzed, noting similarities rather than differences. "A prototype view allows us to adopt a fuller, more inclusive understanding of teaching expertise" (Sternberg & Horvath, 1995, p. 9), making the category more accessible to those seeking attainment.  Maslow stated, "Even when 'good specimens,' the saints and sages and great leaders of history, have been available for study, the temptation too often has been to consider them not human but supernaturally endowed" (1971, p. 6). Rather than viewing teaching expertise as supernatural, through this study, I sought to ground a theory of teacher expertise that was accessible to teachers seeking its attainment.

I grounded this study in the work of Sternberg and Horvath (1995) and Smith and Strahan (2004). These researchers advocated for conducting similarity-based comparisons among expert teachers. They sought to compare experts to experts rather than experts to novice teachers, experienced teachers,

or lay persons. Sternberg and Horvath (1995) said that "experts bear a family resemblance to one another, and it is their resemblance to one another that structures the category 'expert.'" The categorization, prototype lens allows researchers to compare similarities of teachers deemed experts and seek to build a foundation of a model of teaching expertise (1995). In his comparative study of expert teachers, Gün (2014) acknowledged the importance of studies in which researchers contrasted expert teachers with a dissimilar group, but he noted that researchers might gain a deeper understanding of teacher expertise "from a study that, rather than comparing expert and non-expert, focuses solely on expert teachers in a more detailed way" (p. 78). Sternberg and Horvath (1995), Smith and Strahan (2004), and Gün (2014) acted upon Maslow's recommendation to study the best in order to understand the best that humanity can offer.

Some teacher expertise studies have been conducted in which the researchers compared expert teachers to other expert teachers in an effort to understand more about the complexity of teacher expertise (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004). Smith and Strahan (2004) conducted a three-participant qualitative study to determine if expert teachers shared a "family resemblance" (p. 357). The researchers observed, interviewed, and surveyed three classroom teachers who had achieved National Board certification. Smith and Strahan (2004) used the case study strategy to characterize each participant and open coding to track similarities in the group. They found that the three teachers

shared six central tendencies: confidence, classroom community, positive teacher-student relationships, a student-centered approach, leadership and service, and content mastery. Like Smith and Strahan (2004), Li, Huang, and Yang (2011) found that expert teachers shared those same six central tendencies of practices and beliefs.

With the ultimate goal of providing "an additional point of reference in our expanding knowledge base on expertise" (Gün, 2014, p. 79), Gün (2014) studied 10 experienced teachers' routine decision-making as revealed by their reflective statements. He found that the 10 teachers shared pedagogical and affective characteristics. The pedagogical characteristics shared by the teachers were many, and they included the following: consolidation, which entails "deviating from the lesson plan in order to consolidate the previously taught items" (p. 81), addressing emerging needs, assessing the background knowledge of students, assessing knowledge of lesson material, and supporting student production.

Gün (2014) found that the participants shared four affective attributes and that three of these attributes were similar to the findings of Smith and Strahan (2004). First, Gün (2014) said that the "teachers take responsibility for student learning, and they are responsive to students' needs" (p. 84). Similarly, under the "student-centered approach" category, Smith and Strahan (2004) stated that teachers "take responsibility for student learning, are responsive to students' needs, assess students often and in a variety of ways, and exhibit a mastery goal orientation" (p. 367). Second, Gün (2014) said that teachers shared a sense of confidence. This characteristic aligns with Smith and Strahan's first category,

confidence. Third, Gün (2014) noted that the expert teachers demonstrated a rapport with their students. This characteristic corresponds with Smith and Strahan's third category, which states that "Teachers maximized the importance of developing relationships with students" (p. 365). Finally, Gün (2014) stated that the expert teachers shared persistence. Gün (2014) said that the teachers had a tendency to explain a concept until students fully understood it. Smith and Strahan (2004) did not emphasize this point in their study.

Table 3 provides an overview of studies that used the comparative model to explore the beliefs and practices of expert teachers (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004).

*Table 3*

*Overview of studies that used a comparison model to study teacher expertise*

| Author(s) and Year | Purpose of the Study | Data Sources | Participants | Major Findings |
|---|---|---|---|---|
| Ainley & Luntley (2006) | "To explore the role of attention-dependent knowledge and the nature of attentional skills in classroom practice" (p. 1,130) | Observation field notes, video recordings of lessons, transcriptions, and stimulated recall interviews | Six experienced math teachers | "We have evidence for the existence of attention-dependent knowledge as part of what experienced teachers know, both in the sense that they have attentional skills which enable them to 'read' the activity of the classroom, and that they use the knowledge they gain by and from this attention in making judgments about how to act" (p. 1,137). |
| Andrzejewski (2008) | To "explore the relationships between expert secondary teachers' identities, knowledge, and practice" (p. 39) | Observation field notes, participants' reflection activities, and interviews | Four expert high school teachers | -"Expert teachers resisted prevalent conceptions of PCK. They viewed integration between knowledge of students and pedagogy to be most important" (p. 39). -"Teachers struggled to align their practice with their knowledge" (p. 39). |

*Table 3* *(continued)*

*Overview of studies that used a comparison model to study teacher expertise*

| Author(s) and Year | Purpose of the Study | Data Sources | Participants | Major Findings |
|---|---|---|---|---|
| Gün (2014) | "To consider experienced teachers' immediate and routine decisions" (p. 79) | Field notes, copies of lesson plans, stimulated recall interviews, audio-tape recordings | Ten experienced language teachers | "There are both shared pedagogical and affective attributes among participant teachers" (p. 75). |
| Li, Huang, & Yang (2011) | To explore the beliefs and practices of expert Chinese teachers in mathematics instruction using a prototype view | Video-taped lessons, lesson designs, and reflections | Five expert teachers | Like Smith and Strahan (2004), the five expert teachers shared six central tendencies in practices and beliefs. |
| Smith & Strahan (2004) | To determine if expert teachers share a "family resemblance" | Audio-taped lessons and transcripts, structured interviews, participant surveys, narrative records of classroom observations, artifacts, and researcher notes | Three expert teachers | Expert teachers shared six central tendencies: confidence, classroom community, positive teacher-student relationships, a student-centered approach, leadership and service, and content mastery. |

Of the five studies noted above, three studies were conducted outside of the United States (Ainley & Luntley, 2006; Gün, 2014; Li, Huang, & Yang, 2011). In Gün's (2014) study, eight of the 10 experienced teachers were Turkish nationals; In Li, Huang, and Yang's (2011) study, the participants were Chinese teachers, and in Ainley and Luntley's (2006) study, the participants were experienced teachers in the United Kingdom. These studies add to the body of research on expert teaching. However, teachers in different countries "may have conceptually different expectations of teaching (e.g., parent support, social awareness individual effort)" (Lin, Gorrell, & Taylor, 2010, p. 37). Therefore, additional United States-based studies can minimize cultural variables, which contribute to definitions of teacher expertise.

Some researchers juxtaposed novice and expert teachers, while a smaller number compared expert teachers to each other. Interestingly, Lin (1999) researched both groups. In a study titled "Looking for the Prototype of Teaching Expertise: An Initial Attempt in Taiwan," Lin furthered Sternberg and Horvath's (1995) work of studying teacher expertise through the prototype approach. Sternberg and Horvath (1995) categorized teacher expertise into three areas: knowledge, efficiency, and insight. Lin narrowed his study and focused only on teachers' knowledge. He interviewed six novice, four beginner, and three expert teachers, coded their responses, and noted differences in teachers' knowledge bases. Then, he compared the expert teacher group and noted commonalities. Lin (1999) found that the three expert teachers possessed a "richer and broader" knowledge base (p. 10). Because he found that the three experts' similarities

helped him understand the attributes of expert teachers more clearly, he concluded, "Therefore, to treat expert teachers' knowledge as the prototype is adequate based on Sternberg and Horvath's (1995) rationale and current evidences" (p. 10).

There is no shortage of quantitative research about the individual desired qualities of teachers (e.g., research centered specifically on the need for reflective practitioners [Semerci, 2007] or the need for student-oriented classrooms [Gauci, Dantas, Williams, & Kemm, 2009]). In an effort to identify characteristics of excellent teachers in Scotland, Grieve (2010) administered a 44-question survey to 24 head teachers and 64 primary school teachers. The 88 respondents rated characteristics of excellent teachers using Likert scales. In her analysis, Grieve (2010) divided the 44 characteristics into five groups. Grieve (2010) found that the excellent teachers "consistently described excellence in terms of personal qualities and interpersonal skills" (p. 275). In addition, "They highly rated qualities which demonstrated their expectations of positive classroom ethos and positive relationships with students" (Grieve, 2010, p. 275). Grieve (2010) noted that teachers rated highly those characteristics that were positive exchanges with students.

Grieve's (2010) study provided valuable information about teacher expertise. However, because teachers were provided with a finite list of teacher qualities to rate, further study is needed to determine if the list of qualities is fully representative of expert teacher qualities. A qualitative, prototype study allows teachers to present their responses in an open-ended format.

## Common Traits of Expert Teachers

Sternberg and Horvath (1995) conjectured that the "contents of the expert teaching prototype" (p. 10) or features of an expert teacher likely included three main areas: broader, deeper knowledge bases; efficiency of problem-solving; and insightful solutions. However, they clarified, "It is our hope that these ideas will stimulate discussion and investigation of what it means to be an expert teacher" (Sternberg & Horvath, 1995, p. 16). The researchers said that their three categories were malleable and would "stimulate research and debate" (Sternberg & Horvath, 1995, p. 9) about teacher expertise. Thus, taking the recommendations of Sternberg and Horvath (1995), Smith and Strahan (2004) conducted a three-participant qualitative study using the case study strategy to interpret, analyze, and describe the beliefs and practices of teachers deemed experts. They found that the three participants did, in fact, bear a "family resemblance" because their beliefs and practices were consistent with one another. Smith and Strahan (2004) categorized the teachers' responses and developed six tendencies of expert teachers. Smith and Strahan (2004) found the following:

> (1) These teachers have a sense of confidence in themselves and
> in their profession. (2) These teachers talk about their classrooms
> as communities of learners. (3)These teachers maximize the
> importance of developing relationships with students. (4) These
> teachers demonstrate a student-centered approach to instruction.
> (5) These teachers make contributions to the teaching profession

through leadership and service. (6) These teachers show evidence

that they are masters of their content areas. (pp. 364-365)

Li, Huang, and Yang (2011) conducted a similar study and concurred with Smith

and Strahan's (2004) six central tendencies of teacher expertise.

The work of Smith and Strahan (2004) was based on three cases that

highlighted the importance of each common theme. Because I used Smith and

Strahan's (2004) findings as one framework for my study, I will discuss each of

the six themes below. Each topic is well-represented in the literature, so I will

provide an overview of the range of research on each topic, citing seminal

articles and meta-analyses where possible. The reviews are not exhaustive, but

they provide a synopsis of some of the most salient points in the literature.

**Confidence**

The Research Functional Staff of Research and Development Agency

(2014) defined confidence or self-efficacy as personal "beliefs or perceptions that

one possesses the ability to complete a certain task" (p. 262). Self-confidence

relates to a person's belief in oneself, belief in one's power, and willingness to

take risks (The Research Functional Staff of Research and Development

Agency, 2014). Calik et. al. (2012) defined teacher self-efficacy as "teachers'

beliefs about effecting and coping with students who have a difficulty in

motivation" (p. 2,499). In his review of self-efficacy literature, Bandura (1993)

explained that self-efficacy beliefs influence four processes: cognition,

motivation, affect, and selection. These four processes work in tandem during decision-making (Bandura, 1993).

First, self-beliefs of cognitive ability and achievement influence the type and degree of difficulty of the goals people set for themselves (Bandura, 1993). Collins (1985), in her study of self-efficacy in children, found that low self-efficacy influenced mathematical performance, even when high mathematical ability was present. "Personal accomplishments require not only skills for self-beliefs, but self-beliefs of efficacy to use them well. Hence, a person with the same knowledge and skills may perform poorly, adequately, or extraordinarily depending on fluctuations in self-efficacy thinking" (Bandura, 1993, p. 119). Bandura (1993) noted that poor self-efficacy can negatively impact performance.

Second, beliefs of self-efficacy influence motivation. Bandura (1993) said, "Most motivation is cognitively generated. People motivate themselves and guide their actions anticipatorily by the exercise of forethought" (p. 128). He noted that based upon levels of self-efficacy, people set goals and incentivize those goals. If the goals are not met, they may employ the causal attributions theory, whereby they either surmise that they put forth too little effort to meet the goal, or they surmise they did not have the ability to meet the goal (Bandura, 1993).

Third, self-efficacy beliefs influence affective processes. Bandura (1993) noted that belief in one's ability to control a situation affects stress levels. He said that people who believe they are incapable of controlling a situation "magnify the severity of possible threats and worry about things that rarely happen" (Bandura,

1993, p. 132), impairing their ability to respond appropriately based upon knowledge and experience. He noted that people can improve their affective self-efficacy through "guided mastery experiences" (p. 133), experiences in which people gain confidence by incrementally achieving success.

Finally, self-efficacy beliefs influence selectivity. Bandura (1993) said that people select those activities, environments, and careers in which they feel capable of thriving. Initial choices of activities and environments can continue to affect self-efficacy long after the environment or activity is removed. Bandura (1993) said that "the social influences operating in selected environments continue to promote certain competencies, values, and interests long after the self-efficacy determination of their choice has rendered its inaugurating effect" (p.135). Therefore, initial choices can have a significant effect on personal development (Bandura, 1993).

Even though confidence often is viewed as a quality or personality trait rather than a behavior or practice, it has a place in researching human behavior. In their systematic review of 56 studies of antecedents of employees' involvement in work-related learning, Kyndt and Baert (2013) found that employee confidence, or self-efficacy, was a major predictor of positive participation in work-related learning. They noted that employees who felt confident in themselves were more likely to participate in professional learning activities (Kyndt & Baert, 2013).

In their study of teacher expertise, Smith and Strahan (2004) found that expert teachers demonstrated "a sense of confidence in themselves and in their profession" (p. 364). The researchers found that their participants believed they had a "gift for working with children" (p. 365) and could be change agents in the lives of students. Of the participants in the study, Smith and Strahan (2004) said, "Even before entering the teaching field, they felt confident that they could be effective teachers" (p.365).

Some researchers of teachers' self-efficacy have found correlations of teachers' confidence to burnout (Bandura, 1992; Friedman & Farber, 1992). Friedman and Farber (1992) found that teachers' views of themselves in relation to professional competence, worth, and professional satisfaction strongly correlated to teacher burnout. "In general, low self-concept on the part of teachers—feeling less professionally competent, less personally able to manage the classroom, and less satisfied with their work—is related to burnout" (Friedman & Farber, 1992, p. 33-34). They hypothesized that a loss in professional confidence lowered self-esteem or that low self-esteem created a weak foundation for sustaining a career in such a complex work environment as teaching (Friedman & Farber, 1992). In his review of teacher self-efficacy when teaching students with behavioral and academic challenges, Bandura (1992) said, "Teachers who lack a secure sense of instructional efficacy show weak commitment to teaching...Teachers who distrust their efficacy try to avoid dealing with academic problems and, instead, turn their effort inward to relieve their

emotional distress" (p. 134). He noted that these teachers exhibited a "pattern of withdrawal coping [which] contributes to occupational burnout" (p. 134).

In addition to demonstrating personal self-efficacy, Smith and Strahan (2004) found that expert teachers articulated a belief in the teaching profession. In his study of teachers' collective self-efficacy, Goddard (2001) said that teachers' self-efficacy is an often neglected variable. He defined collective teacher efficacy as "the perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467). Calik et. al. (2012) found that teachers' collective beliefs in their instructional capability affected school climate, and Goddard (2001) found that teachers' collective efficacy affected the choices the teachers made.

Friedman and Farber (1992) emphasized that teachers' sense of confidence in themselves and in their profession are both important for sustainability in teaching. In essence, teachers who are confident in themselves and in the teaching profession remain in the field long enough to develop teacher expertise.

**Classroom Community**

Of the expert teachers in their study, Smith and Strahan (2004) said, "These teachers talk about their classroom as a community of learners" (p. 363). Teachers who subscribe to this idea generally maintain constructivist views of learning, views that the teacher's role is to strengthen and guide students' skills

in solving real-world problems (Anderson, Greeno, Reder, & Simon, 2000; Brown, Collins, & Duguid, 1989; Slavin, 2006). "The essence of constructivist theory is the idea that learners must individually discover and transform complex information if they are to make it their own" (Slavin, 2006, p. 243). To that end, teachers ensure that "schooling provides more than a series of lectures and discrete workbook exercises" (Slavin, 2006, p. 243), opting to also include opportunities for discovery and discourse. There are four distinctions of the constructivist classroom community noted in the Smith and Strahan (2004) study: Teachers encourage student discourse, thus sharing verbal power; Teachers believe their role in the classroom is to serve as a "guide on the side" rather than a "sage on the stage" (Graeff, 2010, p. 265; Slavin, 2006, p. 243); Teachers encourage a sense of ownership of the class, thus sharing physical space with students, and teachers encourage a connection to the curriculum, thus sharing directional power.

Under traditional methods of teaching, some teachers believe that students learn best when the teacher is engaged in extensive talking (Brophy, 1988; Graeff, 2010; Smith & Strahan, 2004). In his 1988 review of research on teaching and learning, Brophy (1988) said that students achieve best when teachers engage in "active teaching." "Active teaching connotes frequent lessons in which the teacher presents information or develops concepts through lecture and demonstration, elaborates on this information…" (Brophy, 1988, p. 242). Furthermore, in reviewing best practices for teaching and learning, he said, "There is a great deal of teacher talk, but most of it is academic rather than

procedural or managerial" (Brophy, 1988, p. 242). However, in constructivist classrooms, students are encouraged to become a part of the classroom community by sharing verbal power with the teacher (Graeff, 2010; Hankin, 1997; Slavin, 2006). Smith and Strahan (2004) observed three expert teachers, and in each classroom, the teacher engaged the students in a short, whole-group lesson before breaking into small group activities. When Smith sent one teacher's recording to a transcriptionist, the transcriptionist replied, "Long periods of background noise of classroom—not able to understand and transcribe any one voice" (Smith & Strahan, 2004, p. 363). Smith and Strahan (2004) remarked that in some teachers' classrooms, the teacher's voice commonly overpowers the classroom, but in the expert teachers' classrooms in their study, no single voice was overheard more than the others.

Expert teachers encourage focused discussion through many means, including promoting student discourse through Socratic circles and cooperative learning. The Socratic method is an "educational method attributed to the Greek philosopher Socrates by which the teacher encourages the student's discovery of truth by asking leading and stimulating questions" (Ornstein & Levine, 2000, p. G-5). Teachers use constructivist methods to help students internalize problems, seek answers from within, and share those ideas as a group (Ornstein & Levine, 2000, p. 406).

As is the case in Socratic circles, students are able to learn through social interaction in cooperative learning, working to refine their knowledge and extend their understanding as a group (Orstein & Levine, 2000; Slavin, 2006). In

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traditional classrooms, students compete for the teacher's time as well as for grades (Ornstein & Levine, 2000). However, in cooperative groups, students work together to discover, discuss, and problem-solve (Slavin, 2006). The teacher's voice takes a back seat as students work together to learn. It is worth noting that some researchers who tout the importance of group work (Johnson & Johnson, 1999; Slavin, Madden, & Leavey, 1984) also encourage individual tasks (e.g., debates) that allow for competition. Expert teachers use a myriad of strategies to engage students in discussion.

Secondly, expert teachers see their role as that of a "guide on the side" rather than a "sage on the stage" (Graeff, 2010, p. 265; Slavin, 2006, p. 243). These teachers allow students to learn through discourse and discovery (Graeff, 2010; Ornstein & Levine, 2000; Slavin, 2006). The lesson format for a "guide on the side" teacher often differs from the traditional classroom format. For a portion of the class period, students may be seated in groups as the teacher spends her time scaffolding learning for each group (Slavin, 2006). In some cases:

Students work together in small groups; Teachers pose problems and then circulate among groups to facilitate the discussion of strategies, join students in asking questions about strategies they have proposed, and occasionally offer alternative strategies when students appear to be stuck. (Slavin, 2006, p. 254)

These teachers encourage students to think critically and cooperatively, placing a focus on active engagement by the students (Ornstein & Levine, 2000; Slavin, 2006).

Thirdly, expert teachers in the Smith and Strahan (2004) study shared physical space with students. In traditional classrooms, "Students might be reprimanded for shuffling through teachers' filing cabinets or opening computer files" (Smith & Strahan, 2004, p. 366). However, "When [the teacher] gave the direction to begin working, students moved orderly to the editing areas, the filing cabinet, and the computer stations.…[Students] seemed to move about the room as if it belonged to them" (Smith & Strahan, 2004, p. 365-66). In the expert teachers' classrooms, the teachers managed the classroom community, and students felt a sense of ownership of the physical space. Teachers may use other techniques for encouraging student ownership of the classroom including the following: creating interactive spaces where students can reference past activities, designating student areas in the classroom, and allowing students to assist with the room arrangement (O'Neil, 2010).

Employing strategies for encouraging students to take ownership in the classroom are important for many reasons. First, student ownership creates "a culture of trust and communication between the students and their teacher" (O'Neil, 2010, p. 15). In addition, "student ownership leads to increased motivation, active participation, and engagement in the learning process, and thus more meaningful learning" (O'Neil, 2010, p. 8). Lastly, in her review of literature on improving the school environment to reduce school violence,

Johnson (2009) found that student ownership in schools was a primary factor for decreasing school violence.

Fourthly, students in the Smith and Strahan (2004) study shared directional power in curricula, providing input about the types of things they would like to study. Smith and Strahan (2004) quoted one teacher who noted, "Kids largely have control over the topics and content while aiming at a rubric or criterion for the end result" (p. 366). Likewise, Graeff (2010) said that teachers should model their strategic lessons after marketing executives who focus on the short and long term needs of the customer. While the skill or standard might remain the same, the content and the materials used to help students understand that skill can be targeted based upon the interests and goals of the students (Dudley-Marling & Seale, 1995). Teachers' proactive systems of teaching with students' goals and interests in mind encourage students to buy into the classroom community ideal. In their study of student ownership in reading classes, Dudley-Marling and Seale (1995) found that students who showed an increased sense of directional power in the class showed a greater development of reading and writing skills. In addition, O'Neil (2010) recorded the highest project completion rates when students spawned the idea for the project.

One constructivist view that guides teachers' decision to share directional power is top-down processing. "The term top-down means that students begin with complex problems to solve and then work out or discover (with the teacher's guidance) the basic skills required. For example, students might be asked to write compositions and only later learn about spelling, grammar, and

punctuation" (Slavin, 2006, p. 245). Teachers can encourage students to feel ownership in the curriculum by allowing them to write their compositions on a number of topics that interest them, and then tailor the instruction to grammar mechanics and spelling. Knapp, Shields, and Turnbull (1995) contrasted this approach with the bottom-up processing approach, in which teachers present basic skills and work toward more advanced concepts. Knapp, Shields, and Turnbull (1995) said that in traditional classrooms servicing high-poverty students, teachers rarely move to the advanced material, continuing instead, to review and reteach basic skills. In top-down teaching, teachers provide whole assignments that students begin to segment later in the lesson, and the tasks they complete are "complex, complete, and authentic" (Slavin, 2006, p. 245).

Expert teachers share a philosophy of serving as facilitators of the classroom as guides on the side, collaborators in classroom discussion, collaborators of physical space, and collaborators of course curricula. In a critical analysis of his own teaching practices, Hankin (1997) said:

I am only one part of a team. The fact that I have many words of wisdom to share does not ensure that my students will learn anything of value…Rather than telling my students everything I know, and this is often a great temptation, my job is to facilitate their own discoveries (p. 36).

Expert teachers embrace the concept of creating a community of learners by gearing learning toward problem-solving and self or peer-directed

discovery (Hankin, 1997). These teachers draw students toward learning

by giving them a more active role in the teaching and learning process

(Hankin, 1997).

**Teacher-Student Relationships**

Third, Smith and Strahan (2004) said, "These teachers maximize the

importance of developing relationships with students" (p. 363). It is important to

note that the themes described by Smith and Strahan (2004) sometimes overlap.

A teacher's ability to develop positive teacher-student relationships (theme

three), can be enhanced when teachers make students feel they are part of a

community of learners (theme two). Of the expert teachers in their study, Smith

and Strahan (2004) said, "This investigation revealed that [the teachers studied]

spend the majority of their energies building relationships with students. These

teachers develop relationships with their students by gaining knowledge about

them, working side-by-side with them, and initiating contact with their families" (p.

366). The expert teachers' practices of building relationships matched their

stated beliefs in the importance of connecting with students (Smith & Strahan,

2004).

Several researchers have documented the importance of positive teacher-

student relationships (TSRs) (e.g., Anderman, Andrzejewski, & Allen, 2011; Coil,

1999; Davis, 2003; Martin & Dowson, 2009; Marzano, Pickering, & Hefelbower,

2010; Spilt, Koomen, & Thijs, 2011). Focusing on the effect that positive TSRs

have on instruction, Marzano, Pickering, and Hefelbower (2010) said, "If the

relationship is strong, instructional strategies seem to be more effective.

Conversely, a weak or negative relationship will mute or even negate the benefits of even the most effective instructional strategies" (p. 82). Inherent in Marzano and his colleagues' statement is the need for teachers to conscientiously build relationships with students by engaging in both talking and listening. In their study of student motivation and learning, Anderman, Andrzejewski, and Allen (2011) found that teachers who students deemed motivational "exhibited care by showing an interest in students' lives beyond the classroom" (p. 996). They concluded that building rapport was one of three critical themes of supporting students' learning.

TSRs are not just paramount for student success, but the quality of those relationships also affects teachers' professional and personal lives (Spilt, Koomen, & Thijs, 2011). In their review of the TSR literature, Spilt, Koomen, and Thijs (2011) concluded that teachers' emotional involvement with students in the classroom is driven by a basic psychological need for relatedness or communion. In fact, teachers may be drawn to the classroom in part because it is where a relational need might be fulfilled. In their study of human contact in student-teacher relationships, Andrzejewski and Davis (2008) introduced a dance teacher who "insisted on dividing the personal and the professional but referred to dance as a personal business" (p. 792). Teachers who feel invested in their work may express a need to create positive TSRs, mixing the personal, or emotional, with the business of educating students.

In her synthesis of TSR studies, Davis (2003) noted that one limitation is that "most of our knowledge about relationships for a particular population of

students is embedded within knowledge about a particular approach as well as within specific methods of studying relationships" (p. 207). She noted that TSR studies use one of three perspectives for understanding the quality of those relationships: motivational, attachment, and socio-cultural perspectives.

First, researchers who study TSRs from an attachment perspective view TSRs as "extensions of the parent-child relationship" (Davis, 2003, p. 209), in which factors such as "emotional closeness, conflict, and dependency" (p. 209) shape the quality of the relationship. Parent-child relationships (PCRs) serve as the foundation on which other relationships are built because PCRs help students shape their self-concept (Davis, 2001). In their longitudinal study of TSRs and PCRs, Howes et. al. (1998) tracked children from toddlerhood to nine years of age, noting their perceptions of PCRs and TSRs from toddlerhood to preschool and preschool to age nine. Howes, et. al. (1998) found, "Children with a more positive perception of their relationship with their mother also had a more positive perception of their relationship with their teacher" (p. 422). Students' relationships with their parents or caregivers impact "future relationships (e.g. with teachers) by shaping students' interpretations of teacher initiations and responses to interactions" (Davis, 2003, p. 209). Teachers can strengthen TSRs through time spent, responsiveness to needs, and support (Davis, 2003).

Secondly, some researchers study TSRs through the motivation perspective (Davis, 2003). While attachment perspective researchers study the impact of foundational relationships on TSRs, motivation perspective researchers focus on classroom structures and supports as indicators for TSRs (Davis, 2003).

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Key tenets of the motivation perspective overlap heavily with achievement goal

theory (i.e., learning oriented classrooms, as opposed to performance oriented

classrooms and classroom collaboration as opposed to classroom competition)

and constructivism (i.e., student autonomy and flexible evaluation techniques),

both of which are discussed at length in the classroom community and student-

centered approach literature reviews.

Thirdly, some researchers study TSRs through the socio-cultural

perspective (Monzo & Rueda, 2001). Because socio-cultural researchers study

TSRs within a larger context, they may also subscribe to the attachment or

motivation perspective (Davis, 2003). These researchers connect many ideas

and structures to TSRs (e.g., TSRs in classroom rule-making, DeVries & Zan,

2003). "Instead of examining changes within isolated individuals, socio-cultural

researchers attempt to examine dynamic processes and look for recurring

patterns within systems (e.g., student-teacher dyads, classrooms, and schools)"

(Davis, 2003, p. 218). In their study of TSRs of Latino students and their

teachers, socio-cultural researchers Monzo and Rueda (2001) found that

teachers' willingness to understand students' communities, primary language,

and culture impacted teacher-student relationships. Likewise, in her review of the

sociocultural perspective, Davis (2003) said, "Sociocultural researchers argue

that it is not simply the structural characteristics of the school, but the overall

interpersonal culture of the classroom that contributes to the development of

positive child-caregiver interactions" (p. 218).  These researchers study social,

cultural, and ecological structures and ideals that impact TSRs (Davis, 2003).

**Student-Centered Approach**

The fourth common theme Smith and Strahan (2004) noted in their study of teacher expertise is that the teachers "demonstrate a student-centered approach to instruction," which means that expert teachers "take responsibility for student learning, are responsive to students' needs, assess students in a variety of ways, and exhibit a mastery goal orientation" (p. 367). Like the classroom community central tendency, the student-centered approach ideal hails from constructivist ideology. "Because of the emphasis on students as active learners, constructivist strategies are often called student-centered instruction" (Slavin, 2006, p. 243). The student-centered approach theme differs from the themes of creating communities of learners and developing relationships because it focuses specifically on the teacher (Smith & Strahan, 2004).

Several researchers point out that teaching methods should be varied (Kiefer, Ellerbrock, & Alley, 2014; Rock, Gregg, Ellis, & Gable, 2008; Slavin, 2006; Tomlinson, 2000), and teachers should explore how basic skill acquisition should be taught (Airsian & Walsh, 1997; Slavin, 2006). Constructivist-minded teachers generally vary their instruction, vacillating between purely constructivist activities and explicit instruction, based upon the needs of the students (Slavin, 2006). This desire for instructional balance may account for some of the unrest that teachers feel as they internally debate whether an activity lends itself to a constructivist or traditional viewpoint.

Taking responsibility for student learning is the major belief of the student-centered approach theme, while acting in response to students' needs,

assessing students in a variety of ways, and exhibiting a mastery goal orientation are strategies that teachers use to take responsibility for students' learning. These teachers believe that rather than placing blame on students for academic failures, they should look inward, considering teaching pedagogy and engagement (Smith & Strahan, 2004). Expert teachers teach with the learner as the focus of instruction and continue to refine instruction to meet the needs of all learners (Airsian & Walsh, 1997). Smith and Strahan (2004) recalled that, in conversation, the expert teachers focused more on their own behavior than the behavior of students.

First, Smith and Strahan (2004) argued that expert teachers "are responsive to students' needs" (p. 367). The two major student needs that they referenced are supporting students through appropriate pacing and connecting the content to the real world. Both non-adherence to the lesson plan as well as integrating other courses and making real-world application are at the center of this tenet.

Expert teachers are both proactive and reactive to students' needs— proactive by ensuring that lesson plans meet anticipated academic and social needs and reactive by making changes to the lesson plan during instruction to meet students' emergent needs. During lesson planning and instruction, Westerman (1991) found that "expert teachers thought about the learning from the perspective of the student and performed a cognitive analysis of each learning task" (p. 292), while novice teachers focused on executing a lesson plan "that they did not adapt to meet students' needs during teaching" (p. 292).

Likewise, Byra and Sherman (1993) found that when the lesson veered from the initial plan, more experienced pre-service teachers made adjustments to their lesson plans to allow for the changes, whereas less experienced teachers tried to stay the course of the lesson, rather than taking into account the students' needs.

In addition to appropriate pacing, expert teachers oftentimes seek to connect content to the real-world through interdisciplinary instruction and practical application (Ornstein & Levine, 2000) because of their fundamental view that "the construction of new knowledge—new concepts—is located in social situations and interactions in which it is acquired" (Orstein & Levine, 2000, p. 406). Thus, opportunities for students to make connections across the curriculum (Smith & Strahan, 2004) and opportunities to apply knowledge in various settings are both paramount (Orstein & Levine, 2000). In fact, in their study of teacher practices that affect motivation, Kiefer, Ellerbrock, and Alley (2014) found that students could articulate the sources of their external motivation, and opportunities to connect with their teachers and peers through hands-on, real world activities was named among the student participants. Kiefer, Ellerbrock, and Alley (2014) said:

> Student and teacher participants recognized that hands-on learning
> activities have the potential to spur motivation. Almost all students
> articulated that they were academically motivated when learning activities
> were authentic and interactive, and half of the student participants
> provided specific examples of how authentic activities supported their
> motivation. (p. 12)

Students, especially as they advance through school, are able to articulate the instructional practices that help them achieve success (Kiefer, Ellerbrock, & Alley, 2014).

A second strategy that teachers use to respond to students' needs is differentiation. Differentiated instruction is "the process of ensuring that what a student learns, how he/she learns it, and how the student demonstrates what he/she has learned is a match for that student's readiness level, interests, and preferred mode of learning" (Tomlinson, 2004, p. 188). Smith and Strahan (2004) noted that expert teachers "assess students in a variety of ways" (p. 367); however, I extended the literature review to include the teacher's role, not just in differentiating assessments or products, but also in differentiating content, processes, and learning environments (Tomlinson, 1999, 2000). Thus, I described this code as instruct and assess students in a variety of ways. "Expert teachers are attentive to students' varied learning needs; to differentiate instruction, then, is to become a more competent, creative, and professional educator" (Tomlinson, 2000, p. 3). Differentiation is the teacher's decision to dignify the differences in the classroom (Kiefer, Ellerbrock, & Alley, 2014; Tomlinson, 1999; Tomlinson, 2000). These variances include learning preferences, interests, prior knowledge, and skills (Tomlinson, 2000).

Expert teachers differentiate content—"what the student needs to learn or how the student will get access to the information" (Tomlinson, 2000, p. 2) —by analyzing the data, which includes formative and summative assessments as well as interest inventories. In a reading class, the teacher may allow students

the freedom to select the text they will read to practice a skill. Tomlinson (2000) noted several strategies for differentiating by content, including "using reading materials at varying readability levels," "presenting ideas through both auditory and visual means," and "meeting with small groups to re-teach an idea or skill for struggling learners" (p. 2).

Expert teachers also differentiate process—"activities in which the student engages in order to make sense of or master the content" (Tomlinson, 2000, p. 2). Differentiating content focuses on the "what" of learning, while differentiating process focuses on the "how" of learning. A technology station that allows students to experience the content in varied ways is a process differentiation. Other ways that teachers differentiate the learning process include "using tiered activities through which all learners work with the same important understandings and skills, but proceed with different levels of support, challenge, or complexity" and "offering manipulative's or other hands-on supports for students who need them" (Tomlinson, 2000, p. 2).

In addition to differentiating content and process, expert teachers also differentiate products—"culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit" (Tomlinson, 2000, p. 2). Teachers can allow students to demonstrate their learning in a myriad of ways, including essays, presentations, and projects and can allow students to work individually, in pairs, or in groups to demonstrate mastery (Tomlinson, 2000).

Finally, expert teachers can differentiate the learning environment—"the way the classroom works and feels" (Tomlinson, 2000, p. 2). In addition to

encouraging a sense of ownership of the classroom, as mentioned in the classroom community theme, teachers can also positively improve the learning environment through differentiation. Examples include "setting out clear guidelines for independent work that matches individual needs," "developing routines that allow students to get help when teachers are busy with other students and cannot help them immediately," and "helping students understand that some learners need to move around to learn, while others do better sitting quietly" (Tomlinson, 2000, p. 2). Differentiation of the learning environment can positively impact the classroom environment, promoting inclusion, acceptance, and diversity (Tomlinson, 2000).

Differentiating instruction, particularly in the early grades, is a professional responsibility (Tomlinson, 1999), and it is a legal responsibility when serving students with Individualized Education Programs (Rock, Gregg, Ellis, & Gable, 2008). Expert teachers can signal to students that their differences are valued by differentiating content, process, product, and learning environment (Tomlinson, 1999; Tomlinson, 2000) and students recognize those efforts and demonstrate improved academic gains in those environments (Kiefer, Ellerbrock, & Alley, 2014). In their study of teacher practices that affect motivation, Kiefer, Ellerbrock, and Alley (2014) said, "Almost all students recognized and appreciated learning supports in which teachers tailored instruction to their individual needs, working one-on-one or within the context of whole class instruction, to break down what they need to know and understand" (p. 11). Differentiation is a key part of meeting students' varied needs.

Finally, Smith and Strahan (2004) found that expert teachers "exhibit a mastery goal orientation" (p. 267), choosing to focus their lessons on learning rather than grades. Students are generally motivated by learning and performance goals (Ames & Archer, 1988; Maehr & Anderman, 1993; Pintrich & De Groot, 1990; Slavin, 2006). Students who are motivated by learning goals, also called mastery, achievement, or task goals, focus on making meaning for self-improvement (Pintrich & De Groot, 1990; Slavin, 2006). "Students with learning goals see the purpose of schooling as gaining competence in the skills being taught" (Slavin, 2006, p. 327).  Thus, mastery-goal-oriented students process the learning more deeply, using adaptive cognitive strategies to process and contextualize the learning (Pintrich & De Groot, 1990).

Mastery-goal oriented students outperform their peers who are motivated by performance goals (Maehr & Anderman, 1993). Performance-goal oriented students are motivated by high grades and outperforming others (Maehr & Anderman, 1993; Slavin, 2006), and focus on "getting good grades, taking easy courses, and avoiding challenging situations" (Slavin, 2006, p. 327). Performance-goal orientated students view errors and mistakes as a source of anxiety, while learning-goal oriented students view them as a part of the learning process (Ames & Archer, 1988; Mehr & Anderman, 1993). It is important to note that performance-goal orientation has advantages for some students: Pintrich (2000) found that when some students were low on achievement goals, they used performance goals to complete the task. In addition, performance goals

have been shown to predict students' grades in college courses (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997).

Pintrich (2000) furthered the field of goal orientation by introducing a four-pronged model: mastery approach, mastery avoidance, performance approach, and performance avoidance. In their review of the literature on goal orientation, Harackiewicz and Linnenbrink (2005) advocated for additional research on this topic. They noted, "There is a need for additional research investigating exactly how a mastery-avoid goal is instantiated in students' learning, when it might benefit or undermine learning, and how it is distinct from mastery-approach and performance-avoid goals" (Harackiewicz & Linnenbrink, 2005).

In a meta-analysis of learning goals and emotions, Huang (2011) concluded that teachers should seek to reinforce the mastery goal orientation in their classrooms to improve the overall psychological well-being of their students. Of the expert teachers in their study, Smith and Strahan (2004) said, "Their classes were structured around learning objectives rather than performance goals" (Smith & Strahan, 2004, p. 367). Students' goal-orientations are malleable (Harackiewicz & Linnenbrink, 2005), and as students matriculate through school, they oftentimes shift from a mastery or learning goal orientation to a performance goal orientation (Slavin, 2006). "A school's definition of learning influences student motivation" (Maehr & Anderman, 1993). Thus, teachers should seek to model learning or mastery goal orientation in their classrooms by focusing on  making learning meaningful, providing student choice, recognizing progress, encouraging an inclusive culture, and pacing lessons based on

students' needs (Maehr & Anderman, 1993; Slavin, 2006).  Expert teachers

encourage a mastery goal culture in their classrooms by emphasizing lifelong

learning (Maehr & Anderman, 1993).

**Leadership and Service**

The fifth common theme of expert teachers is that "These teachers make

contributions to the teaching profession through leadership and service" (Smith &

Strahan, 2004, p. 36). In their review of teacher leadership literature, York-Barr

and Duke (2004) concluded:

> Teacher expertise is at the foundation of increasing teacher quality and
>
> advancements in teaching and learning. This expertise becomes more
>
> widely available when accomplished teachers model effective
>
> instructional practices, encourage sharing of best practices, mentor new
>
> teachers, and collaborate with teaching colleagues. (pp. 258-259)

When expert teachers make contributions to the teaching profession

through their leadership or service, they improve the teaching profession

by sharing and demonstrating their teaching expertise to others and

forming discussions around teaching and learning (Andrzejewski, 2008;

Barth, 1990; York-Barr & Duke, 2004).

In addition, when expert teachers view themselves as members of the

building leadership team, these teachers are able to re-invigorate their careers,

which sometimes stagnate after periods of less challenge (Day & Sachs, 2004).

Day and Sachs (2004) asserted that all teachers, at varying stages of their

careers, have different professional needs, and Taylor, Yates, Meyer, and Kinsella (2011) said that "experienced teachers have traditionally been neglected in the professional development literature" (p. 92). Thus, opportunities for teachers to engage with other teachers through leadership opportunities (e.g., professional development presentations, observation feedback, and lesson plan sharing) could satiate expert teachers' changing professional needs.

Researchers have provided several definitions of teacher leadership (Childs-Bowen, Moller, & Scrivan, 2000; Muijs & Harris, 2003; Silva, Gimbert, & Nolan, 2000; York-Barr & Duke, 2004). "Teachers are leaders when they function in professional commitments to affect student learners, contribute to school improvement; inspire excellence in practice; and empower stakeholders to participate in educational improvement" (Childs-Bowen, Moller, & Scrivan, 2000, p. 28). Teacher leaders can hold formal or informal positions and classroom teaching positions or administrative positions. Expert teachers can be key players in the movement toward peer coaching as a form of teacher leadership.

Silva, Gimbert, and Nolan (2000) described teacher leadership implementation in waves. In wave one, teacher leaders such as department heads serve as managers whose purpose is to ensure that teachers are following the existing system.  In wave two, teacher leaders are given curriculum leader and mentor positions, and they use their experiences to aid teachers in their classroom goals. In wave three, teacher leaders are recognized for their ability to aid decision-making inside and outside of the classroom (Silva, Gimbert, & Nolan, 2000).

Teacher leaders can acculturate teachers to school culture and help

teachers improve practice (York-Barr & Duke, 2004). Muijs and Harris (2003)

suggested four best practices of teacher leadership: translating the principles of

school improvement into the classrooms, ensuring that teachers feel that they

are participating or have ownership in changes, acting as mediators, and creating

close relationships in which learning can take place.  They suggested that

translating the principles of school improvement into the classroom increases

opportunities for meaningful development among teachers, which is one of the

main goals for studying teacher expertise.

Muijs and Harris (2003) concluded that if teacher leaders more actively,

effectively, and consistently involved themselves in schools, then they would feel

less alienated from their coworkers and school culture. Expert teachers can

become more involved by taking part in curriculum development, selecting

instructional materials, leading professional development activities, mentoring

teachers, impacting building-level decision making, and what is probably the

most important practice – building trust of non-teacher leaders. Using their

knowledge, expertise, research, and leadership abilities, teacher leaders can

play a dynamic role and intercede between administration and colleagues as well

(Mujis & Harris, 2003).

**Content Mastery**

Finally, Smith and Strahan (2004) said, "These teachers show evidence

that they are masters of their content areas" (p. 363). Content mastery includes

teachers' knowledge of the subject matter they teach (Gün, 2014; Wong & Wong, 2001), knowledge of the specific standards that should be taught in a school year (McCombes-Tolis & Feinn, 2008), knowledge of how to teach those areas and prerequisite material (Marzano, 2012; Slavin, 2006), and willingness to continuously improve (Wong & Wong, 2001) and reflect (Marzano, et. al. 2012; Semerci, 2007). In her study of more than 10,000 teachers, Myrberg (2007) found that high-quality teacher education training was significant. She found that, regardless of socio-economic status or school type (i.e., public or independent school), teacher education training affected students' academic performance. Furthermore, researchers have found that teachers' content knowledge has a statistically significant impact on student achievement (Campbell, et.al., 2014; Tchoshanov, 2011) even in elementary school math courses (Campbell, et.al., 2014; Hill, Rowan, & Ball, 2005).

First, expert teachers possess subject matter knowledge. In both the study conducted by Smith and Strahan (2004) and this current study, teachers were not formally tested to determine content proficiency. Thus, Smith and Strahan (2004) suggested multiple indicators that provide evidence that a teacher is a master of his or her content: willingness to seek to improve practice and willingness to collaborate with others (Campbell, 1990-1991), willingness to present at professional development sessions, ability to diagnose students' learning problems, and ability to present lessons in various ways and differentiate instruction (Livingston & Borko, 1989).

Second, expert teachers possess knowledge of content standards and appropriate sequencing. In their study of teachers' literacy-related knowledge, McCombes-Tolis and Feinn (2008) found:

> Approximately 16% of elementary teachers did not perceive elementary classroom teachers as responsible for teaching students various essential decoding and encoding skills, such as teaching students how to use their knowledge of sound–symbol relationships and the alphabetic principle to decode orthographically regular one-syllable words and nonsense words presented out of context (p. 260).

These teachers believed that a teacher in the subsequent grade would teach or previous grade had taught the material or that the material should not be taught at all (2008). McCombes-Tolis and Feinn (2008) argued that teachers who firmly understand the sequence of material to be taught can better gauge what their students need to know and at what developmental stage they should know the material.

Third, expert teachers possess knowledge of how to teach their subject matter as well as prerequisite material. A teacher may have vast subject matter knowledge; however, the ability to convey concepts to students is a separate skill. Expert teachers use a myriad of instructional strategies to improve teaching and learning outcomes (Marzano, 2012; Slavin, 2006). "The link between what the teacher wants students to learn and students' actual learning is called instruction or pedagogy" (Slavin, 2006, p. 4). Expert teachers are able to bridge

the gap between their knowledge and students' knowledge through the use of instructional strategies. "A teacher might not have planned to use a certain engagement strategy in a given day, but if he or she is losing kids, they have a whole list of strategies to pick from" (Slavin, 2006, p. 3). In their meta-analysis of instructional strategies that raise student achievement, Haystead and Marzano (2009) found that some strategies yielded higher percentages of student achievement than others. They noted that tracking student progress, setting goals and objectives, building vocabulary, identifying similarities and differences, and interactive games yielded high gains. See Table 4 for a list of the highest yielding instructional strategies and the percentile gains. However, in "Setting the Record Straight on 'High-Yield' Strategies," Marzano (2009) cautioned that "focusing on a narrow range of strategies" is a mistake (p. 32). Expert teachers should use a myriad of strategies in varied settings, using their content knowledge and specific knowledge of their students (Marzano, 2009). The list provides a conversation spark for the kinds of instructional strategies that can be used to engage students in learning (Marzano, 2009).

Table 4

*High-Yield Instructional Strategies for Student Achievement*

| Strategy | Percentile Gain |
|---|---|
| Tracking student progress and using scoring scales | 34% |
| Setting goals/objectives | 25% |
| Building vocabulary | 20% |
| Identifying similarities and differences | 20% |
| Interactive games | 20% |

*Note.* Results compiled based upon a study conducted by Haystead and

Marzano (2009)

A teacher's ability to implement the use of strategies to help students

overcome learning problems is paramount to expert teaching (Slavin, 2006).

When teachers know what students need, they can be prescriptive in their

teaching approach. Conversely, teachers who are unaware of strategies that can

be used to remedy specific learning problems are unable to deliver instruction

based upon individual students' needs (Slavin, 2006). McCombes-Tolis and

Feinn (2008) said:

> Nearly one-third of both elementary and special education
>
> teachers surveyed indicated…that they did not understand or were
>
> uncertain if they understood the basis for speech–sound
>
> confusions that may affect reading and spelling, that they did not
>
> know or were uncertain if they knew the stages/processes of
>
> children's reading development, and that they did not know or

were uncertain if they knew the common characteristics of children

who experience reading difficulties and specific indicators for

teacher intervention (p. 261).

These results are quite troubling, since they are foundational skills for reading

proficiency. The teachers studied in the research of McCombes-Tolis and Feinn

directly conflict with Shulman's (1987) description of quality teaching—a process

by which teachers can create lessons based upon critical reflection and analysis

of students' needs, taking into account the critical content that should be taught

and students' cognitive and academic needs.

Finally, expert teachers possess a willingness to engage in life-long

learning (Wong & Wong, 2001) and reflection (Marzano, et. al. 2012). This

subtheme is not mentioned in the work of Smith and Strahan (2004), but it is

represented in the literature. Wong and Wong (2001) said that a "teacher" can

become a "professional educator" through continued learning and reflection. "The

professional educator is constantly on an endless journey of looking for new and

better ideas, new information, and improved skills to succeed with students"

(Wong & Wong, 2001, p. 296). Teachers can seek to continuously learn how to

increase student growth and improve use of classroom time (Wong & Wong,

2001).

A strategy for continued learning is reflection. In their book, *Becoming a

Reflective Teacher*, Marzano, et. al. (2012) said, "A teacher's pedagogical skill in

the classroom is causally linked with how well and how much students learn. A

corollary is that teacher reflection improves teacher pedagogical skill" (p. 3). In

their study of expert and novice teachers, Ho and Liu (2005) found that expert teachers were better able to verbalize their reflections in depth than were novices. Reflectiveness includes "reflection in-action (reflecting and changing our behavior in the midst of an action" as well as "reflection-on-action (looking back after the fact)" (Marzano et. al., 2012, p. 5). Through reflection and correction, teachers can improve their teaching practices (Marzano, et.al. 2012).

Expert teachers know the standards that must be taught and teach those standards based upon students' individual needs. In addition, expert teachers use a myriad of strategies to help students comprehend the content (Marzano, 2009; Slavin, 2006) and engage in lifelong learning (Wong & Wong, 2001) and reflection (Marzano et. al., 2012).

**Persistence**

Teacher expertise prototype literature (Li, Huang, & Yang, 2011; Smith & Strahan, 2004) suggests that expert teachers share six central tendencies: display of confidence, cultivation of classroom community, development of positive teacher-student relationships, focus on a student-centered approach, history of leadership and service to the teaching profession, and mastery of content. In addition to the six aforementioned themes, Gün (2014) found that expert teachers also share a tendency to persist, "to continue explaining until a language point is fully understood" (p. 85).

Through his study, Gün (2014) sought to "consider experienced teachers' immediate and routine decisions, and to examine closely their instructional thoughts and decision-making in the classroom" (p. 79). Gün's (2014) study was

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not explicitly designed to categorize teachers' tendencies into the six categories proposed by Smith and Strahan (2004) and replicated by Li, Huang, and Yang (2011); however, Gün (2014) did note similarities between his work and the work of Smith and Strahan (2004). After reviewing Gün's (2014) findings, I noted that one of his findings of central tendencies of expert teachers was not represented in the work of Smith and Strahan (2004) and Li, Huang, and Yang (2011). The central tendency was teacher persistence.

Teachers in Gün's (2014) study made the following statements to demonstrate their persistence in continuing to instruct students until they fully understood the material:

> I did not plan to spend this much time on explaining the word 'independent'. They did not get it with one example, so I had to give more examples, and spend a lot more time than planned. I didn't want to let this go until I saw in their faces that they got the meaning of the word. At this point I totally forgot about what I had put in my lesson plan (Gün, 2014, p. 85).

Another teacher said, "I am an old school teacher, I am patient, I never let things go without having been learnt properly" (Gün, 2014, p. 85). The focus of this definition of persistence is on the teacher's role of instructing students. These teachers shared a determination to ensure that students learned key material in the classroom and a willingness to sacrifice class time to ensure comprehension.

Persistence is not widely reviewed in the literature based upon the definition Gün (2014) provided: "to continue explaining until a language point is fully understood" (p. 85). Furthermore, when I sorted my data into a priori codes, I did not find any data that could be included under that definition. However, upon further review of my data, I noted that several pieces of data could be included in an expanded definition of persistence, creating an emergent code. Therefore, I merged Gün's (2014) central tendency of persistence with the closely related ideas of academic press (Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002; Wilson & Corbett, 2001), academic challenge and teaching for meaning (Knapp, Shields, & Turnbull, 1995), and rigor (Blackburn & Williamson, 2013; Schachter, 2011). Thus, in this study, persistence is defined as teachers' beliefs that all students should be challenged, supported, and held to high standards (Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). This belief is manifested when teachers ask higher order thinking questions and require higher order thinking answers (Blackburn & Williamson, 2013; Draeger, del Prado Hill, Hunter, & Mahler, 2013; Maye, 2013), require students to make connections among material studied (Maye, 2013), and focus on pressing for understanding (Middleton & Midgley, 2002) in a supportive classroom environment (Knapp, Shields, & Turnbull, 1995; Middleton & Midgley, 2002).

Academic press, academic challenge, and rigor are terms that are used quite similarly in literature. However, further study shows slightly different focuses in the three areas. Of academic press, Middleton and Midgley (2002) said, "Our

conceptualization of academic press goes beyond teacher beliefs (such as expectations) to consider techniques that teachers use to probe, to check for, and to ensure understanding by individual students during the instructional process" (p. 377). Academic press may not be achieved by simply adding advanced placement courses to the curriculum because academic press focuses on challenging students individually. Middleton and Midgley (2002) said:

"Students may be aware that their teachers provide challenging tasks to the class, articulate high standards, and expect high effort, without perceiving that the teacher expects them personally to explain why an answer is correct, will not allow them to get away with doing easy work, and will give them harder problems to do when they have mastered the work they are doing (p. 377).

The focus of academic press is individualized cognitive demand.

Knapp, Shields, and Turnbull (1995) described academic challenge as a focus on "teaching for meaning" (p. 771) as opposed to a constant focus on teaching for skill acquisition. Teaching for meaning includes "1) instruction that helps students perceive the relationship of 'parts' (e.g., discrete skills) to wholes (e.g. the application of skills to communicate, comprehend, or reason)" (Knapp, Shields, & Turnbull, 1995, p. 771) as well as instruction that helps students make connections between the content and their daily lives, and instruction that connects one school subject to another (Knapp, Shields, & Turnbull, 1995). Traditionally, students in high-poverty schools receive instruction that is linear—

basic to advanced skills; however, these students rarely reach the advanced portion of the standards (Knapp, Shields, & Turnbull, 1995). For example, students may spend a great deal of time defining and describing sentence structure (simple, compound, complex, and compound-complex) and not as much time reading and studying sentence structure in text and its impact on mood. While the practice of teaching for skill acquisition is meaningful for assisting students with learning basic skills, teachers "risk shortchanging the learning of more advanced skills in comprehension, reasoning, and composition" (Knapp, Shields, & Turnbull, 1995, p. 771). Therefore, researchers highlight the importance of teaching challenging material, but focusing on teaching for meaning (Draeger, del Prado Hill, Hunter, & Mahler, 2013; Knapp, Shields, & Turnbull, 1995; Maye, 2013).

Rigor is an educational buzzword that is closely connected to Common Core State Standards (CCSS) (Blackburn & Williamson, 2013; Maye, 2013), which are "designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers (CCSS, 2010, p.1). The standards themselves are more rigorous than previous standards in many states, but instructional rigor "focuses on the how—what actually happens in the classroom when implementing the Common Core" (Blackburn & Williamson, 2013). Instructional rigor includes many of the components discussed under the terms academic press and academic challenge. Blackburn and Williamson (2013) said, "Instructional rigor is creating an environment in which each student is expected to learn at high levels, each

student is supported so he or she can learn at high levels, and each student demonstrates learning at high levels" (p. 8). The ultimate goal of increased rigor is to ensure that students are college and career ready (Schachter, 2011, p. 50).

Rigor intertwines with academic press in the sense that it requires teachers to review formative and summative data to determine the individualized needs of students and provide individualized rigorous learning experiences (Blackburn & Williamson, 2013). It also intertwines with academic challenge and teaching for meaning in the sense that it requires teachers to help students make connections from the content to other courses as well as the real world. Finally, it requires teachers to provide the support that is discussed in the literature for both academic press (Lee, Smith, Perry, & Smylie, 1999; Meece, 1991; Middleton & Midgley, 2002; Wilson & Corbett, 2001) and academic challenge (Knapp, Shields, & Turnbull, 1995). These researchers all emphasized the need to provide challenge or press in a supported environment. Furthermore, the demand that students feel in the classroom may not always come from the teacher alone (Hickey, 1997; Middleton & Midgley, 2002). Instead, students, when engaged in group or pair work, may demand more of each other, and technology, when used to promote higher order thinking, may demand more from students (Middleton & Midgley, 2002).

In a study of academic challenge in high poverty elementary schools, Knapp, Shields, & Turnbull (1995) found that some teachers broke away from convention in one course, but not in the other courses they taught. The

researchers indicated that teachers had to devote more time and effort to build more rigorous lessons for students. Knapp, Shields, and Turnbull (1995) said:

> Curiously, what teachers in our sample did in one subject area reveals little about what they did in another. Few teachers were engaged in instruction that departed substantially form conventional practice in more than one of the three subject areas [math, reading, and writing]. Whereas nearly three-fifths of the teachers emphasized meaning and understanding in at least one of the three subject areas, only 18% did so in two or more, and only 3% did so in all three. In effect, the teachers in our sample specialized…Confronted with pressure to attempt difficult new ways of teaching in various subject areas, teachers seemed unwilling or unable to find the time and energy for such attempts in more than one subject area" (p. 772).

Likewise, Maye (2013) noted that in her study of rigor in classrooms, teachers admitted that some of her suggestions for improving rigor "took conscious and concentrated effort" (p. 35) as well as "deliberate planning and conscientious practice" (p. 36).

In conclusion, I believe that the term persistence is an appropriate catch-all for the many components that it represents: academic press, academic challenge and teaching for meaning, and rigor because each concept requires teachers to exert more effort than ever before. Teachers'

persistence and their ability to encourage students to persist are key tenets of this tendency.

## Summary

Teacher and teaching expertise, quality, and effectiveness have been central issues in education for many years. Whereas many researchers (Carter, et.al., 1988; Gonzalez and Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) have used contrast studies to understand qualities, skills, behaviors, and practices of expert teachers, a prototype study of expert teachers will yield important findings. The Smith and Strahan (2004) study and others (i.e., Gün, 2014; Li, Huang, & Yang, 2011) comparatively analyzed expert teachers. Through this study, I sought to replicate and extend the work of Smith and Strahan (2004) because I believed that findings from this study would have implications for educational leadership through the use of teacher leaders, the selection of professional development, and the updating of current practice with improvements to teacher self-assessment tools.

Because of the nationwide urgency of this topic and the limited number of studies of a qualitative nature, I believed that an additional prototypical study of teacher expertise was needed. Through this study, I sought to replicate and extend the study conducted by Smith and Strahan (2004) by studying Alabama Teacher of the Year state district winners and analyzing their application packets. The packets contained teaching philosophies, stakeholder letters of support,

educational histories and biographies, teacher of the year messages, community involvement essays, essays that discuss education trends and solutions, and a 10-15 minute teaching exemplar video.

The varied instruments (i.e., reflective essays, teaching videos, and letters from peers and supervisors) provided a rich context for studying both beliefs and practices. In a letter to Alabama Teacher of the Year nominees about the grueling application process, 2012-2013 Alabama Teacher of the Year Suzanne Culbreth said, "Although the task of completing the application is daunting, it gives you a wonderful opportunity to reflect on your practice, to celebrate your successes, to document your efforts, and to articulate your beliefs" (Alabama State Department of Education, 2013-2014, p. 2). The application provided teachers a rare opportunity to reflect and express their beliefs, all of which were analyzed and compared.

CHAPTER 3: METHODOLOGY

In this chapter, I describe the purpose and significance of the study. In addition, I describe the methodology and research design I undertook. Research questions, methods of data collection, methods of analysis, and descriptions of the population, sample, instrumentation, and analysis procedures are also discussed.

**Purpose of Study**

The purpose of this study was to explore similarities in the 2009-2013 Alabama Teacher of the Year applications; replicate past studies of teacher expertise that used a categorization, prototype model; and ground a theory of expert teaching.

**Research Question**

The following research question guided this study:

How were 2009-2013 Alabama Teacher of the Year applications similar?

a. What words and phrases did teachers use to describe their practice?

b. What meanings did these teachers attach to these descriptions?

c. What concepts related to teaching appeared across participants?

d.  How were these concepts categorized and integrated into a

prototype that represents the central tendencies of these teachers?

**Research Design**

I used a grounded theory strategy to conduct this study. Grounded theory

is one of five well-documented qualitative research approaches (Creswell, 2013).

Table 5 provides a brief overview of the major tenets of this research strategy.

Table 5

*Major Characteristics of the Grounded Theory Approach to Qualitative Research*

| Characteristic | Grounded Theory Approach |
|---|---|
| Purpose | Generating a theory grounded in data |
| Logical Strategy | Reasoning inductively |
| Type of Problem Best Suited for Design | Grounding a theory in the views of participants |
| Unit of Analysis | Studying beliefs, practices, processes, actions, and interactions among participants |
| Data Collection Forms | Using primary data, including observation or interview notes, recordings, artifacts, and literature |
| Data Analysis Strategies | Analyzing data through continuous comparing and contrasting, memoing, open coding, axial coding, and selective coding |
| Written Report | Generating a theory |
| General Structure of Study | -Introduction (problem, questions)<br>-Research procedures (systematic data collection, analysis, continued data collection, and analysis)<br>-Open coding<br>-Axial coding<br>-Selective coding<br>-Discussion of theory and contrasts with existing research |

*Note.* Characteristics compiled from the following sources: Amsteus, 2014;

Creswell, 2013; and Glaser & Strauss, 1967.

## Grounded Theory

Introduced in 1967 by Barney Glaser and Anselm Strauss, grounded

theory is "the discovery of theory from data" (p. 1). Grounded theorists

systematically collect multiple types of data and undergo an iterative process of

analyzing and categorizing the data until substantive themes emerge (Corbin &

Strauss, 1990; Glaser & Strauss, 1967). Glaser (2002) noted that grounded theory is a "rigorous methodology woven together by constant comparisons and conceptualization" that is "the generation of emergent conceptual categories and their properties integrated into hypotheses resulting in a multivariate theory" (p. 787).  In this study, I followed the grounded theory strategy by studying participants who had the same experience of being recognized as a semi-finalist or higher in the Alabama Teacher of the Year program and generating or testing a theory based on the statements and actions of the participants.

**Population and Sample**

The targeted population for this study were Alabama teachers nominated for Alabama Teacher of the Year by their state districts between 2009 and 2013. To select semifinalists, the state board of education divided the state into eight districts, and district-level teacher-of-the-year committees scored applications of nominees from other districts. Each committee forwarded the nominee's name to the state-level committee. Since there were eight state districts, and a nominee was selected from the elementary sector and the secondary sector, a total of 16 teachers were selected to the state's sweet 16 contest. For the purpose of this study, I asked the 16 district teacher-of-the-year winners for 2008-2013 to participate.

Eight teachers submitted their teacher-of-the-year applications for this study, but four of those teachers could not locate their accompanying videos. The videos were essential to my research because they provided evidence of teachers' practices. I discarded those four teachers' applications because I

wanted to ensure that each teacher's application packet could be studied in its entirety. Therefore, four teachers participated in the study.

The participants, who agreed to use their real names, included Phil, an elementary music teacher with 12 years of teaching experience, Roger, a middle school math teacher with 16 years of experience, Mandy, an elementary school gifted specialist with 17 years of experience, and Rachel, a high school visual arts teacher with 14 years of experience. The teachers who participated in this study represented a wide range of courses and grade levels, as indicated by the brief biographical information provided below.

**Phil**

At the time of this study, Phil had taught first through fifth grade music. He had also directed high school choral and served as high school assistant band director and fifth grade beginning band director. Phil earned a master's degree in music education and was selected as the 2010-2011 Alabama Teacher of the Year. He taught in Georgia and Alabama schools.

**Roger**

Roger began his teaching career after serving in the U.S. Navy. At the time of this study, he had taught sixth grade math and English, seventh grade math, advanced math, photography, literature, and journalism. In addition, Roger taught eighth grade math, social studies, photography, and journalism. Roger earned a master's degree in elementary education, and in addition to teaching, he held a part-time job as a police officer. Roger was named a semifinalist in the 2010-2011 Alabama Teacher of the Year program.

**Mandy**

At the time of this study, Mandy had experience as a teacher of fourth and fifth grade in Georgia and Alabama schools. In addition, she had served as technology coordinator and gifted specialist. Mandy received National Board Certification in 2008 and earned a master's of science degree in education. Mandy was named a semifinalist in the 2012-2013 Alabama Teacher of the Year program.

**Rachel**

Rachel's teaching experience included teaching visual arts to students in seventh through twelfth grade. Rachel taught levels I, II, III, and Advanced Placement Studio Art. Rachel earned a master's degree in art education and was named a semifinalist in the 2013-2014 Alabama Teacher of the Year program.

## Instrumentation

A key part of data instrumentation for qualitative research is the researcher herself. I believe that people cannot totally divorce themselves from the assumptions they hold. Creswell (2013) said:

Whether we are aware of it or not, we always bring certain beliefs and philosophical assumptions to our research. Sometimes these are deeply ingrained views about the types of problems that we need to study, what research questions to ask, or how we go about gathering data. (p. 15)

Assumptions and mental models affect the types of questions an interviewer asks and the nuances that one notices and chooses not to pursue. When I am

aware of the assumptions embedded within the work, the overall work can be strengthened (Creswell, 2013).

I analyzed Alabama Teacher of the Year state district winners' application packets. The packets contained teaching philosophies, stakeholder letters of support, educational histories and biographies, teacher of the year messages, community involvement essays, essays that discussed education trends and solutions, and a 10-15 minute teaching exemplar video. The varied instruments (i.e., reflective essays, teaching videos, and letters from peers and supervisors) provided a rich context for studying both beliefs and practices. In fact, on several occasions, teachers did not express a belief in their written work, but demonstrated practice of the belief in their videos.

## Data Collection

Initially, I planned to limit my study to secondary teachers who had been named semifinalists in the Alabama Teacher of the Year program in 2013. Thus, in May 2013, I received Institutional Review Board (IRB) approval to recruit participants from the eight secondary district teachers of the year for 2013. I planned to contact them via email to request copies of their packets. I emailed the eight teachers on May 14, 2013, and three responded that they were very busy with closing out the school year, and I should contact them during the summer. One teacher indicated that she would send the packet as soon as possible. Four teachers did not respond.

For the four teachers who never responded, I sent a follow-up email on May 20, 2014. Two of those teachers indicated that the teacher of the year application process had been very tedious, and they had not saved a personal copy of the various pieces of the application (i.e., reflective essays, teaching videos, and letters from peers, supervisors, and students). The teachers indicated that they had worked on the application in the middle of the school year using various computers at home and in different parts of the school. Lastly, two teachers never responded. Based upon their years of experience (30 years and 26 years of experience in the classroom), I surmised that they retired. I had not specifically indicated in the IRB that I would contact the participants in any other fashion other than email; therefore, I did not contact their schools via phone.

I sent follow-up emails to the teachers during the summer, but perhaps because they were out of school for the summer and neglected to check their email, or they realized that they too did not have a personal copy of the application packet, they did not respond. Of the eight teachers, one teacher sent in the packet. That teacher did not submit the required video.

In an effort to combat the aforementioned problems, I submitted a new IRB, which was approved on September 2, 2014 (See Appendix 3). This IRB plan extended the study to teachers of the year from the past five years. In addition, I included the option to contact participants via phone and e-mail. I spoke with the state teacher of the year coordinator about the plan to extend the study to the past five years, and she indicated that some teachers had moved out of state, within the state in K-12 education, within the state in higher education, or

had retired. She provided some of the teachers' current places of employment, which helped with tracking down the teachers. Thirdly, I contacted teachers September through November 2014, while school was in session so that I could collect more data from teachers in a timely fashion. Finally, I extended the study to elementary teachers.

As indicated in the population and sample section, eight teachers provided their applications, but four teachers could not locate their videos. After providing the four teachers with an additional month to locate the videos, I elected to exclude them from the study. Therefore, four teachers participated in the study. These four teachers submitted their completed application packets and video exemplars. Each of the four teachers submitted a signed copy of the informed consent document. See Appendix 4 for the Informed Consent form.

**Data Analysis**

I used grounded theory research procedures to analyze the data. Grounded theory researchers analyze data through open coding, axial coding, and selective coding to develop and refine categories into theories (Corbin & Strauss, 1990). I analyzed four Alabama Teacher of the Year state district winners' application packets. The packets contained teaching philosophies, stakeholder letters of support, educational histories and biographies, teacher of the year messages, community involvement essays, essays that discussed education trends and solutions, and a 10-15 minute teaching exemplar video.

As noted by Corbin and Strauss (1990), grounded theory researchers do not collect all data and then begin analysis; instead, grounded theorists systematically analyze their data while continuing to collect data. "Here, analysis is necessary from the start because it is used to direct the next interview and observations" (Corbin & Strauss, 1990, p. 6). Therefore, I analyzed bits of data while waiting for more data to surface. For example, Rachel was the first participant to submit her application packet; there was a two-week wait time before the next application packet was submitted. Therefore, I began preliminary analysis of her application packet. I wrote down questions I had about her written work, and after conducting open observations of her videos, I used the questions to focus my structured video observations.

I analyzed the data using reading and memoing, open coding, axial coding, selective coding, and a priori coding. Then, I described the commonalities that the groups of data shared and noted themes about the group. See Figure 1 for a visual representation of the data analysis process.
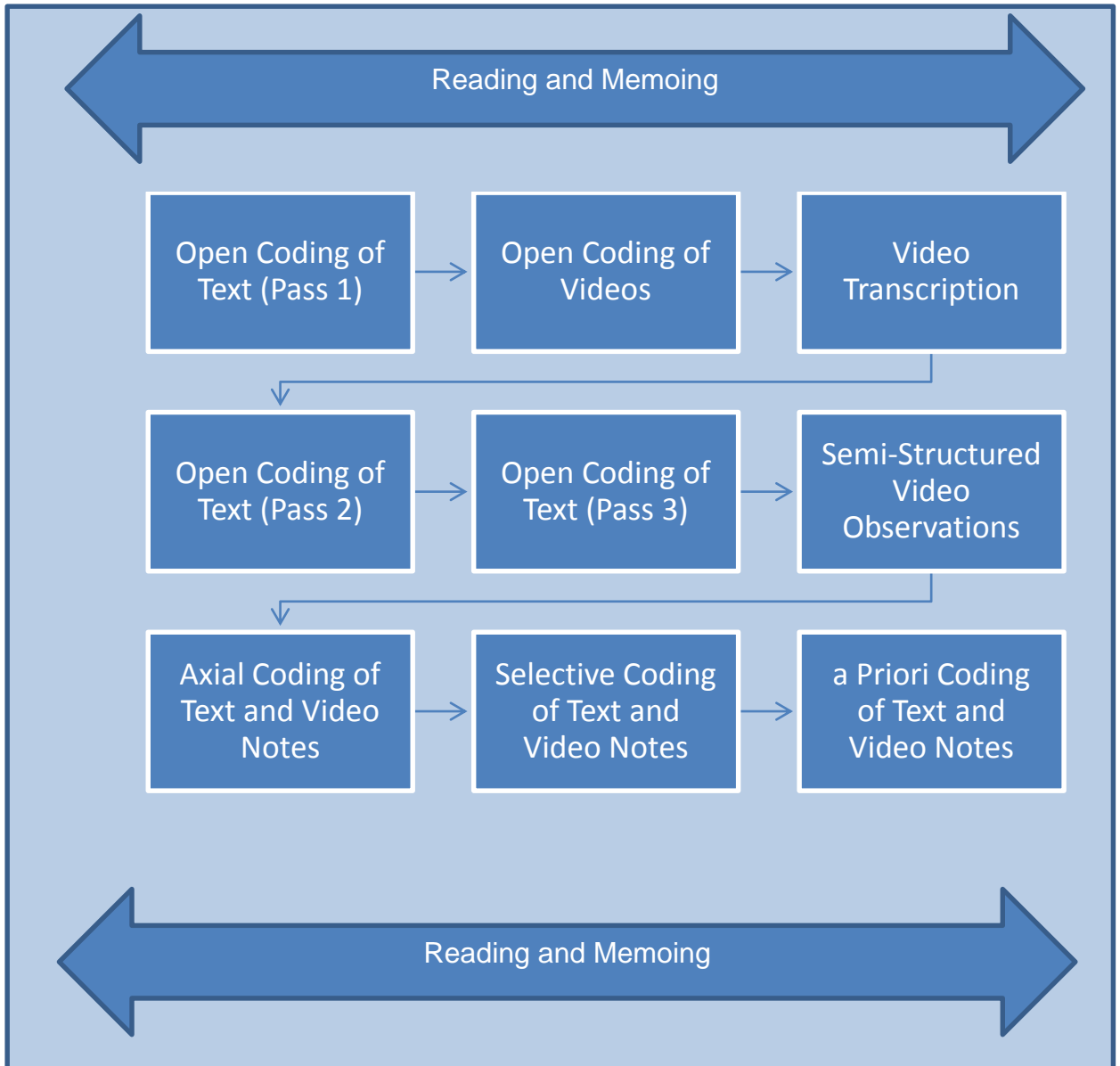
*Figure 1.* Overview of the data analysis process

**Reading and Memoing**

As a pre-coding activity and in an effort to get a sense of the data as a whole, I began the data analysis process by reading the data several times, writing notes and memos in the margins. "Memos themselves are written theoretical questions, coding summaries, and/or hypotheses of various scope

used to keep track of and promote coding, theory integration, and theory generation" (Amsteus, 2014, p. 13). The process of reading and memoing allowed me to "reflect on the larger thoughts presented in the data and form initial categories" (Creswell, 2013 p. 184). In the beginning, I focused on ensuring that I understood the concepts the teachers discussed. For example, while reading and memoing Phil's application packet, I encountered acronyms with which I was unfamiliar. Phil said he was a four-time recipient of the "FACES Grant." This award was clearly important to Phil, so I noted that I should research the meaning of the acronym. As I began to formulate theory, my memos became more complex. The process of reading and memoing helped me keep a running record of my questions and reflections about the data; therefore, I used this strategy throughout the analysis process.

**Open Coding**

In addition to the pre-coding activity, I made three open coding passes through the application packets, beginning with Rachel, followed by Phil, Mandy, and Roger. First, I analyzed the written data (e.g., teaching philosophies, stakeholder letters of support, educational histories, and biographies) using open coding, "the interpretive process by which data are broken down analytically. Its purpose is to give the analyst new insights by breaking through standard ways of thinking about or interpreting phenomena reflected in the data" (Corbin & Strauss, 1990, p. 12). I used three open coding techniques that were suggested by Bernard and Ryan (2010): repetitions, similarities and differences, and

missing data. These techniques helped me immerse myself in the data as I prepared to classify it.

During my first pass, I began to form codes, finding repetitions as well as similarities and differences. One example of this repetition was found in Mandy's data set. I noted that Mandy used the word "think" 31 times and "high" or "higher" seven times in regard to her work with students. This repetition, along with others, helped me later categorize the emergent subtheme "high expectations for students." I also noted that Phil and Rachel collectively used the words "partnership", "collaboration", and "together" (or variations of those words) 28 times. I later noticed that Phil and Rachel demonstrated evidence that they collaborated with their colleagues.

During the second pass, I continued to form codes, noting how the similarities and differences among participants affected my preliminary categories. For example, I noted that Rachel and Phil devoted multiple paragraphs to recounting fond memories of their relationships with their own parents and teachers. Because of the mass presence of this code, I decided to add it as an emergent theme. However, the absence of a discussion of parents in Roger's work and the negative memories of parents in Mandy's work caused me to continue to refine the placement of this idea.

While using open coding for the first and second pass, I analyzed the data by participant, reading a person's educational history and professional development activities, followed by the professional biography. For the third

pass, I analyzed the data by essay topic, rather than by participant. For example, I placed all of the philosophies of teaching together and analyzed them as one data set. This practice increased my confidence in the emergent subtheme "high expectations for students." Initially, Mandy's belief in higher order questioning and rigor was most noticeable because of her use of the word "think" 31 times and "higher" seven times. However, after placing the teaching philosophies together, I noted that all of the teachers expressed a belief in rigor.

**Axial Coding**

Axial coding is a grounded theory strategy in which "categories are related to their sub-categories, and the relationships tested against the data" (Corbin & Strauss, 1990, p. 13). One example of my use of axial coding was my practice of conscientiously determining how or if some subthemes could be grouped together under one theme. Prior to this phase, I had created about 30 codes and had not yet determined how the codes fit into one another. Thus, during axial coding, I began to explore the boundaries of the categories, attempting to merge some codes with others. I developed five initial codes related to high expectations: individually appropriate challenging tasks, collectively challenging college and career preparatory tasks, rigorous questioning, quality lessons, and assignments that foster creativity. During axial coding, I began to refine this list, reducing it to three categories: high expectations for students, high expectations for teachers, and individualized academic press.

**Selective Coding**

The final grounded theory coding strategy is selective coding. "Selective coding is the process by which all categories are unified around a 'core' category, and categories that need further explication are filled in with descriptive detail" (Corbin & Strauss, 1990, p. 14). Corbin and Strauss (1999) provided specific questions that grounded theorists should ask themselves while engaging in selective coding. They said:

> The core category represents the central phenomenon of the study. It is identified by asking questions such as: What is the main analytic idea presented in the research? If my findings are to be conceptualized in a few sentences, what do I say? What does all the action/interaction seem to be about? How can I explain variation that I see between and among categories (Corbin & Strauss, 1990, p. 14)?

The core category for my study was reflected in my research question: How were 2009-2013 Alabama Teacher of the Year applications similar? During the selective coding phase, I determined that the participants held similar beliefs and practices and that a prototype of teacher expertise was plausible based upon the evidence from the data. (See chapter four for detailed findings.)

**a Priori Coding**

Through this study, I sought to explore the similarities of expert teachers' application packets and to ground a theory of expert teaching based upon my

findings. I modeled my study after the categorization model proposed by Sternberg and Horvath (1995) and demonstrated by Smith and Strahan (2004) and Gün (2014). Smith and Strahan (2004) found that expert teachers shared six central tendencies and Gün (2014) added an additional central tendency. I researched those areas in writing the literature review. However, during the open coding, axial coding, and selective coding phases, I relied on my analysis of the data set to form categories. Glaser and Strauss (1967) discouraged the use of a priori codes in grounded theory research, citing the pressure researchers may face to fit their data into previously founded categories.

As a safeguard, I wrote much of the literature review two months prior to analyzing the data and then formed the codes through data analysis. After refining my own categories, as outlined above, I compared my categories to those proposed by Smith and Strahan (2004) and Gün (2014). See Appendix 5 for the abbreviated codebook.

Smith and Strahan (2004) and Gün (2014) did not create subthemes. Instead, they described each of the six categories with examples from prior research as well as descriptions of teacher practice and statements from teachers in their studies. I maintained the seven categories, with several extensions and revisions. The six central tendencies proposed by Smith and Strahan (2004) are as follows: confidence, classroom community, positive teacher-student relationships, a student-centered approach, leadership and service, and content mastery. Gün (2014) termed his added central tendency "persistence."

**Coding Videos**

This study required analysis of several pieces of data, including reflective essays, teaching videos, and letters from peers and supervisors. "Video recordings offer a unique opportunity for analyzing the interpersonal interaction in an interview; the wealth of information, however, makes video analysis a time-consuming process" (Kvale and Brinkmann, 2009, p. 179). While Kvale and Brinkmann (2009) discussed videos in light of interviewing, the observations made from video recordings were also enlightening and challenging for similar reasons. Thus, I made three passes through the videos.

After completing my first pass of open coding, I conducted open observations of each video, noting student-teacher interaction, classroom environment, class participation, instructional strategies, and any other occurrences. Then, I transcribed each video. I re-read each transcription carefully to ensure accuracy. Then, I took a hiatus from reviewing the videos to analyze the other pieces of data, taking passes two and three of the written data. After analyzing the reflective essays and letters from peers, supervisors, and students, I returned to the videos. I used the questions that I wrote during open coding to conduct semi-structured observations. I also searched for confirming and disconfirming evidence corresponding to the reflective essays and letters from peers, supervisors, and students. In many cases, the video footage filled in gaps between what teachers expressed in their writing and did in their classrooms. For instance, none of the teachers expressed a belief in sharing physical space with students, but three of the four teachers demonstrated the practice in their videos.

The combination of videos and essays provided a fuller view of the teachers' beliefs and practices.

**Codebook**

I developed a preliminary list of categories and themes using a three-ring binder, pens and paper, multi-colored highlighters, and an Excel spreadsheet. During the open coding phase, I created a tab for each participant and a numerical code for each subtheme. I also created tabs for each essay type and sorted essays by type, placing them together.

At the beginning of the axial coding phase, I began to transfer my codes into an Excel spreadsheet because it became difficult to determine the frequency of each subtheme. I sorted and grouped the statements by theme and developed a master codebook of response categories. I made several passes through the data, until no new themes emerged. I then analyzed the master codebook to determine if themes and patterns noted in the master coding list were consistent with prior studies. I compared the themes to the literature and determined which themes were consistent with the literature and which represented novel findings. See Appendix 5 for my abbreviated codebook.

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**Credibility**

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Lincoln and Guba (1985) cited credibility as a major criterion for developing trustworthiness in qualitative research. "Credibility refers to the truth of the data or the participant views and the interpretation and representation of them by the researcher" (Cope, 2014, p. 89). Researchers can increase

credibility by including descriptions of their "experiences as a researcher" (Cope, 2014, p. 89); detailed descriptions of data collection and analysis methods (Cope, 2014); and descriptions of their inclusion of other researchers in the analysis of the data (Corbin & Strauss, 1990). I addressed the first two strategies throughout this chapter. However, evidence of inclusion of peer reviewers is discussed below.

Corbin and Strauss (1990) said, "A grounded theorist need not work alone" (p. 11). Thus, I recruited peer reviewers, who increased intercoder reliability. Intercoder reliability, also called interrater reliability, is "established through a process in which two or more people independently analyze the same qualitative data and then compare the findings" (Roberts, 2010, p. 161). Bernard and Ryan (2010) suggested having "at least one other person code some sample chunks of texts to make sure that your coding is not idiosyncratic" (p. 275). Likewise, Corbin and Strauss (1990) said, "An important part of research is testing concepts and their relationships with colleagues who have experience in the same substantive area" (p. 11). Thus, in an effort to improve the reliability of my codebook, I asked two people to serve as my peer reviewers. Zelda Kitt, principal of a secondary school, and Hope Felton, a secondary teacher, agreed to serve as peer reviewers.

I selected Kitt and Felton due to their professional experience and education. Kitt taught English for six years and had been a secondary school administrator for the past four years. As a school administrator, she regularly evaluated and nominated teachers for the district teacher of the year award.

Felton was a math teacher in a secondary school, and she had taught math for eight years. I selected Felton because she represented teachers, and they are important stakeholders in the teacher of the year process. Schools are required to include teachers on the school-based teacher of the year committee. In addition to their diverse experience, I also considered the education of Kitt and Felton. Both peer reviewers were doctoral students in Auburn University's Educational Foundations, Leadership, and Technology program, and they both had completed at least one qualitative research methods course at Auburn University and were familiar with intercoder reliability.

After I completed the open, axial, selective, and a prior coding, I met with the peer reviewers individually on four occasions, each time via telephone. During the first meeting, I emphasized the importance of their roles and outlined their responsibilities as peer reviewers. During the second meeting, I provided an oral overview of my research and emailed copies of my abbreviated codebook, along with 1,000 words of sample text. The abbreviated codebook included the themes, subthemes, definitions, and at least one example of each code. See Appendix 5. Because I wanted them to read the codes in context, I provided the peer reviewers with at least one paragraph of text from each participant's application packet. I selected the text based upon a few factors: the length of the paragraph, the readability of the paragraph while disconnected from the full text, and the number of subthemes I had coded from the paragraph. I selected paragraphs with the highest occurrence of my codes because I wanted to test as

many codes as possible. Thus, each chunk of text that I selected contained multiple codes.

For the third meeting, I checked in with them to ascertain their impressions of the codebook definitions and their relationships with the text. This step was important because it allowed me to receive immediate feedback on the clarity of the code definitions as they completed the sample codebook. After the third meeting, the peer reviewers emailed me copies of the text that they had coded, and I reviewed them, searching for discrepancies between my coding and theirs. The peer reviewers and I agreed on the coding of almost all pieces of data. However, they helped see the data in different ways, noting places where pieces of data could be applied to more than one code. For example, Felton's coding of one piece of data differed from mine. She coded the section as subtheme 4.2, responsive to students' needs. I, on the other hand, had coded the same section of text as subtheme 2.4, shared directional power. I realized that both of the subthemes were heavily based in constructivist theories of learning, but they should remain separate because each of the two subthemes helped to define its major theme. Felton's coding prompted me to look closely at the two subthemes and note any other instances of simultaneous coding. I found that a few other pieces of text were so closely related that they also created overlap.

During the fourth meeting, I discussed my research findings with them. This practice allowed me organize the findings in meaningful, practical ways. They also helped me reframe my thinking from a narrow perspective in chapters

1-4 to a broader perspective in chapter five. The peer reviewers helped me

maintain transparency in my categorization and analysis (Bernard & Ryan, 2010).

## Delimitations of Study

Unlike limitations, which are "inherent weaknesses in the methodology"

(Roberts, 2010, p. 139), delimitations are "controlled by the researcher" (Roberts,

2010, p. 139). Delimitations allow researchers to narrow the scope of the study in

areas such as time and location (Roberts, 2010). The delimitations of this study

included the following:

1. The participants selected for the study only included teachers who had

   reached the semi-finals or higher in the Alabama Teacher of the Year

   program between 2009 and 2013.

2. The location for the study only included teachers in Alabama.

## Limitations of Study

1. Much of the data were limited to participants' self-reported descriptions of

   their practices and beliefs.

2. The videos may not represent the fullness of the teachers' beliefs and

   practices. Variables include time, lesson aim, and students' needs.

3. The Criteria for Judging the Alabama Teacher of the Year Candidates

   (see Appendix 1) mandated that applicants write an essay specifically

   about their community involvement. This criteria may have impacted the

contents of teachers' essays, thus impacting subtheme 5.3, serving the school and larger community.

## Summary

I sought to conduct a qualitative study of teacher expertise using grounded theory strategies. I addressed the following research question: How were 2009-2013 Alabama Teacher of the Year applications similar? The four participants in this study were teachers who had been selected as semi-finalists in the Alabama Teacher of the Year program, including one state winner of the competition. I collected multiple types of data including essays, stakeholder letters, and videos of classroom instruction. After gathering the data, analysis techniques included reading and memoing, open coding, axial coding, selective coding, and a priori coding. As a measure for increasing credibility, I asked two graduate students and educators to code a sample section of text.

CHAPTER 4: FINDINGS


**Purpose of the Study**

"The field of education is bursting with expert studies that focus on a variety of themes and offer abundant conclusions that can be applied to teacher education" (Bucci, 2004, p. 83). Thus, education researchers have noted the difficulty in forming a comprehensive list of the qualities of expert teachers (Berliner, 1976; Welker, 1991). Some researchers have emphasized differences between expert and novice teachers (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) or compared more experienced pre-service teachers to less experienced pre-service teachers (Byra & Sherman, 1993). However, fewer researchers have studied expert teachers exclusively, focusing on their similarities (Ainley & Luntley, 2006; Andrzejewski, 2008; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004), a practice that allows researchers to structure the category around the beliefs and practices of expert teachers.

Sternberg and Horvath (1995) said: "If American public schools are to become the centers of excellence, then their most important human resource (i.e., teachers) must be developed. To know what we are developing teachers

toward, we need a model of teaching expertise" (p. 9). Acting upon the recommendations of Sternberg and Horvath (1995), Smith and Strahan (2004) and Gün (2014) conducted similar studies and offered similar conclusions. These researchers emphasized the need for more studies of teacher expertise that compare expert teachers to each other in an effort to structure the beliefs and practices that form the "family resemblance" within the group (Sternberg & Horvath, 1995, p. 9).

In addition, in their study of state and national award-winning teachers, Grant, Stronge, and Popp (2008) said:

What we have known intuitively all along, we now know empirically: There is a direct, measurable link between teacher effectiveness and student success…What we need to better understand, however, is what the most effective teachers *do* which results in substantial academic growth of students. (p. 2)

Through this study, I sought to understand what expert teachers believe and do. The purpose of this study was to explore similarities in the 2009-2013 Alabama Teacher of the Year applications; replicate past studies of teacher expertise that used a categorization, prototype model; and ground a theory of expert teaching.

## Research Question

My guiding research question was as follows: How were 2009-2013 Alabama Teacher of the Year applications similar?

I developed four sub-questions to focus my research:

a. What words and phrases did teachers use to describe their practice?

b. What meanings did these teachers attach to these descriptions?

c. What concepts related to teaching appeared across participants?

d. How were these concepts categorized and integrated into a prototype that represents the central tendency of these teachers?

The research question and its sub-questions forced me to search the text both inductively and sequentially. This approach necessitated that I present my findings in an integrated manner. Thus, I addressed the research question and its sub-questions in the discussion of each central tendency.

## Findings

Grounded theory research requires systematic data collection and high cognitive analysis (Glaser & Strauss, 1967). Whenever I distanced myself from the data and then returned to studying it, I found new ideas. Then, one day, I met the point of saturation. I returned to the data set and discovered no new nuances in the data, and after setting the data to the side and then returning to it, I still noted no new ideas. It was then that I began to consider closing out the research. Glaser and Strauss (1967) characterized the journey of completing analysis by saying:

When the researcher is convinced that his conceptual framework forms a systematic theory, that it is a reasonably accurate

statement of the matters studied, that it is couched in a form

possible for others to use in studying a similar area, and that he can

publish his results with confidence, then he is near the end of his

research (p. 224-225).

After carefully generating hypotheses of teacher expertise categories and

systematically providing evidence of those hypotheses, I knew in my

"bones" (Glaser & Strauss, 1967, p. 225) that the analysis was complete.

I found evidence of all six themes of expert teachers as described by

Smith and Strahan (2004) to varying degrees—which aligns with Sternberg and

Horvath's (1995) claim that expert teachers are not identical in their beliefs and

practices. Instead, they share a "family resemblance" (Sternberg & Horvath,

1995, p. 9) and are bound by the broad central tendencies. This approach

provides a prototype model, instead of a rigid recipe or formula.

I found no evidence of persistence, the seventh theme noted by Gün

(2014). However, I did find evidence of an expanded definition of that theme. The

seven themes I found in this study were as follows: confidence, classroom

community, teacher-student relationships, student-centered approach, leadership

and service, content mastery, (Smith & Strahan, 2004) and persistence (Gün,

2014). The differences between Gün's definition and application of persistence

and those recorded in this study are discussed in detail under the "persistence"

heading.

Previous expert teacher prototype researchers (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004) did not divide the central tendencies into defined subthemes. Instead, they discussed each theme broadly. In this study, I divided each theme into two or more subthemes and expanded some themes, adding subthemes that emerged from data analysis.

I organized the remainder of this chapter in terms of the seven themes found from analyzing the data and embedded the primary and secondary research questions into the discussion of each theme. To illuminate the central tendencies, I included memos, quotes, and descriptions from the data set. Glaser and Strauss (1967) said, "The standard approach to [describing the theory] is to present data as evidence for conclusions, thus indicating how the analyst obtained the theory from his data" (p. 228). They recommended presenting "only enough material to facilitate comprehension" so that the meaning of the theory is conveyed (Glaser & Strauss, 1967, p. 229).

**Confidence**

Smith and Strahan (2004) described central tendency one as, "These teachers have a sense of confidence in themselves and in their profession" (p. 364). I divided this theme into three subthemes, which are confidence in self, confidence in teaching ability, and confidence in fellow teachers. The latter theme emerged from data analysis. Table 6 provides a brief overview of this central tendency.

Table 6

*Overview of Central Tendency 1: Confidence.*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 1. These teachers have a sense of confidence in themselves and in their profession (Smith & Strahan, 2004). | Confidence in self- "relates to a person's belief in oneself, belief in one's power, and willingness to take risks" (The Research Functional Staff of Research and Development Agency, 2014). | 1.1 | AP |
| | Confidence in teaching ability- relates to a teacher's positive views of him/herself in relation to professional competence, worth, and professional satisfaction (Friedman & Farber, 1992). | 1.2 | AP |
| | Confidence in fellow teachers- relates to "the perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467). | 1.3 | E |

*Note.* AP- a priori; E-emergent

I defined subtheme one, confidence in self, as, "relates to a person's belief in oneself, belief in one's power, and willingness to take risks" (The Research Functional Staff of Research and Development Agency, 2014). Subtheme one was widely represented in the data set.

All four participants used words and phrases to describe their self-confidence. Discussing his belief in himself and its effect on students, Roger, a middle school math teacher, said, "Finally, they learn that I believe in myself, and I believe in them. Through this, I teach them to believe in themselves, too." Underscoring her willingness to take risks, Mandy, an elementary gifted specialist, recounted her journey to becoming a teacher. Mandy said she knew since she was a little girl that she would become a teacher, despite her mother's

disappointment. Mandy said, "'Don't be a teacher,' my mother said to me so often. Try to stop me!" Roger, Mandy, and the other teachers described their individual skills and talents, expressing a strong belief in themselves.

Subtheme two, confidence in teaching abilities, focused on the teachers' positive views of themselves in relation to their professional competence, worth, and professional satisfaction (Friedman & Farber, 1992). All four teachers provided evidence of this subtheme. Exemplifying professional competence, Mandy discussed her ability to find reading problems in students and alert parents so that students could receive specialized treatment. Exemplifying how teaching contributes to her self-worth, Mandy said, "These children are the reasons I get up early when I would rather sleep in. Their paths are now headed in different directions because of something I said or did, and these encounters have motivated me to be who I am today." Finally, exemplifying professional satisfaction, Mandy said, "'I smiled, realizing that changing a child's life is what it is all about." Mandy relayed the story of how her assistance to a parent empowered the parent to find treatment options for a student with reading problems. These teachers believed they positively impacted students' lives, bolstering their professional confidence.

Subtheme three, confidence in fellow teachers, emerged from data analysis. Even though Smith and Strahan (2004) said that expert teachers believed in the teaching profession as a whole, they did not discuss expert teachers' confidence in their fellow school-based teaching colleagues as a central tendency of expert teachers. I used Goddard's (2001) definition of

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collective efficacy to define this subtheme: "The perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students" (p. 467). Goddard (2001) said that collective self-efficacy is an often-neglected variable, and Calik et. al. (2012) said that collective efficacy affects school climate. Two of the four teachers articulated a belief in the theme of collective efficacy. Exemplifying his belief, Phil, an elementary music teacher, said, "In general education areas where I lack knowledge, I turn to my colleagues to advise and direct me." Phil demonstrated his confidence in his fellow teachers by collaborating with them to integrate art into the academics.

Subthemes two and three were initially grouped with subtheme one under the broad category of confidence. However, after further review of the data, I noted that these teachers expressed confidence as segments of three overlapping domains: personal self-efficacy, professional self-efficacy, and collective efficacy. Figure 2 represents the interconnected relationship among the three domains that contribute to teacher confidence.

**Domains of Teacher Confidence**

Personal Self-Efficacy

Professional Self-Efficacy

Collective Efficacy
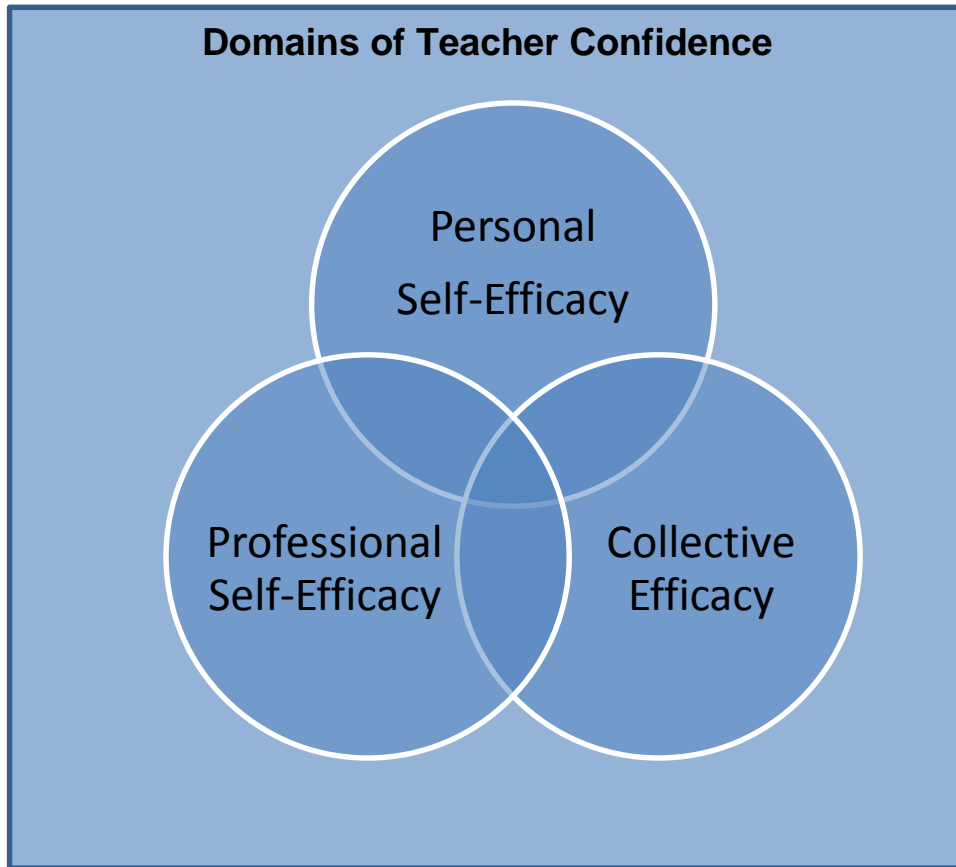
*Figure 2.* Relationship among three elements of teacher confidence: personal self-efficacy, professional self-efficacy, and collective efficacy

To illustrate this point, consider the story that Roger relayed. He said that initially, he faced a hostile work environment because teachers loathed his creative use of technology to create meaningful learning experiences in the class. Rejected by his peers, Roger relied on his personal confidence as well as the professional satisfaction he felt because his students were engaged in his class. However, he felt much more confident when, a few years later, teachers came to him, requesting that he professionally develop them in the area of technology integration. He began to teach other teachers how to integrate technology into

their classes and became more active in teacher leadership in his school. Collective efficacy was an important component of his total confidence because he firmly believed that technology integration was necessary for engaging learners. When the teachers showed an interest in learning about technology integration, Roger became confident that "the faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467).

All four teachers provided evidence of their belief in the need for confidence. Phil and Rachel, an art teacher, used the most words and phrases related to teacher confidence. However, Roger and Mandy also articulated a belief in the importance of teacher confidence.

Because teaching is such a complex, fluid field, self-confidence is critical for longevity (Bandura, 1992; Friedman & Farber, 1992). Rachel devoted her entire Education Issues and Trends essay to a discussion of teacher burnout, linking it to lack of respect, funding, preparation, mentorship, and professional development. While analyzing my data, I noted that two of the teachers devoted a large volume of their essays to their personal relationships with their past teachers and parents. When I began to organize my data, I initially decided that teachers' past parent-child and teacher-student relationships should be categorized as a separate theme. However, upon further scrutiny, I noted that these teachers' relationships with their parents and teachers were closely connected to their confidence. Phil said, "With encouraging parents, a past full of excellent teachers, and goal-oriented friends, I steadily pieced together the clues

that revealed my destiny, teaching." Likewise, Rachel said of her art teacher and later cooperating teacher for her student-teacher assignment, "She respected and encouraged my ideas and leadership in her classroom, and in turn, her students did well." These teachers provided several examples of how the sage wisdom of their parents and teachers shaped their teaching philosophies. One of the reasons these teachers were confident is because they gained reassurance by reflecting on the advice of people they admired.

**Classroom Community**

Smith and Strahan (2004) described central tendency two as: "These teachers talk about their classroom as a community of learners" (p. 365). Smith and Strahan (2004) alluded to four categories, which collectively encourage a shared classroom: The teacher works as a guide on the side and shares verbal power, physical space, and directional power with the students.  See Table 7 for a brief overview of central tendency two, classroom community.

Table 7

*Overview of Central Tendency 2: Classroom Community*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 2. "These teachers talk about their classroom as a community of learners" (Smith & Strahan, 2004, p. 365). | Guide on the side- "relates to the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265). The teacher chooses to decrease the amount of time used in lecture-style instruction and acts as a facilitator | 2.1 | AP |
| | Shared verbal power- relates to the ending result of "the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265): The students' voices are heard in the classroom just as much or more than the teacher's. | 2.2 | AP |
| | Shared physical space- relates to the climate the teacher encourages in the classroom, whereby students are encouraged to move around the room as needed. Students feel a sense of ownership in the classroom (Smith & Strahan, 2010). | 2.3 | AP |
| | Shared directional power- relates to the teacher ensuring that students are allowed to make choices in the classroom related to the curriculum (Smith & Strahan, 2010). While the skill or standard might remain the same, the content and materials used to help students understand that skill are targeted based upon the interests and goals of the students. | 2.4 | AP |

I defined subtheme one, guide on the side, as follows: "relates to the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265); the teacher chooses to decrease the amount of time used in lecture-style instruction and acts a facilitator. Of the four classroom community subthemes, the "guide on the side" subtheme was most

discussed by teachers in their application packets, and it was highly evident in two of the teachers' classroom videos. Teachers were allotted fifteen minutes to provide footage of themselves teaching. Two of the teachers built in time for viewers to see them working beside students, facilitating their learning acquisition. Mandy's entire class time was devoted to the Socratic method, during which time she encouraged students to work cooperatively, problem-solving together through conversation. In her philosophy of teaching essay, Mandy said:

> [Students] want to know and they want to be problem solvers; however, at school, we often create situations where they have to be quiet and listen to us talk, rather than exploring, thinking creatively and critically, innovating, and pursuing their areas of interest…What makes me an outstanding educator is that I guide students to think, create, and learn through projects, processes, and products that interest them.

Phil devoted about five of his fifteen minutes to working as a "guide on the side." During this time, he walked around from group to group, listening in on students' conversations and providing support as needed.  All four teachers articulated a belief or demonstrated practice of subtheme one.

I defined subtheme two, shared verbal power, as follows: relates to the ending result of the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265): The students' voices are

heard in the classroom just as much or more than the teacher's. As indicated by the definition, shared verbal power generally occurs in relation to the style of instruction occurring in the class. Mandy used her entire class period to work as a guide on the side, and she also demonstrated the most shared verbal power. In her Socratic circle, Mandy encouraged the students to talk directly to each other and look at each other while talking, instead of looking at the teacher. After the directions were given, Mandy spoke 32 words, compared to the students, who spoke 731 words collectively. Mandy kept a record of the students who participated in the class dialogue, and she provided evidence that four of the six students who did not participate in class posted their thoughts in an online discussion board after class. Even outside of the classroom, Mandy encouraged students to share their thoughts with the class. Mandy is the only teacher in the study who allowed students to dialogue for extended amounts of time. The other three teachers asked questions, and students responded with short answers. For example, during her demonstration art lesson, Rachel asked, "So, the next thing we're going to do is what?" Students responded in chorus, "The line of the body." That line was the longest statement uttered by students during the lesson. It should be noted that Rachel expressed a belief in the importance of shared verbal power. She said, "In order to maintain this personal belief in my classroom, I allow students to see my role as a teacher/facilitator instead of an all-knowing lecturer."

I defined subtheme three, shared physical space, as follows: relates to the climate the teacher encourages in the classroom, whereby students are

encouraged to move around the room as needed; Students feel a sense of ownership in the classroom, and teachers encourage students to work in close proximity to them (Smith & Strahan, 2010). Three of the four teachers demonstrated shared physical space in their videos. In Mandy's Socratic circle, the group, including the teacher, sat in a circle on the floor. Even though the teacher sat in a chair, they all shared close proximity of physical space. Likewise, in Phil's music class, he walked around the room and kneeled, bent, and crouched down beside students while engaging in discussion with them. Finally, in Rachel's class, she stood in close proximity to the students as they watched her demonstrate an art technique. None of the teachers in this study discussed a belief in the importance of shared physical space. However, the video footage provided evidence of practice of this unarticulated belief.  Thus, subtheme three reinforced the importance of the classroom video footage as a necessary study instrument.

I defined subtheme four, shared directional power, as follows: relates to the teacher's belief in ensuring that students are allowed to make choices in the classroom related to the curriculum (Smith & Strahan, 2010); While the skill or standard might remain the same, the content and materials used to help students understand that skill are targeted based upon the interests and goals of the students. All four teachers provided strong evidence of the importance of shared directional power. Mandy recalled an instance in which she attempted to engage a student in her class in a research assignment. She said:

Carolena was a fourth grade student and ballet dancer. She
danced every day, putting in almost thirty hours a week after
school. Her path was set. She had the lead role in the Nutcracker
that year and thought only of how she could make her dancing
perfect for the final performance. How did I get her attention? What
seemed natural to me as a personal teaching style may not be to
others—allow students freedom and flexibility while learning.

Mandy relayed that she was able to help Carolena master the research
assignment by sharing directional power. Carolena had to learn the skill of
conducting research and writing persuasive letters, but she was allowed to
choose her own topic. Carolena researched the pointe shoes that plagued
her feet daily, redesigned the shoes, and proudly sent the persuasive
letter to the ballet shoe company. Mandy had found a way to engage the
student in the class by sharing directional power with her.

Like Mandy, Phil said that he planned lessons based upon
conversations he engaged in with students. Rachel allowed students to
select volunteer projects for the class to complete, and Roger's colleague
said that he shined in his ability to tailor lessons to the technology-based
interests of the students. These teachers all shared a belief in the
importance of allowing students to feel a sense of ownership in the class
by sharing directional power.

Building classroom community is an ongoing process in which teachers encourage discourse and discovery (Graeff, 2010; Ornstein & Levine, 2000; Slavin, 2006). Student ownership of the classroom creates "a culture of trust and communication between the students and their teacher" (O'Neil, 2010, p. 15); "leads to increased motivation, active participation, and engagement in the learning process, (O'Neil, 2010, p. 8); and decreases school violence (Johnson, 2009). However, as Slavin (2006) noted, teachers should vary their method of instruction based upon the needs of the students.

The teachers articulated a belief in classroom community; however, through their classroom videos, three of the teachers in this study did not demonstrate their practice of building classroom community as guides on the side who encourage shared verbal power. However, their 15-minute videos may not accurately reflect their beliefs. First, most class periods last 50-90 minutes. Thus, the teachers may have filmed the beginning of the lesson in which they explicitly taught the material. Secondly, the teachers may have assumed that Alabama Teacher of the Year program judges wanted to watch them explicitly teach a lesson. Thus, while their actions did not demonstrate their practice of building classroom community as guides on the side who encourage shared verbal power, the teachers articulated a commitment to building positive classroom communities.

**Teacher-Student Relationships**

Smith and Strahan (2004) defined central tendency three as follows: "These teachers maximize the importance of developing relationships with students" (p. 365). Smith and Strahan (2004) alluded to two subthemes: the teacher's belief in the importance of relationship-building with students and with parents. Of all of the themes presented in this study, the theme teacher-student relationships was the second-most discussed theme by teachers. See Table 8 for a brief overview of central tendency three, teacher-student relationships.

Table 8

*Overview of Central Tendency 3: Teacher-Student Relationships*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 3. These teachers maximize the importance of developing relationships with students (Smith & Strahan, 2004). | Conscientious relationship-building with students- relates to the teacher's belief and practice in developing positive teacher-student relationships with students by "gaining knowledge about them, working side-by-side with them" (Smith & Strahan, 2004) and engaging in conversation with them; "showing interest in their lives beyond the classroom (Anderman, Andrzejewski, & Allen, 2011, p. 996). | 3.1 | AP |
| | Conscientious relationship-building with parents- relates to the teacher's belief in initiating and maintaining contact with students' families (Smith & Strahan, 2004). | 3.2 | AP |

*Note.* AP- a priori; E-emergent

I defined subtheme one, conscientious relationship-building with students, as follows: relates to the teacher's belief and practice in developing positive teacher-student relationships with students by "gaining knowledge about them,

working side-by-side with them" (Smith & Strahan, 2004) and engaging in conversation with them; "showing interest in their lives beyond the classroom" (Anderman, Andrzejewski, & Allen, 2011, p. 996). All four teachers demonstrated a belief in relationship-building with students inside and outside of school. Two examples are Rachel and Phil, who both demonstrated an interest in students' lives beyond the classroom. Phil said, "Observing students in class, tutoring after school, and talking with them during lunch allow me to get to know my students on an individual level." Likewise, in a stakeholder letter in support of Rachel, one stakeholder said:

> As a magnet teacher, Rachel seizes the opportunity to nurture and become a mentor to ALL of her students daily… I am grateful to her for encouraging my daughter to use her artistic skills, rely on her instincts, and maintain faith in herself. [Rachel] exemplifies the positive effect a teacher can have on a generation.

All four teachers indicated that fostering positive teacher-student relationships helped students feel that they cared about them. Phil said, "The old adage that kids won't care what you know until they know that you care is step one for effective teachers." Echoing Phil's sentiments, Mandy provided a specific account about how attempting to develop a relationship with a student broke down barriers. Discussing a student with whom she was having trouble connecting, Mandy said:

Finally, in a desperate attempt, I pulled her aside privately and told

her if she would behave for just one week, I would take her to

dinner and a movie. Friday came and Miriam had rightfully earned

the privilege. That night at dinner, Miriam looked at me and told me

it was her first time at a restaurant. She thanked me for taking her

and told me it was the best night she had ever had. I would like to

say her behavior was perfect from then on, but she still had her ups

and downs. The difference now was she knew I cared. Hopefully,

her path changed that year.

Building rapport with students is a critical aspect of supporting students'

learning (Anderman, Andrzejewski, & Allen 2011). The four teachers

articulated a belief in knowing their students individually and using those

connections to foster motivation.

I defined subtheme two, conscientious relationship-building with

parents, as follows: relates to the teacher's belief in initiating and

maintaining contact with students' families (Smith & Strahan, 2004). All

four teachers demonstrated a belief in building relationships with students'

parents and guardians. They all discussed the importance of

communicating with parents through varied means to keep them informed

of their child's progress.  Phil said:

As a teacher, I firmly believe that when parents are kept in the loop

about everything pertaining to their child's education, the outcome

is mostly positive. Throughout the year, I keep parents informed

about their child's music education through face-to-face contact,

letters, emails, and posts on the school website.

Roger said, "I also began using Outlook to communicate heavily with my

students' parents. I email them every test and quiz score and anytime their

child misses an assignment." In a stakeholder letter of support for Roger,

one stakeholder said, "[He] keeps parents informed up-to-the-minute of

their child's progress."

In addition to keeping parents informed of their child's progress, two

teachers discussed maintaining contact with parents as a way to

encourage more parental involvement and break down barriers between

home and school. In his essay outlining his platform as teacher of the

year, Phil said:

I will also encourage the establishment of curriculum nights where

parents attend workshops hosted by educators where their child's

curriculum is being explained, and strategies can be shared so that

parents can better help their children at home. Parents become

frustrated when they do not know what's going on in their child's

education and do not know how to help them. On behalf of all

teachers, I will extend my hand of compassion, and advise parents

to develop an open line of communication with teachers. When all

parts of the musical score work together, beautiful music is

achieved.

Phil expressed a belief in empowering parents by educating them.

Likewise, discussing her current practice, Mandy said:

Before I even begin the year, I invite parents to come and talk to

me about my style of teaching. I communicate the plans and goals I

have for their children, and I ask them to give me a chance.

Throughout the year, I invite them to be a part of the process, even

going so far as to broadcast the classroom live for them to view

online through Ustream, an online video streaming service. Many

teachers do not want the intrusion, but I have learned that parents

and the community can be the best advocates when they

understand why you are teaching certain ways. They can provide

assistance, resources, expertise, and financial backing once

support is gained.

I found that all four expert teachers studied held a strong belief in initiating

and maintaining positive relationships with students and parents, and they

articulated that fostering positive relationships with students and parents helped

families know that they cared. In addition to this reason, I also believe that

positive relationships are important to the teachers personally. In regard to

developing relationships with students, Phil said, he "looked forward to" engaging

with students inside and outside of school; Roger said he "enjoys the opportunity

of getting to know them and helping them through the very difficult middle school years," and a stakeholder said that Rachel "nurtured" the students. In addition, Rachel said she "feels rewarded by the relationships" that maintained with her current and past students. These teachers moved beyond a formulaic process of maintaining an updated parental phone log. Instead, their positive student and parent relationships appeared to be driven by a basic psychological need for relatedness and communion (Spilt, Koomen, & Thijs, 2011).

Trust was foundational in teacher-student and parent-teacher relationships. Goddard, Salloum, and Berebitsky (2009) said:

> Trusting others involves the choice to put at risk what one cares about to accomplish those things one cannot realize alone. If one could guarantee desired outcomes without relying on others, there would be less need to trust by placing at risk what one values. (p. 294)

Parents placed their children at risk in order to accomplish the goal of educating their children, trusting that the teachers would do what was best. Goddard, Salloum, and Berebitsky (2009) further stated, "The most commonly recognized of the facets of trust is benevolence, or placing the needs of others ahead of one's own" (p. 296).The parents trusted that, as one stakeholder said of Roger, "going the extra mile is a way of life" for their child's teacher. One stakeholder said that Roger taught her two children, one of whom had multiple learning disabilities. Her son's disabilities heightened the risk that someone could take advantage of him. She summed up Roger's effect on her children's lives: "My

children learned higher math from Roger. They also learned to be better people. Roger taught me to be a better parent." The parent fully relied on Roger as a teacher, coach, and mentor for her as well as her children.

**Student-Centered Approach**

Smith and Strahan (2004) defined central tendency four as follows: "These teachers demonstrate a student-centered approach to instruction" (p. 365). Smith and Strahan (2004) discussed four subthemes, which collectively reflect a student-centered approach: The teachers "take responsibility for student learning, are responsive to students' needs, assess students in a variety of ways, and exhibit a mastery goal orientation" (p. 367). In this study, teachers demonstrated a belief in all four subthemes. See Table 9 for a brief overview of central tendency four, student-centered classroom.

Table 9

*Overview of Central Tendency 4: Student-Centered Classroom*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 4. These teachers demonstrate a student-centered approach to instruction (Smith & Strahan, 2004). | Take responsibility for student learning- relates to the teacher's mindset that rather than placing blame on students for academic failures, expert teachers look inward, considering teaching pedagogy and engagement strategies; These teachers take personally the failures and successes of their students (Smith & Strahan, 2004). | 4.1 | AP |
| | Responsive to students' needs- relates to the teacher's mindset of supporting students through appropriate pacing and connecting the content to the real world (Smith & Strahan, 2004). | 4.2 | AP |
| | Instruct and assess students in a variety of ways- relates to differentiating instruction by content, process, product, or learning environment (Tomlinson, 2000). | 4.3 | AP |
| | Goal mastery orientation- relates to the teacher's belief that classes should be "structured around learning objectives rather than performance goals" (Smith & Strahan, 2004, p. 367); Teachers direct students to focus on meaning-making, mastery, and self-improvement (Pintrich & De Groot, 1990; Slavin, 2006) and de-emphasize grades. | 4.4 | AP |

*Note.* AP- a priori; E- emergent

I defined subtheme one, teachers take responsibility for student learning, as follows: Rather than placing blame on students for academic failures, expert teachers look inward, considering teaching pedagogy and engagement strategies; These teachers take personally the failures and successes of their students (Smith & Strahan, 2004). All four teachers provided examples of taking personally the successes of students. Art teacher Rachel said she felt rewarded

when one of her Indonesian students who knew little English as a freshman high school student was later accepted for a collegiate arts fellowship. Mandy relayed several stories of students she was able to help along the way, including a shy student she was able to help blossom into an actress. Likewise, stakeholders provided evidence of teachers' successes. In support of Roger, one stakeholder said, "Our youngest son now aspires to graduate from the Alabama School of Math and Science. When he is accepted at the ASMS one day, Roger will be to thank on so many levels." Both teachers and stakeholders reflected the teachers' personal involvement with the successes of students. However, I found no evidence of teachers taking personally the failures of students. In addition, I found that the codes from subtheme one overlapped heavily with the teacher-student relationships subthemes of teachers developing and maintaining relationships with students and parents.

I defined subtheme two, the teachers "are responsive to students' needs" (Smith & Strahan, 2004, p. 367) as follows: relates to the teacher's mindset of supporting students through appropriate pacing and connecting the content to the real world (Smith & Strahan, 2004). Two of the teachers discussed pacing in their essays or videos. In a broad discussion of pacing, Mandy argued that schools should be redesigned "so that students can go through learning at their own pace," allowing students "to move through the basics at the rate comfortable to them rather than a grade level per year." In an applied description of pacing in her courses, Rachel said that students move through her program based upon their individual needs, skills, and knowledge. Rachel said she taught art levels I,

II, III, and Advanced Placement Studio. Students advanced to the next level by acquiring skills, not solely by passing the course.  She took into account students' needs and provides support.

All four teachers discussed connecting content to the real world. Rachel said, "In my classroom, artistic skill and development are important, but what I know to be even more imperative to the future of my students is the value of emphasizing creative thought during the learning process." Rachel discussed several activities that allowed students to connect content to the real world such as project-based learning. Roger said that he learned how to integrate technology into his class because he recognized that students were "digital natives," (see Prensky, 2001) and technology was the future of the world. Roger said:

> I have gone out of my way to educate the 'digital natives.' I teach in
> ways that they have come to expect from their personal
> experiences.  All my lessons are computer based, and I use a
> student response system that lets every student share their answer
> to practice problems with me; This ensures that all students get to
> participate, not just the ones who raise their hands.  I have created
> a website, which is rich in educational resources for them.  Some of
> these resources include video podcasts of every lesson, notes for
> every lesson, and opportunities for extra credit made available in a
> way that encourages learning.  I take my students to the computer

lab and teach them to collaboratively build spreadsheets using

Google Docs and to turn them in to me electronically with Moodle.

The codes from this subtheme overlapped heavily with the codes from the directional power subtheme.

I defined subtheme three, the teachers instruct and "assess students in a variety of ways" (Smith & Strahan, 2004, p. 367) as follows: relates to differentiating instruction by content, process, product, or the learning environment (Tomlinson, 2000). All four teachers provided evidence of differentiation, with some providing evidence of differentiating instruction by content, process, or product, and none providing examples of differentiating instruction by learning environment.

Teachers differentiate content using formative and summative assessments, as well as interest surveys to determine "what the student needs to learn or how the student will get access to the information" (Tomlinson, 2000, p. 2). Mandy provided several pieces of evidence that she differentiated by content. One example is the story she relayed of Denilson, a student she was able to help read by offering books of interest to him. The skill remained the same as the rest of the class, but the book the student used to practice the skill differed. Similarly, in his music class, Phil used interest inventories to help him determine how to group students to study percussion instruments.

Teachers differentiate process by varying the "activities in which the student engages in order to make sense of or master the content" (Tomlinson, 2000, p. 2). In a stakeholder letter of support for Roger, one stakeholder provided evidence that Roger excelled at differentiating instruction by process. The stakeholder said:

> In math class, he explains to them many different ways to reach the same conclusion. He gives them different ways to think about how and why a math problem turns out the way it does, and as you already know, each child thinks differently, and it helps them to grasp the math concept in their own way. They may not understand the math equation in the same ways, but each child feels great about their accomplishment once they master a problem.

Like Roger, Phil's video provided evidence that he differentiated by process. In his music lesson, Phil provided students with multiple ways to process the lesson on pitch. He used manipulatives, written information, and sounds to help students grasp the content.

Teachers differentiate products by offering varied "culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit" (Tomlinson, 2000, p. 2). In her class video and accompanying lesson notes, Mandy provided evidence that she allowed students to demonstrate their learning in varied ways. Students could

communicate orally in class during the Socratic circle or they could post their responses to the class Wiki online.

A key tenet of learning environment differentiation is the idea of helping students understand that each student has different needs, and teachers allow diverse practices to occur concurrently in a classroom (Tomlinson, 2000). Examples of differentiating instruction by learning environment include "setting out clear guidelines for independent work that matches individual needs," "developing routines that allow students to get help when teachers are busy with other students and cannot help them immediately," and "helping students understand that some learners need to move around to learn, while others do better sitting quietly" (Tomlinson, 2000, p. 2). As indicated previously, none of the teachers provided evidence of differentiating instruction by learning environment. None of the teachers addressed this form of differentiation in their essays, and in all of the classroom video observations, I noted that all students were engaged in the same activity and area at the same time.

I defined subtheme four, the teachers "exhibit a mastery goal orientation" (Smith & Strahan, 2004, p. 367) as follows: Classes are "structured around learning objectives rather than performance goals" (Smith & Strahan, 2004, p. 367); Teachers direct students to focus on meaning-making, mastery, and self-improvement (Pintrich & De Groot, 1990; Slavin, 2006) and de-emphasize grades. In my review of the data set, I noted that the word *grade*, in relation to test-taking and scoring, was mentioned only once in a teacher's video.

Overwhelmingly, the teachers used the following terms that encourage improvement in their applications and videos: learn, achieve, grow, and progress. In his philosophy of teaching essay, Phil said, "I believe the only way for [kids to be taught well and allowed to lead the way] is for us to realize the potential of every child and believe that all kids can learn." Mandy said she taps into students' natural curiosity to engage them in learning.

While teachers provided little evidence of pacing and differentiation by learning environment, they shared a tendency to differentiate instruction by content, process, and product. In addition, they promoted a mastery goal orientation in their classrooms.

**Leadership and Service**

Smith and Strahan (2004) defined central tendency five as follows: "These teachers make contributions to the teaching profession through leadership and service" (p. 365). Smith and Strahan (2004) alluded to two subthemes: The teacher models for and mentors teachers, and the teacher informs school, district, and community policies and actions. While analyzing the data set, I found an additional subtheme: Teachers served the school and larger community. Of all of the themes discussed, the leadership and service theme was most widely discussed by expert teachers in this study. See Table 10 for a brief overview of central tendency five, leadership and service.

Table 10

*Overview of Central Tendency 5: Leadership and Service*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 5. These teachers make contributions to the teaching profession through leadership and service (Smith & Strahan, 2004). | Modeling for and mentoring teachers- relates to the teacher's involvement in improving current practice of pre-service, new, and veteran teachers by demonstrating lessons and helping teachers acquire skills that improve teaching and learning (Andrzejewski, 2008; Barth, 1990; York-Barr & Duke, 2004). | 5.1 | AP |
| | Informing school, district, and community policies and actions- relates to the teacher's involvement in improving current practice through activism, including service on various committees that impact education (Childs-Bowen, Moller, & Scrivan, 2000). | 5.2 | AP |
| | Serving the larger community- relates to the teacher's belief in the importance of community service, including the school and larger community; Teachers attribute this belief to a moral, ethical, or social responsibility or a belief in an interconnected world. | 5.3 | E |

*Note.* AP- a priori; E- emergent

I defined subtheme one, the teacher models for and mentors teachers, as follows: relates to the teacher's involvement in improving current practice of pre-service, new, and veteran teachers by demonstrating lessons and helping teachers acquire skills that improve teaching and learning (Andrzejewski, 2008; Barth, 1990; York-Barr & Duke, 2004). All four teachers said they were involved in mentoring, coaching, or modeling for other teachers. Phil said that he had served as the cooperating teacher for six Auburn University interns and numerous Auburn University lab and pre-teaching students. Recounting how he

modeled for and coached his colleagues in improving meaningful learning in their classrooms through technology, Roger said:

> In place of my individual successes with my students, I think that my greatest accomplishment has been my effect on the other educators I have worked with... Several years into my teaching career, I noticed that other teachers were coming to me one at a time to seek guidance on how to incorporate technology into their lessons.  It seems that they had sat back for several years watching as I connected with my students in ways they never believed possible.  They saw how I was using technology to teach my students in ways they had not dreamed possible. They listened as my students talked about how much they enjoyed my class and everything that they were learning.  They heard parents repeatedly compliment me on all my efforts to communicate with them and teach their children.  And they chose to join me in my efforts to bring our school into the 21st century.

Rachel, an art teacher, said she collaborated with academic teachers on integrating the arts into their classrooms; Both Roger and Mandy served as presenters at school, local, and regional professional development workshops.

In this study, the teachers articulated a sense of duty to model lessons, mentor teachers, and professionally develop their peers because they believed that helping other teachers helped students.

Roger said:

I feel it is how I have inspired other teachers to follow me on this
path to reach even more students. I am in this line of work for the
students whose lives I will change along the way.  Leaving a legacy
of helping other teachers change even more student's lives in
positive ways is truly greater than just counting the lives I have
touched and changed on my own.

As math department head and technology integration guru, Roger said he helps
teachers become better. Likewise, Mandy said:

I feel so strongly about this that I coach and mentor teachers to use
these same techniques and curriculum ideas in their classrooms.
When I can show other teachers how to develop their classrooms
to allow students to think and innovate, I am multiplying my ability
to touch students' lives.

These teachers contributed to the teaching profession by improving the
effectiveness of other teachers.

I defined subtheme two, the teacher informs school, district, and
community policies and actions, as follows: relates to the teacher's involvement
in improving current practice through activism, including service on various
committees that impact education (Childs-Bowen, Moller, & Scrivan, 2000). All
four expert teachers served as teacher leaders at their schools. Roger served as
his grade level team leader, math department head, member of the county

textbook committee, and member of his county's school improvement team, among several other positions. Mandy served as technology leader of the assistive technology team for her school system, technology coordinator for her school, and technology mentor for weekly after-school teacher and staff professional development. Phil, who was selected as Alabama Teacher of the Year, vowed to lobby for the teaching profession by speaking to stakeholders. Phil said:

> As Alabama Teacher of the Year, I will speak directly to those who make decisions impacting education and invite them to come into schools and experience education today. I will take them beyond the test scores and reveal individual stories of growth and achievement. My discussions will be centered on where we in the teaching profession have been, where we are going, and how we propose to get there. Firsthand experience will make a difference. I would remind them of a quote by Benjamin Franklin which states, 'If we do not hang together, we shall surely hang separately.' The future of our society relies on the education of this generation. We must work together to ensure its success…As a teacher, community member, and black male role model, I will continue to use my voice to advocate early intervention for our black males in hopes of closing the achievement gap.

These teachers used their voices, time, and talents to improve school, district, and community policies and actions for all teachers.

I defined subtheme three, the teacher serves the larger community, as follows: relates to the teacher's belief in the importance of community service, including the school and larger community; Teachers attribute this belief to a moral, ethical, or social responsibility or a belief in an interconnected world. This subtheme emerged from the several references that the teachers made to their sense of duty in serving the community. Mandy said:

> John Mackey, CEO of Whole Foods once said, 'All stakeholders are interdependent and connected together.' How true for education! What you do for the students influences the parents, the community, the businesses, and ultimately the state. We are all connected and I see that as a positive when I am participating in community service. I tell my students almost on a daily basis that we are family, and family takes care of family. The community takes care of each other, inspires each other, and provides for each other when there is a need. I try to live by this statement in my daily life, both inside and outside of school.

Phil said:

> The importance of community was instilled in me at a very young age. Watching my parents help relatives, friends, and neighbors who were in need gave me a sense of pride. It also fueled my curiosity of how I could become a more active contributing member of our community.

Roger's community service included serving as a foster parent, part-time police officer, charter member of the "Share the Beach" program, and Boy Scout leader. Mandy said she served as a missionary, children's minister at her church, and philanthropist. Ultimately, these teachers tied their community service back to their roles as educators. They said that modeling good citizenship was an important duty of teachers. Rachel said:

> I believe that it is so important to share God-given talents with others in the community and to cultivate that same spirit in the lives of young people. My commitment to the community is to model service through volunteerism to my students.

These teachers sought to model expected behaviors for students, while fulfilling a sense of duty to the community.

I found that the expert teachers in this study were involved in leadership inside of and outside of their schools. The expert teachers worked to improve current practice by modeling for and mentoring teachers; sought to inform school, district, and community policies and actions through committee-work and speaking engagements; and sought to improve the larger community through volunteer service.

Of all of the themes discussed, leadership and service was most widely discussed by expert teachers in this study. The high number of codes related to teachers serving the school and larger community may have been impacted by

the Criteria for Judging the Alabama Teacher of the Year Candidates. See Appendix 1.  Applicants were required to complete five essays to compete in the program, one of which was an essay on community involvement.  Participants were directed to "Describe your commitment to your community through service-oriented activities such as volunteer work, civic responsibilities, and other group activities" (Alabama State Department of Education, 2013).  Thus, further research is needed to determine if the amount of data gathered on subtheme three, which focused on community involvement inside and outside of school, increased in part because of the essay requirement.

**Content Mastery**

Smith and Strahan (2004) defined central tendency six as follows: "These teachers show evidence that they are masters of their content areas" (p. 365). Smith and Strahan (2004) alluded to two subthemes: subject matter knowledge and pedagogical knowledge. All four teachers provided evidence of the two subthemes. See Table 11 for a brief overview of central tendency five, content mastery.

Table 11

*Overview of Central Tendency 6: Content Mastery*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 6. These teachers show evidence that they are masters of their content areas (Smith & Strahan, 2004). | Subject matter knowledge- relates to a willingness to seek to improve practice through professional development, a willingness to collaborate with others (Smith & Strahan, 2004), and a willingness to engage in lifelong learning in an effort to remain current in educational practices. | 6.1 | AP |
| | Pedagogical knowledge- relates to a teacher's "knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter" (Shulman, 1987, p. 8); relates to the teacher's ability to convey subject matter to students and scaffold learning through the use of instructional strategies and effective classroom management techniques (Shulman, 1987). | 6.2 | AP |

*Note.* AP- a priori; E- emergent

I defined subtheme one, subject matter knowledge, as follows: relates to a

willingness to seek to improve practice through professional development, a

willingness to collaborate with others (Smith & Strahan, 2004), and a willingness

to engage in lifelong learning in an effort to remain current in educational

practices. Traditionally, subject matter knowledge relates to the teacher's

knowledge of "facts, values, ways of organizing ideas, theories, skills, strategies,

understandings, and conceptions tied to a discrete discipline" (Andrzejewski,

2008, p. 11). However, rating teachers' content knowledge is beyond the scope

of this study. Thus, as suggested by Smith and Strahan (2004), I used the

following indicators as evidence of subject matter knowledge: a willingness to seek to improve practice through professional development and a willingness to collaborate with others (Smith & Strahan, 2004). In addition, after analyzing the data set, I noted that all four teachers engaged in lifelong learning, which helped them remain current in educational practices.

All four teachers provided evidence that they were willing to improve practice through professional development. The teachers included professional biographies filled with professional development sessions they had attended. Phil noted that he had attended several sessions as a participant, including the following: the "What Great Teachers Do Differently" seminar, "English Language Learner" training, "Quality Questioning Book Study" sessions, "Powerful Conversations and Smart Goals" session, and several music workshops. Likewise, Mandy said she attended several state and national conferences, such as the "Understanding by Design Institute," "Alabama Educational Technology Conference," "National Educational Technology Convention," Florida Educational Technology Conference, and "Georgia Educational Technology Conference." In addition to biographies including the professional development sessions they attended, the teachers referenced their learning and its impact on instruction. Rachel said, "Through years of attending workshops, visiting museums, and conducting personal research, I have grown a great deal in my ability to provide students with background knowledge to enrich their work." The teachers articulated a belief in the importance of not just attending professional

development, but also reflecting upon the knowledge gained and using it to improve practice.

All four teachers provided evidence that they were willing to collaborate with others in relation to their subject matter. Rachel said, "My growth as a teacher at my school has been enriched yearly by opportunities that I have been provided to collaborate with educators across the state and nation." Rachel hosted several collaborative sessions for art teachers across her district. Providing additional evidence of Rachel's commitment to collaboration, one stakeholder said:

Since 2009, I have had the privilege of working and teaching photography in the adjoining classroom with Rachel. Since we teach common subject matter, we frequently collaborate on a variety of art-related projects that include: student assignments, guest artist workshops, student artwork exhibitions, and fieldtrips.

In addition to attending professional development and collaborating with others, all four teachers provided evidence that they believe in the importance of lifelong learning. Phil said:

I believe my greatest contribution to education is that I am still willing to learn how to be a better teacher. A teacher who continues to teach without learning current things is not properly preparing our students for the future. I try to stay on the edge of

new classroom technology and issues that affect the musical

classroom, as well as, the general education classroom.

Likewise, a supporter of Roger said that he remained current through

personal research. The stakeholder said, "He is tenacious in researching

topics using both printed resources and the Internet to ensure that he has

the best learning experiences to offer his students." In addition, Mandy

said she is pursuing an additional master's degree to further her study of

meaningful learning, and Phil is completing National Board Certification.

These teachers move beyond the professional development opportunities

provided by their school districts and seek out knowledge for themselves.

As indicated, previously, rating teachers' content knowledge is

beyond the scope of this study. Thus, I have analyzed key indicators that

provide insight: teachers' attitudes toward professional development,

commitment to lifelong learning, along with their willingness to collaborate

with colleagues. In addition to the aforementioned indicators,

stakeholders' statements attest to the teachers' rich understanding of their

content. One supporter of Rachel said, "Her depth of knowledge about art

education and years of experience have garnered her my respect and

admiration as well as the BTW faculty, students, and parents." Several

other stakeholders alluded to the teachers' knowledge of the content

through discussions of all that the students learned.

I defined subtheme two, pedagogical knowledge, as follows: relates to a teacher's "knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter" (Shulman, 1987, p. 8); relates to the teacher's ability to convey subject matter to students and scaffold learning through the use of instructional strategies and effective classroom management techniques (Shulman, 1987). All four teachers provided evidence that they used their pedagogical knowledge in relation to their content areas. In fact, many of their statements regarding pedagogy overlapped with their statements regarding differentiation. Roger noted his daily use of podcasts so that students could support themselves at home if they did not comprehend the lesson at school. In his classroom video, he demonstrated his use of Qwizdom Student Response System, a strategy for ensuring that he engaged with each student in the class every day. Qwizdom randomly selects students to answer questions throughout the class period, promoting equity in the class. Rachel and Mandy discussed their use of project-based learning and other instructional strategies within the class, and Phil used proximity and a rewards system to manage the class.

Stakeholders, many of them non-educators, provided evidence of the teachers' ability to combine content knowledge with pedagogical knowledge to increase student achievement. In support of Roger, one stakeholder said:

Roger is the teacher every high school math teacher wishes their students had first because he builds a rock solid math foundation that the students use the rest of their lives. Roger is the best

teacher I have ever seen from a purely academic point, but that is

only the beginning of what makes him exceptional.

Another supporter of Roger said, "Having a teacher with the ability to truly

teach and reach out children is a much rarer commodity." These expert

teachers provided evidence that they are knowledgeable of their content

and pedagogy.

I found that all expert teachers in this study provided evidence of content

mastery, combining content knowledge with pedagogical knowledge. However, I

concluded that Shulman's (1987) phrase "pedagogical content knowledge" (PCK)

should replace the term "content mastery" as a central tendency of expert

teachers.  Shulman (1987) described PCK as "that special amalgam of content

and pedagogy that is uniquely the province of teachers, their own special form of

professional understanding" (p. 8). He further described PCK as "the blending of

content and pedagogy into an understanding of how particular topics, problems,

or issues are organized, represented, and adapted to the diverse interests and

abilities of learners, and presented for instruction" (Shulman, 12987, p. 8). PCK

includes content knowledge and knowledge of how to tailor instruction for

students with diverse needs. PCK more closely encompasses the ideas

represented in this study, which should be reflected in the title of this central

tendency.

**Persistence**

Whereas Smith and Strahan (2004) did not discuss persistence as a central tendency of expert teachers, Gün (2014) found that expert teachers displayed persistence, which he described as "to continue explaining until a language point is fully understood" (Gün, 2014, p. 85). As discussed in the literature review, Gün (2014) did not elaborate further on the idea of persistence, besides providing two examples from his data set. One teacher said:

> I did not plan to spend this much time on explaining the word 'independent'. They did not get it with one example, so I had to give more examples and spend a lot more time than planned. I didn't want to let this go until I saw in their faces that they got the meaning of the word. At this point I totally forgot about what I had put in my lesson plan (Gün, 2014, p. 85).

Another teacher said, "I am an old school teacher. I am patient. I never let things go without having been learnt properly" (Gün, 2014, p. 85).

Elements of this definition are represented in the student-centered approach data as an action of a teacher responding to the needs of the students. However, while reviewing my data set, I noted that the teachers demonstrated persistence in creating lessons that encouraged students to rise to high, individualized standards. Thus, the data led me to forgo Gün's definition of persistence and redefine it to include students' needs to be challenged, supported, and held to high standards (Knapp, Shields, & Turnbull, 1995; Lee,

Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). I found three

subthemes, which were represented to varying degrees in the data set. The

subthemes are as follows: high expectations for students, high expectations for

teachers, and individualized academic press. See Table 12 for a brief overview of

central tendency seven, persistence.

Table 12

*Overview of Central Tendency 7: Persistence*

| First Order Category | Second Order Category and Definition | Code Number | Kind |
|---|---|---|---|
| 7. These teachers demonstrate persistence in creating lessons that encourage students to rise to high, individualized standards. | High expectations for students- relates to the teacher's belief that students should be held to high standards, including higher order thinking tasks that encourage students to be creative, free-thinkers(Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). | 7.1 | E |
| | High expectations for teachers- relates to the teacher's belief that teachers should be held to high standards in planning and executing high-quality lessons (Knapp, Shields, & Turnbull, 1995; Maye, 2013). | 7.2 | E |
| | Individualized academic press- relates to the teacher's belief that students should feel individualized press or challenge in the classroom (Blackburn & Williamson, 2013). | 7.3 | E |

*Note.* AP- a priori; E- emergent

I defined subtheme one, high expectations for students, as follows: relates

to the teacher's belief that students should be held to high standards, including

higher order thinking tasks that encourage students to be creative, free-thinkers

(Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton

& Midgley, 2002). All four teachers provided evidence of their belief in this

subtheme. As a gifted specialist and resource teacher, Mandy said she desired

to incorporate higher order thinking tasks and questions in every lesson. Mandy

said:

> I ask them to think differently than they have ever thought before.
> Sometimes students remark that my class makes their brains hurt,
> but the amazing ideas, innovations, projects, and products my
> students produce help me realize that I am doing the right thing. I
> know what they need to know, and the way I plan it and package
> the learning makes all the difference in the world.

In his overview of the revised Bloom's Taxonomy, Krathwohl suggested

six hierarchical categories of content depth from least complex to most

complex: remembering, understanding, applying, analyzing, evaluating,

and creating (Krathwohl, 2002). In Mandy's classroom practices and

stated beliefs, she encouraged students to complete tasks all along the

Bloom's Taxonomy, including projects and products that required students

to critique, which correlates with the revised Bloom's "evaluate" category,

and produce, which correlates with the revised Bloom's "create" category

(Krathwohl, 2002).

Like Mandy, Phil's percussion unit activities required students to

complete tasks within different taxonomy domains. Phil asked students to

recall previous knowledge of percussion instruments, or "remember";

determine how pianos create sound, or "understand"; organize different

instruments to determine how they create sound, or "analyze"; and produce their own homemade instruments, or "create."

Rachel said she embedded several opportunities for students to create into her lessons. Rachel said:

> My greatest contributions and accomplishments in education come from my belief that the future of society's growth and development is dependent upon the influence and the drive of creative teaching in classrooms. In my classroom, artistic skill and development are important, but what I know to be even more imperative to the future of my students is the value of emphasizing creative thought during the learning process. As a young student, I remember being encouraged to use my imagination, but as I got older, the emphasis on critical and creative thinking in school diminished significantly. I believe that once a student is provided the opportunity to be innovative and original in a classroom, the challenge of the lesson will be accepted because of individual ownership. My goal as a teacher is to encourage students to overcome obstacles and for them to find not just one, but many solutions to the challenges at hand in life and in learning.

These four teachers shared a belief in holding students to high standards by exposing students to higher order thinking tasks and encouraging individuality through creativity.

Subtheme two, high expectations for teachers, is defined as follows: relates to the teacher's belief that teachers should be held to high standards in planning and executing high-quality lessons (Knapp, Shields, & Turnbull, 1995; Maye, 2013). The ability to plan higher order thinking activities for students requires "conscious and concentrated effort" (Maye, 2013, p. 35) and "deliberate planning and conscientious practice" (Maye, 2013, p. 36). The expert teachers in this study persisted through the difficulty of creating advanced lessons, holding themselves to high expectations. Rachel said, "Educators must also have the stamina and courage to support change by addressing outdated educational practices that do not support the needs of students." In a letter of support for Roger, one stakeholder said, "He spends many hours developing technology-based experiences in his classes (which he happily shares with other teachers)." These teachers believed in sacrificing time and energy to ensure that students were equipped with the ability to think critically. Roger's statement summarizes this theme: "They need teachers who will raise the bar for them, demonstrating that while they hold high expectations for their students, they also hold high expectations of themselves as well."

Subtheme three, individualized academic press, is defined as follows: relates to the teacher's belief that students should feel individualized press or challenge in the classroom. Sometimes, teachers may believe that they are challenging the class as a whole, but individual students do not feel pressed according to their abilities (Middleton & Midgley, 2002). Three of the expert teachers in this study demonstrated a belief in individualized academic press.

Rachel said she focused heavily on individual skill and progress. She said, "In my class, students are challenged to find their own voice as an artist and to believe that what they accomplish during class is valuable." She further said, "In my class, students know that it takes stamina, passion, and perseverance to create a successful final product that tells the story of the individual producing the work." As noted relative to pacing, Rachel's art curriculum is skills-based, and students' individual skill mastery determines if they progress to the next level.

I found that the expert teachers in this study demonstrated a belief in the importance of persistence, including a belief in holding high expectations for students and themselves. These teachers sacrificed time and energy to craft unconventional lessons that encouraged students to think critically. The teachers helped students comprehend the content and encouraged meaningful learning by allowing students to analyze, evaluate, and create. I concluded that persistence is a central tendency exhibited by the expert teachers in this study. Thus, I recommend its addition to the six central tendencies of expert teachers originally proposed by Smith and Strahan (2004).

### Overlapping Subthemes

In this chapter, I briefly discussed the overlap among three sets of subthemes. First, I noted that subtheme 4.1, teachers take responsibility for student learning, is interconnected with subthemes 3.1 and 3.2, teachers conscientiously build relationships with students and parents. Secondly, I noted that subtheme 4.2, teachers are responsive to students' needs, is interconnected

with subtheme 2.4, students and teachers share directional power. Thirdly, I noted that subtheme 6.2, pedagogical knowledge, is interconnected with subtheme 4.3, differentiation. In these cases, I applied "two or more codes to a single datum" (Saldana, 2009, p. 5) because the data pieces were closely connected by similarity, sequence, correspondence, or causation (Saldana, 2009). In his book, The Coding Manual for Qualitative Researchers, Saldana (2009) emphasized that "data within [qualitative inquiry] cannot always be precisely and discretely bounded" (p. 6). Instead, as Sternberg and Horvath (1999) suggested, "categories tend to be 'fuzzy' on the issue of whether particular objects are valid category members" (p. 10). Thus, some pieces of data were simultaneously coded (Saldana, 2009).

Subtheme 4.1, teachers take responsibility for student learning, entails teachers taking personally the successes and failures of their students; Subthemes 3.1 and 3.2 describe expert teachers' practice of conscientiously building relationships with students and their parents. Naturally, concerned parents connect with teachers who make a difference in their children's lives, and students maintain positive emotions about teachers who help them succeed. Thus, one way that teachers are able to conscientiously build relationships with students and parents is by helping students achieve success. Subtheme 4.1 is interconnected with subthemes 3.1 and 3.2 by a correspondence pattern, or "in relation to other activities or events" (Saldana, 2009, p. 6). See the following data example from study participant, Rachel:

"I also feel rewarded by the relationships that I have gained with my current students. During my first year of teaching at BTW, I had the pleasure of instructing Chintia, who lived in Indonesia prior to moving to the United States. She knew very little English but had such a natural artistic talent and drive to learn as much as she could in her studies. Chintia's parents were very supportive of her, but they could not help her with writing and English."

Rachel, an art teacher and participant in this study, went on to discuss how she was able to help the student develop her English and art skills, attend college, and receive a fellowship for a master's program. She further indicated that the student returned to her class during school breaks to help other students. Rachel's ability to develop a relationship with Chintia (subthemes 3.1), was closely connected to her ability to take responsibility for Chintia's learning by ensuring her success in English as well as art.

Similarly, subtheme 4.2, teachers are responsive to students' needs, is interconnected with subtheme 2.4, teachers and students share directional power. Subtheme 4.2 describes teachers' attitudes toward structuring activities around the needs of students, pacing appropriately, and connecting content to the real world. Subtheme 2.4 involves teachers' attitudes toward providing student choice in curriculum decision-making based upon interest surveys and polls. The data related to these two subthemes was closely connected through the correspondence pattern. See the following example from study participant Mandy:

Carolena was a fourth grade student and ballet dancer. She

danced every day, putting in almost thirty hours a week after

school. Her path was set. She had the lead role in the Nutcracker

that year and thought only of how she could make her dancing

perfect for the final performance. How did I get her attention? What

seemed natural to me as a personal teaching style may not be to

others- allow students freedom and flexibility while learning.

Mandy responded to the student's need to relate the lesson to her life. In

addition, she shared directional power with the student by allowing her to select

the topic for her study. Subthemes 4.2 and 2.4 shared a close relationship in that

they seemed to occur together within the data.

Finally, subtheme 6.2, pedagogical knowledge, is interconnected with

subtheme 4.3, differentiation. Pedagogical knowledge relates to the teacher's

ability to convey subject matter to students and scaffold learning through the use

of instructional strategies and effective classroom management techniques

(Shulman, 1987). Differentiation involves tailoring the content, process, product,

or learning environment to the needs of individual students (Tomlinson, 2000).

These two themes also appeared in the data through the correspondence

pattern. Consider the following example in which one stakeholder described

study participant Roger's class:

"In math class, he explains to them many different ways to reach the

same conclusion. He gives them different ways to think about how and

why a math problem turns out the way it does, and as you already know,

each child thinks differently, and it helps them to grasp the math concept

in their own way. They may not understand the math equation in the same

ways, but each child feels great about their accomplishment once they

master a problem."

Roger differentiated the process, or "the activities in which the student engages

in order to make sense of or master the content" (Tomlinson, 2000, p. 2) by

providing multiple pathways toward understanding the skill. In addition, he used

his pedagogical knowledge, or ability to convey subject matter using multiple

means, in order to effectively instruct the students.

## Summary

In this study, I grounded a theory of teacher expertise by collecting and

analyzing classroom videos, essays, and stakeholder letters of support for

teachers selected as district winners in the state-wide Alabama Teacher of the

Year competition. The theory I grounded is that expert teachers share seven

central tendencies: These teachers exhibit confidence in themselves and their

colleagues; promote classroom community by increasing student input in

decision-making; foster positive teacher-student relationships, practice a student-

centered approach; lead teachers and other stakeholders in educational

decision-making and serve the larger community; meet indicators that support

content mastery; and persist in setting high standards for themselves and for

students collectively and individually.

CHAPTER 5: CONCLUSION

Many researchers have contributed to our understanding of teacher expertise by comparing expert teachers to non-experts (Carter, et.al., 1988; Gonzalez & Carter, 1996; Ho & Liu, 2005; Livingston & Borko, 1989; Qiong & Yujing, 2009; Westerman, 1991) or comparing more experienced pre-service teachers to less experienced pre-service teachers (Byra & Sherman, 1993). In their call for a reconceptualization of teacher expertise, Sternberg and Horvath (1995) suggested a study of teacher expertise that noted similarities among expert teachers. Maslow said:

> If we want to know how fast a human being can run, then it is of no use to average out the speed of a 'good sample' of the population; it is far better to collect Olympic gold medal winners and see how well they can do. (1971, p. 6)

Likewise, if researchers want to study excellence in teaching, then it is of less use to average out the practices and beliefs of a "good sample" of all teachers; it is more useful to study the beliefs and practices of expert teachers.

Drawing upon the recommendations of Sternberg and Horvath (1995), three studies have been conducted that compared expert teachers using a

prototype view (Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004).

These researchers found six central tendencies of expert teachers: confidence,

classroom community, teacher-student relationships, student-centered approach,

leadership and service, and content mastery. Gün (2014) found an additional

central tendency that he termed "persistence." Because only three studies were

conducted and these researchers (Gün, 2014; Li, Huang, & Yang, 2011; Smith &

Strahan, 2004) included a combined sample size of less than 20 participants,

further research was needed to verify their findings. Therefore, the purpose of

this study was to explore similarities in the 2009-2013 Alabama Teacher of the

Year applications; replicate past studies of teacher expertise that used a

categorization, prototype model; and ground a theory of expert teaching. I used

one research question to guide my study, along with four supplementary

questions.

## Research Question

How were 2009-2013 Alabama Teacher of the Year applications similar?

a. What words and phrases did teachers use to describe their practice?

b. What meanings did these teachers attach to these descriptions?

c. What concepts related to teaching appeared across participants?

d. How were these concepts categorized and integrated into a prototype

that represents the central tendency of these teachers?

## Summary of Findings

I studied four teachers who participated in the Alabama Teacher of the Year program between 2009 and 2013. The teachers submitted their Alabama Teacher of the Year application packets which contained teaching philosophies, stakeholder letters of support, educational histories and biographies, teacher of the year messages, community involvement essays, and essays that discussed education trends and solutions. Each teacher included a 15-minute video recording of a lesson.

These teachers represented elementary and secondary schools and were teaching math, gifted and resource, art, and music courses at the time of this study. Combined, the teachers have taught first through twelfth grade, along with the following subjects: math, English, history, art, music, photography, journalism, special education, and gifted courses. I found that the teachers identified with the six central tendencies of teacher expertise originally proposed by Smith and Strahan (2004). I found that the teachers articulated beliefs or demonstrated practice of all of the themes, to varying extents.

### Themes and Subthemes

Theme one, confidence, included these subthemes: subtheme 1.1, confidence in self; subtheme 1.2, confidence in teaching ability; and subtheme 1.3, confidence in fellow teachers. All teachers provided evidence of subthemes 1.1 and 1.2, and two teachers provided evidence of subtheme 1.3, an emergent code. Because teaching is such a complex, fluid field, self-confidence is critical

for longevity (Bandura, 1992; Friedman & Farber, 1992). I found that some teachers' past positive relationships with their own parents and teachers were closely connected to their confidence.

Theme two, classroom community, included these subthemes: subtheme 2.1, guide on the side; subtheme 2.2, shared verbal power; subtheme 2.3, shared physical space; and subtheme 2.4, shared directional power.  Three teachers provided evidence of subtheme 2.1; two teachers provided evidence of subthemes 2.2 and 2.3, and all four teachers provided evidence of subtheme 2.4. The classroom community theme is based in constructivist views of learning, views that the teacher's role is to strengthen and guide students' skills in solving real-world problems (Anderson, Greeno, Reder, & Simon, 2000; Brown, Collins, & Duguid, 1989; Slavin, 2006). To that end, the teachers articulated a belief in ensuring that "schooling provides more than a series of lectures and discrete workbook exercises" (Slavin, 2006, p. 243), including opportunities for discovery and discourse.

Theme three, teacher-student relationships, included these subthemes: subtheme 3.1, conscientious relationship-building with students and subtheme 3.2, conscientious relationship-building with parents. All four teachers provided substantial evidence of subthemes 3.1 and 3.2. In fact, of all of the themes studied, teachers discussed their relationships with parents and students more than all themes except the leadership and service theme (subtheme 5.1, 5.2, and 5.3). I found that the expert teachers studied held a strong belief in initiating and maintaining positive relationships with students and parents, and they articulated

that fostering positive relationships with students and parents helped families know that they cared.

Theme four, student-centered approach, included these four subthemes: subtheme 4.1, "take responsibility for student learning"; subtheme 4.2, "are responsive to students' needs"; subtheme 4.3, instruct and "assess students in a variety of ways"; and subtheme 4.4, "exhibit a mastery goal orientation" (Smith & Strahan, 2004, p. 367). Of all the central tendencies of teacher expertise, I found the least amount of evidence for three subthemes, all of which were subthemes of the student-centered approach. Those subthemes are 4.1, take responsibility for student learning; 4.2., responsive to students' needs; 4.3, assess students in variety of ways.

Subtheme 4.1, take responsibility for student learning, indicates that teachers take personally the failures and successes of their students (Smith & Strahan, 2004). While teachers provided vast evidence that they took responsibility for students' successes, I found no evidence that the teachers took responsibility for the failures of their students. However, the instruments used for this study may have impacted this subtheme. Since teachers were submitting a competitive application, they may have been leery of recalling a time when they had failed in lesson planning, content delivery, or pedagogical skill.

For subthemes 4.2, responsive to students' needs, and 4.3, instruct and assess students in a variety of ways, I found partial evidence.  Subtheme 4.2, responsive to students' needs, indicates that expert teachers support students

through appropriate pacing and connecting the content to the real world. I found little evidence that the expert teachers in this study responded to students' needs in regard to pacing. Only two teachers discussed pacing, and one teacher's descriptions were not detailed. Subtheme 4.3, instruct and assess students in a variety of ways, indicates that expert teachers should differentiate by content, process, product, and learning environment. I found no evidence of learning environment differentiation. Tomlinson (2000) said that differentiation of the learning environment can positively impact the classroom environment, promoting inclusion, acceptance, and diversity. Likewise, appropriate pacing can make students feel supported. Thus, further research should be conducted to determine if supportive pacing and differentiation by learning environment are subthemes that are important to expert teachers, particularly for teachers of diverse populations of students.

Conversely, I found that the expert teachers in this study provided evidence that they assessed students in a variety of ways (subtheme 4.3) and promoted a mastery goal orientation (subtheme 4.4). The teachers, their stakeholders, and classroom video footage all provided evidence that the teachers differentiated instruction by content, process, and product. In addition, the teachers overwhelmingly used mastery goal orientation language in their statements of belief as well as their classroom practices. Thus, I concluded that the expert teachers in this study shared a central tendency to differentiate instruction by content, process, and product, and they also promoted a mastery goal orientation in their classrooms.

Theme five, leadership and service, included these subthemes: subtheme 5.1, modeling for and mentoring teachers; subtheme 5.2, informing school, district, and community policies and actions; and subtheme 5.3, serving the school and larger community. The latter subtheme was an emergent code. All teachers provided evidence of all subthemes. Of all of the themes, leadership and service was most widely discussed by expert teachers in this study. These teachers articulated beliefs and demonstrated practices of serving the teaching profession through mentorship and activism. Additionally, these teachers showed an extraordinary commitment to the larger community through volunteerism. These teachers have acted as missionaries, police officers, Boy Scout leaders, philanthropists, etc. The teachers recognized community service as an important professional duty that teachers should model for students.

Theme six, content mastery, included two subthemes: subtheme 6.1, subject matter knowledge and subtheme 6.2, pedagogical knowledge. All teachers provided evidence of the two subthemes. Because determining content knowledge was beyond the scope of this study, I used three indicators as evidence of subject matter knowledge: a willingness to seek to improve practice through professional development, a willingness to collaborate with others (Smith & Strahan, 2004), and a willingness to engage in lifelong learning. After reviewing teachers' evidence of subject matter knowledge and pedagogical knowledge, I concluded that Shulman's (1987) phrase "pedagogical content knowledge" (PCK) should replace the term "content mastery" as a central tendency of expert

teachers because it more accurately reflects the way this theme was demonstrated by the teachers.

Gün (2014) originally proposed theme seven, persistence, as an additional central tendency of teacher expertise. He defined persistence as follows: "to continue explaining until a language point is fully understood" (p. 85). Gün (2014) provided two quotes from his data set that reflected the idea of teachers continuing to clarify their instruction until it was understood by the students. Elements of this definition were embedded in theme four, student-centered approach, as an action step toward responding to the needs of the students. However, after continuing to analyze the data, I noticed that one teacher in my study discussed responding to students' needs, like the teachers in Gün's study, but overwhelmingly, the teachers discussed a different concept: planning and executing cognitively demanding lessons that challenged students individually and collectively. Gün's definitions and examples related to expert teachers' reactive need to ensure understanding.

The data from my study revealed that expert teachers also proactively formed lessons that were challenging to create and challenging for students to complete. Therefore, theme seven, persistence, included these subthemes: high expectations for students, high expectations for teachers, and individualized academic press. The data suggested that the link to each of the subthemes was expert teachers' resolution to require the best of their students and themselves, hence the theme heading, persistence.

All four teachers provided evidence of all three subthemes. They provided evidence that they challenged themselves to consistently deliver high quality lessons, embedding higher order thinking questions and tasks in their lessons. Summarizing the tenets of this theme, study participant Rachel said, "I am persistent in my effort… to produce students who are driven to create thoughtful and reflective artwork." I concluded that persistence should be recognized as a separate central tendency because study participants articulated the belief and demonstrated the practice of consistently challenging themselves as well as their students. These teachers recognized the difficulty in consistently creating rigorous lessons, yet they persisted in their efforts to challenge students individually as well as collectively.

**Role of Framework**

I used three lenses to ground my study: the prototype lens of teacher expertise (Sternberg & Horvath, 1995); the categorization model as proposed by Sternberg & Horvath and formed by Smith and Strahan (2004) and Gün (2014); and the Criteria for Judging the Alabama Teacher of the Year Candidates (Alabama State Department of Education, 2012-2013). Each lens played a key role in my study, as outlined below.

First, the prototype model helped me narrow the scope of my study. The prototype model states that researchers should only include participants who "bear a family resemblance" and are "perceived to be similar—'seem to go together'" (Sternberg & Horvath, 1995, p. 9). Thus, I narrowed my participants to

Alabama teachers who had reached the semi-finals or higher in the Alabama

Teacher of the Year program within a five year-span.

Second, I used the categorization model of teacher expertise to form a

priori codes. I analyzed the data multiple times using reading and memoing, open

coding, axial coding, and selective coding. After completing this process, I

compared my categories to the a priori codes formed by Smith and Strahan

(2004) and Gün (2014). A key part of my study was verifying Smith and Strahan's

six central tendencies of teacher expertise, as well as Gün's additional central

tendency. As noted above, I concurred with the findings of Smith and Strahan.

However, I dissented with the findings of Gün.

Third, I used the Criteria for Judging the Alabama Teacher of the Year

Candidates to frame my study. See Appendix 1. The criteria mandated that

teachers write essays on the following topics: educational history, professional

biography, community involvement, philosophy of teaching, education issues and

trends, and Alabama teacher of the Year message. In addition, the judges

required that teachers submit stakeholder letters of support. The judging criteria

impacted this study in two main ways: It provided a guide to the topics the

committee valued, and it directed the teachers' focus to the topics assigned. At

the beginning of the study, I surmised that the criteria would limit the topics the

teachers discussed. However, the range of topics the teachers discussed

seemed to indicate that they were not hampered by the criteria. Instead, they

artfully embedded the judging requirements within their individual essays.

**Role of Constructivism**

Based heavily in the work of Piaget and Vygotsky, constructivist theories

of learning are "theories that state that learners must individually discover and

transform complex information, checking new information against old rules and

revising rules when they no longer work" (Slavin, 2006). Teachers who identify

with constructivist theories employ the following theories: social learning (i.e.

cooperative learning, discovery learning, and project-based learning) as well as

mediated learning (i.e., self-regulated learning, scaffolding, and top-down

processing). The data suggested that the teachers in this study articulated beliefs

or demonstrated practice of several constructivist theories of learning.  Of the

seven themes I formed through data analysis, I noted that five were deeply

connected to constructivist theories of learning: classroom community, student-

centered approach, leadership and service, content mastery, and persistence. I

noted that the three themes were heavily connected to constructivist learning

theories through social learning and mediated learning goals.

Two key, overlapping schools of thought guide constructivist practices.

First, "teachers cannot simply give students knowledge. Students must construct

knowledge in their own minds. The teacher can facilitate the process…" (Slavin,

2006, p. 243). Thus, the teachers in this study created communities of learners

(theme 2) in which they served as guides on the side (subtheme 2.1). Second,

the teacher's role as a facilitator was to teach "in ways that make information

meaningful and relevant to students, by giving students opportunities to discover

or apply ideas themselves, and by teaching students to be aware of and consciously use their own strategies for learning" (Slavin, 2006, p. 243).

As a strategy for helping students construct their own knowledge and engage in their classroom communities (theme 2), the teachers utilized social learning theories (i.e. cooperative learning, discovery learning, and project-based learning). The teachers encouraged students to share verbal power (subtheme 2.2) through collective discourse, physical space (subtheme 2.3), and directional power (subtheme 2.4). The teachers removed the mental barriers to their classroom by offering students opportunities to learn and serve the larger community (subtheme 5.3) through community service projects.

As a second strategy for helping students construct their own knowledge and improve metacognition, the teachers utilized mediated learning theories, which state that "students should be given complex, difficult, realistic tasks and then be given enough help to achieve these tasks" (Slavin, 2006). The teachers provided support by responding to students' needs (subtheme 4.2) for appropriate pacing and connection to the real world; taught and assessed students in a variety of ways (subtheme 4.3); and promoted a goal mastery orientation by emphasizing achievement and personal mastery. The mediated learning theories promote persistence (theme 7) by encouraging high expectations for students (subtheme 7.1) and individual challenge (subtheme 7.3).
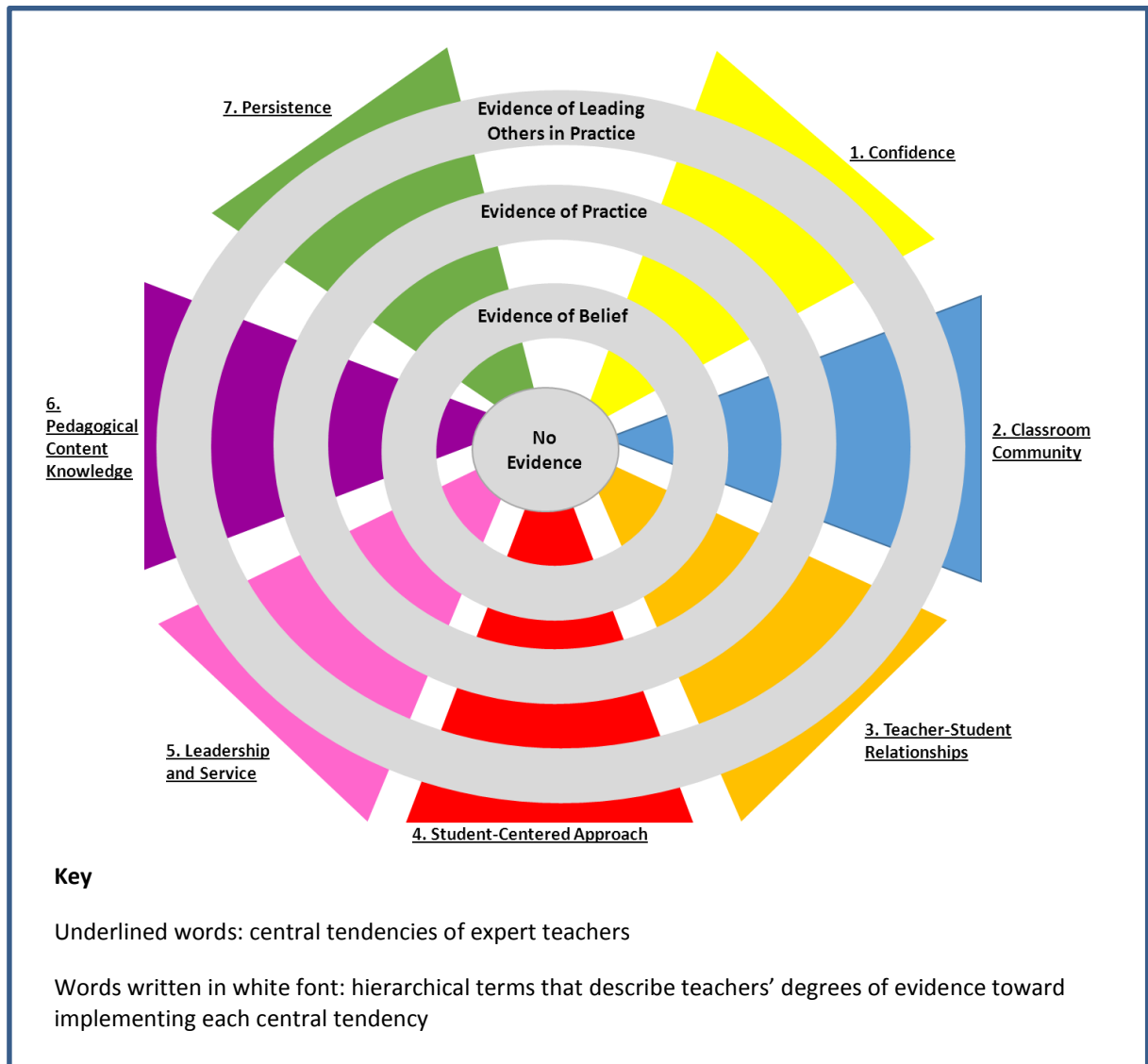
## Important and Novel Contributions

Sternberg and Horvath (1995) said that a prototype view yielded two results. "First a prototype view allows us to adopt a fuller, more inclusive understanding of teacher expertise without falling into a trap of making everyone a presumptive expert" (Sternberg & Horvath, 1995, p. 9). Second, the prototype view encouraged a "basis for understanding apparent 'general factors' in teaching expertise" (Sternberg & Horvath, 1995, p. 9). This study provided four contributions to the research on teacher expertise using a categorization, prototype model:  the addition of a visual representation of the grounded theory, the formation of subthemes that support existing themes, the addition of two new subthemes, and the addition of one major theme. I believe that this study contributed to a "more inclusive understanding of teacher expertise" (Sternberg & Horvath, 1995, p. 9) because it included broad themes, subthemes, and exemplars that captured a range of beliefs and practices.

### Visual Representation of the Grounded Theory

Smith and Strahan (2004) identified six central tendencies of expert teachers. In this study, I verified the six central tendencies and identified one additional central tendency. I noted that teachers provided varying degrees of evidence related to each central tendency. In an effort to demonstrate the relationship between the central tendencies and the strength of the evidence teachers provided in their application packets, I created The Grounded Theory of the Central Tendencies of Expert Teachers Figure. See Figure 3.

Key

Underlined words: central tendencies of expert teachers

Words written in white font: hierarchical terms that describe teachers' degrees of evidence toward implementing each central tendency

*Figure 3*: The Grounded Theory of the Central Tendencies of Expert Teachers Figure

I included four hierarchies to categorize teachers' evidence of each central tendency, from least to greatest. The no evidence rating means the teachers did not include discussions or practices of the central tendency. The evidence of belief rating means the teachers recognized or explained the importance of the central tendency but did not provide specific examples of their use of the central

tendency. The evidence of practice rating means the teachers provided specific

evidence of implementing or testing the central tendency. The evidence of

leading others in practice rating means the teachers provided specific evidence

of implementing the central tendency, and they also instructed, modeled, or

mentored others in utilizing the central tendency. The figure demonstrates that

the hierarchies are connected to each central tendency. As a teacher starts from

the center, the no evidence rating, and moves closer to a central tendency, the

teacher increases practice of the central tendency.

**Subthemes that Support Existing Themes**

In previous qualitative studies of teacher expertise that used a

categorization model to note central tendencies (Gün, 2014; Li, Huang, & Yang,

2011; Smith & Strahan, 2004), the researchers organized the categories around

themes. However, in this study, I added an additional hierarchical layer, including

subthemes and definitions that supported the major themes. While many of the

subthemes were alluded to in the previous three studies, they were not explicitly

defined. See Appendix 5, Abbreviated Codebook, for a complete list of the

subthemes and their definitions.

Each subtheme provided checkpoints toward evidence of each

overarching theme, providing a clearer indication of each teacher's beliefs and

practices. See Figure 4, which shows how I plotted study participant Roger's

application packet data using The Grounded Theory of the Central Tendencies of
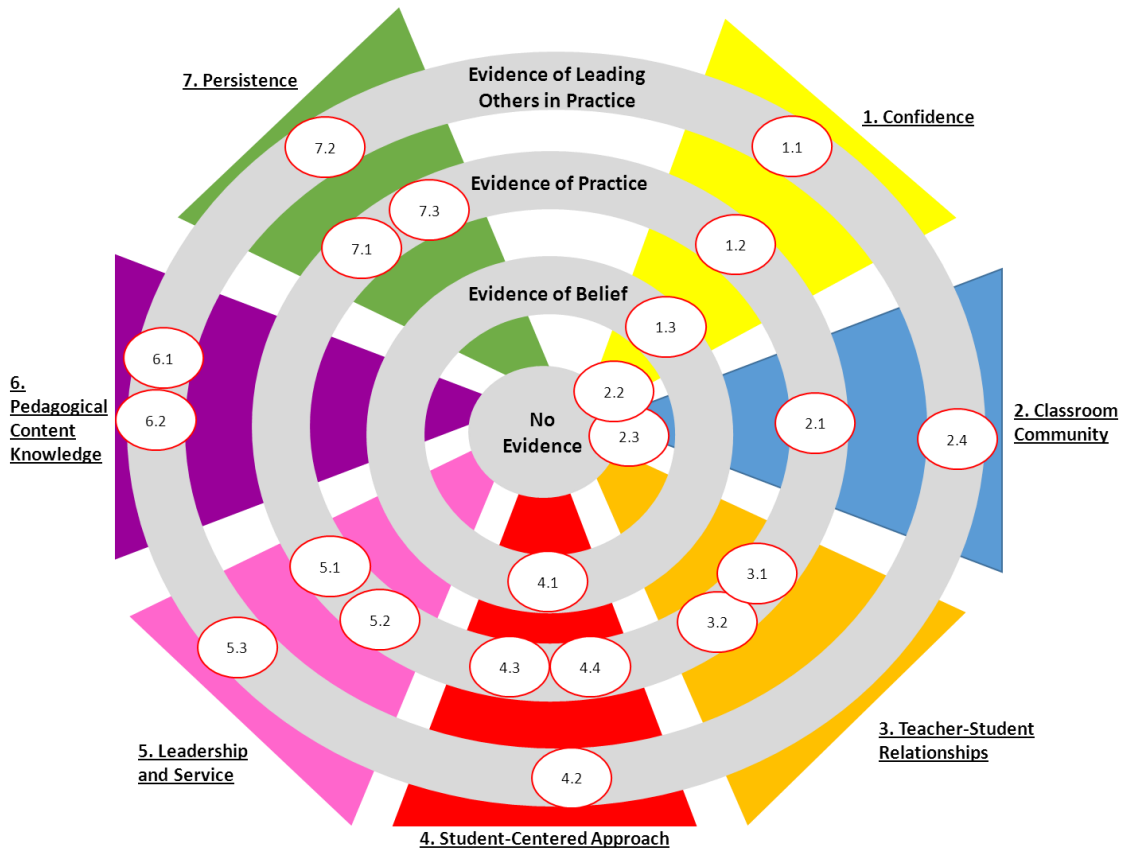
Expert Teachers Figure.

*Figure 4.* Roger's data plot of the central tendency subthemes using The Grounded Theory of the Central Tendencies of Expert Teachers Figure.

Figure 4 demonstrates the span of Roger's beliefs and practices, as evidenced by his application packet. As was the case with each participant, Roger provided evidence of practice or evidence of leading others in practice in a majority of the subthemes. In addition to highlighting areas of strength, the figure also demonstrates the areas in which Roger provided the least amount of evidence. The areas in which he provided no evidence were areas in which participant Mandy led others in practice. See Appendix 6 for a visual representation of each teacher's alignment to the subthemes.

The visual representations demonstrate that the study participants provided more evidence of some subthemes than other subthemes. Consider the following example. Subtheme 2.2, shared verbal power, emphasizes that the students' voices are heard in the classroom just as much or more than the teacher's. In this study, Roger provided no evidence of belief; Rachel provided evidence of belief, Phil provided evidence of practice, and Mandy provided evidence of leading others in the practice. During Mandy's video-taped lesson, another teacher observed Mandy to learn how to use the Socratic circle, a teaching method that promotes student discourse in the classroom. This variance among the four teachers is important because it allowed me to "adopt a fuller, more inclusive understanding of teaching expertise" (Sternberg and Horvath, 1995, p. 9) as I created the subthemes, the stepping stones toward each broad theme. It also allowed me to conceptualize this variance in The Grounded Theory of the Central Tendencies of Expert Teachers Figure. The results indicated that not all experts excel at all things all of the time. Thus, a prototype is unlike a recipe or formula because it captures a range of beliefs and practices of expert teachers. Themes represent the varied ways of practicing a central tendency. Thus, an expert teacher may not fulfill all components of a subtheme in order to demonstrate proficiency within a central tendency.

**Two New Subthemes**

Subtheme 5.3, community service, is a new contribution. This subtheme emerged after I encountered several statements related to teachers' service to the larger community. Several personal beliefs of expert teachers are not

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"requirements" of the teaching profession, but they were tendencies of the experts in this study.

Another new subtheme, confidence in fellow teachers, calls attention to the importance of school-based collective teacher efficacy. During the data collection phase, I noted that many of the teachers who were eligible for this study taught at the same schools. Calik and colleagues (2012) found that teachers' collective beliefs in their instructional capability affected school climate, and Goddard (2001) found that teachers' collective efficacy affected the choices the teachers made. In addition, the teachers in this study discussed the important ways in which they relied on collaboration with their peers to improve student achievement.

**One New Major Theme**

Gün (2014) first discussed persistence as a central tendency of expert teachers. However, as discussed previously, the definition Gün (2014) provided focused on teachers' reactive tendency to continue explaining a concept until satisfied that students have acquired knowledge. On the contrary, the persistence described by most teachers in this study focused on rigorous expectations that teachers place on themselves and their students. In this study, persistence is defined as teachers' beliefs that all students should be challenged, supported, and held to high standards (Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). I used this definition

and three new subthemes to contribute to the research on central tendencies of expert teachers.

Like community service, persistence represents a personal belief that is not an explicit requirement for teachers (AQTS, 290-3-3-.04). The subthemes are high expectations for students, high expectations for teachers, and individualized academic press. All teachers identified with the subthemes high expectations for students and teachers. Three of the four teachers identified with individualized academic press.

## Practical Recommendations for Practitioners

The purpose of this study was to explore similarities in the 2009-2013 Alabama Teacher of the Year applications; replicate past studies of teacher expertise that used a categorization, prototype model; and ground a theory of expert teaching. Ultimately, my goal was to conduct a study of teacher expertise that informed the work of educational leaders and teachers. Therefore, I included two major practical recommendations for practitioners. First, I compared and contrasted the Alabama Quality Teaching Standards to the central tendencies of teacher expertise and provided suggestions to practitioners. Second, I provided a self-assessment tool that education leaders and experienced teachers can use heuristically to select appropriate professional development.

### Alabama Quality Teaching Standards

The Alabama Administrative Code (AAC) provides specific standards that Alabama teachers should meet as they seek professional competence. These

standards are outlined in the AAC as the Alabama Quality Teaching Standards (AQTS), which state, "Pursuant to the mission of improving the academic achievement of all students in the public schools of Alabama, teachers will align their practice and professional learning with the following standards" (290-3-3-.03, p. 3-3-28). The AQTS consist of five standards and 131 indicators. Standard 2, "Teaching and Learning," contains 46 indicators, the most of all of the standards. See Table 13 for an overview of the AQTS.

Table 13

*Alabama Quality Teaching Standards Overview*

| Standard Number | Topic | Subtopics | Number of Indicators |
|---|---|---|---|
| 1 | Content Knowledge | Academic Discipline, Curriculum | 8 |
| 2 | Teaching and Learning | Human Development, Organization and Management, Learning Environment, Instructional Strategies, and Assessment | 46 |
| 3 | Literacy | Oral and Written Communications, Reading, Mathematics, and Technology | 24 |
| 4 | Diversity | Cultural, Ethnic, and Social Diversity, Language Diversity, Special Needs, Learning Styles, and General | 20 |
| 5 | Professionalism | Collaboration, Continuous, Lifelong Professional Learning, Alabama-Specific Improvement Initiatives, School Improvement, Ethics, and Local, State, Federal Laws and Policies | 33 |

The AQTS provide the framework for EDUCATEAlabama, "the system that provides the instrumentation and procedures for collecting and analyzing

information about an educator's current level of practice within the continuum" (Starkey, 2012, p. 13).

Of the 131 indicators, I found that 65 indicators were closely aligned with the central tendencies of expert teachers who participated in this study. One theme and two subthemes included in this study were not addressed in the AQTS. See Figure 5 for a visual representation of the central tendencies included in the AQTS.
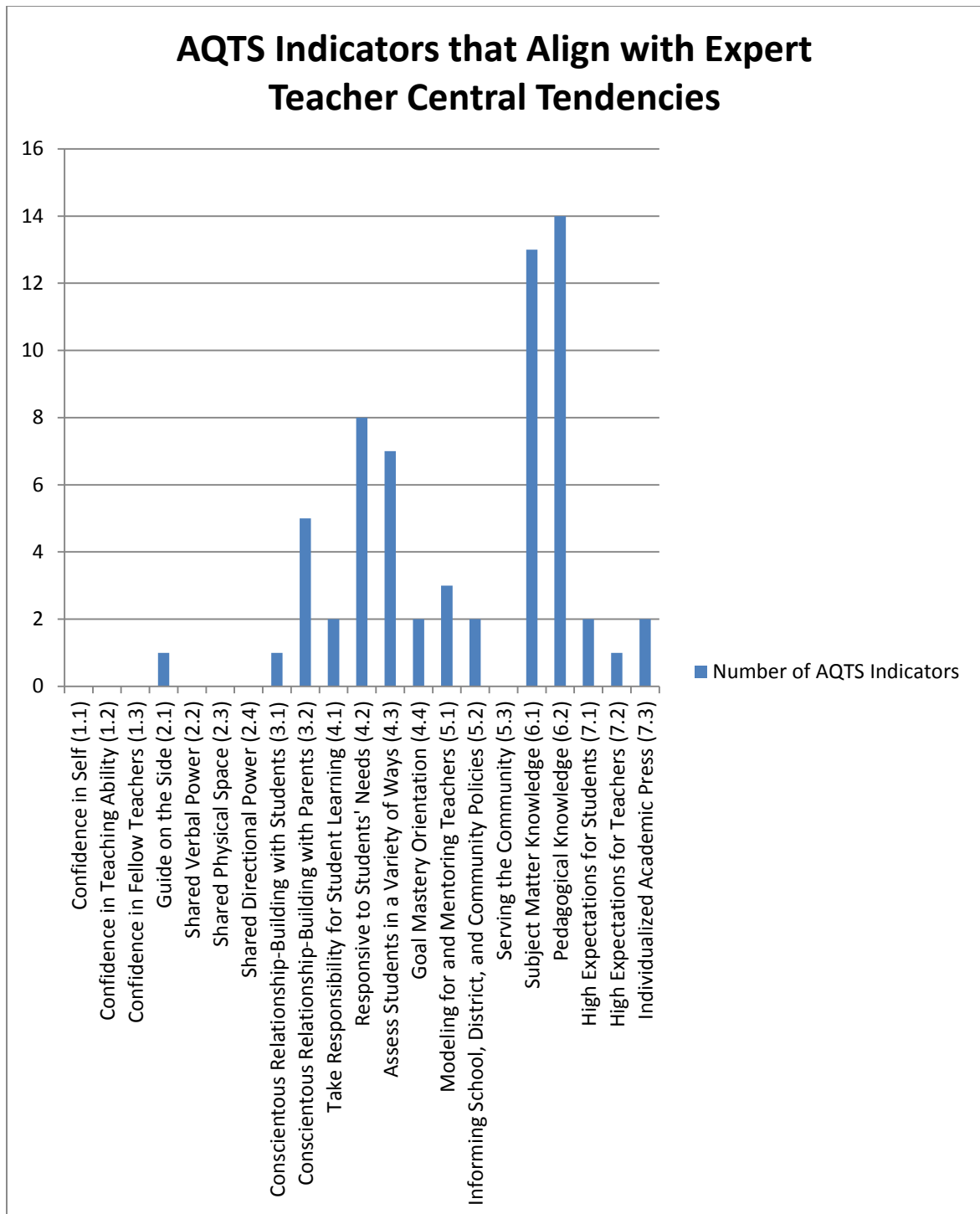
*Figure 5.* AQTS indicators that align with expert teachers' central tendencies

The AQTS do not address some personal and philosophical beliefs and

practices that researchers have identified as central tendencies of expert

teachers. These personal beliefs were not addressed in the AQTS: confidence in self, confidence in teaching ability, (Bradford, 2015; Gün, 2014; Li, Huang, & Yang, 2011; Smith & Strahan, 2004), confidence in fellow school-based teachers (Bradford, 2015), and high expectations for teachers (Bradford, 2015). Second, the AQTS do not address these philosophical beliefs and practices: guide on the side, shared verbal power, shared physical space, shared directional power, and community service.

The AQTS provide a solid framework for pre-service, beginner, and experienced teachers, outlining ethical, legal, and professional responsibilities. The AQTS outline rudimentary concepts such as "Knowledge of standard oral and written communications" (Alabama Administrative Code, Ch. 290-3-3, p. 3-3-34), "Ability to access school, community, state, and other resources and referral services" (Alabama Administrative Code, Ch. 290-3-3, p. 3-3-42), as well as more complex concepts. Thus, I recommend that experienced practitioners utilize the central tendencies of expert teachers in conjunction with the AQTS to help them reflect upon and improve their current practice. The AQTS likely do not include the personal beliefs outlined above because they are difficult to measure or enforce. Likewise, I do not recommend that those subthemes be connected to teacher evaluations. Instead, they can be used heuristically. Likewise, I surmise that the AQTS do not include the philosophical beliefs outlined above because the AQTS do not mandate a specific philosophy of teaching. These subthemes are heavily based in the constructivist approach and are not requirements. Instead, they represent the tendencies of expert teachers in this and previous

studies. Teachers can use these subthemes to analyze their own practice and make discoveries about themselves.

One important benefit of the central tendencies is their prototype nature. When Sternberg and Horvath (1995) called for a reconceptualization of teacher expertise, they noted that a prototype view could provide "variability in the profiles of individual experts" (9). Whereas the AQTS provide standards that all teachers must meet, the prototype view provides an additional layer of indicators with which expert teachers align. Sternberg and Horvath (1995) offered the following exemplar:

> For present purposes, similarity may be considered to be an
> increasing function of shared features and a decreasing
> function of non-shared features. For example, a trombone
> and trumpet share many features (made of metal tubing,
> flared at one end, hand held) and are judged to be highly
> similar to one another (p. 10).

Experienced teachers can engage in reflection that allows them to determine how their current beliefs and practices align with the broad themes and subthemes outlined in this and other prototype studies of teacher expertise.

**Self-Assessment Tool**

In an effort to assist educational leaders and experienced teachers in determining appropriate professional development, I created the Experienced Teacher Self-Assessment. See Table 14. Educational leaders should utilize the

self-assessment in two ways. First, they should use the self-assessment to reflect upon the beliefs and practices that they promote in their schools. As the instructional leaders in schools, administrators influence instruction and learning (Lynch, 2012). Thus, educational leaders should be careful not to deter teachers from engaging in practices that might be effective for improving teaching and learning because of the administrator's personal preferences. Second, educational leaders should use self-assessment results to gain better insight into experienced teachers' needs, which "have traditionally been neglected in the professional development literature" (Taylor, Yates, Meyer, & Kinsella, 2011, p. 92).

Table 14

*Experienced Teacher Self-Assessment*

Directions: Reflecting upon your beliefs and practices about teaching and learning, determine your relationship to each of the following indicators. The no evidence (NE) rating means you have not reflected upon the indicator, or you do not believe the indicator is important. The evidence of belief (EB) rating means you recognize and can explain the importance of the indicator, but you have not practiced the indicator in the past two weeks. The evidence of practice (EP) rating means you can recall a specific time in which you purposely used the indicator within the past two weeks. The evidence of leading others in practice (ELP) rating means you have practiced the indicator in the past two weeks, and you have instructed, modeled, or mentored others in utilizing the indicator within the last year.

| Theme | Indicator and Definition | NE | EB | EP | ELP |
|---|---|---|---|---|---|
| 1. I am confident in myself, both personally and professionally. In addition, I am confident in my school colleagues. | Confidence in self- the teacher maintains positive beliefs "in oneself, belief in one's power, and willingness to take risks" (The Research Functional Staff of Research and Development Agency, 2014) | | | | |
| | Confidence in teaching ability- the teacher maintains positive views of self in relation to professional competence, worth, and professional satisfaction (Friedman & Farber, 1992). | | | | |
| | Confidence in fellow teachers- the teacher perceives that the "faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467). The teacher promotes collective efficacy. | | | | |
| 2. I believe in and operate my class as a community of learners. | Guide on the side- The teacher encourages "students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265). The teacher decreases the amount of time used in lecture-style instruction. | | | | |
| | Shared verbal power- the students' voices are heard in the classroom just as much or more than the teacher's. | | | | |
| | Shared physical space- the teacher encourages students to maintain a sense of ownership in the classroom (Smith & Strahan, 2010) and move around the room as needed. | | | | |
| | Shared directional power- the teacher ensures that students are allowed to make choices in the classroom related to the curriculum (Smith & Strahan, 2010). While the skill or standard might remain the same, the content and materials used to help students understand that skill are targeted based upon the interests and goals of the students. | | | | |
| 3. I "maximize the opportunity to develop relationships with students" (Smith & Strahan, 2004, p. 365) and parents. | Conscientious relationship-building with students- the teacher initiates and maintains positive teacher-student relationships with students by "gaining knowledge about them, working side-by-side with them" (Smith & Strahan, 2004) and engaging in conversation with them; "showing interest in their lives beyond the classroom (Anderman, Andrzejewski, & Allen, 2011, p. 996). | | | | |
| | Conscientious relationship-building with parents: the teacher initiates and maintains positive contact with students' families (Smith & Strahan, 2004). | | | | |

Table 14                                                      (continued)

*Experienced Teacher Self-Assessment*

| Theme | Indicator and Definition | NE | EB | EP | ELP |
|---|---|---|---|---|---|
| 4. I "demonstrate a student-centered approach to instruction" (Smith & Strahan, 2004, p. 365). | Take responsibility for student learning- the teacher takes personally the failures and successes of his or her students (Smith & Strahan, 2004), reflecting upon teaching pedagogy and engagement strategies. | | | | |
| | Responsive to students' needs- the teacher supports students through appropriate pacing and connecting the content to the real world (Smith & Strahan, 2004). | | | | |
| | Instruct and assess students in a variety of ways- the teacher differentiates instruction by content, process, product, or the learning environment (Tomlinson, 2000). | | | | |
| | Goal mastery orientation- the teacher structures the class "around learning objectives rather than performance goals" (Smith and Strahan, 2004, p. 367); directs students to focus on meaning-making, mastery, and self-improvement (Pintrich & De Groot, 1990); and de-emphasizes grades. | | | | |
| 5. I make contributions to the "teaching profession through leadership and service" (Smith & Strahan, 2004, p. 365). | Modeling for and mentoring teachers- the teacher is involved in improving current practice of pre-service, new, and veteran teachers by demonstrating lessons and helping teachers acquire skills that improve teaching and learning (Andrzejewski, 2008; Barth, 1990; York-Barr & Duke, 2004). | | | | |
| | Informing school, district, and community policies and actions- the teacher is involved in improving current practice through activism, including service on various committees that impact education (Childs-Bowen, Moller, & Scrivan, 2000). | | | | |
| | Serving the larger community- the teacher believes in the importance of community service, including the school and larger community and participates in service projects. | | | | |
| 6. I can provide evidence that I am a master of my pedagogical content knowledge. | Subject matter knowledge- the teacher seeks to improve practice through professional development, collaboration with others (Smith & Strahan, 2004), and engagement in lifelong learning to remain current in educational practices. | | | | |
| | Pedagogical knowledge- the teacher is able to convey subject matter to students and scaffold learning through the use of instructional strategies and effective classroom management techniques (Shulman, 1987). | | | | |
| 7. I demonstrate persistence in creating lessons that encourage students to rise to high, individualized standards. | High expectations for students- the teacher holds students to high standards by including higher order thinking tasks that encourage students to be creative, free-thinkers (Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). | | | | |
| | High expectations for teachers- the teacher holds self to high standards in planning and executing high-quality lessons (Knapp, Shields, & Turnbull, 1995; Maye, 2013) | | | | |
| | Individualized academic press- the teacher provides individualized press or challenge in the classroom (Blackburn & Williamson, 2013). | | | | |

After experienced teachers complete the tool, educational leaders can use multiple methods to assist teachers in developing goals. First, educational leaders can enlarge The Grounded Theory of the Central Tendencies of Expert Teachers Figure provided in Figure 3 and ask the teachers to use self-stick notes or other tools to transfer their self-assessment answers onto an enlarged graphic. As illustrated in Figure 4, educational leaders will be able to note, at a glance, the areas in which the experienced faculty members require additional professional support. Second, educational leaders can use the self-assessment to meet with individual teachers to discuss how the results can be used in their professional learning plans. Third, leaders can encourage teachers to share their responses with peers; select an indicator they would like to study and practice; and form small professional learning teams who support one another in utilizing the indicator. Fourth, the educational leaders and teachers can collaborate to determine one or two indicators that they would all like to work on together.

I believe that the seven themes represent the necessary shifts in education for what Senge (2012) titled "creating schools for the future, not the past for all students" (p. 44). The suggested uses of the self-assessment tool provided in the previous paragraph allow educational leaders to promote "four critical capacities in students, teachers, and administrators": "systems thinking; education for sustainability; learner-centered pedagogy, authentic youth engagement, and youth leadership; and building schools as learning communities" (Senge, 2012, p. 46). Each of the critical areas connects with one or more of the central tendencies of expert teachers.

First, to make lasting changes in learning organizations, educational leaders should understand that organizations are complex systems, and the people within organizations form "webs of interdependence" (Senge, 2011, p. 1). Thus, the problems of a few can impact the whole. Organizations can gain insight into those problems by employing systems thinking: "seeing interrelationships rather than linear cause-effect chains, and seeing processes of change rather than snapshots" (Senge, 1994, p. 58). Senge (2011) suggested that organization members challenge their mental models, learn from members who view the organization in different ways, and prepare to work toward ridding the organization of what they learned is problematic.

Central tendency one, confidence, is often viewed as a quality or personality trait rather than a behavior or practice. However, a teacher's lack of personal, professional, or collective efficacy adversely impacts the learning organization, sometimes leading to burnout (Bandura, 1992; Friedman & Farber, 1992) or lack of engagement in professional development (Kyndt & Baert, 2013). Employee confidence is a major predictor of positive participation in work-related learning (Kyndt & Baert, 2013). Thus, educational leaders should be concerned about teacher confidence, seek to understand the problem, and work with various members of the learning organization (i.e., teachers, other administrators, students, parents, and community members) to cultivate a school climate that promotes confidence.

Second, educational leaders should understand that education

sustainability should be modeled within the learning organization. Senge (2012)

said:

> Education for sustainability builds on systems thinking conceptual skills to
>
> establish a context of community responsibility and engagement,
>
> integrating ideas and approaches from many different content areas like
>
> 'ecological literacy,' 'sense of place,' and 'sustainable economics' (the
>
> connections between economic, social, and natural systems), and
>
> 'visioning' (the ability to envision and invent a rich, hopeful future). (p. 47)

While schools included in this study are not currently ecologically sustainable, the

teachers' leadership and community involvement actions represent progress

toward sustainability.  For example, Roger had been a part-time police officer for

the past four years; he had been a charter member of the "Share the Beach"

program for nine years, and he had been a Boy Scout leader for two years prior

to his selection in the Teacher of the Year program. One parent said:

> "There is so much more I could write: ecology lessons, bike rides, his
>
> work on the police force, community activities, his example as a wonderful
>
> husband, father, and church youth leader, cub scout leader, dog trainer,
>
> team builder, dream house project guru, moral compass among his
>
> peers…"

Roger connected each of the aforementioned activities to his curriculum, and his

activities correlated to two of The Cloud Institute for Sustainability Education's

content standards: (1) responsible local and global citizenship and (2) natural

laws and ecological principles. Roger, as well as teachers like him, is positioned

to inform school-wide or district-wide sustainability efforts because he is leading

by example. Educational leaders should harness teachers' affirmative beliefs and

practices regarding the importance of community service to model sustainability

efforts to students, parents, and other stakeholders.

Third, learner-centered pedagogy involves providing authentic learning

and leadership experiences for students. Four central tendencies operationalize

this notion. Central tendency two, classroom community, includes four

subthemes: teachers act as guides on the side and share verbal power, physical

space, and directional power with students. Educational leaders can model

shared verbal, physical, and directional power by providing authentic student

leadership opportunities in the learning organization and encouraging teachers to

craft lessons that allow students to discover and engage in discourse. In addition,

central tendency four, student-centered approach, includes taking responsibility

for student learning; responding to students' needs; instructing and assessing

students in a variety of ways; and encouraging a mastery goal orientation.

Educational leaders should encourage teachers to respond to students' needs for

curricular connections to the real world as well as needs for differentiation.

In addition to the classroom community and student-centered approach

central tendencies, central tendency six, pedagogical content knowledge, also

operationalizes the notion of providing authentic learning and leadership

opportunities for students. The learner-centered classroom does not minimize the

need for teachers. In fact, in learner-centered classrooms, teachers' pedagogical

and content knowledge are particularly necessary as teachers organize and develop authentic learning experiences, ensuring that students learn the needed skills.

Central tendency seven, persistence, also operationalizes the creation of authentic learning and leadership opportunities. Persistence includes three subthemes: high expectations for students, high expectations for teachers, and individualized academic press. These subthemes are less about reforming schools and more about sustaining the future and "closing the education opportunity gap" (Senge, 2012, p. 45). Senge (2012) said:

> First, closing the opportunity gap demands we focus on the future and not the past. Remediation strategies for poor schools will only doom their students to being perpetually behind in times of radical change. Second, focusing on higher-order skills can accelerate and deepen the development of basic skills (p. 45).

The high expectations for students and individualized academic press subthemes emphasize supported rigor, higher order questioning, free thinking, and high standards for students. Because researchers (Knapp, Shields, & Turnbull, 1995; Maye, 2013) found that consistently creating rigorous learning experiences for students required teachers to work harder, educational leaders should support teachers who create rigorous, supported learning environments, understanding that those lessons require "conscious and concentrated effort" (Maye, 2013, p. 35).

Lastly, Senge (2012) said that building schools as learning communities was a critical component of creating schools of the future. In order to make the necessary changes in student learning, all stakeholders must employ systems thinking: Organization members must collaborate and operate as a team. Senge (2012) said, "Of all the professions, teaching is among the most individualistic," Senge (p. 48). Thus, circling back to central tendency one, confidence, educational leaders should promote collaborative efficacy by providing scheduled time during the school day for collaborative planning. In addition, central tendency three, teacher-student relationships, emphasizes building and maintaining positive relationships with students and parents. Senge (2012) said that building schools as learning communities, as well as the other three ideas previously presented, require all affected by the learning organization to engage in the planning and implementation of change.

One of the most daunting problems of current schools is closing the education opportunity gap, and the grounded theory of teacher expertise contains seven central tendencies that align with "four critical capacities" (Senge, 2012, p. 44) that learning organizations should use to combat the problem. Senge (2012) emphasized: "Today, future-oriented businesses need people who are self-directed learners, have strong personal values and a larger sense of responsibility, and can collaborate effectively in teams and larger networks to solve complex problems" (p. 45). Each of these needs is addressed in the grounded theory. Thus, education leaders should use the central tendencies and self-assessment results to spur conversations that lead to systems thinking. The

learning organization is interconnected, and education leaders should tap into the varied perspectives and resources of stakeholders in an effort to solve problems within the learning organization.

The seven central tendencies of teacher expertise are centered on beliefs and practices that impact student achievement. Teacher confidence and leadership indirectly impact students. Researchers have found correlations between teachers' confidence levels and teacher burnout (Bandura, 1992; Friedman & Farber, 1992). Some researchers have found that collective efficacy and relationship-building positively impact teacher retention (Friedman & Farber, 1992; Schlichte, Yssel, & Merbler, 2005) and school climate (Calik, et. al. 2012), thus improving the chance that teachers will remain in the profession long enough to become expert teachers. Second, leadership and service can impact the culture of the school. Teacher leaders can acculturate teachers to school culture and help teachers improve practice (York-Barr & Duke, 2004). Muijs and Harris (2003) concluded that if teacher leaders more actively, effectively, and consistently involved themselves in schools, then they would feel less alienated from their coworkers and school culture.

Classroom community, teacher-student relationships, student-centered approach, content mastery, and persistence positively impact student achievement. First, researchers have found positive associations between classroom community and student achievement. The foundation of this central tendency is student ownership through shared verbal power, physical space, and shared directional power. Employing strategies for encouraging students to take

191

ownership in the classroom are important for many reasons. First, student ownership creates "a culture of trust and communication between the students and their teacher" (O'Neil, 2010, p. 15). In addition, "student ownership leads to increased motivation, active participation, and engagement in the learning process, and thus more meaningful learning" (O'Neil, 2010, p. 8). Next, in her review of literature on improving the school environment to reduce school violence, Johnson (2009) found that student ownership in schools was a primary factor for decreasing school violence. In their study of student ownership in reading classes, Dudley-Marling and Seale (1995) found that students who showed an increased sense of directional power in the class showed a greater development of reading and writing skills. Finally, O'Neil (2010) recorded the highest project completion rates when students spawned the idea for the project.

Second, several researchers have documented the importance of positive teacher-student relationships (e.g., Anderman, Andrzejewski, & Allen, 2011; Coil, 1999; Davis, 2003; Martin & Dowson, 2009; Marzano, Pickering, & Hefelbower, 2010; Spilt, Koomen, & Thijs, 2011). Focusing on the effect that positive TSRs have on instruction, Marzano, Pickering, and Hefelbower (2010) said, "If the relationship is strong, instructional strategies seem to be more effective. Conversely, a weak or negative relationship will mute or even negate the benefits of even the most effective instructional strategies" (p. 82). Positive teacher-student relationships promote trust, and trust is linked to positive gains in student achievement, even after controlling for racial composition and poverty (Goddard, Salloum, & Berebitsky, 2009).

Third, differentiation, a major component of the student-centered approach central tendency, positively impacts student achievement. Expert teachers can signal to students that their differences are valued by differentiating content, process, product, and learning environment (Tomlinson, 1999; Tomlinson, 2000), and students recognize those efforts and demonstrate improved academic gains in those environments (Kiefer, Ellerbrock, & Alley, 2014). In their study of teacher practices that affect motivation, Kiefer, Ellerbrock, and Alley (2014) said,"Almost all students recognized and appreciated learning supports in which teachers tailored instruction to their individual needs, working one-on-one or within the context of whole class instruction, to break down what they need to know and understand" (p. 11). Differentiation is a key part of meeting students' varied needs.

Fourth, researchers have found that teachers' content knowledge has a statistically significant impact on student achievement (Campbell, et.al., 2014; Tchoshanov, 2011) even in elementary school math courses (Campbell, et.al., 2014; Hill, Rowan, & Ball, 2005). In her study of more than 10,000 teachers, Myrberg (2007) found that high-quality teacher education training was significant. She found that, regardless of socio-economic status or school type (i.e., public or independent school), teacher education training affected students' academic performance.

Lastly, persistence includes high expectations for students, high expectations for teachers, and individualized academic press. In a study of high school graduates, Hart (2005) found that less than 25 percent of graduates felt

academic press or rigor in high school. He noted, "Those graduates who did face high expectations are much more likely to feel adequately prepared for college or the work force" (p.2). Furthermore, high school graduates communicated that standards should be raised. "An overwhelming majority of graduates say that they would have worked harder if their high school demanded more of them and set higher academic standards" (p. 2). High academic press, academic challenge, and rigor are important components of student achievement.

The seven central tendencies reflect beliefs and practices that impact student achievement both directly and indirectly. When harnessed appropriately, expert teachers who identify with the tendencies can lead the way toward sustainable, high-achieving schools.

### Recommendations for Further Research

In this study, I defined the parameters of each central tendency, extending the work of Smith and Strahan (2004). Second, I added one major theme, persistence, along with its subthemes, which include: high expectations for students, high expectations for teachers, and individualized academic press. In addition, I extended the central tendency of confidence to include a subtheme of confidence in fellow teachers. Fourth, I extended the central tendency of leadership and service to include serving the larger community. Fifth, I refined the central tendency of content knowledge to include pedagogical content knowledge. Finally, I formed a visual representation of the grounded theory of teacher expertise (see Figure 3) as well as a self-assessment (see Table 14).

Each of these additions should be investigated and verified through further research.

**Persistence**

Researchers need to further investigate the central tendency of persistence, including its subthemes of high expectations for students, high expectations for teachers, and individual academic press. Researchers need to investigate whether other expert teachers articulate beliefs or demonstrate practices of persistence. Whereas all four teachers provided evidence of high expectations for students and teachers in this study, only three of the four teachers provided evidence of individualized academic press. Researchers should further investigate all of these subthemes, particularly the role of individualized academic press in teacher expertise.

**Confidence**

I believe that the subtheme confidence in fellow teachers is an important contribution because it illuminates the significance of camaraderie and teamwork in developing expert teachers. I have observed that teaching can be a lonely profession, whereby teachers close their doors, teach their classes, and head home. However, some researchers have found that collective efficacy and relationship-building positively impact teacher retention (Friedman & Farber, 1992; Schlichte, Yssel, & Merbler, 2005) and school climate (Calik, et. al. 2012), thus improving the chance that teachers will remain in the profession long enough to become expert teachers. During data collection, I noticed that expert

teachers eligible for this study appeared to be clustered together at the same schools. Researchers need to further investigate the relationship between school climate and teacher expertise.

**Leadership and Service**

Further research is needed to study emergent code 5.3, teachers serve the larger community. As discussed previously, application requirements of the Alabama Teacher of the Year program may have affected the frequency of this code. The Criteria for Judging the Alabama Teacher of the Year Candidates indicated applicants should write on the following topics: educational history, professional biography, community involvement, philosophy of teaching, education issues and trends, and Alabama teacher of the Year message. See Appendix 1 for the Criteria for Judging the Alabama Teacher of the Year Candidates.

I noted that all four teachers provided evidence of practice or evidence of leading others in practice in serving the larger community. Of all judging criteria, community involvement was the only criterion that I formed into its own subtheme. The criteria indicated that essays should include a "presence of activities outside school and family" (Alabama State Department of Education, 2013, p. IX). Therefore, further research is needed to determine if the quantity and quality of data gathered on the subtheme increased in part because of the essay requirement.

However, I believe that the subtheme may still be reflective of the expert teacher prototype because of three factors. First, two of the four teachers also discussed their belief in community involvement in other sections of their application packets. Phil discussed community involvement in his professional biography, and Rachel discussed it in her philosophy of teaching. Secondly, stakeholders highlighted participants' involvement in community service. Thirdly, the kinds of community service noted seem to require authentic commitment that spans lengthy time periods. For example, Roger had been a part-time police officer for the past four years; he had been a charter member of the "Share the Beach" program for nine years, and he had been a Boy Scout leader for two years prior to his selection in the Teacher of the Year program. Further research with larger sample sizes and open essay topics might provide more insight into the significance of community service in teacher expertise.

**Content Mastery**

I concluded that the central tendency of content mastery as described by Smith and Strahan (2004) should be retitled to encompass both pedagogical and content knowledge. Shulman's (1987) coined phrase "pedagogical content knowledge" (PCK) combines Smith and Strahan's (2004) descriptions of content knowledge and pedagogical knowledge. Andrzejewski (2008) formed a graphic synthesis of recent additions to PCK literature, including teachers' knowledge of the content, skill in conveying the content, and knowledge of students' cognitive, physical, emotional, and social needs. See Figure 6 for Andrzejewski's (2008) graphic synthesis of these ideas. Future research should be conducted using a

prototype lens to determine how coding the data set using PCK impacts the other

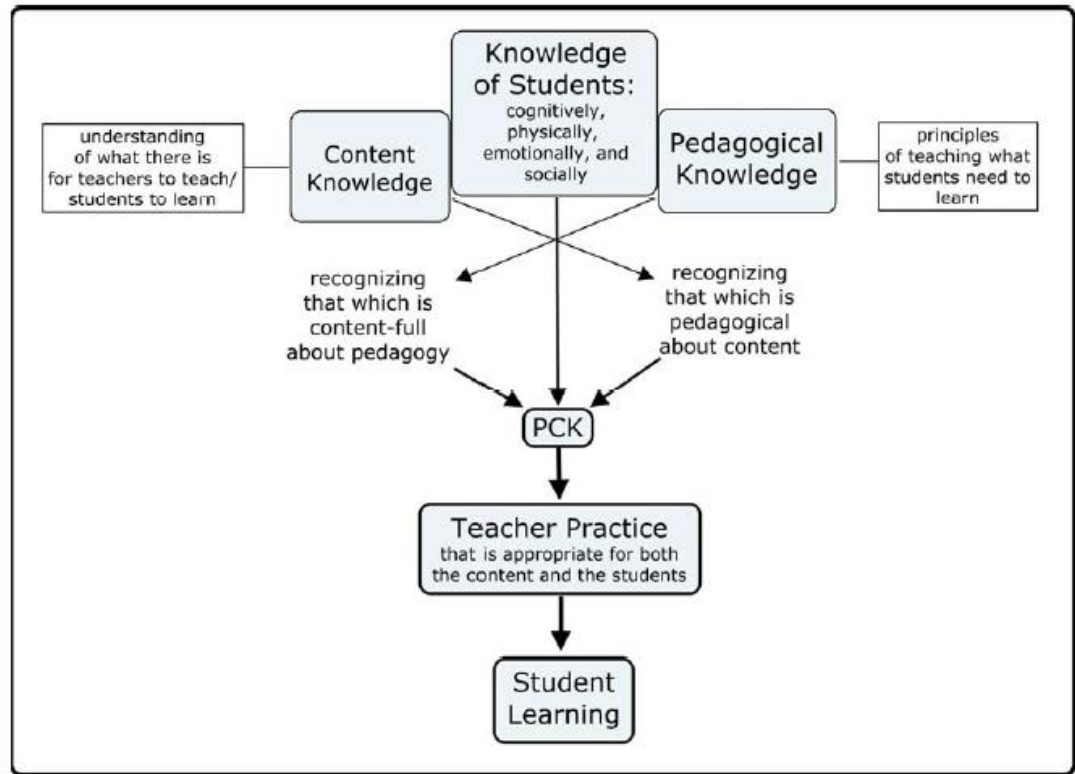central tendencies of expert teachers.



*Figure 6.* "Model of transforming teacher knowledge into practice"

*Note.* From *A holistic investigation of teacher identity, knowledge, and practice* by

C.E. Andrzejewski, 2008, unpublished doctoral dissertation, p. 46. Copyright

2008 by Carey E. Andrzejewski. Reprinted with permission.

**Grounded Theory Visual Representation**

In an effort to provide visual clarity to my findings, I created The Grounded

Theory of the Central Tendencies of Expert Teachers Figure. See Figure 3.

Researchers should test the ease of use of the figure and refine it to provide further clarity.

**Self-Assessment**

In an effort to assist teachers and education leaders in making informed professional development decisions, I created the Experienced Teacher Self-Assessment Tool. See Table 14. Because the tool includes one emergent theme as well as emergent subthemes and definitions, researchers should test the ease of use of the tool and refine it to enhance clarity. In addition, qualitative researchers should conduct categorical, prototype studies of teacher expertise, direct study participants to complete the self-assessment, and use the results as a component of data triangulation.

**Intentions**

In this study, I analyzed teachers' application packets and noted their beliefs and practices. This work is important because teachers' beliefs shape their practices (Tisdell, Taylor, & Forte, 2013). Future research should link teachers' beliefs and practices to their intentions, what they "try to accomplish" in their instruction (Pratt, Collins, & Selinger, 2001, p. 2). Teachers' descriptions of their intentions might add clarity to their actions or stated beliefs.

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Criteria for Judging the Alabama Teacher of the Year Candidates (Alabama Teacher of the Year Application, 2012-2013).

# CRITERIA FOR JUDGING
# THE ALABAMA TEACHER OF THE YEAR
# CANDIDATES 2012-2013

**Level:** (circle one)        Elementary        Secondary

State Board of Education **District** _____

Teacher's Name_____

──────────────── FOR JUDGES` USE ────────────────

| Categories | Scoring |
|---|---|
| **Education History** <br> • Presentations (attending <u>and</u> presenting) <br> • Continuing Education (including advanced degrees and national board certification) <br> • Awards (including being published and receiving grants) | _____ |
| **Professional Biography** <br> • Evidence of a story <br> • Clearly delineates reason(s) for becoming a teacher | _____ |
| **Community Involvement** <br> • Describes involvement <br> • Presence of activities outside school and family | _____ |

Alabama State Department of Education (2012-2013).

**Philosophy of Teaching**                                           _____
• Provides clear description of teaching philosophy and includes evidence of
  outstanding teaching qualities
• Clearly indicates how beliefs are demonstrated in teaching style

**Education Issues and Trends**                                      _____
• Lists more than one issue
• Develops and describes one issue
• Has a story to tell

**Alabama Teacher of the Year**                                     _____
• Message is presented in a coherent and convincing manner
• Addresses relevant issues for the teaching profession

**Letters of Support**                                               _____
• Good balance of letters (e.g., parent/student, administrator, colleague)
• Clearly explains and gives examples of exceptionality

<u>Total Points</u> _____

## <u>Criteria Measurements</u>

**Exemplary (4)** – Goes above and beyond; is at the highest level. For example, in Education Issues and Trends: Uses research with multiple sources, has well-reasoned solution, issue is timely and significant.

**Very Good (3)** – Outstanding. For example, in Professional Biography: Tells a compelling, personal, and "catchy" story.

**Average (2)** – Sufficient. For example, in Education History: Attended conferences, but didn't play leadership role in presenting; has minimal education requirements, but has not pursued advanced courses and degree in past 5-10 years.

**Does Not Meet Standard (1)** – No evidence or incorrect information provided.

IX

Alabama State Department of Education (2012-2013).

Appendix 2

Alabama Board of Education Districts

STATE BOARD OF EDUCATION DISTRICTS



Alabama State Department of Education (2013-2014). Used to determine district

winners in the Alabama Teacher of the Year program.

Appendix 3

Auburn University Institutional Review Board (IRB) Permission Form

# R E S E A R C H   P R O T O C O L   R E V I E W   F O R M
## F U L L   B O A R D   o r   E X P E D I T E D

For information or help contact THE OFFICE OF RESEARCH COMPLIANCE (ORC), 115 Ramsay Hall, Auburn University
Phone: 334-844-5966     e-mail: IRBAdmin@auburn.edu  Web Address: http://www.auburn.edu/research/vprjobs/index.htm

Revised 2.1.2014     Submit completed form to IRBsubmit@auburn.edu or 115 Ramsay Hall, Auburn University 36849.

Form must be populated using Adobe Acrobat / Pro 9 or greater standalone program (do not fill out in browser).  Hand written forms will not be accepted.

1. PROPOSED START DATE of STUDY:  July 15, 2014

PROPOSED REVIEW CATEGORY (Check one):     ☐ FULL BOARD      ☑ EXPEDITED

SUBMISSION STATUS (Check one):      ☑ NEW         ☐ REVISIONS (to address IRB Review Comments)

2. PROJECT TITLE: Examining Alabama Teacher of the Year Nominee Applications: Toward a Prototype of Expert Teaching

3.  Quebe Merritt Bradford ____ Doctoral Student ____ Educational Foundations ____ qmb0001@auburn.edu
 **PRINCIPAL INVESTIGATOR**          **TITLE**              **DEPT**              **AU E-MAIL**

3924 Rouse Ridge Court, Montgomery, AL 36111 ____ 334-538-2128 ____ quebe.bradford@gmail.com
       **MAILING ADDRESS**                        **PHONE**              **ALTERNATE E-MAIL**

4. FUNDING SUPPORT:  ☑ N/A ☐ Internal ☐ External Agency:_____    ☐ Pending ☐ Received

For federal funding, list agency and grant number (if available). _____

5a. List any contractors, sub-contractors, other entities associated with this project:

N/A

b. List any other IRBs associated with this project (including Reviewed, Deferred, Determination, etc.):

N/A

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## PROTOCOL PACKET CHECKLIST

All protocols must include the following items:

☑ Research Protocol Review Form (All signatures included and all sections completed)
(Examples of appended documents are found on the OHSR website: http://www.auburn.edu/research/vprjobs/sample.htm)

☑ CITI Training Certificates for all Key Personnel.

☑ Consent Form or Information Letter and any Releases (audio, video or photo) that the participant will sign.

☑ Appendix A, "Reference List"

☑ Appendix B if e-mails, flyers, advertisements, generalized announcements or scripts, etc., are used to recruit participants.

☐ Appendix C if data collection sheets, surveys, tests, other recording instruments, interview scripts, etc. will be used for data collection. Be sure to attach them in the order in which they are listed in # 13c.

☐ Appendix D if you will be using a debriefing form or include emergency plans/procedures and medical referral lists (A referral list may be attached to the consent document).

☐ Appendix E if research is being conducted at sites other than Auburn University or in cooperation with other entities. A permission letter from the site / program director must be included indicating their cooperation or involvement in the project. NOTE: If the proposed research is a multi-site project, involving investigators or participants at other academic institutions, hospitals or private research organizations, a letter of IRB approval from each entity is required prior to initiating the project.

☐ Appendix F - Written evidence of acceptance by the host country if research is conducted outside the United States.

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## FOR ORC OFFICE USE ONLY

DATE RECEIVED IN ORC: _____ by _____   PROTOCOL # _____

DATE OF IRB REVIEW: _____ by _____   APPROVAL CATEGORY:_____

DATE OF IRB APPROVAL: _____ by _____   INTERVAL FOR CONTINUING REVIEW:_____

COMMENTS:

**6.  GENERAL RESEARCH PROJECT CHARACTERISTICS**

## 6A.  Research Methodology

Please check all descriptors that best apply to the research methodology.

| Data Source(s):  ☐ New Data   ☑ Existing Data | Will recorded data directly or indirectly identify participants?<br>☑ Yes        ☐ No |
|---|---|

Data collection will involve the use of:

| | |
|---|---|
| Educational Tests (cognitive diagnostic, aptitude, etc.) | ✓ Internet / Electronic |
| Interview | Audio |
| Observation | ✓ Video |
| Location or Tracking Measures | Photos |
| Physical / Physiological Measures or Specimens  (see Section 6E.) | Digital Images |
| Surveys / Questionnaires | ✓ Private records or files |

Other: _____

## 6B.  Participant Information

Please check all descriptors that apply to the target population.
☑ Males        ☑ Females        ☐ AU students

**Vulnerable Populations**
☐ Pregnant Women/Fetuses    ☐ Prisoners    ☐ Institutionalized
☐ Children and/or Adolescents (under age 19 in AL)

**Persons with:**
☐ Economic Disadvantages        ☐ Physical Disabilities
☐ Educational Disadvantages     ☐ Intellectual Disabilities

Do you plan to compensate your participants?  ☐ Yes  ☑ No

## 6C.  Risks to Participants

Please identify all risks that participants might encounter in this research.

☑ Breach of Confidentiality*    ☐ Coercion
☐ Deception                     ☐ Physical
☐ Psychological                 ☐ Social
☐ None
☐ Other:

*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

## 6D.  Corresponding Approval/Oversight

- Do you need IBC Approval for this study?
  ☐ Yes        ☑ No

  If yes, BUA # _____ Expiration date _____

- Do you need IACUC Approval for this study?
  ☐ Yes        ☑ No

  If yes, PRN # _____ Expiration date _____

- Does this study involve the Auburn University MRI Center?
  ☐ Yes        ☑ No

  Which MRI(s) will be used for this project?  (Check all that apply)
  ☐ 3T        ☐ 7T

  Does any portion of this project require review by the MRI Safety Advisory Council?
  ☐ Yes        ☑ No

  Signature of MRI Center Representative: _____
  *Required for all projects involving the AU MRI Center*

  Appropriate MRI Center Representatives:
      Dr. Thomas S. Denney, Director AU MRI Center
      Dr. Ron Beyers, MR Safety Officer

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## A. PRINCIPAL INVESTIGATOR'S ASSSURANCES

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
   a. Conducting the project by qualified personnel according to the approved protocol
   b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Research Compliance
   c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
   d. Promptly reporting significant adverse events and/or effects to the Office of Research Compliance in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise ORC, by letter, in advance of such arrangement.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Research Compliance before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

| Quebe Merritt Bradford | Quebe Bradford | July 8, 2014 |
|---|---|---|
| **Printed name of Principal Investigator** | **Principal Investigator's Signature** | **Date** |

## B. FACULTY ADVISOR/SPONSOR'S ASSURANCES

1. I have read the protocol submitted for this project for content, clarity, and methodology.
2. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
3. I agree to meet with the investigator on a regular basis to monitor study progress. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
4. I assure that the investigator will promptly report significant incidents and/or adverse events and/or effects to the ORC in writing within 5 working days of the occurrence.
5. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the ORC by letter of such arrangements.  If the investigator is unable to fulfill requirements for submission of renewals, modification or the final report, I will assume that responsibility.

| Carey E. Andrzejewski | Carey Andrzejewski | July 7, 2014 |
|---|---|---|
| **Printed name of Faculty Advisor / Sponsor** | **Faculty Advisor's Signature** | **Date** |

## C. DEPARTMENT HEAD'S ASSSURANCE

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

| Sherida Downer | Sherida Downer | July 14, 2014 |
|---|---|---|
| **Printed name of Department Head** | **Department Head's Signature** | **Date** |

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8. **PROJECT OVERVIEW:** *Prepare an abstract that includes:*
   *(350 word maximum, in language understandable to someone who is not familiar with your area of study):*

   a) **A summary of relevant research findings leading to this research proposal:**
      *(Cite sources; include a "Reference List" as Appendix A.)*
   b) **A brief description of the methodology, including design, population, and variables of interest**

   While many studies have contrasted expert teachers to pre-service, novice, or experienced teachers (Carter, Sabers, Cushing, Pinnegar, & Berliner, 1987; Gonzalez & Carter, 1996; Livingston & Borko, 1990; Westerman, 1991), this study seeks to conduct a similarity-based comparison of expert teachers. Maslow noted, "If we want to know how fast a human being can run, then it is of no use to average out the speed of a 'good sample' of the population, it is far better to collect Olympic gold medal winners and see how well they can do" (1971). Likewise, it is of importance that when analyzing the epitome of teaching that expert teachers be selected as the participants. The purpose of this study is to ground a theory of expert teaching by analyzing the 2009-2013 Alabama Teacher of the Year application packets of teachers who were selected as the eight state district winners.

   Participants will submit existing data they initially submitted to the Alabama State Department of Education in an effort to enter the awards program. The completed packets include a professional biography, teaching philosophy, education issues, Teacher of the Year message, stakeholder letters of support, and a 30-minute teaching exemplar video.

   The data will be analyzed using the grounded theory approach to qualitative research. Confidentiality protection will not be offered, and respondents will be asked for permission to use their real names in the study for the following reasons: (1) The 2009-2013 winners of the state district Alabama Teacher of the Year program are published, public information, and since all district winners' applications packets will possibly be analyzed if submitted, deducing the names of participants in the study is possible; (2) Gender, teaching context, and age may become identifiers for emergent themes. Participants will be given the option to withdraw from the study at any time.

   A priori expert teacher theories (Smith & Strahan, 2004) and emergent theories will be used to code and analyze the data. This study hopes to verify and extend expert teacher prototype research. Education administrators may be able to use results to target professional development for teachers.

9. **PURPOSE.**
   a. **Clearly state the purpose of this project and all research questions, or aims.**

   The primary goal of this project is to explore the beliefs and practices of expert teachers and to use grounded theory to validate and extend expert teacher prototype research.

   b. **How will the results of this project be used?** *(e.g., Presentation? Publication? Thesis? Dissertation?)*

   1. Dissertation
   2. Presentations at professional conferences and meetings
   3. Publications

   4

10. KEY PERSONNEL. Describe responsibilities. Include information on research _training or certifications_ related to this project. CITI is required. Be as specific as possible. (Include additional personnel in an attachment.) _All key personnel must_ attach CITI certificates of completion.

Principle Investigator __Quebe Merritt Bradford__ Title: __Doctoral Student__ E-mail address __qmb0001@auburn.edu__

Dept / Affiliation: __Educational Foundations, Leadership, & Technology__

_Roles / Responsibilities:_
Recruit participants, retrieve existing data, analyze data, and prepare dissertation, other publications, and presentations


Individual: ___Carey E. Andrzejewski___ Title: ___Assoc. Prof.___ E-mail address ___cea0011@auburn.edu___

Dept / Affiliation: __Educational Foundations, Leadership, & Technology__

_Roles / Responsibilities:_
Serve as dissertation chairperson and advisor


Individual: _____ Title: _____ E-mail address _____

Dept / Affiliation: _____

_Roles / Responsibilities:_


Individual: _____ Title: _____ E-mail address _____

Dept / Affiliation: _____

_Roles / Responsibilities:_


Individual: _____ Title: _____ E-mail address _____

Dept / Affiliation: _____

_Roles / Responsibilities:_


Individual: _____ Title: _____ E-mail address _____

Dept / Affiliation: _____

_Roles / Responsibilities:_


11. LOCATION OF RESEARCH. List all locations where data collection will take place. (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) Be as specific as possible. Attach permission letters in Appendix E. (See sample letters at http://www.auburn.edu/research/vpob/hs/sample.htm)

Existing data will be used. Complete 2009-2013 Alabama Teacher of the Year packets will be collected from teachers who were selected by the Alabama Teacher of the Year program to represent one of the eight state districts in Alabama. Teachers will submit their completed applications to the principal investigator electronically or via mail.

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**12. PARTICIPANTS.**

a. Describe the participant population you have chosen for this project including inclusion or exclusion criteria for participant selection.

☑ Check here if using existing data, describe the population from whom data was collected, & include the # of data files.

The data is existing. The researcher will collect 2009-2013 Alabama Teacher of the Year packets from the district winners for secondary education.

b. Describe, step-by-step, in layman's terms, all procedures you will use to recruit participants. *Include in Appendix B a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate. (See sample documents at http://www.auburn.edu/research/vpr/ohs/sample.htm.)*

We will recruit teachers to participate by invitation received via email. If participants do not respond via email within 10 calendar days, we will attempt to contact them through their school phones. If they do not respond to the phone call within 10 additional days, a final email will be sent. See Appendix B.

c. What is the minimum number of participants you need to validate the study? _____6_____

How many participants do you expect to recruit? _____12_____

Is there a limit on the number of participants you will include in the study? ☑ No ☐ Yes – the # is _____

d. Describe the type, amount and method of compensation and/or incentives for participants.

(If no compensation will be given, check here: ☑ )

Select the type of compensation: ☐ Monetary ☐ Incentives
☐ Raffle or Drawing Incentive (Include the chances of winning.)
☐ Extra Credit (State the value)
☐ Other

*Description:*

N/A

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18. PROJECT DESIGN & METHODS.

a. Describe, step-by-step, all procedures and methods that will be used to consent participants. If a waiver is being requested, check each waiver you are requesting, describe how the project meets the criteria for the waiver.

☐ Waiver of Consent (including using existing data)

☐ Waiver of Documentation of Consent (use of Information Letter)

☐ Waiver of Parental Permission (for college students)

Even though we are using existing data, participants will need to submit the data to the principal investigator. When participants receive their recruitment email, it will include a copy of the consent form as an attachment. Participants will also be given the option to receive a hard copy of the consent form and to ask questions of the researchers via email prior to submitting the data. The consent form explains the purpose of the study. Participants will be reminded that their participation is voluntary and that they can withdraw their data at any time without penalty. The consent form explicitly states that their involvement and participation are completely voluntary, and they may choose to submit some or none of the Alabama Teacher of the Year packet information. The consent form also makes clear that confidentiality will not be guaranteed due to the nature of the study. The consent form asks that participants provide consent to use their real names in the study. A contact is included so that if participants have questions, they may ask the principal investigator. The contact will include physical address, email address, and telephone numbers. Participants will be offered a copy of the consent form to keep for their records.

b. Describe the research design and methods you will use to address your purpose. Include a clear description of when, where and how you will collect all data for this project. Include specific information about the participants' time and effort commitment. (NOTE: Use language that would be understandable to someone who is not familiar with your area of study. Without a complete description of all procedures, the Auburn University IRB will not be able to review this protocol. If additional space is needed for this section, save the information as a .PDF file and insert after page 7 of this form.)

This study focuses on the common themes present in the 2009-2013 Alabama Teacher of the Year applications in order to develop an expert teacher prototype. Secondary teachers who were selected as the state district winners for their respective districts will be asked to participate in this study. They will be invited to participate via email, and if they do not respond to the email within 10 days, they will be contacted on their school phone. If they do not respond to the telephone call within 10 additional days, they will receive a final email (see Appendix B). Completed packets will include educational history and professional development activities, professional biography, community involvement, philosophy of teaching, education issues and trends, Alabama Teacher of the Year message, letters of support from stakeholders, and a 30-minute teaching exemplar video. If teachers include letters of support from students, teachers will be asked to remove information that identifies the students.

This study uses a qualitative methodology using the grounded theory approach. We aim to analyze the documents using a coding scheme based on a priori and emergent theories. Benefits from this study include contributions to the expert teacher literature based specifically on teachers throughout the state of Alabama. In addition, common themes will provide a road map of professional development novice and experienced teachers need in order to move towards becoming expert teachers. Participants will be asked to commit about five minutes to the study by sending all documents via email.

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13. **PROJECT DESIGN & METHODS.** *Continued*

    c. List all data collection instruments used in this project, in the order they appear in Appendix C.
       (e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

       None- All data is existing.

    d. Data analysis: Explain how the data will be analyzed.

       Data will be analyzed using the grounded theory approach to qualitative methods. These methods may include the use of qualitative data analysis software such as Atlas.ti.

14. **RISKS & DISCOMFORTS:** List and describe all of the risks that participants might encounter in this research. *If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in Appendix D.* (Examples of possible risks are in section #6D on page 2)

       Confidentiality will not be promised, and real names may be used. Risks that participants might encounter are minimal, especially since some of the information included in the packets, such as professional biography, teaching philosophies, and teaching exemplar videos, are currently posted on teachers' school and personal web sites. The data is requested of teachers so that it is uniform in presentation and topics as required by the Alabama Teacher of the Year program. Teachers will also be given the option to remove any information that they deem is of a highly personal nature before submitting the files.

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16. PRECAUTIONS.  Identify and describe all precautions you have taken to eliminate or reduce risks as listed in #14.  If the participants can be classified as a "vulnerable" population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. *Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D.* (Samples can be found online at http://www.auburn.edu/research/vpr/ohs/sample.htm#precautions)

The participants are not vulnerable populations. Only existing data will be used. The 2009-2013 Alabama Teacher of the Year packets do include student letters, but teachers will be asked to remove any information that identifies students (see Appendix B). Teachers will be given the option to withhold any portions of the packet that they do not wish to include.

If using the Internet or other electronic means to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data?  Include protections used during both the collection and transfer of data.

The Internet will be used to collect existing data, and identifiable characteristics will be retained as a key component of analysis.

16. BENEFITS.
   a.  List all realistic direct benefits participants can expect by participating in this specific study.
       *(Do not include "compensation" listed in #12d.)*    Check here if there are no direct benefits to participants.  ☑

   Participants will not receive any direct benefits.

   b.  List all realistic benefits for the general population that may be generated from this study.

   Alabama education administrators and teachers will directly benefit by being better able to select professional development based upon the most important knowledge, skills, and beliefs noted by expert teachers.

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17. PROTECTION OF DATA.

    a.   Data are collected:

        ☐  Anonymously with no direct or indirect coding, link, or awareness of who participated in the study (Skip to e)

        ☐  Confidentially, but without a link of participant's data to any identifying information (collected as "confidential" but recorded and analyzed as "anonymous") (Skip to e)

        ☐  Confidentially with collection and protection of linkages to identifiable information

    b.   If data are collected with identifiers or as coded or linked to identifying information, describe the identifiers collected and how they are linked to the participant's data.

       N/A

    c.   Justify your need to code participants' data or link the data with identifying information.

       N/A

    d.   Describe how and where identifying data and/or code lists will be stored. (Building, room number?) Describe how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.

       N/A

    e.   Describe how and where the data will be stored (e.g., hard copy, audio cassette, electronic data, etc.), and how the location where data is stored is separated from identifying data and will be secured in your absence. For electronic data, describe security

       N/A

    f.   Who will have access to participants' data?
       *(The faculty advisor should have full access and be able to produce the data in the case of a federal or institutional audit.)*

       Key personnel only

    g.   When is the latest date that identifying information or links will be retained and how will that information or links be destroyed?
       (Check here if only anonymous data will be retained ☐ )

       Confidentiality protection will not be offered. Participants will be asked for permission to use their real names.

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Appendix 4

Participants' Informed Consent Form
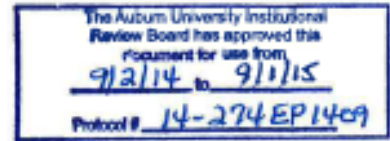
# AUBURN UNIVERSITY

## COLLEGE OF EDUCATION

### EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

**(NOTE: DO NOT SIGN THIS DOCUMENT UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)**

### INFORMED CONSENT

#### for a Research Study entitled

#### "Examining Alabama Teacher of the Year Nominee Applications: Toward a Prototype of Expert Teaching"

**You are invited to participate in a research study** to study is to explore the similarities of the 2009-2013 Alabama Teacher of the Year nominees and ground a theory of expert teaching by analyzing beliefs and practices, as evidenced by the Teacher of the Year application packets. The study is being conducted by Quebe Bradford, under the direction of Dr. Carey Andrzejewski, assistant professor in the Auburn University Department of Educational Foundations, Leadership, and Technology. You were selected as a possible participant because you were a state district winner in the Alabama Teacher program in 2009, 2010, 2011, 2012, or 2013 and are age 19 or older.

**What will be involved if you participate?** If you decide to participate in this research study, you will be asked to submit your completed Alabama Teacher of the Year application packet, including your video exemplar. Your total time commitment will be approximately five minutes.

**What will be done with the data collected?** The goal of this study is to verify and extend findings on teacher expertise using a grounded theory research design. The researcher will analyze your application packet using reading and memoing, open coding, and a priori coding to develop a master codebook of response categories. The researcher will then look for common themes among application packets as well as individual themes. Finally, the researcher will compare the themes that derive from analyzing your work to the themes existing in the literature and determine which themes are consistent with the literature and which represent novel findings.

Participant's initials _____

4036 Haley Center, Auburn, AL 36849-5221; Telephone: 334-844-4460; Fax: 334-844-3072

www.auburn.edu

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**Are there any risks or discomforts?** The risk associated with participating in this study is confidentiality. To minimize these risks, we ask that you remove any information that is of a highly personal nature from your packets or any information that you do not wish to have analyzed. In addition, if you included letters of support from students in your original application packet, please remove students' names from the files before submitting them for research. Submitted information might be quoted in a dissertation, presentation, and/or publication.

**Are there any benefits to yourself or others?** If you participate in this study, you can expect to help contribute to the body of research regarding expert teachers. We cannot promise you that you will receive any or all of the benefits described.

**Will you receive compensation for participating?** No. To thank you for your time, you will be offered a sincere letter of thanks.

**Are there any costs?** If you decide to participate, you will not receive financial compensation, and you will not incur any costs. All documents can be submitted via email.
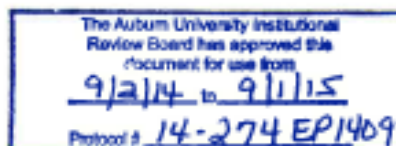
**If you change your mind about participating,** you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. You can choose to withdraw some, none, or all of your data. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Educational Foundations, Leadership, and Technology, Quebe Bradford, or Carey Andrzejewski.

**Your privacy will not be protected.** Confidentiality protection will not be offered, and you are asked for permission to use your real name in the study for the following reasons: (1) The 2009-2013 winners of the state district Alabama Teacher of the Year program are published, public information, and since all winners' applications packets will be analyzed, deducing the names of participants in the study is possible; (2) Gender, teaching context, and age may become identifiers for emergent themes. Information obtained through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

**If you have questions about this study,** *please ask them now* by responding to this email at qmb0001@auburn.edu or contacting Quebe Bradford at (334) 538-2128. You may also contact Dr. Carey Andrzejewski at cea0011@auburn.edu or (334) 844-3012. Keep a copy of this document by printing it or maintaining an electronic copy.

**If you have questions about your rights as a research participant,** you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

Participant's initials _____

The Auburn University Institutional Review Board has approved this document for use from 9/2/14 to 9/1/15

Protocol # 14-274 EP1409

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HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE
WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY.
YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO PARTICIPATE.

_____          _____

Participant's signature    Date    Investigator obtaining consent    Date

_____          _____

Printed Name                      Printed Name

                                  _____

                                  Co-Investigator

                                  _____

                                  Printed Name

The Auburn University Institutional
Review Board has approved this
document for use from
9/2/14 to 9/1/15
Protocol# 14-274 EP 1409

Appendix 5

Abbreviated Codebook

**Examining Alabama Teacher of the Year Nominee Applications: Toward a Prototype of Expert Teaching**
**Teacher Beliefs and Practices Abbreviated Codebook**

| Theme | Subtheme and Definition | Code Number | Kind | Data Exemplars/Sources |
|---|---|---|---|---|
| **1. "These teachers have a sense of confidence in themselves and in their profession" (Smith & Strahan, 2004, p. 364).** | Confidence in self- "relates to a person's belief in oneself, belief in one's power, and willingness to take risks" (The Research Functional Staff of Research and Development Agency, 2014) | 1.1 | AP | "From early on in my life, I knew that music was the gift I was given and that it must play a role in my future. My musical voice was the first piece of my career puzzle" (Phil). |
| | Confidence in teaching ability- relates to a teacher's positive views of him/herself in relation to professional competence, worth, and professional satisfaction (Friedman & Farber, 1992). | 1.2 | AP | "These children are the reasons I get up early when I would rather sleep in. Their paths are now headed in different directions because of something I said or did, and these encounters have motivated me to be who I am today. I continue my own education in order to learn how to better direct them on their paths. Those are the rewards I live for. 'Don't be a teacher,' like my mother said to me so often. Try to stop me!" (Mandy).

"The most rewarding result is seeing a student who has never been enthusiastic about coming to school not miss a day because he or she is working on an exciting and meaningful |

| | | | | project. The students even continue to work on the project at home beyond the school day. The sparkle in their eyes and the look of pride they have when they have accomplished something that is so meaningful to them; those are the gifts. No other job could compare" (Mandy). |
|---|---|---|---|---|
| | Confidence in fellow teachers- relates to "the perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467). | 1.3 | E | "In general education areas where I lack knowledge, I turn to my colleagues to advise and direct me" (Phil).<br><br>"When I received my degree in music education and accepted my first teaching position, I joined a group of professionals who seem to do the impossible every day. Teachers succeed and persevere regardless of any obstacle or adversity, continuing to triumph through small, but continuous victories in student learning" (Phil). |
| 2. "These teachers talk about their classroom as a community of learners" (Smith & Strahan, 2004, p. 365). | Guide on the side- relates to the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265). The teacher chooses to | 2.1 | AP | '[Students] want to know and they want to be problem solvers; however, at school, we often create situations where they have to be quiet and listen to us talk, rather than exploring, thinking creatively and critically, innovating, and |

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| decrease the amount of time used in lecture-style instruction. | | | pursuing their areas of interest…What makes me an outstanding educator is that I guide students to think, create, and learn through projects, processes and products that interest them" (Mandy). |
| Shared verbal power- relates to the ending result of the teacher's willingness to allow students to work actively, interactively, and cooperatively" (Graeff, 2010, p. 265): The students' voices are heard in the classroom just as much or more than the teacher's. | 2.2 | AP | "In order to maintain this personal belief in my classroom, I allow students to see my role as a teacher/facilitator instead of an all-knowing lecturer" (Rachel).<br><br>"In Amanda Fox's Socratic circle classroom, the teacher shared verbal power with the students. She encouraged the students to talk directly to each other and look at each other while talking, instead of looking at the teacher. After the directions were given, the teacher spoke 32 words, compared to the students, who spoke 731 words collectively" (Memo). |
| Shared physical space- relates to the climate the teacher encourages in the classroom, whereby students are encouraged to move around the | 2.3 | AP | '"In Amanda Fox's Socratic circle classroom, students and the teacher sat in a circle on the floor. While the teacher sat in a chair, they shared the same physical space" (Memo, Q.B., viewing |

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| | room as needed. Students feel a sense of ownership in the classroom (Smith & Strahan, 2010). | | | video). |
| | Shared directional power- relates to the teacher ensuring that students are allowed to make choices in the classroom related to the curriculum (Smith & Strahan, 2010). While the skill or standard might remain the same, the content and materials used to help students understand that skill are targeted based upon the interests and goals of the students. | 2.4 | AP | "The area where Roger shines most is in his classroom. His ability to challenge students to stretch their capacity for math in practical and (dare I say) fun ways is nothing short of amazing. Do his students work hard? Yes! Do they love it and beg for more? Yes! He spends many hours developing technology-based experiences for his classes" (Stakeholder Letter in support of Roger). 'I used the Kindle to show him books not available in our library and he was hooked. He used the definition feature on the Kindle to find meanings of new English words. I allowed him the freedom to choose what he wanted to read and how he wanted to share his books with me. He left more confident in his abilities. I was so proud of his accomplishments and hard work that year" (Mandy). |
| 3. "These teachers maximize the | Conscientious relationship-building with | 3.1 | AP | "I enjoy the opportunity of getting to know them and helping them |

| importance of developing relationships with students" (Smith & Strahan, 2004, p. 365). | students- relates to the teacher's belief and practice in developing positive teacher-student relationships with students by "gaining knowledge about them, working side-by-side with them" (Smith & Strahan, 2004) and engaging in conversation with them; "showing interest in their lives beyond the classroom (Anderman, Andrzejewski, & Allen, 2011, p. 996). | | | through the very difficult middle school years. And, I get to be there for them, providing them a shoulder to cry on when the wolf comes knocking at their door" (Roger).<br><br>"Observing students in class, tutoring after school, and talking with them during lunch allow me to get to know my students on an individual level" (Phil). |
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| | Conscientious relationship-building with parents: relates to the teacher's belief in initiating and maintaining contact with students' families (Smith & Strahan, 2004). | 3.2 | AP | "Before I even begin the year, I invite parents to come and talk to me about my style of teaching. I communicate the plans and goals I have for their children and I ask them to give me a chance. Throughout the year, I invite them to be a part of the process, even going so far as to broadcast the classroom live for them to view online through Ustream, an online video streaming service. Many teachers do not want the intrusion, but I have learned that parents and the community can |

| | | | | be the best advocates when they understand why you are teaching certain ways. They can provide assistance, resources, expertise, and financial backing once support is gained" (Mandy).

As a teacher, I firmly believe that when parents are kept in the loop about everything pertaining to their child's education, the outcome is mostly positive. Throughout the year, I keep parents informed about their child's music education through face-to-face contact, letters, emails, and posts on the school website" (Phil).

"I also began using Outlook to communicate heavily with my students' parents. I email them every test and quiz score and anytime their child misses an assignment" (Roger). |
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| **4. "These teachers demonstrate a student-centered approach to instruction" (Smith & Strahan, 2004, p. 365).** | Take responsibility for student learning- relates to the teacher's mindset that rather than placing blame on students for academic failures, expert teachers look inward, considering | 4.1 | AP | "Alex was a child whose intelligence was off the charts. He could read at an adult level; however, his inability to write paralyzed him. His fourth grade teacher and I worked hard to help him. One day, through his tears over writing a piece about |

teaching pedagogy and engagement strategies; These teachers take personally the failures and successes of their students (Smith & Strahan, 2004).

himself, I asked him to talk to me. Everything he said, I wrote down. When he did not give enough detail or information, I asked why or got clarification. Suddenly, on the second page, I saw a light flicker in his eyes. He stopped and asked, 'So writing is basically just what I think or say written down?' It had finally clicked, and he got it. His next story was worthy of Harry Potter fame, a tale about books coming to life in the library at night. He was proud of his story, and I was proud of him" (Mandy).

"Patrick was a tall, lanky fourth grader who was very shy due to a speech impediment and struggled with reading. I could tell immediately that he was a smart boy, but something was holding him back. I kept a watch for things that might be out of the ordinary, and I spotted it one day while working with him one-on-one. He was mixing up the letter sounds within the word. I hadn't noticed this before. I mentioned my observations to his mother, asking if she had seen anything like this at home. She had

| | | | not, but concerned, she took him to a specialist who diagnosed him with dyslexia. He received services immediately to help him learn compensation skills. Twelve years later, I saw Patrick's mother again. She hugged me immediately and said, 'It is because of you that my child was able to learn to cope, to overcome, and he will be graduating from Auburn soon.' I smiled, realizing that changing a child's life is what it is all about" (Mandy). |
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| Responsive to students' needs- relates to the teacher's mindset of supporting students through appropriate pacing and connecting the content to the real world (Smith & Strahan, 2004). | 4.2 | AP | "I believe in encouraging freedom of ideas in my classes and learning by experimentation; however, there has to be some "organized chaos" to support independent learning. Because I teach levels 1, 2, 3, and Advanced Placement (AP) Studio students, basic skills learned in a previous level are progressively applied as a student advances from one level to the next. Once a student has gained more knowledge in the basic practices and techniques of art, more freedom of creativity is encouraged during the production process. For example, in my AP art |

class, students create a personal volume of art which embodies a central theme, is experimental in media and technique, and reflects the artistic growth of the learner" (Rachel).

"I have gone out of my way to educate the 'digital natives.' I teach in ways that they have come to expect from their personal experiences. All my lessons are computer based, and I use a student response system that lets every student share their answer to practice problems with me; This ensures that all students get to participate, not just the ones who raise their hands. I have created a website, which is rich in educational resources for them. Some of these resources include video podcasts of every lesson, notes for every lesson, and opportunities for extra credit made available in a way that encourages learning. I take my students to the computer lab and teach them to collaboratively build spreadsheets using Google Docs and to turn them in to me

| | | | | electronically with Moodle" (Roger). |
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| | Assess students in a variety of ways- relates to differentiating instruction by content, process, product, or the learning environment (Tomlinson, 2000). | 4.3 | AP | "In math class, he explains to them many different ways to reach the same conclusion. He gives them different ways to think about how and why a math problem turns out the way it does, and as you already know, each child thinks differently, and it helps them to grasp the math concept in their own way. They may not understand the math equation in the same ways, but each child feels great about their accomplishment once they master a problem" (Christy). |
| | Goal mastery orientation- relates to the teacher's belief that classes should be "structured around learning objectives rather than performance goals" (Smith and Strahan, 2004, p. 367); Teachers direct students to focus on meaning- making, mastery, and self- improvement (Pintrich & De Groot, 1990; Slavin, 2006) and de-emphasize grades. | 4.4 | AP | "In the entire data set, the word 'grade' was only used once in relation to test-taking and scoring" (Memo). |
| 5. "These | Modeling for and | 5.1 | AP | "I feel it is how I have |

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| **teachers make contributions to the teaching profession through leadership and service" (Smith & Strahan, 2004, p. 365).** | mentoring teachers- relates to the teacher's involvement in improving current practice of pre-service, new, and veteran teachers by demonstrating lessons and helping teachers acquire skills that improve teaching and learning (Andrzejewski, 2008; Barth, 1990; York-Barr & Duke, 2004). | | | inspired other teachers to follow me on this path to reach even more students. I am in this line of work for the students whose lives I will change along the way.  Leaving a legacy of helping other teachers change even more student's lives in positive ways is truly greater than just counting the lives I have touched and changed on my own" (Roger).<br><br>I feel so strongly about this that I coach and mentor teachers to use these same techniques and curriculum ideas in their classrooms. When I can show other teachers how to develop their classrooms to allow students to think and innovate, I am multiplying my ability to touch students' lives. |
| | Informing school, district, and community policies and actions- relates to the teacher's involvement in improving current practice through activism, including service on various committees that impact education (Childs-Bowen, Moller, & Scrivan, 2000). | 5.2 | AP | "As Alabama Teacher of the Year, I will speak directly to those who make decisions impacting education and invite them to come into schools and experience education today. I will take them beyond the test scores and reveal individual stories of growth and achievement. My discussions will be centered on where we |

| | | | in the teaching profession have been, where we are going, and how we propose to get there. Firsthand experience will make a difference. I would remind them of a quote by Benjamin Franklin which states, 'If we do not hang together, we shall surely hang separately.' The future of our society relies on the education of this generation. We must work together to ensure its success…As a teacher, community member, and black male role model, I will continue to use my voice to advocate early intervention for our black males in hopes of closing the achievement gap" (Phil). |
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| Serving the larger community- relates to the teacher's belief in the importance of community service, including the school and larger community; Teachers attribute this belief to a moral, ethical, or social responsibility or a belief in an interconnected world. | 5.3 | E | "John Mackey, CEO of Whole Foods once said, 'All stakeholders are interdependent and connected together.' Howe true for education! What you do for the students influences the parents, the community, the businesses, and ultimately the state. We are all connected and I see that as a positive when I am participating in community service. I tell my students almost on a daily basis that we are family, and family |

| | | | | takes care of family. The community takes care of each other, inspires each other, and provides for each other when there is a need. I try to live by this statement in my daily life, both inside and outside of school" (Mandy). |
| | | | | "The importance of community was instilled in me at a very young age. Watching my parents help relatives, friends and neighbors who were in need gave me a sense of pride. It also fueled my curiosity of how I could become a more active contributing member of our community" (Roger). |
| | | | | "I believe that it is so important to share God-given talents with others in the community and to cultivate that same spirit in the lives of young people. My commitment to the community is to model service through volunteerism to my students" (Rachel). |
| **6. "These teachers show evidence that they are masters of their content areas" (Smith** | Subject matter knowledge- relates to a willingness to seek to improve practice through professional development, a willingness to | 6.1 | AP | "Through years of attending workshops, visiting museums, and conducting personal research, I have grown a great deal in my ability to provide students with |

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| **& Strahan, 2004, p. 365).** | collaborate with others (Smith & Strahan, 2004), and a willingness to engage in lifelong learning in an effort to remain current in educational practices. | background knowledge to enrich their work" (Rachel).

"My growth as a teacher at my school has been enriched yearly by opportunities that I have been provided to collaborate with educators across the state and nation" (Rachel).

"I believe my greatest contribution to education is that I am still willing to learn how to be a better teacher. A teacher who continues to teach without learning current things is not properly preparing our students for the future. I try to stay on the edge of new classroom technology and issues that affect the musical classroom, as well as, the general education classroom" (Phil Wilson, music teacher, Professional Biography).

"He is tenacious in researching topics using both printed resources and the Internet to ensure that he has the best learning experiences to offer his students" (Stakeholder supporting Roger). |

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| | Pedagogical knowledge- relates to a teacher's "knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter" (Shulman, 1987, p. 8); relates to the teacher's ability to convey subject matter to students and scaffold learning through the use of instructional strategies and effective classroom management techniques (Shulman, 1987). | 6.2 | AP | "Roger is the teacher every high school math teacher wishes their students had first because he builds a rock solid math foundation that the students use the rest of their lives. Roger is the best teacher I have ever seen from a purely academic point, but that is only the beginning of what makes him exceptional" (Stakeholder).<br><br>"Having a teacher with the ability to truly teach and reach out children is a much rarer commodity" (Stakeholder supporting Roger). |
| **7. These teachers demonstrate persistence in creating lessons that encourage students to rise to high, individualized standards.** | High expectations for students- relates to the teacher's belief that students should be held to high standards, including higher order thinking tasks that encourage students to be creative, free-thinkers (Knapp, Shields, & Turnbull, 1995; Lee, Smith, Perry, & Smylie, 1999; Middleton & Midgley, 2002). | 7.1 | E | "I ask them to think differently than they have ever thought before. Sometimes students remark that my class makes their brains hurt, but the amazing ideas, innovations, projects, and products my students produce help me realize that I am doing the right thing. I know what they need to know, and the way I plan it and package the learning makes all the difference in the world" (Mandy). |

"His ability to challenge students to stretch their capacity for math in practical (and dare I say) fun ways is nothing short of amazing. Do his students work hard? Yes. Do they love it and beg for more? Yes!" (Stakeholder supporting Roger).

"My greatest contributions and accomplishments in education come from my belief that the future of society's growth and development is dependent upon the influence and the drive of creative teaching in classrooms. In my classroom, artistic skill and development are important, but what I know to be even more imperative to the future of my students is the value of emphasizing creative thought during the learning process. As a young student, I remember being encouraged to use my imagination, but as I got older, the emphasis on critical and creative thinking in school diminished significantly. I believe that once a student is provided the opportunity to be innovative and original in a classroom, the challenge of the lesson

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| | | | | will be accepted because of individual ownership. My goal as a teacher is to encourage students to overcome obstacles and for them to find, not just one, but many solutions to the challenges at hand in life and in learning" (Rachel). |
| | High expectations for teachers- relates to the teacher's belief that teachers should be held to high standards in planning and executing high-quality lessons (Knapp, Shields, & Turnbull, 1995; Maye, 2013) | 7.2 | E | "Educators must also have the stamina and courage to support change by addressing outdated educational practices that do not support the needs of students" (Rachel).<br><br>"They need teachers who will raise the bar for them, demonstrating that while they hold high expectations for their students, they also hold high expectations of themselves as well" (Roger). |
| | Individualized academic press- relates to the teacher's belief that students should feel individualized press or challenge in the classroom (Blackburn & Williamson, 2013). | 7.3 | E | "In my class, students are challenged to find their own voice as an artist and to believe that what they accomplish during class is valuable" (Rachel).<br>"In my class, students know that it takes stamina, passion, and perseverance to create a successful final product that tells the story of the individual producing the work" (Rachel). |

Appendix 6

Visual Representations of Each Teacher's Alignment to the Themes and
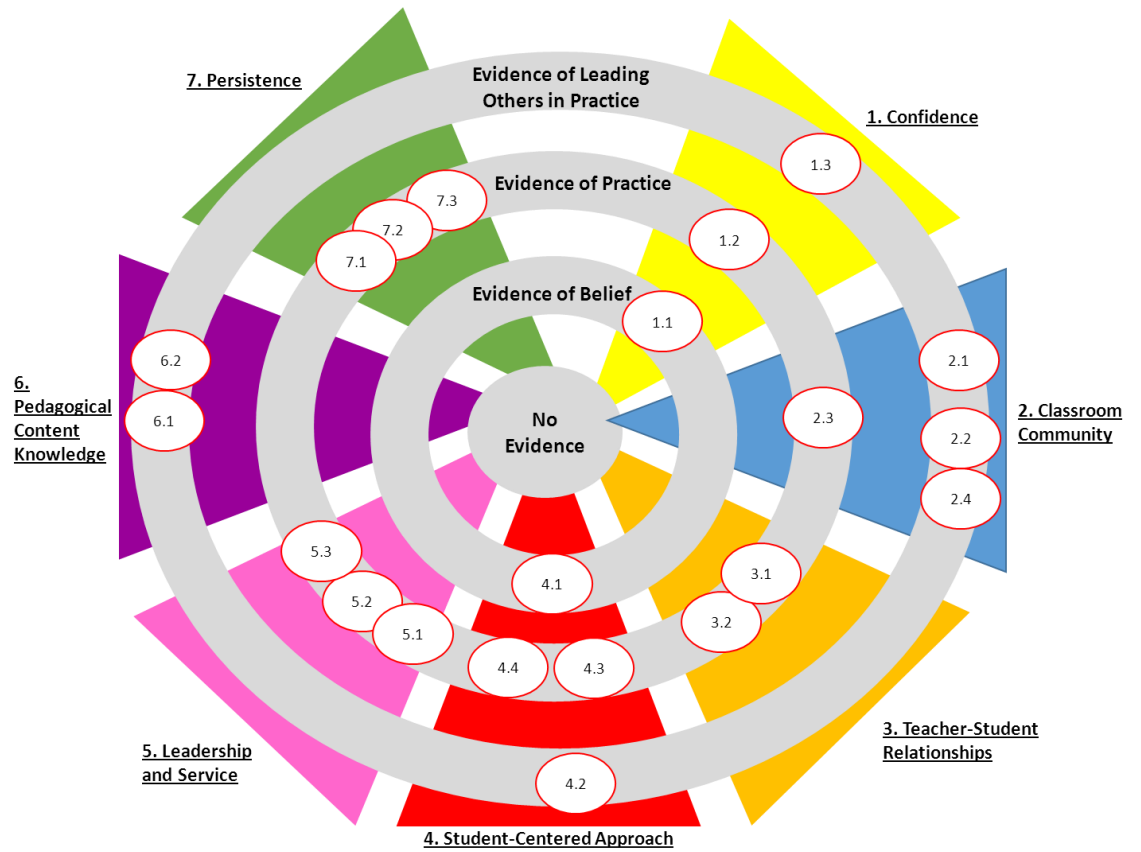
Subthemes of Teacher Expertise

*Figure A6.* Mandy's data plot of the central tendency subthemes using The

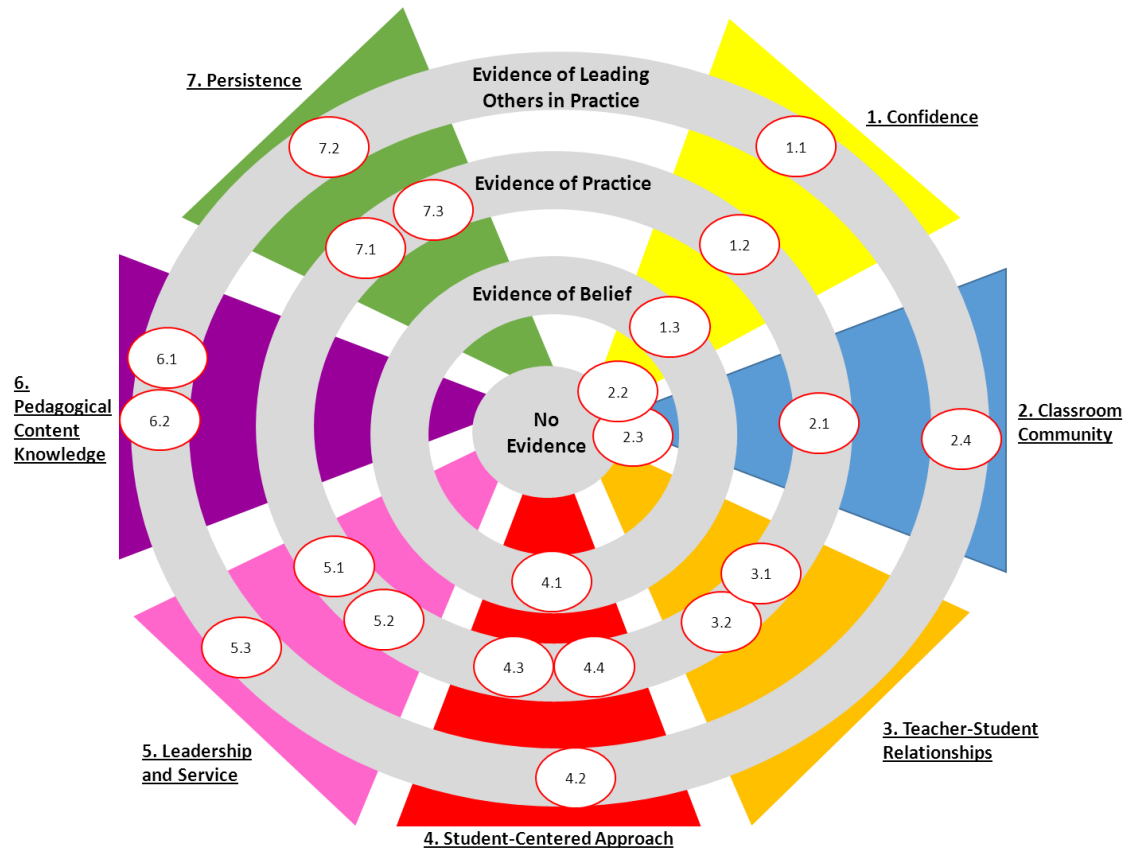Grounded Theory of the Central Tendencies of Expert Teachers Figure.

*Figure B6.* Roger's data plot of the central tendency subthemes using The

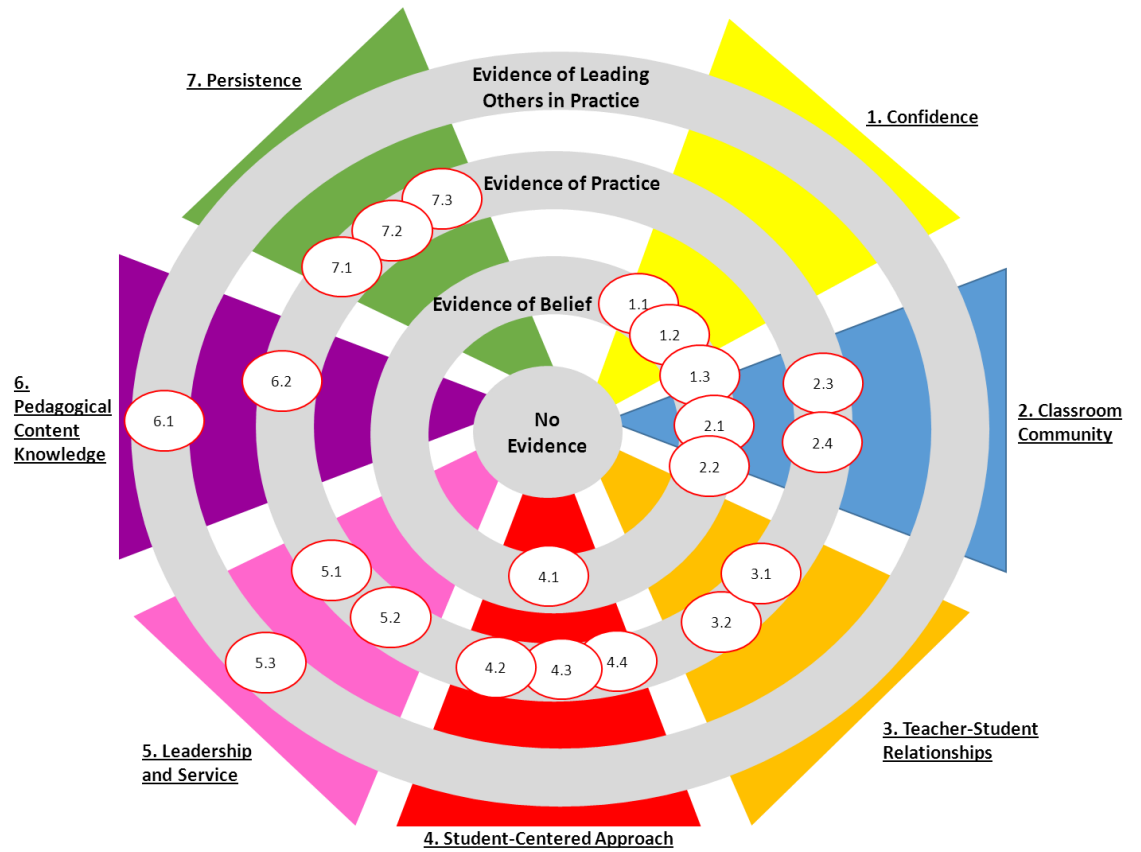Grounded Theory of the Central Tendencies of Expert Teachers Figure.

*Figure C6.* Rachel's data plot of the central tendency subthemes using The Grounded Theory of the Central Tendencies of Expert Teachers Figure.
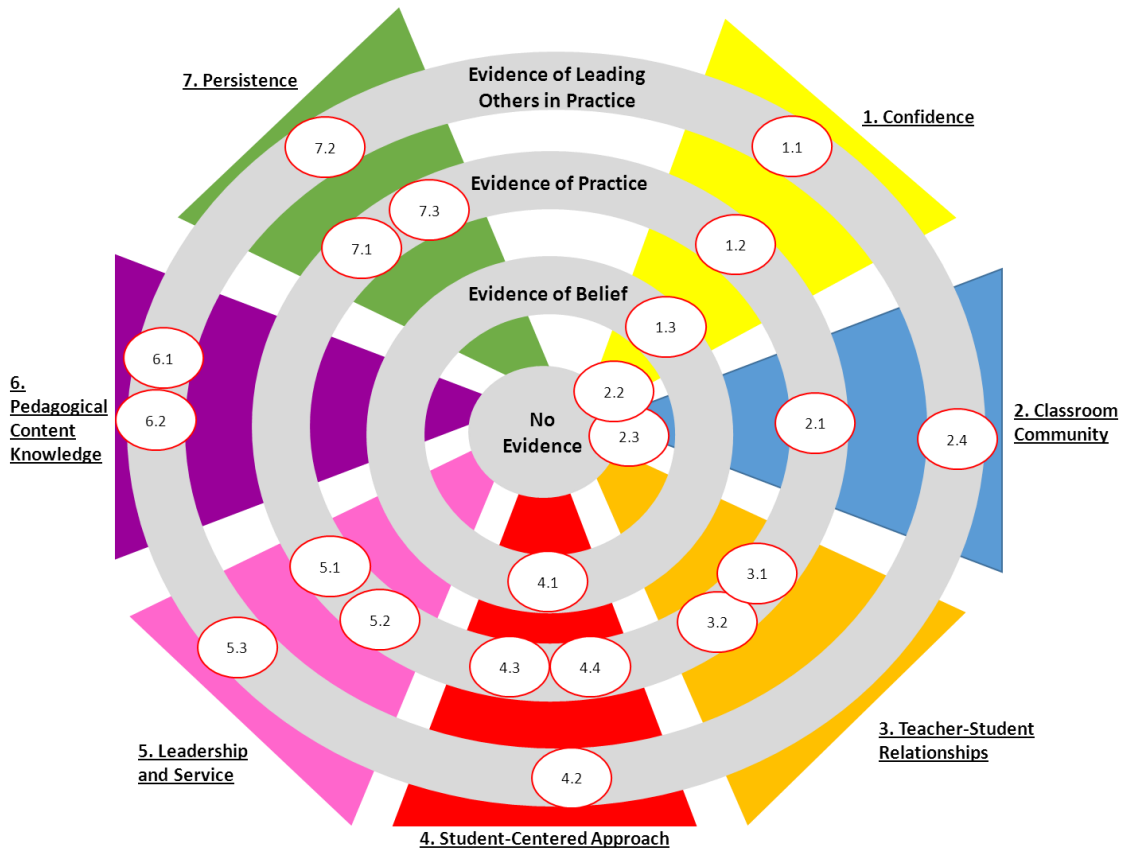
*Figure D6.* Roger's data plot of the central tendency subthemes using The

Grounded Theory of the Central Tendencies of Expert Teachers Figure.