ADMINISTRATIVE SUPPORT OF NOVICE SCIENCE TEACHERS: A MULTIPLE CASE STUDY

Leann Iacuone
Clemson University

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ADMINISTRATIVE SUPPORT OF NOVICE SCIENCE TEACHERS:
A MULTIPLE-CASE STUDY

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Curriculum and Instruction

by
Leann Iacuone
May 2015

Accepted by:
Michelle Cook, Ph.D., Committee Chair
Robert P. Green Jr., Ed.D.
Jeff C. Marshall, Ph.D.
Barbara J. Speziale, Ph.D.
ABSTRACT

Novice science teachers leave the confines of colleges and universities to embark on a new adventure in education where they aim to influence young minds, make a difference in the world, and share their love for their content. They have learned their pedagogical skills with the support and assistance of fellow classmates, a supporting professor, and a cooperating teacher. These teachers enter their new place of employment and are met with many unexpected challenges, such as a lack of resources, no one to ask questions of, and a busy staff with already established relationships, causing them to feel an overall lack of support and resulting in many new teachers rethinking their career choice and leaving the field of education within 5 years of entering. This multiple-case study investigated the administrative support 4 novice science teachers received during an academic year and the novice teachers’ perceptions of the support they received to answer the following research question: How do novice science teachers who have consistent interactions with administrators develop during their first year? To answer this question, semistructured interviews, reflection journals, observations, résumés, long-range plans, and student discipline referrals were collected.

The findings from this study show novice science teachers who had incidents occur in the classroom requiring administrative assistance and guidance felt more confident in enforcing their classroom management policies and procedures as the year progressed to change student behavior. The novice science teachers perceived administrators who provided resources including technology, office supplies, science supplies, and the guidance of a mentor as supportive. Novice science teachers who
engaged in dialogue after administrative observations, were provided the opportunity to attend professional development outside the district, and had a mentor who taught the same discipline made more changes to their instructional practice. Administrators whom the novice science teachers perceived as supportive visited the classroom for observations, answered questions posed by the new teachers, and engaged the novice science teachers in conversation. The study offered 6 recommendations for administrators to enhance the development of novice science teachers at their school sites for the retention of those teachers in order to increase student engagement within the classroom setting, leading to higher student achievement.
DEDICATION

This dissertation is dedicated to my family, friends, students, and colleagues who have supported me through this long process and put up with late-night classes and long-distance commutes (Laurens School District 55 Family). Thank you for always taking my phones calls as I drove on dark highways at 9:15 p.m. on the way home (Jamie Weese). I will always be thankful and appreciate all the kind words, love, patience, support, encouragement, and laughter from all of these individuals to get me to this point. Thank you for always being there and believing in me.

I wish to thank my support in California for my stress-relief breakfasts on the weekends. I appreciate my John W. North High School family for checking on me to make sure I was making progress. Thank you to my fellow North administrators for taking some extra duties and weekend events this past year so I could work on writing. For my best friends at work (The BFAWs), thank you for making me take breaks, goading me, and laughing through my frustrations during the process. I will always be grateful to you.

A very special thank you to Dr. Michelle Cook, who spent hours looking at my writing and coaching me through the process.
ACKNOWLEDGMENTS

Writing a dissertation takes time, energy, and effort. Many doctoral students leave their careers to pursue their doctoral degree; however, I did not. This document exists due to the time and energy of many fabulous people who pushed me forward and were cheerleaders for me. I wish to express my undying appreciation to my committee chair, Dr. Michelle Cook. During the middle of my PhD program, my advisor retired, and Dr. Cook was kind enough to take over as my advisor and encourage me throughout this process. I appreciate everything you have done to help me through and to help me see the light at the end of the tunnel. Thank you for supporting me from such a long distance so I could still continue to work and advance my career in public education. Without your constant positive energy and comments, I would not have completed the process.

I would like to say thank you to Dr. Bob Green, who I know makes me a better writer. With every sentence I wrote, reviewed, changed, and finally accepted, I thought of you and which words to use. Thank you to Dr. Barbara Speziale, who is a constant support for in-service science teachers in the state of South Carolina and someone to whom I am proud and honored to refer teachers for help and assistance. Thank you to Dr. Jeff Marshall, who is helping to lead the changes for science teachers in the state through Inquiry in Motion. With your leadership and guidance in science education in the state and nation, I know changes will be seen. Each of these people has given generously of their time and support to better my work, and their remarks and
suggestions have helped me to grow as a researcher, writer, individual, and educational practitioner.

The faculty of Clemson University’s School of Education has provided me with an excellent education over the course of 14 years. I have had the privilege of seeing the doctoral program change over the years, and it is through Clemson University that I have learned to think independently, put my mind in different situations, and approach work as a scholar. I am proud to say that I have attended three colleges in the state of South Carolina to be exposed to different philosophies to open my mind to paradigm shifts. It is through these experiences that I am able to help shape education for students in public schools.

Thanks to my family, friends, and coworkers who waited patiently for me to finish this process, listened to me complain, dealt with my absence at holidays, made me take a break, or supported me with encouraging words and distractions when you knew I needed them. I am grateful to each of you because so many of you provided me with something along the way.
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I am so overwhelmed! There are 38 students in my Biology 1 class in the academy at my high school, three of whom are classified as gifted and talented; four students receive supplemental services. I have only seen five of the parents at Open House, and when I tried to call my students’ parents, I only talked to six. I had a student throw a pencil across the room and hit another student. I have three students who constantly curse when they speak, and although I have sent them to the office with referrals, they are sent back with no punishment. I have morning duty each day and afternoon duty 2 days a week. My planning period is in the morning, and I keep getting called to cover other teachers who are running late for 15-20 minutes first thing in the morning. My emergency lesson plans are due on Friday, my long-range plans are due on Tuesday, and I have to be at school to help with Beta Club the next 2 nights. I gave a test in all three classes yesterday, and they need to be graded. It was not like this in college. How will I get everything done? I think I need to go into research, as my parents suggested.

(P. Jackson, personal communication, April 26, 2012)

**Significance of the Problem**

Most novice science teachers begin their first year filled with excitement and anticipation of finding a teaching position. Although novice teachers enter their new classrooms expecting a long career in public education, numerous research studies have shown that 50% to 62% of all teachers leave the profession within the first 5 years of
entry (Ingersoll & Smith, 2004; Patterson, Roehrig, & Luft, 2003; Pogodzinski, 2012). In the United States, the teacher attrition rate is disproportionately higher than the attrition rate in other professions, making educational researchers question why teachers are leaving the profession so quickly after entry.

**Increased Need for Science Teachers**

According to Tickle, Chang, and Kim (2011), “The consistent loss of teachers, especially novice teachers from the already limited supply of those entering the field, is likely to create a teacher shortage as student populations continue to rise” (p. 342). Teacher attrition has become problematic for the field of education for four reasons: (a) increasing student enrollments, (b) the cost to replace teachers, (c) competition in a global market, and (d) decreased student achievement (Clifton, 2011; Ingersoll, Merrill, & May, 2012; Pogodzinski, 2012; Tickle et al., 2011).

**Increasing student enrollments.** The National Center for Education Statistics (NCES, 2013) showed secondary enrollments in public education increased 15% between 1996 and 2010 and were projected to increase another 3% in the next 7 years. Additional projections have shown that by 2021, secondary enrollments in the Southeast will increase 9%, while student enrollments in the Northeast and Midwest will only increase 2%; the West will see the largest increase in students entering public schools at 13%. Increasing enrollments nationwide will result in teaching position openings across the United States (NCES, 2013).

The National Academy of Sciences (NAS) in 2007 cited increasing student enrollments and teacher shortages as the reasons for difficulties in filling positions in
schools with qualified teachers over the past 10 years (*Rising Above the Gathering Storm*, 2007). The increase in the number of students attending schools, combined with the increase in teacher retirements, highlights the need for teachers, according to the National Commission on Teaching and America’s Future (1996). Without highly qualified individuals replacing retirees in the classroom, the teacher shortage problem will continue to cause school staffing problems regardless of the type of school: public, private, online, or charter (Tickle et al., 2011).

In response to increasing student enrollments and teacher shortages, programs such as Troops to Teachers, Teach for America, and state alternative certification programs have developed across the nation to recruit new, content-specific teachers into the field of education (Laczko-Kerr & Berliner, 2002). While these programs bring in new teachers, the attrition rate is unchanged; at least 50% of the teachers these programs recruit leave by the end of their fifth year of teaching, following the same trend as traditionally trained teachers (Ingersoll & Smith, 2004).

**Cost of replacing teachers.** Having to replace highly trained teachers with novice teachers every 3-5 years is a financial burden for the states, districts, and schools (Ingersoll & Smith, 2004; Pogodzinski, Youngs, Frank, & Belman, 2012). The Texas Center for Educational Research (2000) calculated the cost of losing half the teachers hired within their first 5 years of teaching at $300 million. In Boston, Johnson and Birkeland (2003) found that replacing 194 teachers within their first 3 years of teaching cost Boston Public Schools $3.3 million. The Alliance for Excellent Education (2005) projected that finding, hiring, and training new teachers costs districts across the United
States an estimated $2.2 billion each year; further, the cost of teachers changing districts, changing schools, or leaving the profession is over $4.4 billion. Additional studies have found the average district cost of hiring, training, and providing professional development for a novice teacher is between $3,300 and $7,000, depending on whether the state requires an induction and/or mentoring program and whether the district provides stipends for mentors (American Federation of Teachers [AFT], 2001; Kauffman, Johnson, Kardos, Liu, & Peske, 2002; Pogodzinski, 2012; Texas Center for Educational Research, 2000).

In 2009, the National Commission on Teaching and America’s Future commissioned Richard Ingersoll to review the cost of teacher attrition by state. The report, *On the Path to Equity: Improving the Effectiveness of Beginning Teachers* (Haynes, 2014), highlighted the number of teachers who leave the profession and the total cost to replace a teacher, which averages $9,500. Table 1 shows the cost of teacher attrition for southeastern states.
Table 1

*The Cost of Teacher Attrition in the Southeast*

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<th>Cost estimate</th>
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<td>Alabama</td>
<td>4,521</td>
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<tr>
<td>Florida</td>
<td>14,065</td>
<td>$133,629,263</td>
</tr>
<tr>
<td>Georgia</td>
<td>8,588</td>
<td>$81,591,743</td>
</tr>
<tr>
<td>Mississippi</td>
<td>3,517</td>
<td>$33,418,682</td>
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<tr>
<td>North Carolina</td>
<td>6,634</td>
<td>$63,025,491</td>
</tr>
<tr>
<td>South Carolina</td>
<td>3,872</td>
<td>$36,787,310</td>
</tr>
<tr>
<td>Tennessee</td>
<td>5,349</td>
<td>$50,821,716</td>
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In 2010, the NCES, which reviews teacher attrition and mobility data, found that 9.1% of teachers with 1-3 years of experience (79,440 teachers) left the profession (Keigher, 2010). During the 2011-2012 school year, the North Carolina Department of Public Instruction (n.d.) reported a turnover rate of 11,791 teachers (12.13%), up from 11.17% for the 2010-2011 school year. The Center for Educator Recruitment, Retention, and Advancement (CERRA) in South Carolina reported that for the 2012-2013 school year, 30% of the teachers leaving the classroom had less than 5 years of experience, and of those, 11.5% were first-year teachers, citing a similar trend the previous 2 years (Garrett, 2014).

In addition to induction and mentoring program costs, there are professional development costs in hiring novice teachers with the implementation of Common Core State Standards (CCSS), Next Generation Science Standards (NGSS), and research-based
school-wide programs such as response to intervention (RTI); multitiered system of support (MTSS); science, technology, engineering, and mathematics (STEM) programs; positive behavior intervention systems (PBIS); and Read 180. Districts across the United States are implementing these programs to varying degrees, but each program requires initiation, implementation, and institutionalization phases, which require teacher training and materials (Achieve, 2015; Common Core State Standards Initiative, n.d.; Scholastic, n.d.).

Many of the professional development costs for novice teachers remain hidden at the district or site level because they are embedded in contracts that extend over a period of time. The contracts allow districts to arrange for reoccurring training(s) to promote the growth of programs within schools while paying the actual cost years earlier with available funds or spreading the cost over a period of time (Synar & Maiden, 2012). When new teachers arrive at the school site, the professional development for program(s) growth slows down, administrators divert time to train new hires, and administrators divert previously allocated money to site fees, curriculum guides, substitute teachers, and/or other resources in order to train novice teachers to sustain the program (Levy, Joy, Ellis, Jablonski, & Karelitz, 2012; Synar & Maiden, 2012).

The on-paper cost of hiring a novice teacher can show an initial savings to the district. However, research has shown the hiring of a novice teacher only results in savings if the veteran teacher’s salary was $15,000 more than the salary of the new teacher being hired (Levy et al., 2012; Synar & Maiden, 2012). In some southeastern districts, this means losing a teacher who has 10 or more years of experience or a teacher
with a higher education level. Recent educational finance studies have shown savings for the district decrease if the new hire teaches science or math due to the costs for specific professional development, substitutes, curriculum materials, and the purchase of resources to train novice science and math teachers (Levy et al., 2012). Synar and Maiden (2012) found,

Many analysts believe that the teacher turnover price tag is even higher due to the fact that hiring costs vary by district and sometimes include signing bonuses, subject matter stipends, and other recruiting costs specific to schools that are difficult to staff. The actual costs of replacing teachers are not readily apparent because these costs are not included in a single line item of the superintendent’s annual budget. (p. 131)

The need for qualified teachers to stay in the profession is emphasized by the professional development costs to maintain programs and also by the human capital costs associated with maintaining school-wide professional development initiatives, socialization, and assimilation of novice teachers. The hours spent working with the new teachers to answer their questions, train them on a program, or socialize them into the school are not recorded on paper. These costs are considered to be the hidden costs of turnover, which reside mainly at the school level and include estimates of administrator and teacher time spent to fill vacancies or develop new teachers, were rarely recorded and so were particularly difficult to obtain. Yet, by all estimates, teacher turnover costs were substantial and had the potential to drain
limited school resources away from educational programs. (Levy et al., 2012, p. 106)

School-based employees who work with new teachers entering a school site must take time away from other responsibilities, leaving their work incomplete or requiring another teacher or clerical staff member to complete the unfinished tasks (Levy et al., 2012; Synar & Maiden, 2012).

**Competition in a global economy.** Schools reflect the needs of society. The United States, as a society, requires students today to be college and career ready to work in a global marketplace. Public school systems need to provide students with the knowledge to compete in the global market. The shortage of math and science teachers becomes a larger concern with an increased focus on STEM education in relation to national security and the development of jobs within the United States (Clifton, 2011). The skills needed to compete in the world today are STEM based, requiring students to increase their scientific literacy, use their creativity to identify and solve problems for the betterment of society, and practice responsible science-based decision-making skills (Feller, 2009; Long & Feller, 2013).

In 2008, schools across the United States lost 16.5% of their teachers. Out of the 530,700 teachers who left their school sites, 6.5% taught mathematics and 8.8% taught in the field of science (Hampden-Thompson, Herring, & Kienzl, 2008). The 2012-2013 NCES follow-up survey showed the same trend. The survey showed that 15.7% of teachers, or 531,300, exited the field of education, with 6.8% from the field of mathematics and 5.9% from the field of science, leaving teaching positions open in all
subject areas (Goldring, Taie, & Riddles, 2014). As noted by Levy et al. (2012), “Shortages, and high turnover rates are more pronounced for science and math teachers in urban, hard-to-staff schools than those for other subject areas” (p. 103).

Public education proponents and opponents have identified the lack of mathematics and science teachers as being directly linked to educational and societal problems such as low student achievement goals, low U.S. academic performance on national tests, an achievement gap between dominant groups and a variety of nondominant groups, national economic competitiveness, and security of the nation (Ingersoll & Perda, 2010). Thus, the need for public schools to graduate high school students who are college and career ready has led to an increased demand for science and math courses, for which there is already a demonstrated shortage of teachers (Ingersoll et al., 2012).

**Decreased student achievement.** The NCES has shown that since 1988, between 30% and 44% of individuals employed as classroom teachers have left the profession each year, requiring schools to fill vacancies (Goldring et al., 2014). Some stakeholders shrug off the idea of teacher shortages and have said there has always been a revolving door, with teachers entering and leaving the profession (Brill & McCartney, 2008; Smith & Ingersoll, 2004). The problem with the revolving door has been the impact on student achievement. When schools cannot find veteran or novice science teachers, they often hire unqualified novice teachers to fill the positions, resulting in lower student achievement (Patterson et al., 2003; Pogodzinski, 2012).
Researchers and educators have noted the single most important aspect of student achievement is the quality of the teacher (Alliance for Excellent Education, 2005; S. Bryant, personal communication, April 18, 2011; Heath & Yost, 2001; Pogodzinski, 2012). The National Council for Accreditation of Teacher Education (NCATE, n.d.) reported that students of veteran teachers with a bachelor’s degree in the field they teach achieve at a higher level than students with new, underprepared teachers or teachers teaching outside their field. Darling-Hammond, Holtzman, Gatlin, and Vasquez-Heilig (2005) also found that schools with the worst performance on annual report cards are those with the highest faculty turnover, therefore affecting student achievement.

Boyd, Grossman, Lankford, Loeb, and Wyckoff (2009) identified three ways teacher turnover affects student achievement. First, when teachers leave, students are more likely to have inexperienced teachers who are less effective. Second, the constant hiring of new teachers creates instability in the schools, making it difficult to implement reforms to have coherent instruction from year to year. Finally, the time and effort it takes to find prospective teachers through colleges and universities; conduct the interview process with a panel or multiple interviews; complete the hiring process, which includes backgrounds checks, insurance paperwork, and payroll; and train new teachers can be costly (Boyd et al., 2009).

Laczko-Kerr and Berliner (2002) discovered that after 5 years of teaching, the difference between the scores of students of veteran teachers became narrower, therefore showing experience in the classroom is beneficial for student performance. To increase student achievement and enable students to compete in a global economy, Laczko-Kerr
and Berliner’s work highlighted the need to address the issue of losing science teachers within the first 5 years of entry into the education profession (Pirkle, 2011).

**Reasons for Science Teacher Attrition**

In order to meet the needs of the U.S. education system, schools should retain teachers longer than 5 years. Researchers have conducted a variety of studies over the past 15 years to determine why teachers leave the education profession within 5 years of entry. Findings from multiple studies have shown there are eight reasons teachers most commonly identify for leaving the field of education (Brill & McCartney, 2008; Corbell, Osborne, & Reiman, 2010; Curtis & Wise, 2012; Friedrichsen, Chval, & Teusher, 2007; Ingersoll & Smith, 2004; Shen, Leslie, Spybrook, & Ma, 2011; Tickle et al., 2011; see Table 2).

**Table 2**

*Reasons Teachers Leave the Profession*

<table>
<thead>
<tr>
<th>Reason number</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Lack of administrative support</td>
</tr>
<tr>
<td>2</td>
<td>Student discipline problems</td>
</tr>
<tr>
<td>3</td>
<td>Poor facilities and resources</td>
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<tr>
<td>4</td>
<td>Poor mentoring and induction programs</td>
</tr>
<tr>
<td>5</td>
<td>Poor student motivation/engagement</td>
</tr>
<tr>
<td>6</td>
<td>Lack of influence in the decision-making process</td>
</tr>
<tr>
<td>7</td>
<td>Salary issues</td>
</tr>
<tr>
<td>8</td>
<td>Family concerns</td>
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</tbody>
</table>
Districts and schools should be aware of the novice teachers’ concerns and work to find solutions in order to retain teachers. As schools implement more STEM-based classes to prepare students to be college and career ready, it is important to take into consideration the special needs, resources, curriculum, and assistance required for science teachers in order to retain them more effectively (Brill & McCartney, 2008; Friedrichsen et al., 2007; Ingersoll & Smith, 2004). Administrators can assist novice science teachers with addressing student discipline problems, poor facilities and resources, poor mentoring and induction programs, poor student engagement or motivation, and a lack of influence in the decision-making process to discourage novice teachers from leaving the field of education. While salary and family are reasons teachers cite for leaving, typically these are not addressed at the site level.

Lack of administrative support. Curtis and Wise (2012) interviewed teachers who made the decision to leave the classroom and found a lack of administrative support as the most common reason teachers gave for leaving the classroom. Surveys and interviews have shown that teachers will stay at the same school site if they have a positive relationship with their administrators, perceive their principal or assistant principal as accessible, and are encouraged to attend conferences for professional growth (Baker, 2007; Towers, 2012). Curtis and Wise (2012) reported, “Teachers whose principals visited their classrooms often, talked with them regularly, and remained highly visible reported higher levels of job satisfaction,” leading to higher levels of teacher retention and student achievement (p. 78). The definition and expectations of what administrative support entails differ from site to site and based on the degree of assistance
required and the experience level of the teacher. A novice teacher may view administrative support as helping with student discipline problems, paperwork, and time management in the classroom, while a veteran teacher may define administrative support in terms of his or her autonomy in the classroom and professional development opportunities offered (Robertson, Hancock, & Anderson Allen, 2006).

The level and type of “administrative support can greatly affect the rate of teacher attrition in a school setting” (Luther & Richman, 2009, p. 29). Administrators are not only responsible for the day-to-day, mundane tasks at a school but also “are charged with creating an organizational climate that promotes individual commitment and organizational effectiveness (e.g., providing adequate resources and professional development, giving meaningful feedback and encouragement, and including teachers in decision making)” (Pogodzinski et al., 2012, p. 270). Administrators who work on organizational effectiveness can address the reasons teachers leave the profession, as shown in Table 2 and explained in the following paragraphs. Overall, a novice teacher’s perception of administrative support and leadership influences that teacher’s desire to remain in the profession; a positive perception can retain a novice science teacher at the site, while a negative perception pushes the teacher away from the site and possibly the education field (Curtis & Wise, 2012; Pogodzinski et al., 2012).

Student discipline problems. For successful classroom management, it is important for teachers to set up and maintain a classroom management plan with consistent routines and procedures to make connections with their students and establish open lines of communication (Caples & McNeese, 2010). Shen et al. (2011) found that
students who interfered with the instruction of teachers were a major cause of stress for novice teachers, and student misbehavior led to stress, burnout, and apathy toward students over time. According to Tickle et al. (2011), “The behavioral climate of a school is important to teacher attrition; student behavior is one of the main factors identified by a former new teacher who made the decision to leave teaching” (p. 344). In addition, Caples and McNeese (2010) found that as the misbehavior of a novice teacher’s students increases, the likelihood that the novice teacher will leave the classroom increases.

Studies found that administrative support of the novice science teachers’ classroom management plans in their first year opened the door of opportunity in several areas. New teachers felt they had the support they needed to tend to in-class issues such as misbehaviors and were able to contact parents about student concerns with the backing of administration, therefore allowing the new teachers to discipline students more effectively (Brill & McCartney, 2008; Ingersoll & Smith, 2004). In order to be proactive, administrators can view the master schedule and class rosters to arrange where the most troublesome students with high numbers of referrals are placed (Moir, 2014). Another method administrators can employ to combat student discipline problems is helping novice teachers understand why students misbehave and address appropriate ways to discipline students effectively in the classroom, especially in a laboratory environment (Towers, 2012).

Research determined that as student discipline issues decreased, teachers became more confident in their classroom management abilities and therefore became more
confident teachers (Brill & McCartney, 2008). Novice teachers who spent time during the first year of teaching to determine whether the administrative support they received complemented their own classroom management style and belief system, therefore allowing the new teachers to be comfortable and productive in the school and classroom, were more likely to remain at the same school (Caples & McNeese, 2010; Pogodzinski et al., 2012).

**Poor facilities and resources.** According to Clark (2012), “A school administrator has the resources and big-picture view to create school structures that encourage the work of supporting beginning teachers” (p. 199). Administrators can show this support and distribution of resources by placing new science teachers in appropriate classrooms, responding promptly to teachers’ requests for supplies, allotting sufficient amounts of money to purchase the supplies novice teachers need to teach their content, handling student discipline issues in what teachers consider a timely manner, and supporting teachers when there is a conflict with a parent (Baker, 2007). As stated by Boyd et al. (2009), “What teachers consider ‘supportive and encouraging’ may vary; for one teacher it may be being generally left alone and trusted with autonomy, while for another it may be administrators who frequently visit the classroom and provide feedback on instruction” (p. 16).

Similarly, Corbell et al. (2010) found that novice teachers believed they needed many resources to be successful; these items included enough paper and supplies, textbooks for all students, a classroom dedicated to teaching, a properly functioning building, and a curriculum. Pogodzinski et al. (2012) found that novice teachers “located
in a school where on average their colleagues report having adequate resources, indicated a desire to remain teaching within that school,” showing administrators the importance of providing novice science teachers with the materials they need in order to retain their newly hired science teachers (p. 265).

Novice teachers also request time: time with their mentors, time to plan, and time to learn about the curriculum. Administrators have the budgetary authority to make time for novice teachers through the assignment of morning and afternoon duties to a veteran teacher (Pogodzinski et al., 2012). Administrators can arrange for substitutes for the novice teachers and their mentors to allow them time to work on planning, curriculum development, or laboratory experiment setup or to reflect on various aspects of the year. Providing the new teachers with release time to work with their mentors and assimilate to the school can relieve stress and anxiety caused by having to plan everything on their own the first year of teaching (Clark, 2012). Brill and McCartney (2008) concluded that providing release time during the normal school day for science teachers to collaborate with veteran science teachers is an invaluable resource for novice science teachers.

**Mentoring and induction programs.** Clark (2012) cited, “Kouzes and Posner’s (2008) work on transformational leadership suggests that school principals play a critical role in ensuring that high-quality and effective experiences [induction and mentoring] for teachers are indeed occurring” (p. 199). Administrators who support their novice teachers request that the district provide a formal, high-quality induction and mentoring program characterized by professional development and formative assessments for the novice teachers and ensure the mentors receive extensive training and time allotted for
weekly meetings with the induction teachers (Pogodzinski, 2012). In some instances, if a
district did not comply or meet the needs of the site-based teachers, the site-based
administrators began an induction and mentoring program in their building utilizing local
financial resources (S. Bryant, personal communication, April 18, 2011).

If an induction and mentoring program is already in place, then the administrator
who has the power to select mentors could ensure at least two of the three conditions
considered necessary for the development of an effective mentor–induction teacher
relationship are in place. These three components are that the mentor and induction
teacher (a) teach the same content/grade level, (b) have common planning, and/or
(c) have classrooms in close proximity to one another (AFT, 2001; Berry, Hopkins-
Thompson, & Hoke, 2002; Huling-Austin, 1988; Smith & Ingersoll, 2004). Studies
found that administrators who provided comprehensive induction programs with full-time
mentors who received training reduced the likelihood of the novice teachers leaving at
the end of their first year of teaching by 30% (Pogodzinski, 2012; Smith & Ingersoll,
2004).

**Poor student motivation/engagement.** Student engagement and motivation are
key components of high levels of achievement (Klauda & Guthrie, 2015; Matteson &
Swarthout, 2011). Public education requires teachers to engage and motivate students in
the classroom and work to attain high levels of student success. Typically, student
engagement occurs when teachers use a variety of rigorous instructional strategies in
which students receive feedback and can see their success in understanding the content
(Hattie, 2009; Knight, 2013).
Novice teachers may have difficulty implementing effective teaching strategies in the classroom. The majority of novice teachers use classroom management techniques as teaching strategies; therefore, student achievement does not increase (Putnam, 2012). Matteson and Swarthout (2011) noted, “When students do not perform well, they attempt to dissociate their failures with their abilities by choosing behaviors such as 1) not trying, 2) procrastinating, 3) avoiding setting high goals, and 4) resorting to cheating” (p. 285); therefore, it is important for novice teachers to have policies, procedures, and scaffolding for academic success in place for students who need additional interventions and tutoring. Instructional planning with a network of teachers to problem solve and learn from one another is a valuable resource for novice science teachers (Clark, 2012).

Matteson and Swarthout (2011) showed that novice teachers have “difficulty identifying motivational strategies related to pedagogy and curriculum” (p. 295). These new teachers require assistance in developing a repertoire of motivational and instructional strategies to use with students to increase student achievement in their classrooms, which comes with experience, mentoring, collaboration, and support from all faculty and staff at the school.

The decision-making process. Teachers seek work environments both inside and outside the education system in which they feel like professionals and share ideas and resources by being involved in the decision-making process (Brill & McCartney, 2008). Teachers want to be in an environment where they feel like professionals and have a voice in decisions that will impact them through the sharing of ideas and resources while receiving guidance from the principal to make decisions (Luther & Richman, 2009).
Shen et al. (2011) explained that principals who provided administrative leadership through clear communication and supportive behavior worked to promote an atmosphere of dialogue and participation among teachers. The principals accomplished clear communication by giving teachers a voice in the decision-making process at the school-site level, with the understanding this can retain teachers longer in their positions. By empowering science teachers, administrators had the potential to improve teacher self-esteem, morale, and work efficiency:

New teachers felt supported by administrators when they worked together to change teaching methods if students were not doing well; worked with teaching staff to solve school or departmental problems; and encouraged staff to use student assessment results in planning curriculum and instruction; or worked to develop the school’s mission. (Boyd et al., 2007, p. 327)

Participation in the decision-making process resulted in higher levels of motivation, energy, and collegiality among the teachers, which led to increased trust between students and faculty, in the end resulting in higher motivation and achievement from the students (Shen et al., 2011).

**Summary.** The vignette presented at the beginning of this chapter is from a high school science teacher, Pamela Jackson, who was leaving the field of education after the first year. In an interview at the end of the school year, Pamela stated the main reason she was going into research was the lack of student discipline and the related lack of support she received from administration (P. Jackson, personal communication, April 26, 2012). She explained that whenever she sent a referral to the office, it would take 2
weeks to come back to her, and the student received no administrative discipline, leaving her feeling unsupported by her principal and assistant principals. She also complained that many of her referrals were based on safety concerns in the classroom, and the lack of support for student safety in a laboratory environment bothered her. Pamela decided to leave because of a low salary and a lack of administrative support, which other teachers have cited as primary reasons for leaving the field (Brill & McCartney, 2008; Friedrichsen et al., 2007; Shen et al., 2011).

To prevent teachers like Pamela from leaving the profession, researchers have suggested that administrators provide teachers with the support they need at the local building level (Ingersoll & Smith, 2004). This support can take myriad forms, but a few include giving additional consideration to their new teacher status and concerns that are within administrative control, such as a manageable class schedule, class size, mentor selection, planning periods, duty schedules, and inclusion on school committees. By investing in teachers during their first year of teaching, administrators are investing in increased student achievement through the development of successful teachers with increased pedagogical skills.

Studies on induction and mentoring programs have stated administrative support is necessary, yet the support the research identified that administrators provided was often cursory and typically in the form of an observation with little or no feedback to the novice teachers (Boyd et al., 2009; Ingersoll & Smith, 2004; Pogodzinski, 2012; Towers, 2012). While a lack of administrative support is the most common reason teachers cite for leaving, there is no research-based plan, guide, or model showing what administrative
support is or looks like for a novice teacher, as compared to the research on induction and mentoring programs. This lack of information leaves administrators in districts the leeway to give what support they want and can provide without a statute of what is necessary and beneficial for the novice science teachers to perceive their administrator(s) as supportive and to continue in the field of education.

Research Questions

This study carefully examined the interactions of four teachers with their supervising administrators to determine how the relationship between teachers and administrators helps novice science teachers develop while minimizing the reasons for those teachers to leave the field of education during their first year of teaching, as shown in Table 2. The overarching research question was, How do novice science teachers who have consistent interactions with administrators develop during their first year? Four additional questions followed from this overarching question:

1. How does administrative support influence classroom management in novice science teachers’ classrooms?
2. How does the appropriation of building-level and instructional resources affect teachers’ perceptions of administrative support?
3. How are teachers’ practices in the classroom affected by administrative support?
4. How do novice science teachers perceive interactions with administrators?

Research has shown that students who are taught by veteran teachers are more likely to achieve at higher levels than students with novice teachers (Darling-Hammond, 2000). Administrators want to retain, support, and encourage the teachers they hire.
New teachers who feel supported and successful during their first year of teaching are more likely to stay at their school site to grow and develop, therefore impacting student achievement in the future (Huisman, Singer, & Catapano, 2010).

This research will provide administrators with insights into how they can help novice science teachers become better classroom managers by completing regular observations, providing feedback, and engaging in dialogue with the novice science teachers. Through administrative guidance, the novice science teachers’ classroom management will improve, therefore alleviating the frequency of student referrals to the office and providing more opportunities for a variety of instructional strategies to occur in the classroom. This research may prompt administrators to look at ways to use their building-level and instructional resources to help new teachers. Administrators will discover new methods to allocate existing resources such as instructional coaches, department heads, mentors, and classroom supplies and to consider the master and duty schedule to support novice teachers. The perception of the support provided to the new science teachers by the administrators can influence the novice teachers to improve their science teaching practice over a school year in order to feel successful and stay in the field of education.

**Definitions of Terms**

**Induction teacher.** An induction teacher is one who is in the beginning of his or her teaching career. This teacher may have entered the field of education through one of two pathways. The first pathway is the traditional one. The traditionally trained teacher enters college with the intent of becoming a teacher. The second pathway is called
alternative certification. All individuals entering an alternative certification program have the content knowledge for the subject area in which they are teaching.

**Induction program.** An induction program is defined as the method by which the district assimilates the induction teacher into the district. Thirty-four states in the United States require districts to have some form of an induction program for their first-year teachers (AFT, 2001; Glassford & Salinitri, 2007). However, within those 34 states, the induction programs vary from state to state as well as from district to district. For the purpose of this study, an induction program entails a group of induction teachers meeting for professional development within the district.

**Mentor.** A mentor is a veteran teacher whom the administration chooses to guide an induction teacher in the first years of his or her career. The term mentor is common in many different types of workplaces; however, it may have different meanings. In education, a mentor is a person who agrees to provide the time and expertise to support induction teachers entering their career pathway. The mentor’s training and duties vary from state to state, district to district, and school to school. In this study, a mentor is the individual specifically assigned to the induction teacher to help guide him or her through the first 2 years of teaching.

**Mentor program.** There are various mentor programs used throughout the United States. One of the most popular comes from the New Teacher Center in Santa Cruz, California, and another from Educational Testing Services. Most state departments of education have chosen a program and require districts to train mentors using a model. South Carolina uses the New Teacher Program that was developed by the New Teacher
Center at the University of California, Santa Cruz. Mentors participating in this study received training using the new teacher model administered by the CERRA.

**Administrator.** Administrators for this study are assistant principals who guide the induction teachers through their first 2 years of teaching. The administrators in this study had the authority to create the induction teachers’ schedules and make modifications as necessary during the induction period.
CHAPTER TWO
LITERATURE REVIEW

Since the late 1980s, educational researchers have predicted a teacher shortage due to a large number of teachers retiring and a lack of retention of teachers entering the profession, causing concern for staffing of public schools in the United States (Tickle et al., 2011). The number of science and math teachers who leave the profession after the first year of teaching is staggering (Ingersoll & Smith, 2004). In 2004-2005, after the first year of teaching, 18.2% of science teachers left the classroom, as compared to 14.5% of math teachers and 12.3% of teachers identified as other, which included social studies and English combined (Ingersoll et al., 2012). Compounding the issue of teachers leaving the classroom and profession was the 19% increase in student enrollments from 1980 to 2008 (Ingersoll, 2012). The two issues, combined with the exponential growth of the U.S. population, suggest there will be more students enrolling in schools, requiring the addition of more teachers to a highly qualified teaching force to prepare students to be college, career, and world ready.

As years pass and teachers complete their working careers, it is inevitable they will retire, leaving teaching positions to fill. The population in the United States is consistently increasing, resulting in increasing student enrollments, which further requires more teaching positions. Districts should work to retain teachers using research-based strategies. The literature reviewed showed districts can increase their teacher retention rates through strategies including (a) implementation of a high-quality induction program with targeted professional development, (b) implementation of a high-quality
mentoring program, (c) provision of instructional resources, and (d) provision of administrative support (Brill & McCartney, 2008; Corbell et al., 2010; Friedrichsen et al., 2007; Howe, 2003; Smith-Davis & Cohen, 1989; Sterling & Frazier, 2008).

**Implementation of a High-Quality Induction Program**

The first and most consistently successful strategy for districts to retain teachers is implementing a high-quality induction program for all teachers (Ingersoll, 2012). An effective comprehensive induction program should meet five critical goals for teacher success from a school-based perspective: to improve teaching performance, to increase the retention of promising beginning teachers during the induction years, to promote the personal and professional well-being of the beginning teachers, to satisfy mandated state or district requirements, and to transmit the culture of the education system to the new teachers (Allen, 2000; AFT, 2001; Berry et al., 2002; Brill & McCartney, 2008; Colaric & Stapleton, 2004; Davis, Petish, & Smithey, 2006; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Ingersoll & Smith, 2004; Smith & Ingersoll, 2004). This section includes a detailed discussion of three of these five induction program goals: improving teaching performance, promoting the personal and professional well-being of the novice teachers, and transmitting the culture of the education system to the new teachers. The discussion does not include the goal of satisfying district and state mandates because South Carolina is one of 33 states that requires an induction program to be in place (Goldrick, Osta, Barlin, & Burn, 2012; Kaufmann, 2007).
Improving Teaching Performance

There are two ways to improve science teaching performance during the first years of teaching. The first is through targeted professional development relative to the content area and grade level of the teacher, and the second is through formal observations with feedback conducted by a trusted individual with whom the novice teacher has a relationship, such as a mentor or supervising administrator (Allen, 2000; Berry et al., 2002; Brill & McCartney, 2008; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Wiebke & Bardin, 2009).

Improving teaching performance is a desire of novice science teachers. Davis et al. (2006) completed a meta-analysis of 59 studies on science teachers within their first 5 years of practice and found the five main concerns of induction teachers were as follows:

- understanding the content and disciplines of science,
- relating to and understanding students,
- understanding and using instructional strategies,
- understanding the learning environment including appropriate classroom management, and
- understanding professionalism within the school.

The research revealed targeted assistance in these areas would be beneficial for novice teachers to help improve their teaching practice. Four teachers from Fry’s qualitative case study provided data in the form of semistructured telephone interviews, e-mail logs, reflective teacher journals, and exit interviews (2007). The artifacts showed that teachers
would have liked their schools to offer trainings and workshops on topics unrelated to their teacher preparation programs to improve their classroom practice.

Colaric and Stapleton (2004) conducted a study in which they surveyed teachers in North Carolina. The research involved 225 respondents answering 43 questions within their first 3 years of teaching in eight counties in North Carolina. The survey revealed that teachers needed targeted professional development in classroom management, planning and teaching to the state standards, meeting the needs of students, and school policies and procedures of the districts in which they taught. Providing school-based professional development in these areas decreased the stress levels of the new teachers and increased their emotional well-being (Colaric & Stapleton, 2004).

Administrators who have observed their new science teachers, built a relationship of trust and communication, and taken the time to speak with the science teachers about the novice teachers’ concerns are able to identify the new teachers’ professional development needs. Through observations and conversations, administrators can work to address novice science teachers’ unique needs and provide targeted professional development from a reliable source, whether the concern is understanding student learning, choosing instructional activities, developing a classroom management plan, maintaining a laboratory environment, or planning to teach the standards. It is important for administrators to take time and guide novice teachers to appropriate professional development opportunities to improve their science teaching practice (Davis et al., 2006; Fry, 2007).
While targeted professional development is a necessary component of the induction process, administrators must assess the implementation of the professional development by the novice teachers to improve teaching practice. During the teachers’ first year, administrators should conduct formative observations to identify strengths and weaknesses while allowing time for improvement or changes in the classroom. Berry et al. (2002) identified the need to “provide novices with on-going guidance and assessment by an expert in the field” (p. 7). This expert can be an administrator or mentor, but the expert needs to guide the development of novice teachers in both subject-matter content and practice (Berry et al., 2002). Fry (2007) found that the most effective observations were those in which postobservation conferences were held within a week of the observation in order to discuss what happened in the classroom, celebrate successes, and make targeted changes. Experts should use the observations to check on the implementation of current professional development opportunities, identify the support necessary for the novice teachers, and tailor new professional development to the needs of the new teachers (Berry et al., 2002; Brill & McCartney, 2008; Fry, 2007; Moir & Gless, 2001; Wiebke & Bardin, 2009). From the literature review, it is apparent administrators can improve teaching performance of novice science teachers by observing their new science teachers regularly, having professional conversations with the new teachers about what they observed, and discussing ways to change or implement new strategies in the classroom to improve teaching performance.
Promoting Personal and Professional Well-Being of Novice Teachers

According to Kaufmann (2007), “Many new teachers cite feelings of isolation and lack of support as critical determinants in their decision to leave teaching” (p. 1). Huling-Austin (1988) explained that emotional support is as important as professional support for new teachers. She asserted novice teachers need emotional support in their job settings because without developing a relationship with someone in the school built on trust and respect, new teachers have difficulty dealing with other professional matters and leave (Huling-Austin, 1988). Novice teachers can develop these relationships with both peer colleagues and administrators. Corbell et al. found that “new teachers who rarely interact with administrators report diminished perceptions of success” and therefore are more likely to change jobs (2010, p. 76).

New teachers struggle to negotiate a balance between work and collegial relationships within the school without guidance from a trusted source (Fry, 2007). To make connections, new science teachers need to develop working relationships with administrators and other faculty members in order to feel comfortable in a new school environment. According to a case study by Brill and McCartney (2008), a welcoming faculty that strongly socialized new teachers allowed the novice teachers to feel they could talk with their colleagues and become contributing members within their departments and schools. Emotional well-being has to be a priority of the school to achieve this type of socialization for new teachers, and the principal or another administrator often leads the socialization. This contrasts with schools identified with
weak leadership and poor socialization, which can cause a new teacher to leave the profession (Brill & McCartney, 2008; Fry, 2007).

While emotional development helps to foster relationships for new teachers to become comfortable in their new environment, it is important to also promote professional well-being. Fry (2007) completed a collective case study using four first-year teachers, each of whom cited working 10-12 hours a day during the week and another 10 or more on the weekends. The four teachers in this study all stated they spent the first semester of the school year trying to find strategies to make their schedules more manageable. The participants also said they would have liked to avoid a trial-and-error approach to curriculum decision making, and receiving appropriate resources would have been beneficial in developing appropriate units and lessons for the students (Fry, 2007).

McCann, Johannessen, and Ricca (2005) noted,

New teachers benefit especially from sitting down with someone who can help them discover the underlying principles that drive the curriculum. With this knowledge, the new teachers become empowered to make decisions, to adjust existing materials and activities to fit their particular teaching situations, and to unleash their creative energies. (p. 32)

By receiving professional guidance and support, new science teachers can use their time more wisely to accomplish responsibilities that are assigned to them or are a function of their job more efficiently and effectively. Administrators can help with this aspect of professional well-being by guiding their school grade levels and/or content departments
to choose a curriculum, provide training, and provide appropriate resources to ensure new teachers have the materials they need to be successful.

**Transmitting the Culture of the Education System to the New Teachers**

While many states across the United States mandate induction programs, these programs are under local control of the district. This provides an opportunity for administrators to transmit the culture of the local education system to new employees by devising goals and strategies for communicating the message of the culture to the new teachers to assimilate them into the school district (Huling-Austin, 1988). The problem with transmitting the culture of the education system is the hidden rules newly hired individuals must learn without knowing whom they should ask for help or whom they can trust to give the correct answer. Administrators typically assign first-year teachers the same tasks, duties, and responsibilities as experienced teachers without regard to their lack of understanding of how they should complete these assignments within the education system (Kaufmann, 2007). This becomes a problem because many induction teachers are slow to seek guidance and help, not wanting their colleagues and administration to think they do not know what they are doing (Fry, 2007; McCann et al., 2005).

Teachers who are unaware of the correct procedures or those who do not conform to the culture of the education system can find themselves in a situation where they feel success eludes them, and therefore they may exit the school, district, or even the profession. The lack of socialization and assimilation into the teaching profession occurred in McGinnis, Parker, and Graeber’s (2004) multiple-case study involving five
science and math teachers who received special training from a statewide program funded by a grant from the National Science Foundation. The program trained these teachers to teach mathematics and science using technology to make connections among the disciplines. The teachers left their undergraduate teacher education programs and entered different districts only to find different experiences as they entered the field of education. The teachers who entered education systems in which administrators and peers accepted creativity and change flourished as teachers, but those who entered districts that did not value different teaching methods found resistance from colleagues and administrators to the implementation of integrated teaching using technology (McGinnis et al., 2004). The teachers in these “reform-resistant environments” decided to leave their schools at the end of the year to find school cultures that would benefit their style of teaching or decided to leave the profession altogether (McGinnis et al., 2004, p. 740).

Administrators can transmit a negative culture of the education system as a result of making decisions that appear to be biased against novice teachers, as seen in Patterson et al.’s (2003) study of 12 Arizona induction science teachers from Grades 6-12 who were either moving between schools or leaving the Arizona education system. The researchers collected data using semistructured interviews to determine why the Arizona teachers made a professional career change. The majority of the participants stated they were unhappy with the school culture in which they worked. One school district denied five of the eight new teachers the opportunity to take advantage of professional development activities, even when an outside third party paid for the sessions. District administrators explained that they did not permit new teachers to participate in
professional development due to a shortage of substitutes because “it was not fiscally responsible to provide professional development for beginning teachers who would probably leave anyway” (Patterson et al., 2003, p. 19). Teachers from this study felt they were limited in how much they could grow professionally in the district and were unsure of whom they could trust within the school. The teachers questioned whether this was a school administrative decision or a central office decision and became distrustful of the administrative teams at their respective schools (Patterson et al., 2003).

A supportive administration in a changing school culture can help to transmit the culture of the education system to the new teachers, as seen in the case of Stella from Fry’s research in 2007. Stella and her supervising administrator had a very good relationship in which Stella felt she could seek her administrator’s advice for help in understanding the decisions of the school. However, her mentor teacher at the school warned Stella not to go to the administrator too much for help. Stella reflected on the two relationships she had formed and decided she would limit her contact with her administrator to after school, when she was provided some privacy. The culture of this school created by the faculty was distrustful of the new administration and encouraged novice teachers to seek out peers to answer questions about the school and curriculum. The administrators from this study did not contradict these new teachers, showing how important communication between the administrators and new teachers is when setting parameters at the beginning of the school year to ensure the desired culture of the school is transmitted appropriately to the new teachers (Fry, 2007).
The development of a high-quality induction program is important for all schools and districts, based on the literature review. Administrators can encourage the district to begin a high-quality induction program or can create a site-based program to meet the needs of the new teachers in order to retain novice science teachers in their school. The implementation of a formalized program, in which all novice teachers must participate, will help improve teaching performance, promote the personal and professional well-being of the beginning teachers, and transmit the culture of the education system of the district and school to the new teachers, which will increase the retention of promising beginning teachers during the induction years.

**Implementation of a High-Quality Mentoring Program**

While an induction program is the first effective strategy, the second and most cost-effective intervention to increase teacher retention is the implementation of an effective mentoring program (Ingersoll & Smith, 2004). Components of effective mentoring programs include having highly trained mentors who know what the administrators expect of them as mentors and carefully selecting appropriate mentors for the induction teachers (AFT, 2001; Glassford & Salinitri, 2007; Heath & Yost, 2001; Ingersoll & Smith, 2004). Districts and administrators have a difficult time selecting a mentoring model because the programs differ from state to state and district to district. Programs vary in the degree of support, the time provided for mentoring, and financial assistance available, thereby making the selection of a mentoring model for use in districts and schools difficult (Athanases et al., 2008).
Highly Trained Mentor

Research has shown that administrators who assign mentors to new science teachers should take into consideration if the science mentors are highly trained in a state-adopted mentor curriculum (Koballa, Kittleson, Bradbury, & Dias, 2010). In addition to content expertise, “mentor teachers believed that they needed to have their duties and responsibilities in the mentoring program clearly delineated. That is, specific obligations of the mentor should be made clear to both the mentor and to the beginning teacher” (Barrera, Braley, & Slate, 2010, p. 71). Administrators who take these considerations into account when selecting a mentor can help science induction teachers have a more successful year and can therefore retain those teachers for future years (Friedrichsen et al., 2007; Grossman & Davis, 2012).

Multiple studies have concluded that mentors should receive formal training to provide appropriate assistance and support in areas such as classroom management, lesson planning, pedagogy, time management, and emotional support during the day (Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Moir & Gless, 2001). Presently, there are several different mentor models and trainings available, but the mentor model most commonly referenced is the Santa Cruz mentor training provided by the New Teacher Center in Santa Cruz, California, and developed by Ellen Moir. The New Teacher Center has worked extensively with induction programs across the United States and specifically in California with the California Department of Education to implement the Beginning Teacher Support and Assessment (BTSA) program, which includes a mentoring component.
Studies have found the Santa Cruz mentoring model to be effective at increasing the retention rate of teachers in California; in the first 2 years of implementation, the model reduced teacher attrition in elementary schools by 26% (Athanases et al., 2008; Bianchini & Cavazos, 2007; Brill & McCartney, 2008). In a study completed during the 2012-2013 school year, Moir (2014) found,

High-quality mentoring programs increase beginning teacher retention by over 20%, importantly while also increasing the effectiveness of those new teachers and their impact on student learning. When school leaders decide to put a high quality induction model in place, new teachers feel better able to make a difference for their students, handle classroom management and even take on teacher leader roles. And they remain committed to teaching. (p. 2)

Grossman and Davis (2012) contributed to Moir’s assertion by explaining the importance of encouraging school administrators to provide strong support for mentoring programs by matching new teachers to mentors tailored to particular initiatives and structures within the school to gain the most from the mentoring program.

**Carefully Selected Mentor**

Along with appropriate training for effective mentors, administrators should carefully select and match prospective candidates with new teachers. Scott (2000) found, in his study over 4 years in New Brunswick with 266 teachers, that the top three problems identified by the novice teachers were different teaching assignments from those of their mentors, a lack of time with their mentors, and the location of their classrooms in relation to the classrooms of their mentors. The participating induction
teachers complained they felt their mentors were too busy to take an active role in ensuring the success of their first year of teaching (Scott, 2000).

Districts typically ask administrators to identify the teachers to be trained as mentors for their sites. Administrators should consider science teachers who demonstrate strong interpersonal skills, credibility with peers and administrators, respect for different perspectives, and outstanding instructional practice as potential mentors (Moir & Gless, 2001). Barrera et al. (2010) noted mentor teachers must have approximately five years of teaching experience to attain a level of proficiency in teaching (as opposed to competency). Having this teaching credibility helps the novice teachers see that success can happen but will require time and effort as a classroom teacher. Administrators also typically select the mentors for induction teachers entering their school and can carefully match the needs of the induction teachers with the mentors. Research has indicated that when administrators pair new teachers with carefully selected, highly trained mentors, the pace of new teacher learning increases (Barrera et al., 2010; Grossman & Davis, 2012).

**Same Content Area/Grade Level**

It is helpful for mentors to have a strong content focus to help the induction teachers meet the standards required by their curriculum since new teachers have multiple challenges in the classroom due to their lack of teaching experience (Berry et al., 2002; Beyer & Davis, 2008; Schwarz et al., 2008). To be most effective, the mentors should teach the same grade level and/or content as the induction teachers, have common planning, and be in close proximity to the new teachers. Matching novice teachers with mentors who teach the same grade or content provides the new teachers with experts who
can help provide suggestions and feedback (Allen, 2000; Berry et al., 2002; Brill & McCartney, 2008; Colaric & Stapleton, 2004; Davis et al., 2006; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Ingersoll & Smith, 2004; Scott, 2000; Smith & Ingersoll, 2004).

The importance of matching novice teachers with mentors who teach the same grade or content was exhibited in Bianchini and Brenner’s (2010) qualitative research study on how an induction program supported and limited new teachers’ efforts to teach science because of a lack of appropriate mentor selection. The study focused on two teachers as they progressed through their induction year in California’s BTSA program. Both teachers stated that while they had mentor teachers whom the administration considered exemplary, the mentors taught in different disciplines. Bianchini and Brenner wrote, “From our interviews, it appeared these mentors were reform-minded in their own teaching, but they did not see how to translate the knowledge and experience in their discipline into suggestions for beginning teachers in others” (p. 178). Therefore, the mentors were little help to the new teachers in shaping instruction or reflecting on content to provide more engaging experiences for students. The mentors stated they did not feel comfortable providing suggestions to their mentees about instructional innovations due to their lack of knowledge about the induction teachers’ subject areas (Bianchini & Brenner, 2010).

Mentors want to be able to help their mentees, as Franke and Dahlgren (1996) showed in a phenomenological study involving 10 mentor teachers and their mentees. The goal of their research was to describe the meaning of mentoring through interview
sessions with the participants. The mentors all felt like they were concentrating on the teaching performance of the new teachers rather than content knowledge, due to their lack of shared disciplines. The mentor participants indicated they felt there was little they could do to help the novice teachers be successful with the curriculum in the classroom. Based on the findings of Franke and Dahlgren (1996) and Bianchini and Brenner (2010), principals should pair beginning teachers with mentors of the same subject area in secondary schools or the same grade level in elementary schools.

While new science teachers have content expertise from their college degrees and possess an understanding of scientific explanations, engaging students in scientific practice and effective instructional strategies in order for students to reach those understandings themselves is difficult for novice teachers, as Beyer and Davis (2008) identified in their case study. Catie, a novice science teacher, needed help in developing lessons and units that engaged students in scientific practice, which only a content specialist could provide. However, Catie’s mentor was an English teacher and therefore could not help her with this aspect of her new teacher experience, leaving Catie alone to figure it out on her own (Beyer & Davis, 2008). Similarly to Catie, Luft (2007) found that novice science teachers without content-oriented mentors asked their mentors for help with logistics only, such as where to get a transportation form or what to do with purchase orders, rather than subject-oriented questions. Novice science teachers stated there was no one to ask for help on how to prepare, run, and clean up laboratory experiments; how to talk about laboratory safety concerns; and where or how to obtain science materials (Luft, 2007).
As demonstrated by Catie (Beyer & Davis, 2008), science teachers have needs other content-area teachers do not have, such as setting up, monitoring, and cleaning up laboratory experiments (Koballa, Bradbury, Glynn, & Deaton, 2008; Luft, Roehrig, & Patterson, 2003). In addition, creating learner-centered instruction with potentially hazardous resources is a skill other content areas do not require; therefore, appropriate and targeted mentor selection is necessary for science teachers (Bradbury, 2010; Lee, Brown, Luft, & Roehrig, 2007; Lee & Luft, 2008). According to Koballa et al. (2008), “When operating from this conception, beginning teachers and mentors assume that the mentor knows best and his or her wisdom of practice should be followed and seldom questioned,” ensuring safety for students, the teacher, and the school (p. 398). To maximize the mentor and novice teacher relationship and improve science teachers’ performance, it is important for administrators to take into consideration the novice science teachers’ content area when selecting a mentor to amplify professional growth of the science induction teachers (Koballa et al., 2008; Luft, 2007; Roehrig & Luft, 2006).

**Common Planning**

Novice science teachers and their mentors need time to work together. Bieler (2012) found five areas where novice teachers desire assistance from their mentors: sharing ideas, navigating the curriculum, grading, discipline, and being able to observe and reflect. For mentors “to foster a more supportive environment for new teachers, experienced teachers should open their doors to informal, nonevaluative observations” (Bieler, 2012, p. 47). Mentors and teachers need time to reflect and discuss the informal nonevaluative observations for the new teachers to improve their instructional practice.
and develop as reflective educators. Bieler noted, “When leaders set aside regular common planning time for faculty members to collaborate, such as through the professional learning community model, teachers feel much more efficient and autonomous in the use of their time” (p. 48).

While novice science teachers have the traditional new teacher concerns, there are other issues, such as classroom management in the laboratory, grading lab reports, lab safety, and laboratory cleanup, which teachers in other content areas do not have to worry about. Bianchini and Cavazos (2007) showed the same concerns in their ethnography of Troy, who felt he could learn a lot from his “science teacher colleague if only given the opportunity” (p. 603). Troy elaborated that he had no forum to discuss content with his colleagues. His mentor had a different planning period, and therefore they did not meet daily or even weekly. Troy was frustrated by the lack of time to discuss professional concerns with another science teacher due to everyone’s busy schedules and infrequent science department meetings that he stated were “few and far between” (Bianchini & Cavazos, 2007, p. 607). Fry (2007) highlighted the same situation with one of her participants. School administration did not provide Stella and her mentor with common planning time, and they taught different grade levels, making it hard to meet after school as well. The lack of shared planning and common grade-level meetings after school prevented opportunities for professional discussion that would have allowed Stella to learn from her mistakes and gain insight into making adjustments (Fry, 2007). Assigning Troy and Stella common planning time with their mentors would have offered the
opportunity to engage in discussions with fellow colleagues and learn from the mentors’
expertise.

Administrators expect mentors to meet and work with their novice teachers. However, in a mixed-methods study involving questionnaires, semistructured interviews, and observations of 16 new teachers and their mentors, 14 workshop leaders, 17 principals, and 10 superintendents, Fresko and Alhija (2009) found only 52% of the mentors maintained regular meetings. The new teachers reported that 71% of the mentors met with them only once a week, and only 11% of the new teachers claimed their mentors observed them in the classroom. Nasser-Abu Alhija and Fresko concluded in their 2010 study of 243 induction teachers that time is important:

Mentors as key players in induction as well as colleagues of the new teacher, have the greatest impact on new teachers’ assimilation. Besides providing pedagogical and personal assistance, they have an important role in new teachers’ adjustment to the school culture. Support from the principal and other colleagues, as well as more time spent in school, all augment the mentor’s contribution. (p. 1596)

Kilburg and Hancock (2006) supported the concept of the importance of time for mentors and their induction teachers and recommended administrators be conscious of scheduling conflicts and match planning periods of mentors and their mentees. Kilburg and Hancock found, in their study of 149 mentoring pairs in four school districts over 2 years, the number one complaint from the mentors and mentees was a lack of time to observe and meet with one another. Administrators have the ability to help provide time
for these relationships to form and discussions to ensue when they create the master schedule or professional development calendar.

**Mentor/Mentee Room Proximity**

The final factor suggested for effective mentoring, and the one that sometimes causes the most controversy in a school, is ensuring classroom proximity of the mentor and mentee (Allen, 2000; Berry et al., 2002; Brill & McCartney, 2008; Colaric & Stapleton, 2004; Davis et al., 2006; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Ingersoll & Smith, 2004; Scott, 2000; Smith & Ingersoll, 2004; G. Ward, personal communication, December 5, 2011). While researchers have agreed a close location between the two teachers is important, the relocation of veteran teachers sometimes makes this condition difficult (Koballa et al., 2008; G. Ward, personal communication, December 5, 2011). The teachers surveyed in the Barrera et al. (2010) study stated, “Having access to mentors who are located nearby, such as in the same building or in the same wing of the building are important for the success of teacher mentoring programs” (p. 72). The literature reviewed showed mentoring relationships work best if they are longer than 1 year (Berry et al., 2002; Bradbury & Koballa, 2007; Brill & McCartney, 2008; Luft & Roehrig, 2002; Moir & Gless, 2001). If the science mentor and mentee room assignments are the same during the second year of teaching, the mentoring relationship can continue formally or informally. The review of the literature showed administrators who are willing to spend time at the beginning of the school year considering novice teacher mentor selection, including teaching the same
content or grade level, common planning, and room proximity, would reap the benefits for years to come by retaining teachers.

**Provision of Facilities and Resources**

Novice teachers entering their own classrooms soon discover they need help. During their education classes, they were placed in classrooms with exemplary supervising teachers who ensured all the resources, materials, and support they needed were close at hand (Glassford & Salinitri, 2007). However, the newly hired science educators leave the guidance of the supervising teachers and safety of college to walk into empty classrooms with teaching schedules full of myriad classes, supplies typically left over from veteran teachers, and questions about the expectations of them as teachers (S. Bryant, personal communication, April 18, 2011; G. Ward, personal communication, December 5, 2011).

Administrators have the ability to take into consideration the needs of novice science teachers and earmark resources like time, money, space, supplies, and technical assistance in the form of mentoring, collaboration, planning time, and classroom observations for the new teachers. These needs were determined from Kardos and Johnson’s (2007) study on 486 public school teachers in four states, whom the researchers surveyed on their experiences as first-year teachers with their colleagues. Except for classroom space and district-level instructional coaches, administrators had the ability to arrange for cost-based resources for the teachers (Kardos & Johnson, 2007).
Tangible Resources

When entering the classroom for the first time, novice teachers expect some basic resources: classroom space, desks, paper, office supplies, and instructional resources like textbooks. However, novice science teachers need to have lab supplies as well, which can range from beakers or microscopes to fume hoods depending on the discipline of science they teach (Corbell et al., 2010; Howe, 2003).

Teachers need materials to be able to help students develop a comprehension of scientific inquiry as well as construct understandings and explanations of scientific principles. Johnson and Birkeland’s (2003) study involving 50 public school teachers identified Ranya, a novice science teacher who complained of the lack of physical materials. Ranya was a scientist who came into a science department with no materials. She stated that no one ordered the tangible items like supplies, books, chemicals, or lab equipment to meet the expectations of the school. Ranya’s concern was how she was supposed to teach science with no science equipment; she expressed her frustration when she stated, “Nothing is there. Nothing is set up for anything, labwise, nothing—no textbooks for a month and a half” (Johnson & Birkeland, 2003, p. 595). The conclusion Johnson and Birkeland reached at the end of their study was that school leaders should create “the conditions that support teachers in their classrooms” (p. 606). The authors recommended that at a minimum,

new teachers have an appropriate assignment and a manageable workload, that they have sufficient resources with which to teach, that their principals and fellow
teachers maintain a stable school and orderly work environment, and that they can count on colleagues for advice and support. (Johnson & Birkeland, 2003, p. 606)

Beyer and Davis (2008) concurred that administrators should provide curriculum materials for science teachers to develop their knowledge of instructional strategies and foster students’ scientific explanations. In addition, Fry (2007) stated, “Providing beginning teachers with binders filled with curriculum materials is one recommended solution” (p. 225). Novice teachers felt these binders/resources would help them avoid the trial-and-error approach to lesson planning that often occurs without direction or resources; however, binders do not offer the advice of someone who has used the materials (Boger & Boger, 2000; Freiberg, 2002). The need to learn from someone who has used curriculum materials previously highlights the need for a content-oriented mentor, science instructional specialist, or science coach to help the new teachers decipher the materials used to teach the curriculum.

In a study of 165 new teachers from New York, Marable and Raimondi (2007) asked the teachers what resources they would like to have during the first year of teaching. The new teachers desired a basic startup kit of classroom materials, technology, a handbook with the policies and procedures explained, a lending library, and Internet access. The teachers stated they “were given ‘next to nothing’ or old and outdated materials to begin their first year of teaching”; in addition, they stated “they were given few guidelines for curriculum development and little, if any, technology” (Marable & Raimondi, 2007, p. 32). Thirty-four teachers who participated in qualitative research completed by Eldar, Nabel, Schechter, Talmor, and Mazin (2003) concluded the
following were important resources: supplying appropriate facilities, including the adequate number of desks or access to working labs that contain fume hoods, fire blankets, fire extinguishers, sinks, and eye washes; assigning classes that are relatively easy to work with; and working with the teachers along the way.

Setting up a classroom, particularly a new classroom for a science teacher, requires planning and can be costly for a site-based budget, especially if it is an addition of a new science position in the school, according to four principals (S. Bryant, personal communication, April 18, 2011; M. J. Roe, personal communication, June 16, 2014; L. Sheffield, personal communication, July 12, 2014; G. Ward, personal communication, December 5, 2011). G. Ward (personal communication, December 5, 2011) and S. Bryant (personal communication, April 18, 2011) recommended administrators provide required tangible resources with budget allocations and protect rooms from veteran teachers scavenging to ensure appropriate supplies are present for the novice science teachers.

**Release Time**

Novice science teachers need time out of their classrooms but still on their school campus to work on their teaching practice. Planning a budget for new teachers to have a substitute teacher a few times a year allows novice teachers the needed release time to observe other science teachers and peers to gain knowledge on what works and does not work in the classroom. The recommendation from the New Teacher Center is for administrators to schedule time for novice teachers to complete “collaborative lesson design, model teaching, veteran teacher observations, reflection, analysis of student work,
goal setting and assessment against professional standards” (Moir & Gless, 2001, p. 113). Algozzine, Grete, Queen, and Cowan-Hathcock (2007), in their qualitative study of 470 teachers in North Carolina, also found release time for observing other teachers to be effective in helping novice teachers improve their teaching practice by allowing the novice teachers the opportunity to see various instructional strategies in practice.

Administrators should not only allow release time for observations but also arrange for novice teachers to work with veteran teachers or instructional coaches. Forbes and Davis conducted a mixed-methods study in 2008 involving 53 first-year teachers. Eight teachers stated that while they had the opportunity to construct lesson plans on their own in their preservice educational programs, they had no experience critiquing and modifying existing curriculum materials to determine the effectiveness of teaching content to students (Forbes & Davis, 2008). Forbes (2004) studied three beginning science teachers who found it difficult to utilize the curricular resources provided to them. All three teachers stated they needed additional help and guidance in understanding the district-mandated curriculum goals and objectives. Forbes recommended that release time with a content-oriented mentor or group of same-discipline teachers would be beneficial in meeting this need of the novice science teachers.

Making sure money is budgeted to allow release time for novice science teachers entering a school is important in developing their instructional practice, improving their classroom management skills, supporting the mentor–mentee relationship, and providing targeted professional development. When novice teachers feel their tangible needs are
being met, it can make them feel like important and valued members of the school (Lencioni, 2012; Moir & Gless, 2001).

**Supportive School and Classroom Environment**

Research has shown that a “principal’s administrative leadership is a critical element in the success of a school” (Shen et al., 2011, p. 210). It is the administrative leadership and support of the students and teachers that determines the school’s culture, its capacity to change, and how both novice and veteran teachers respond to situations (Fullan, 2014). However, administrative support is also the most complicated to identify because the support varies from state to state, district to district, school to school, and even administrator to administrator within the same school. Shen et al. (2011) recommended, “Principals should all provide support through clear communication and supportive behavior as they work to promote an atmosphere of participation within the school” (pp. 222-223).

**Classroom Management**

Preservice teachers read and study textbooks to learn how to create classrooms with classroom management that is “so good that there is rarely a disciplinary event and the class functions so smoothly that it is often difficult for an observer to know what the management plan is” (Bohn, Roehrig, & Pressley, 2004, p. 270). However, the classroom does not adhere to “textbook classroom management.” A classroom management plan is difficult to develop and takes time to master. Novice science teachers want help with classroom management and discipline from their mentors and administrators, and the literature review showed this was the number one need new
teachers cited (Boger & Boger, 2000; Colaric & Stapleton, 2004; Davis et al., 2006; Eldar et al., 2003; Fry, 2007).

In a collective case study of three beginning secondary science teachers, Forbes (2004) found, “New teachers often struggle with managing student behavior due to their limited experience with identifying realistic expectations, establishing rules and consequences, and effective strategies for responding to student misbehavior” (p. 232). The study concluded that novice teachers need help adjusting their classroom management policies and procedures to fit the students they are teaching and their classroom practice needs, which may be different from their preservice experiences (Forbes, 2004).

Maintaining a relationship of respect with students is important in any classroom but is more difficult for a novice teacher. A study of 40 elementary- and middle-grade teachers who were all participants in a preservice traditional education preparation program revealed that 61% of the new teachers failed to stop inappropriate behavior without embarrassing the student (Boger & Boger, 2000). When the researchers asked the preservice teachers about their classroom management decisions and why they did not follow the methods from their research-based teacher preparation programs, the novice teachers could not explain their behaviors (Boger & Boger, 2000). Boger and Boger (2000) suggested these teachers needed more help in comprehending the complexities of classroom management with appropriate discipline for behaviors that their educational programs did not cover.
Novice science teachers have two areas of concern for classroom management: the instructional area and the laboratory area. Classroom management becomes a challenge in the laboratory setting where safety becomes an issue around chemicals and equipment that can harm a student if not used correctly. Novice teachers want logistical help, according to Luft, Bang, and Roehrig (2007), who found novice science teachers stated, “I would like to have the laboratory better organized to ensure that students can find the materials they need and work safely” (p. 27). Mentor and administrative collaboration in determining effective management policies and procedures in each arena can provide new teachers with insight into handling classroom and laboratory discipline effectively based on the school structure and can help new teachers determine when to send discipline problems to the administrator, while the new teachers still feel supported (S. Bryant, personal communication, April 18, 2011).

Feedback

Novice teachers want guidance and support in their first year of teaching. Teachers surveyed in two different studies expressed their need for administrators to provide direct support in the form of observations, feedback on the observations, maintaining contact and confidentiality, continued support and a listening ear, clear explanations of responsibilities and expectations, guidance in conflict resolution, and extra time at the beginning of the year for classroom setup (Eldar et al., 2003; Marable & Raimondi, 2007). Teachers from two additional studies expressed this same sentiment in their desire for a change of climate in which new teachers are encouraged to seek
assistance from others to foster professional growth, but this can only happen with administrative support (Barrera et al., 2010; Saka, Southerland, & Brooks, 2009).

Flores’s 2006 qualitative study, consisting of semistructured interviews, found, “New teachers felt overwhelmed by the amount and variety of duties that they were expected to perform at school, which along with the lack of support and guidance from administration, forced them into ‘learning by doing’” (p. 2047). Flores (2006) concluded that administrators should take time to provide guidance for these new teachers from the first day of hire. Administrators can arrange feedback through scheduling and assigning responsibilities of instructional coaches, who are content-oriented master teachers. These master teachers provide assistance at schools to help with decision-making processes related to instructional approaches and mastering the standards (Soares, Lock, & Foster, 2008). Typically, districts assign science instructional coaches to two or three schools, and the coaches rotate through all of the science teachers throughout the year. While most science instructional coaches create their own schedules based on district needs, administrators can assign the instructional coaches to work with novice science teachers to encourage collaboration, observations, and debriefing of observations (G. Ward, personal communication, December 5, 2011).

Novice Status

According to Fantilli and McDougall (2009), “Almost instantly, a beginning teacher has the same responsibility as a teacher with many years of service” (p. 814). In the public education system, administrators put preservice teachers, newly graduated from teacher preparation programs, into classrooms and expect them to perform at the
level of 20-year veterans. The new teachers state they do not have the experience or expertise from the years of experience to be the 20-year veterans administrators want them to become overnight. Glassford and Salinitri (2007) reminded administrators that most novice science teachers were high school graduates only 4 years ago. These individuals attended institutions of higher learning, but “graduation with a Bachelor of Education degree, followed by receipt of an official teacher certificate, does not magically confer upon them all the knowledge and skills they will need to meet the challenges of a teaching career” (Glassford & Salinitri, 2007, p. 2).

New teachers want novice status, which means when administrators make decisions regarding new teachers, they remember it is the teachers’ first year of teaching (Johnson & Birkeland, 2003; Kardos & Johnson, 2007). Johnson and Birkeland (2003) completed a qualitative study, referenced earlier, involving 50 public school teachers. Their research focused on identifying why teachers stayed, moved to a new school, or left the field of education. The respondents reported their career decisions were dependent largely on the roles and contributions of the principal, including the determination of teaching assignments, workloads, and the availability of curriculum and resources to support their instruction. Johnson and Birkeland recommended school leaders ensure new teachers have appropriate and reasonable teaching assignments, manageable duty schedules, sufficient resources to teach, and stable environments where teachers can count on colleagues for advice and support (see also McCann et al., 2005).

Administrators also have the ability to manage the master schedule to determine which classes science teachers have, how large those classes are, and what students enter
the rooms of the new science teachers. For example, Camilla, a first-year English teacher who participated in Johnson and Birkeland’s (2003) study, was assigned two different English courses and two different history courses at a large urban middle school. This schedule meant four different preparations, two in a subject area she was not qualified to teach. Camilla stated she would have liked consideration in scheduling so she only had two preparations as she acclimated to her career (Johnson & Birkeland, 2003). Another suggestion in helping novice teachers learn the curriculum is reducing the teaching load, as suggested by Forbes (2004) and Ingersoll and Smith (2004), which requires a large budgetary commitment from the site- or district-level leadership.

The studies from the literature review suggested novice science teachers want to know what administrators expect of them, and they want administrators to come to their classrooms, observe, and provide feedback on their teaching practices to show support for them as first-year teachers and help them grow as professionals. Kardos, Johnson, Peske, Kauffman, and Liu (2001) found that teachers who stayed in the education field described their administrators as present and responsive to their needs, focused on improving teaching and learning for students and teachers, and focused on organizing collaboration and teamwork among the faculty and staff. These leadership characteristics were evident in the literature where teachers felt supported by their administrators; however, there is no documentation on what specific tasks or steps administrators completed for teachers to feel this way.
Conclusion

The literature showed a need for administrative support, and this support was one of the key components of successful high-quality induction and mentoring programs (Allen, 2000; AFT, 2001; Colaric & Stapleton, 2004; Eldar et al., 2003; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Ingersoll & Smith, 2004; Moir & Gless, 2001). Administrators should give careful consideration to the appointment of mentors to ensure strong mentoring relationships with close proximity to the novice science teachers, expertise in the same science discipline, common planning, and release time and should require observations with professional feedback (Barrera et al., 2010).

While the benefits of a high-quality induction and mentoring program are well documented, the research is lacking on what administrative support actually entails or looks like for first-year science teachers. The literature generally defined administrative support as the school’s effectiveness in helping teachers with concerns related to student discipline, instructional methods, supplies, curriculum, and adjusting to the school environment. In conversations with novice teachers, when asked specifically how their administration supported them, answers included, “They just listened to me and got me what I needed” (E. Johnson, personal communication, November 14, 2014). Another novice teacher stated,

She [administrator] was just there for me when I had questions. I can’t point to any one thing she did; she was always there when I needed her help with grading, scheduling, duties, asking questions, or if I needed a shoulder to cry on.

(V. Ricci, personal communication, November 5, 2014)
It is important for novice teachers to feel supported since “nearly forty percent of the teachers who left teaching cited a lack of administrative support as the main reason for their departure” (Tickle et al., 2011, p. 343).

Anhorn (2008) and Worthy (2005), who worked with novice teachers, stated many times that induction teachers need and want administrative support or intervention but are unsure of how to ask for the support they desire. However, both researchers pointed out that research participants were often embarrassed and scared to ask for help from administration. Due to new teachers’ hesitancy to ask for assistance from their administrators, it is important for administrators to take an interest in the development of beginning teachers, which includes regular supportive communication regarding their growth as teaching professionals, in order to retain novice science teachers at their school (Anhorn, 2008; Curtis, 2012; Davis et al., 2006; Ingersoll & Smith, 2004; Pogodzinski, 2012; Wood, 2005; Worthy, 2005).
CHAPTER THREE

METHODOLOGY

Introduction and Research Questions

Novice science teachers need support from their administrators to grow and
develop into effective teachers. This study investigated the administrative support novice
science teachers received in mid- and upstate South Carolina in Grades 6-12 during an
academic year to answer the following research question: How do novice science
teachers who have consistent interactions with administrators develop during their first
year? Four additional questions followed from this overarching question:
1. How does administrative support influence classroom management in novice science
teachers’ classrooms?
2. How does the appropriation of building-level and instructional resources affect
teachers’ perceptions of administrative support?
3. How are teachers’ practices in the classroom affected by administrative support?
4. How do novice science teachers perceive interactions with administrators?

Context and Design of the Study

Qualitative research was most appropriate to address the research questions,
specifically a multiple-case study (Yin, 2009). This qualitative approach allowed the
researcher to explore multiple bounded systems (four cases) over time through an in-
depth, detail-oriented data collection system that encouraged the use of multiple sources
of information. The use of a multiple-case study allowed themes to emerge through
coding of the data. This multiple-case study followed two administrators and four novice
science teachers, with 0-2 years of experience, over the course of the school year to investigate the perceptions, interactions, and development of the novice science teachers over time with administrative support. The researcher collected data through the use of observations of the classroom teachers, taped observations of the collaborative meetings between the administrators and novice teachers, written reflection logs, semistructured interviews, collaborative meeting logs, lesson plans, and student discipline referrals, thereby providing four case studies at two schools.

The researcher selected the time frame for the study to comply with constraints of the public school system. Data collection took place from September through early April of the 2012-2013 school year. The study continued until the participants’ school boards completed recommendations for hire. The time frame allowed the researcher to use multiple data sources to determine key interactions between the induction teachers and administrators as they progressed through the year, which encompassed the midyear and end-of-year evaluation procedures.

Population

The four South Carolina teachers and two administrators included in this study worked in public high schools in districts with formalized induction and mentoring programs. The school districts involved in this study had impressive teacher retention rates over the past 6 years, as compared to the national averages from NCES (2013) and reported by the district report cards published by the South Carolina Department of Education (n.d.; see Table 3). The percentages reported in the district report card are based on the districts’ teacher populations and do not reflect novice teachers as a separate
entity; however, the high retention rates warrant further investigation of the supports for novice teachers in the participating districts.

Table 3

*Percentage of Teachers Returning From Previous Year*

<table>
<thead>
<tr>
<th>Region</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC District 1–Upstate</td>
<td>86.5</td>
<td>87.9</td>
<td>90.7</td>
<td>87.3</td>
<td>87.5</td>
<td>85.9</td>
</tr>
<tr>
<td>SC District 2–Midstate</td>
<td>90.7</td>
<td>88.2</td>
<td>89.9</td>
<td>86.9</td>
<td>88.7</td>
<td>87.6</td>
</tr>
<tr>
<td>Nationwide</td>
<td>84.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>84.3</td>
</tr>
</tbody>
</table>


The novice teachers involved in the study were in their first full year of teaching and participated in the state’s Assisting, Developing and Evaluating Professional Teaching (ADEPT) program. The ADEPT process includes an induction program designed by the school districts and a formalized mentoring program designed by the Center for Educator Recruitment, Retention, and Advancement (CERRA), thus ensuring each novice teacher has a highly trained mentor.

Two administrators participated in the multiple-case study. The two administrators had vastly different amounts of time in the position and experiences they brought to the study, as shown in Table 4. Between the two of them, at the time of the study they had an average of 8 years of administrative experience at their respective schools, and both worked with novice teachers in previous years. Neither administrator
had taught science, but both administrators were responsible for novice teacher evaluation at their respective sites.

Table 4

*Overview of Administrator Case Study Participants*

<table>
<thead>
<tr>
<th>District</th>
<th>Administrator</th>
<th>Years of education experience</th>
<th>Subject taught</th>
<th>Teachers</th>
<th>Years of administrative experience at school</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Debbie</td>
<td>33</td>
<td>High school social studies</td>
<td>Lucy &amp; Barbara</td>
<td>13</td>
<td>Master schedule, new teacher evaluation, curriculum &amp; instruction</td>
</tr>
<tr>
<td>2</td>
<td>Susan</td>
<td>11</td>
<td>High school English</td>
<td>Melanie &amp; Tyson</td>
<td>3</td>
<td>Master schedule, guidance, new &amp; veteran teacher evaluation, curriculum &amp; instruction</td>
</tr>
</tbody>
</table>

The teachers who participated in the study, as shown in Table 5, had diverse backgrounds. Three were traditionally trained teachers entering the field of education, and one was a career changer who was in the Program of Alternative Certification for Educators (PACE) sponsored by the South Carolina Department of Education; some of the teachers had gone back to college to complete a Master of Arts in Teaching program. The different experiences provided for different perceptions of support and guidance throughout their year of teaching. The names of the schools, administrators, and teachers
involved in this study were changed to protect the identities of the participants and schools.

Table 5

*Overview of Novice Science Teacher Case Study Participants*

<table>
<thead>
<tr>
<th>District</th>
<th>Teacher</th>
<th>Years of experience</th>
<th>Grade/subject</th>
<th>Administrator</th>
<th>Years of experience</th>
<th>Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lucy</td>
<td>0</td>
<td>High school biology</td>
<td>Debbie</td>
<td>13</td>
<td>Yes</td>
</tr>
<tr>
<td>1</td>
<td>Barbara</td>
<td>0.5</td>
<td>High school biology</td>
<td>Debbie</td>
<td>13</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Melanie</td>
<td>0</td>
<td>High school physical science</td>
<td>Susan</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Tyson</td>
<td>0</td>
<td>High school physics</td>
<td>Susan</td>
<td>3</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Upstate—Reidville High School**

**Teacher: Lucy (administrator: Debbie).** Lucy was in her first full year of teaching at the time of the study. She was a graduate of Reidville High School and returned to teach after graduating from the education program at a South Carolina research university. Lucy taught a marine science class and two biology classes during the first semester of the 2012-2013 school year, and during the second semester she taught three anatomy and physiology classes on a four-by-four block schedule. Her supervising administrator was Debbie, who had been at the high school for 13 years and supervised all new teachers coming into the school.

**Teacher: Barbara (administrator: Debbie).** Barbara was also in her first full year of teaching at the time of the study. Barbara arrived at Reidville High School in
January 2012 to take over for a teacher who retired; she taught two anatomy and physiology classes and four biology classes, evenly split between the two semesters on a four-by-four schedule. Barbara had taught at the technical college level but was new to K-12 public education. She entered the South Carolina PACE in December 2011 and finished her coursework during the summer of 2012. Her supervising administrator was also Debbie.

**Midstate—Kennerly High School**

**Teacher: Melanie (administrator: Susan).** Melanie entered Kennerly High School in the 2012-2013 school year to start her first year of teaching. She had a full course load of physical science classes assigned to her. Melanie was a recent graduate of a state university where she earned a bachelor’s degree in biology and continued to finish her Master of Arts in Teaching in graduate school. Melanie was from the upstate area but decided to stay midstate to start her teaching career. Melanie’s administrator was Susan, who was starting her fourth year at the school as assistant principal at the time of the study. Susan supervised the new teachers her first year, and although the school had a principal change, she was still responsible for supervising the new teachers at Kennerly High School.

**Teacher: Tyson (administrator: Susan).** Tyson was a recent graduate of a research university and came to the district with a Master of Arts in Teaching as a first-year teacher. Tyson and Melanie graduated together from the same university in May of 2012. Tyson’s father was an educational administrator in South Carolina, so Tyson had been around educators all his life. In the 2012-2013 school year, Tyson taught a full
course load of honors courses consisting of four physical science and two physics classes at Kennerly High School. His supervisor was Susan as well.

**Subjectivity Statement**

The nature of research is such that “findings are powerfully influenced by the relationship between the researcher and the researched” (Berg & Smith, 1998, p. 21). In qualitative research, the researcher is an important part of the process and cannot separate him- or herself from the people he or she is studying. The interaction between the researcher and the subjects is how the knowledge is created, causing researcher bias to enter into the picture even if the researcher tries to remain neutral (Mehra, 2002).

The personal experiences of this researcher had the potential to affect how she viewed data because of (a) her passion for education and novice teachers, particularly science teachers; (b) her employment in one of the two districts included in the study; and (c) her relationship with the participants. Acceptance and acknowledgment of this bias helped mitigate the effects of the bias during the data analysis of the study. As Peshkin (1988) pointed out, during qualitative research, the researcher cannot remove his or her subjectivity, but it is something the researcher needs to be aware of during the research process. Understanding one’s subjectivity by acknowledging values, points of view, and personal experience is critical during the data analysis process (Strand, 2000).

The researcher acknowledged that she had been in the same position as the novice science teachers involved in this study. The researcher pursued a career over the past 15 years that put her, at the time of the study, in the position of supervising administrator for novice teachers. The researcher acknowledged the empathy she felt for novice teachers,
and at the time of the study, she provided a site-based modified induction program, resources, consideration of novice teacher status when scheduling and assigning duties, observations with feedback, and monthly meetings to develop relationships in hopes to retain beginning teachers at the high school level.

**Data Collection**

Data collection for the case studies began in September 2012 and continued through April 2013 (see Table 6), when the participants’ administrators completed contract recommendations for school board approval. To ensure artifacts for triangulation, the researcher collected data from multiple sources.

Table 6

*Research Timeline*

<table>
<thead>
<tr>
<th>Data source</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with teacher and administrator pairs</td>
<td>August 2012-September 2012</td>
</tr>
<tr>
<td>Preparticipation interviews for both administrators and novice science teachers</td>
<td>September 2012</td>
</tr>
<tr>
<td>Syllabus/letter home</td>
<td>September 2012 and January 2013</td>
</tr>
<tr>
<td>Administration observations and professional collaboration logs</td>
<td>September 2012-March 2013</td>
</tr>
<tr>
<td>Written reflections</td>
<td>September 2012-March 2013</td>
</tr>
<tr>
<td>Researcher observations</td>
<td>November 2012 and March 2013</td>
</tr>
<tr>
<td>Midyear interviews for both administrators and novice science teachers</td>
<td>December 2012</td>
</tr>
<tr>
<td>Discipline referrals</td>
<td>December 2012 and March 2013</td>
</tr>
<tr>
<td>End-of-year interviews for both administrators and novice science teachers</td>
<td>March 2013-April 2013</td>
</tr>
</tbody>
</table>
Selection Criteria

The researcher held face-to-face conversations with each of the potential candidates to determine their interest and level and commitment to participating in the research study. This allowed the researcher to gain insight into the extent of preparation of the participants involved in the study. The researcher collected résumés from all participants to review their years of experience and coursework. Reviewing the résumés also gave the researcher a sense of the range of experiences the participants had in the field of education.

Semistructured Interviews

Data collection began in September 2012 with semistructured interviews. The researcher interviewed novice science teachers and administrators separately and conducted preparticipation interviews, midyear interviews, and end-of-year interviews. The researcher audiotaped and transcribed all interviews. The researcher obtained the semistructured interview questions for the preparticipation interviews with both novice science teachers and administrators (see Appendices A and B) from multiple sources in the literature reviewed. During the preparticipation teacher interviews, the researcher aimed to establish rapport and gain insight and understanding into the supports available to the novice teachers through their mentoring and induction programs to determine provisions from the districts and administrators. The teacher interviews also identified resources offered at the beginning of the school year to ensure the success of the new teachers.
During the administrative preparticipation interviews, it was important to determine what decisions the administrators made in consideration of the novice teachers’ status, what assistance was in place, and the initial resources provided. This information showed what supports, remediation, and help the administrators offered as the school year progressed. The researcher also posed interview questions to the administrators to determine allocations of budgetary, building, and instructional resources. Some of the items considered included, but were not limited to, determining the teachers’ duties, classroom location, teaching schedule, planning period, mentor selection, student placement, classroom supplies, technology, textbooks, laboratory equipment, and other general science supplies. The researcher interviewed teachers using open-ended questions to determine their perceptions of support from the administrators related to building-level and instructional resources.

The researcher conducted midyear interviews (Appendices C and D) and end-of-year interviews (Appendices E and F) with novice science teachers and administrators separately in order to maintain confidentiality of their perceptions of administrative support and novice science teacher development, respectively. The researcher designed the semistructured interviews for novice science teachers to reveal their perceptions of administrative support and how the science teachers’ classroom instructional practices changed over the course of the study. The researcher aimed to gain insight from both the administrators and novice science teachers into how the teachers’ classroom management practices had changed since the beginning of the year, including the number of discipline referrals and reasons for the referrals.
Discussions with the administrators about building-level and instructional resources for the new teachers created a picture of how much support the administrators provided to the novice teachers and allowed for triangulation of data. The researcher aimed to gain an understanding from administrators of how the new teachers’ instructional practices had changed and/or improved since the beginning of the year and how much of that change was due to administrative support, mentoring support, or the induction program.

**Syllabus, Letter Home, and Long-Range Plan**

The researcher received a copy of the novice science teachers’ syllabi and/or letters sent home during the first days of school for each class they taught. Teachers on a four-by-four block schedule provided copies for the second-semester classes in January. This information allowed the researcher to see the policies and procedures the teachers wanted to establish in the classrooms as well as the rules and consequences to determine any adjustments made during the year. The researcher requested a copy of each teacher’s long-range plan to see class demographics and view instructional pacing for the school year.

**Reflection Logs**

The researcher asked the teachers to keep a weekly log of their teaching practices, highlighting their celebrations, concerns, and frustrations, and to record what steps they were taking to address their concerns and solve their frustrations. The researcher provided prompts for the novice science teachers to guide their thinking during their reflections (Appendix G). The teachers received reminders via e-mail to record their
reflections. The researcher reviewed reflection logs to determine if novice science teachers were sharing any concerns with their administrators. In addition, the reflection logs showed trends of problems or concerns the teachers were facing or the administrators were seeing during classroom observations. In addition, the researcher requested the novice science teachers to reflect after professional conversations in their reflection logs. These multiple sources were useful in triangulating the data.

**Discipline Referrals**

The researcher asked participants to provide data as to the number of discipline referrals and types of offenses referred to the office (Appendix H). In addition, the researcher asked the novice science teachers to provide information regarding actions the administrators took. While the researcher did not collect or use any student names or student personal data in this study, the number of discipline referrals and the types of offenses the teachers reported allowed the researcher to gain an understanding of the type of classroom each teacher managed in terms of consistency in enforcing the rules and consequences they set.

**Administrative Observations**

The researcher asked administrators to conduct observations every 3 weeks in the novice science teachers’ classrooms for at least 30 minutes using either the ADEPT ET1: Classroom Observation Form or their school’s observation form. The administrators gave the researcher copies of observation forms to use as artifacts in data analysis. Kennerly High School used the South Carolina ADEPT ET1: Classroom Teacher Observation Form (Appendix I), and Reidville High School used a form created in-house.
(Appendix J). The researcher analyzed these observations to determine what feedback the administrators provided to indicate what changes novice science teachers could make to develop their teaching practices. The observations also indicated the novice science teachers’ development of classroom management trends and strategies used over the data collection period.

**Researcher Observations**

The researcher observed each novice science teacher twice during the study. The first observations occurred prior to the midyear semistructured interviews and the second prior to the end-of-year semistructured interviews. The researcher triangulated data to determine whether the administrators’ observations, the reflection logs, and the researcher’s observations of classroom practices were reliable. The multiple encounters also allowed the researcher to develop rapport with the novice science teachers to help ensure more honest answers during the semistructured interviews.

The study aimed to determine how novice science teachers who have consistent interactions with administrators develop during their first year. The researcher collected specific data sources and artifacts to address the research questions (see Table 7). A list of teachers, the artifacts connected with the teachers, the date of collection, and participants involved, including participant interviews, can be found in Appendix K.
Table 7

Data Sources for Research Questions

<table>
<thead>
<tr>
<th>Research question</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How does administrative support influence classroom management in novice science teachers’ classrooms?</td>
<td>• Semistructured interviews</td>
</tr>
<tr>
<td></td>
<td>• Syllabus/letter home/long-range plan</td>
</tr>
<tr>
<td></td>
<td>• Administrative observations</td>
</tr>
<tr>
<td></td>
<td>• Researcher observations</td>
</tr>
<tr>
<td></td>
<td>• Reflection log</td>
</tr>
<tr>
<td></td>
<td>• Discipline referral record</td>
</tr>
<tr>
<td>2. How does the appropriation of building-level and instructional resources affect teachers’ perceptions of administrative support?</td>
<td>• Semistructured interviews</td>
</tr>
<tr>
<td></td>
<td>• Reflection log</td>
</tr>
<tr>
<td>3. How are teachers’ practices in the classroom affected by administrative support?</td>
<td>• Semistructured interviews</td>
</tr>
<tr>
<td></td>
<td>• Administrative observations</td>
</tr>
<tr>
<td></td>
<td>• Researcher observations</td>
</tr>
<tr>
<td></td>
<td>• Reflection log</td>
</tr>
<tr>
<td>4. How do novice science teachers perceive interactions with administrators?</td>
<td>• Semistructured interviews</td>
</tr>
<tr>
<td></td>
<td>• Reflection log</td>
</tr>
</tbody>
</table>

Data Analysis

The researcher analyzed data during and following data collection, using Creswell’s (2007) techniques of case study analysis and representation. The organization of the data analysis followed the sequence shown in Figure 1. Throughout the study, the researcher compiled all data electronically through scanned documents, e-mails, electronic logs, and audio and video transcriptions.
First, the researcher created a detailed case description of each school, including the administrator, to provide a case context and description for the reader. Next, the researcher coded data sources for each pair of administrators and novice teachers for the research study’s foci: classroom management, allocation of resources, improved teacher
practice, and teacher perception of administrative support. This type of coding, called direct interpretation, involves looking at each individual case and then looking at single instances to place them into categories based on the researcher’s interpretation. This approach allowed the researcher to pull data apart and put them back together in meaningful ways from different data sources such as videos, observations, written logs, and interviews. Next, the researcher completed a cross-case analysis to search for patterns by grouping similar events from the four case studies into categories based on the study’s foci. Finally, generalizations about the relationships emerged from the data, allowing for implications to develop to inform administrators on ways to support novice science teachers.

**Research Validation**

To ensure validity, the researcher used the methods from Creswell (2007) and Yin (2009) to comply with appropriate case study methodology. The first way to ensure research validation is through multiple data sources to allow for data triangulation during the study. The researcher used multiple sources of data, and these varied sources corroborated the administrator and teacher data.

The second method to ensure validity is through clarifying researcher bias. The researcher acknowledged the subjective nature of her interest in this topic and the existence of prior contact with the participants and their schools. The researcher is not only a trained mentor but is also licensed to train mentors in the state of South Carolina. The researcher had previous direct contact in a variety of forms with all teacher participants in this study as well as with the administrators who agreed to participate.
The researcher accepted a new position during the summer of 2012 and at the time was employed by one of the districts that participated in the study.

It is also important to note that the researcher’s participation in induction and mentoring programs in the state of South Carolina and feelings of empathy for novice science teachers motivated her to conduct this study. The researcher’s experiences honed the focus of this research to look for methods and supports to benefit novice science teachers in the public school system.

The third method to ensure research validation is through an external audit, which an outside auditor who had no connection to the study conducted (Yin, 2009). The researcher provided all artifacts to the external auditor, who selected artifacts randomly to review.
CHAPTER FOUR
ANALYSIS OF DATA

Case Context

This multiple-case study included four novice science teachers, two each from two different schools. The administrators involved in the study supervised both teachers participating at each school site. All teacher participants completed the interviews; submitted their syllabi, letters home, and long-range plans; completed their reflection journals; and submitted their résumés. There was varied compliance with the request for their records of discipline referrals. The teachers explained that they often forgot to record the referrals when they happened.

Each of the teacher participants attended an induction program facilitated by his or her district. Both districts employed an outside consultant who facilitated the meetings on a monthly basis, including a preservice component. Reidville High School’s district required all novice teachers in Grades K-12 to attend the same meeting, while Kennerly High School’s district divided the teachers into Grades K-5, 6-8, and 9-12; therefore, novice teachers met with other novice teachers in their grade span.

The site-based administrators assigned a mentor to each of the study members. Each mentor had received training in previous years through the state mentoring program, thereby ensuring each novice science teacher had a highly qualified and trained mentor. In this study, each of the mentors taught a full course load of science classes but not always the same science discipline as their mentees. At Kennerly High School, the supervising administrator asked the mentors to participate in the midyear and end-of-year
conferences. The administrator at Reidville High School did not include the mentors in any of the conferences.

The analysis of the cases in this chapter follows the sequence shown in Figure 1 (in Chapter Three), which begins with a case description of the first school, including the background of the administrator involved, and then moves to the teachers the administrator supervised. In each of the cases, an overview of the novice science teacher’s classroom management, the resources allocated, the development of the teacher’s practice, and the novice science teacher’s perception of the administrator’s support is presented. The analysis of cases from the second school follows in the same format, and the chapter ends with a cross-case analysis including the differences and similarities between the cases.

Case Description—School 1: Reidville High School

Reidville High School is in one of the seven districts in this South Carolina county. The district serves residential families and is surrounded by an area that has experienced an increase in commercial and industrial development over the past 5 years, thereby becoming one of the fastest growing areas in the state. The district contains nine elementary schools, three middle schools, and one high school, with a district enrollment of 10,000 students and over 1,200 faculty and staff members, including 800 certified teachers.

The district’s mission statement includes putting students first to ensure the highest quality education for all children by providing a highly qualified staff, challenging curriculum, first-class facilities, and a safe and nurturing environment. The
district vision is to focus on ensuring all students, staff, and stakeholders feel safe, valued, and respected while providing educational opportunities inside and outside the classroom for growth and development of individuals. Included in the vision are the parents and community as partners in education with the students as they graduate from high school with a career focus and pathway to achieve their goals. The district believes the schools can accomplish this by providing meaningful learning opportunities that are appropriate for students in a clean, safe, and nurturing environment. This South Carolina upstate district believes staff members should be highly qualified and maintain high expectations of students. The district concludes its mission and vision statements with the acknowledgement that continuous improvement must occur to ensure student achievement for lifelong learning for graduates to serve a vital role in the development of the community.

Reidville High School shares the same vision statement as the district with the belief that the school accentuates excellence in learning through the effective use of instructional techniques and curricula to promote student independence and success through authentic activities and a flexible curriculum, which incorporates technology, fine arts, and physical fitness. The school believes students are accountable and responsible for achieving at their highest levels and should take responsibility for their learning, which occurs in a safe, pleasant, and well-equipped environment with diversity. Reidville High School’s campus educates approximately 3,200 students yearly and maintains a faculty and staff of 198, who teach on a four-by-four block schedule. The
average teacher retention rate was 86.9% from 2011 to 2013, based on state data (South Carolina Department of Education, n.d.).

According to the two Reidville High School teachers who participated in this research, the school climate is hierarchical; individuals who have been at the school for an extended period of time are valued and have seniority. In addition, many of the teachers are alumni who returned home to teach and raise families in the area. The two teachers who participated in the study were Barbara Talls and Lucy Carter, and the supporting administrator was Debbie Thomas.

**School-Site Administrator at Reidville High School: Debbie Thomas**

At the time of the study, Debbie was one of three assistant principals at Reidville High School. She held a bachelor’s degree and a Master of Education from accredited institutions in the state, and she earned her secondary administrative certification in 1999. Debbie had been an administrator for 13 years in the same district. She had served as an assistant principal at a high school, was a middle school principal, and then returned to Reidville High School, where she had served as the assistant principal of instruction for the last 7 years. When asked to describe her duties at the school, Debbie said,

I’m responsible for curriculum and instruction, which entails anything that goes on in the classroom, any programs; any initiatives that we have at the district office level that impact high school come through me. So I have a great amount of responsibility of how we perform on standardized testing on HSAP [High School Assessment Program], AP [advanced placement], and SAT. I’m presently working with our district office to implement Common Core with ELA [English
language arts]. I’ll be going to Columbia to the first meeting about Smarter Balance Assessment for the high school, so anything that has to do with curriculum or instruction comes to me, any academic challenges by parents over teachers’ grades etcetera comes to me. I build the master schedule in the summer. I assist with personnel hiring, so everything in this school with the exception of books, discipline, and overall supervision safety comes to me. (D. Thomas, interview, October 9, 2012)

Debbie supervised the first-year teachers; she relayed that this included providing new teachers with support, resources, and materials; completing observations; giving feedback; and making integral decisions about conferences they attend. She also provided the recommendations for rehiring to the principal in March because of her intimate contact with the new hires as they developed as teachers.

1. Implementation of a High-Quality Induction Program

The district provided an induction program that included a monthly induction class, which Barbara and Lucy attended. Barbara, who served as Case Study 2, started her position at Reidville High School in the spring of 2012. Debbie explained that Barbara was not enrolled in the induction program when she started because the school would still have considered her a first-year teacher during the 2012-2013 school year and would then have required her to complete the entire induction program (D. Thomas, interview, October 9, 2012).

Debbie explained that she did not have any control over what happened at the district induction meetings; she only knew what Barbara and Lucy told her about the
class, so she did not know anything about the degree of usefulness of the class. When prompted as to what other supports she provided for teachers, such as peer observations, Debbie stated that she did not require teachers to conduct observations of others, but she did not discourage observations (D. Thomas, interview, December 10, 2012).

2. Implementation of a High-Quality Mentoring Program

Debbie was responsible for “handpicking” mentors to assign to the novice science teachers (D. Thomas, interview, October 9, 2012). She believed a mentor should be someone who knows the content and curriculum of classes assigned to the novice science teacher and has good interpersonal skills to relate to teachers and students. Debbie felt that “you cannot teach someone interpersonal skills, whether you are 20, 30, 40, or 50; you either have it [interpersonal skills] or you don’t” (D. Thomas, interview, December 10, 2012). In Debbie’s opinion, a person either can or cannot mentor and teach, and therefore it is important to make sure a novice science teacher has a content expert paired with him or her.

Debbie selected as Lucy’s mentor the anatomy and physiology teacher with whom Lucy had a strong relationship while she was a student at Reidville High School. During Lucy’s high school career, she took honors classes, was involved in student council, and was the president of the Medical Society Club. Her mentor at the time of the study was the faculty sponsor of the Medical Society Club and taught Lucy’s honors anatomy and physiology class during her senior year, so Debbie knew they would get along well.
Debbie did not assign Barbara a mentor for the Spring 2012 semester, when she first arrived at the school. Debbie assigned the science department head to serve as Barbara’s buddy. The induction program in the district required all teachers participating in the program to have a mentor. Therefore, during the 2012-2013 school year, Debbie assigned Barbara, who was part of the induction program, a highly trained mentor who was a veteran teacher in the classroom next to hers.

3. Provision of Facilities and Resources

While the school itself, as an institution, is old, the building is new. The building that houses Reidville High School was built in 2002, so each of the science classrooms is standardized and contains a teaching and lab area. Two science classrooms are paired back-to-back and contain a small storage/office area between the two rooms. Teachers can only access the storage/office area through the classroom; therefore, no external door into the hallway exists, causing teachers to walk in and out of each other’s classrooms. The classroom instructional area contains individual student desks that comfortably seat 24 students, including their book bags. The lab area contains rectangular tables with sinks, stools, and a computer at each station. The large room is set up to serve 24 students in groups of four at each lab station.

For the Fall 2012 semester, Debbie assigned Lucy to teach one class of Biology 1, an End-of-Course-Examination Program (EOCEP) class, and two classes in marine science, with third-period planning. She had 26 students in her first period, 25 in her second period, and 25 in her fourth period. During the spring, Lucy taught a biology
class and two anatomy and physiology classes, with second-period planning. Her spring classes contained 23, 24, and 26 students, respectively.

While Lucy was a floating teacher, she did have a small office in the storage area between two rooms. To make up for the lack of a permanently assigned classroom, Debbie made sure Lucy had a laptop computer and floated into classrooms with interactive whiteboards. Debbie also placed Lucy in classrooms in the same hallway for all her classes to ensure Lucy could make it from one classroom to the next. In addition, Debbie provided Lucy with a portable cart she could wheel from room to room.

For the fall semester, Debbie assigned Barbara one Applied Biology 2 class of 23 students, which was an EOCEP class. This class had an even male-to-female ratio as well as an even distribution of Caucasian and African American students, and approximately half of the students were on free and reduced lunch. Barbara also had two anatomy and physiology classes, which each contained 24 students; each of these two classes was 75% female with an even distribution of African American and Caucasian students. A few Hispanic students were in the classes, but they were listed as proficient English language learners (ELL). Barbara had first-period planning on a four-by-four block schedule for the fall. During the spring, Barbara had all college preparatory (CP) Biology 1 classes, which were 10th-grade classes with 24 to 27 students in each class, and first-period planning.

During the spring of 2012, when Barbara was first hired, she was a floating teacher who was in and out of three different classrooms, with a small desk in the area of a laboratory preparatory room, where Lucy’s desk was now located. During the summer
of 2012, Debbie assigned Barbara a classroom of her own for the 2012-2013 school year (D. Thomas, interview, October 9, 2012). Her room consisted of a computer, an LCD projector, a document camera, and a pull-down screen as her technology.

4. Supportive School Environment

In December 2012, Debbie talked about the support she provided for new teachers:

Administration is available for help, and I will be honest, I don’t go looking for people to help. I’m here, available, and I have an open-door policy. You don’t make appointments to see me; if you need something, you call me. Again, I’m not going to discipline for you. I don’t do discipline, but if you need help with instruction, if there are things that you need—materials, supplies that you need—I’m willing to give them to you. (D. Thomas, interview, December 10, 2012)

Debbie expected teachers to come to her for help, and if they did not, she presumed they must not need her help. Debbie added during the final interview in April that she did not utilize her time with somebody she knew was not going to listen or take constructive criticism in order to make changes in his or her classroom (D. Thomas, interview, April 12, 2013).

During the preparticipation interview, Debbie stated she believed the role of science teachers at Reidville High School was

to implement the South Carolina State Standards, especially for those courses that have an EOCEP. Teachers in the science department should be preparing kids for the next level of science [whether] they are a 4-year college-bound student or not.

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Students have to take three lab sciences, so it is important for all teachers to teach the standards because they are feeding into a higher level course. (D. Thomas, interview, October 9, 2012)

Debbie believed even if students would be going to college, the science teachers should still teach them at a high level and as if the class they were taking was the last science class they would ever have. She wanted teachers at Reidville High School to teach as if all students were going to college and to therefore place expectations and rigor at an appropriate level. Debbie stated teachers need to treat students, especially seniors, as if they are going to take college-level freshman biology or chemistry.

Debbie’s expectations of a senior class included not as many tests, only two or three major tests for a 9-week marking period, lab write-ups, and quizzes. One thing that I would like for them [new science teachers] to do and one thing I am hoping is that we will have less teachers in front of the classroom and more as a facilitator. (D. Thomas, interview, October 9, 2012)

Debbie discussed these expectations with teachers who came to her office and talked with her about the curriculum and what she expected of them as teachers of senior students, but she did not seek out novice teachers to explain her expectations.

Debbie was responsible for the master schedule, which involved class sizes, student placement, and teaching assignments, but she reported she did not consider novice teacher status when creating the schedule. Debbie explained she kept classes between 23 and 27 students and provided teachers with the classes they wanted to teach.
She explained that the schedule was really created by PowerSchool, which is automated scheduling software. Debbie put in student requests and restrictions on teachers and then ran the program until she placed about 80% of the students in classes. At this point, Debbie elaborated on how she hand-scheduled the students. This required her to call students to ask them to make decisions between classes during the summer, so Debbie said she could not specifically hand-select students for classes or create a master schedule that benefited only a few teachers because of the amount of hand-scheduling she had to do (D. Thomas, interview, October 9, 2012).

While Debbie did not hand-select students for classes, she was responsible for assigning classes to teachers. Debbie selected Lucy to teach the biology class and the two marine biology classes in the fall and all anatomy and physiology classes in the spring. Debbie said she did this specifically because her husband had taught the marine class and provided the curriculum for Lucy as well as all the materials she would need to teach the class. Debbie scheduled Barbara to teach all CP biology classes in the fall. Her reasoning for this decision was that since Barbara taught biology in the spring during her first semester at Reidville, she had existing knowledge to build on. Debbie made sure both Barbara and Lucy only had two preparations each semester on the four-by-four block schedule.

Debbie believed Reidville High School was the easiest place to teach because the teachers only had morning duty one time a year for a week from 7:55 to 8:10 a.m. Debbie did not assign teachers lunch or afterschool duty because she expected them to use that time to make instructional decisions and create engaging lessons for students.
Debbie felt it was absolutely necessary for teachers to focus on their classroom instruction but did not supply novice science teachers with additional planning opportunities. She expected science teachers to use their own planning periods and arrive early or stay late after school for lab setup and takedown. Debbie admitted Lucy did stay late in the evenings to prepare for labs and dissections, while Barbara left each day by 4:00 p.m. Debbie explained that other science teachers can perform their teaching duties with the same amount of time (D. Thomas, interview, December 10, 2012).

A factor to note in these case studies from School 1 with Lucy and Barbara is the participants’ supervising administrator had a husband who taught in the science department. Both Lucy and Barbara felt this caused some odd situations during department meetings and when dealing with administrative issues at the school. Lucy and Barbara explained that members of the department felt they had to be guarded in what they said and how they dealt with situations because Debbie’s husband would report to Debbie what the teachers said in meetings (L. Carter, interview, September 29, 2012; B. Talls, interview, September 23, 2012). It is also important to note that Debbie’s husband taught the marine biology classes, which Debbie assigned to Lucy during the 2012-2013 school year, while Debbie assigned her husband the research-based science, technology, engineering, and mathematics (STEM) classes and an honors biology class that was newly developed for the school.

**Case Analysis 1—Teacher 1: Lucy Carter**

Lucy was a single, 22-year-old novice science teacher who graduated from an accredited South Carolina university with a Bachelor of Science in Biology and a
teaching degree in the spring of 2012. Lucy returned to Reidville High School, the same high school from which she graduated in 2008, to teach on a four-by-four schedule. Lucy became a member of a science department in which eight of the 13 teachers worked during her high school years. In addition, her supervising administrator held the same position at Reidville High School while Lucy was a student.

Lucy was a very optimistic person and tried to look at everything in a positive light. This was evident in her description of the first week of school:

Some of the teachers I had talked to prior to the start of the first day told me the first week was the hardest out of all of them. [They said] the first year of your career is miserable. I have since learned to surround myself with positive people and have others build me up, not tear me down. Have I put tons of work into my first week? Absolutely. Have I had less sleep that I wish I could have had? Definitely. Has it paid off and been a rewarding experience? Without a doubt. I am positive I am going to have a great career and have an effect on many students’ lives. I already feel connected to many of them, and can’t wait to see what life has in store for them. I could not have chosen a better field. (L. Carter, reflective journal, September 1, 2012)

Lucy openly stated during the preparticipation interview that she was nervous about two items: (a) teaching marine biology since she had no experience with the content and (b) classroom management. She realized she was young and therefore looked young, and while she knew the young problem would fix itself over time, she was especially concerned about how high school students, especially juniors and seniors in the marine
biology class, would respond to her. Lucy had a strong desire to challenge herself and students to make an impact on their lives at Reidville High School, as her teachers and education had on her (L. Carter, interview, September 29, 2012).

1. Classroom Management

Lucy faced difficulties with classroom management during the 2012-2013 school year. Several significant problems occurred, leaving Lucy to reflect and question her teacher preparation program and herself. During each of the altercations she handled, Lucy felt she had administrative support in dealing with the situations and learned a lot during the investigations.

The first incident occurred in September, right after school started, in Lucy’s second-period marine biology class containing mostly seniors. Lucy explained she was showing a 20-minute clip of a video on tsunamis and took a drink of water from a cup she kept on her cart. She noticed the drink was thicker than she thought it should be but stated, “I thought I was imagining things and didn’t think much of it. After a couple of minutes I felt dizzy. The feeling was similar to having a couple of beers” (L. Carter, reflective journal, September 15, 2012). She thought she might just be getting sick and decided she would rest over the weekend. A week later, in the same class, Lucy picked up her cup and took a drink only to realize there was a foreign object in her drink, which she spit out in the trashcan. She went to the assistant principal of discipline to let him know, and he began an investigation. The assistant principal went to the classroom to retrieve what Lucy spit out in the trashcan but did not find anything unusual. He called
multiple students to the office for questioning and determined a student placed a goldfish cracker in Lucy’s drink, and he was able to identify the offender.

Lucy called a colleague after school, since the student offender was also in his class. Her colleague explained that the assistant principal called the student out of class at the end of the day, and when he returned, the student stated the school was going to expel him because he put goldfish and hand sanitizer in a teacher’s drink. Lucy was excited to have a confession and e-mailed the assistant principal to inform him of what the student stated. Both Lucy and her colleague provided written statements as to what happened, and the principal informed Lucy that he recommended the student for alternative school. Lucy reported she felt administration truly cared about her and took her statement to heart, but the principal informed her the following week that the district office did not approve the recommendation for alternative school and that the student would be coming back to Riedville (L. Carter, interview, September 29, 2012). While Lucy was happy with the support school administration showed, she wrote in her reflection log,

This particular student has been in TONS of trouble at the school over the years, moved out of classes multiple times for confrontations with the teachers, etc. Although I have faith in the District, it is hard for me to convince myself that he was not let off the hook because of [his involvement in] football. We had a confession that a student put hand sanitizer (something that should NOT be consumed) into an authority figure’s drink. Of course, he denied the incident. So what I am led to believe is administration and district office has chosen to believe
a student’s word over a teacher’s word. (L. Carter, reflective journal, September 15, 2012)

Debbie, Lucy’s supporting administrator, explained the incident was unfortunate, and while the district did not remove the student from the school, administration removed him from Lucy’s class. This changed the dynamics of the second-period class, thus creating an environment in which Lucy could teach and students could learn. Debbie explained the rationale for this decision was that while the student was still at the school, the administration believed the student and Lucy would both feel better if he were in another class. Lucy, while still upset with the district office, felt this move allowed her to gain more control of the class and learn how to handle altercations very quickly in the school year (L. Carter, reflective journal, September 15, 2012, and interview, September 29, 2012).

Another significant classroom management issue Lucy dealt with continuously was cell phones. Lucy stated, “The school has a pretty lax cell phone policy where it is up to the teacher’s discretion” (L. Carter, interview, September 29, 2012). Lucy explained that while the school allowed students to bring cell phones and use them as mobile devices, the administration left teachers the autonomy to create their own classroom cell phone policies. Lucy felt she was constantly asking students to put cell phones away because they were texting or on Instagram, Vine, Facebook, or other games or applications. She felt it was a constant battle to remind students to put their cell phones away, and she had difficulty understanding why students were not aware of
appropriate times to use their phones (L. Carter, interviews, September 29, 2012, and December 10, 2012).

In October, Debbie pointed out a few areas in which Lucy could improve her classroom management plan, including rules regarding the use of cell phones. Lucy described how she was making changes in her classroom management plan for the second semester and was implementing a more stringent cell phone policy where she would begin writing up students quicker rather than just asking them to put the cell phone away (D. Thomas & L. Carter, observation debrief, November 5, 2012). It was apparent Lucy was learning to address her classroom management issues in conjunction with her instructional goals when she told Debbie in December she wanted students to use their mobile devices, but appropriately. Lucy wanted students to be able to look up information on their phones; she just needed to determine what that looked like and teach the students her expectations (L. Carter, interview, December 10, 2012).

In the spring, Lucy’s implementation of a new cell phone policy and more stringent consequences resulted in an increased number of referrals (see Table 8), showing she was adhering to her cell phone policy. Lucy explained that with the new policy, when she saw a cell phone out at an inappropriate time, “I’ll give them one warning: ‘You need to put it away.’ And if I have to call them out a second time, I just write them up” (L. Carter, interview, April 20, 2013). Lucy complained about the lack of a school-wide cell phone policy. While she knew she was supposed to develop a policy for her classroom and administration would support her, she believed it was the
administration’s responsibility to determine the policy and consequences (L. Carter, reflective journal, March 15, 2013).

Table 8

*Office Referrals From Lucy During 2012-2013 School Year, by Semester*

<table>
<thead>
<tr>
<th>Type of infraction</th>
<th>Fall number of occurrences</th>
<th>Spring number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tardy</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Defiance</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Cell phone</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Inappropriate language</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Disrespect</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Altercation in classroom</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

Debbie suggested some tweaks to Lucy’s classroom management plan, including working on the line between being casual with students and stern so she could get them to work when she needed them to work (D. Thomas & L. Carter, observation debrief, October 30, 2012). Lucy was evolving and learning from her classroom management mistakes and discussions with Debbie, as observed in her reflection on teaching juniors and seniors. Lucy wanted to reduce the number of referrals for the fall of 2013 and become a stricter classroom manager. She decided to make changes in her classroom management policies and procedures. She explained her reasoning for changing her outlook on classroom management of juniors and seniors:

I can tell you that the first day of school, they were completely different than they are now, because I reflected and realized exactly what I was doing [that] wasn’t
I will tell you initially on the first day of school I thought, since I had seniors, they could have some more privileges and freedom. I did not think that they needed to raise their hand to get up and throw something away or sharpen their pencil. But it got to the point where when I was teaching, people would be out of their seat. So after reflecting and reevaluating, now I treat them like they are a lot younger. They are seniors and maybe they are the oldest in this school, but they are not really mature. So now, if they need to get out of their seat, they raise their hand; if they need to talk, they raise their hand, and there is no talking above me. (L. Carter, interview, September 29, 2012)

Lucy noted the changes she implemented in her classroom for October allowed her to make it through the first semester with her seniors, which she found to be a challenge (L. Carter, reflective journal, October 22, 2012, and interview, December 20, 2012).

By November, Lucy was showing her ability to address situations in the classroom. Debbie praised her after an observation:

I saw you address a kid who had their head on their desk, and you said to the student, “Get your head up and pay attention.” You said it like it was second nature to you, and everyone in the class was in sync to understand what you were working on. I know you don’t have your own classroom, but everything on your part is organized. (D. Thomas & L. Carter, observation debrief, December 10, 2012)

Lucy explained she spoke to another teacher who floated and received tips on how to float and still manage a classroom effectively. Debbie encouraged Lucy to continue to
seek out other teachers to address concerns, therefore validating Debbie’s observation and statements that Lucy was open to advice and always looking to improve (D. Thomas, interview, December 10, 2012; D. Thomas & L. Carter, observation debrief, December 10, 2012).

Lucy’s reflection on classroom management allowed her to make appropriate changes and grow from her mistakes. January was a new start for Lucy with new students, and she stated her classroom management had changed a lot:

   From my undergraduate classes, I learned to have as few rules as possible. If you put 10 rules up on the board, they [students] are not going to abide by every single one, so my rules were very general: Just respect me and respect your fellow classmates, and come prepared and ready to learn. But I think what I realized is they [students] don’t really pick up on every little thing they are doing and put it into one of those categories. So when I became more specific, my rules have worked better. And I didn’t post them somewhere because I float into classrooms; it was just what I was telling them. So we are going to talk about rules today and meeting my expectations right now, so these are some changes I would like and I was very specific, and I think they needed to hear [the specific directive], “You may not be on your cellphone,” instead of just the general, “Don’t distract others,” because they didn’t really put them together. (L. Carter, interview, April 20, 2013)

While Lucy made changes in her classroom management plan and addressed issues of concern for the spring, she still had trouble with students talking and using cell phones.
She described how sometimes she felt like she could not even talk in class without someone talking over her, and it was becoming more and more of an issue that she would have to address for the 2013-2014 school year (L. Carter, reflective journal, March 15, 2013).

Reidville High School completed the fall semester in December, allowing Lucy time to reflect on her classroom and instructional needs to make changes for the spring. Table 8 shows the number of written referrals Lucy sent to the office during the 2012-2013 school year (L. Carter, classroom behavior log, April 2013).

Lucy admitted she should have written more referrals during the fall semester, but she was unsure of what to write students up for and what to let slide. In all, Lucy sent 15 referrals to the assistant principal of discipline. The assistant principal assigned consequences to the students ranging from detention to out-of-school suspension. Lucy said she felt supported by administration when she wrote a referral, but she knew if she wrote too many, the consequences would become lighter because administration would think she could not take care of her own classroom management (L. Carter, interview, December 24, 2012).

Lucy grew as a classroom manager over the year. This may have been due to her increased comfort level with different content in the spring as well as the experience she gained in the classroom. At the end of the year, Lucy stated, “Students want guidance and structure, so I need to be able to provide them with that” (L. Carter, interview, April 20, 2013). She corroborated this statement in the last observation debriefing with
Debbie. Lucy admitted she lacked preparation for classroom management of high school students who would not listen. She reflected,

I wanted everyone to sit up, pay attention, and write down what I said. I thought that if I told them to pick up their heads, they would. But I realized at some point [that] these kids are about to go to college, and they have to make decisions about their behavior. I never thought I would have assigned seats. I thought I would say, “If you can’t listen, then you lose that privilege.” I have learned they [the students] do much better with structure. The more structure I give them, the better they do. I am hoping when I have more experience, I can try some different methods. (L. Carter, interview, April 19, 2013)

During the end-of-year interview, Lucy reflected on her year of classroom management and the feedback she received from administration and fellow teachers, and she observed,

I have changed so much. I think my confidence has completely changed. I am now feeling at ease in the classroom. I think I have been different with management, because one can start over on a four-by-four schedule. I was a lot stricter from the beginning [spring semester], and now I enjoy the class and teach them the content. I think I have good rapport with the students, but I had to be strong to start with. I have learned to pick my battles with students. (L. Carter, interview, April 20, 2013)
2. Resources Allocated

Lucy participated in a district-budgeted and facilitated induction program taught by a professor from a local university. After the first meeting, Lucy stated she came home and cried, feeling as though everyone was more successful and having a better year than she was, and therefore she had feelings of failure (L. Carter, interview, September 29, 2012). Lucy felt her induction program

is the stupidest thing ever, waste of time, such a huge waste of time. It’s like positive team building. She [the teacher] gives us all these things to do and says, “If you do this and you do that, then it will be fine.” The class is stressing me out more than I am benefitting from it. (L. Carter, interview, April 20, 2013)

The class added to her frustration. Lucy described the makeup of the induction class as consisting of more elementary than secondary teachers, and therefore the class addressed more issues for elementary school than high school. Lucy continued to attend the district-mandated meetings during the year but did not get much support or help from the meetings.

Another resource Lucy received through district budgeting, but chosen by her supervising assistant principal, was an assigned mentor with whom she had a great relationship. Lucy’s mentor was her former teacher, who was an advocate for her during her junior and senior years of high school. Lucy said her mentor did not really help her much in the fall when she was struggling with marine science content because her mentor was teaching all biology. Her mentor was only able to provide support for issues like
classroom management, finding some equipment, and explaining policies and procedures of the school (L. Carter, preparticipation interview, September 29, 2012).

During the spring semester, when classes changed, Lucy’s mentor became indispensable to her. Lucy’s mentor provided her with copies of a syllabus, a template of a letter home to parents, and policies and procedures her mentor used in the past. Lucy described her mentor as amazing and said,

My mentor has bent over backwards to help me get what I need for the anatomy and physiology class. She has the experience to help me with things that I could not anticipate or foresee as a first-year teacher—little tricks of the trade that she has figured out over the course of her career that she has shared with me. It has been such a different experience having someone to ask questions to and to work with as opposed to feeling alone. (L. Carter, interview, March 15, 2013)

It was evident that Lucy’s mentor was able to help her more in the second semester because they were teaching the same discipline of science, which Debbie had planned.

Lucy’s relief in having resources for her new spring classes was evident when she praised another colleague’s efforts in helping her get ready for the anatomy and physiology class. She affirmed,

Another teacher who is not teaching anatomy and physiology gave me all her binders with the entire course mapped out and different units identified, so I am going to use these as a guide. This, along with guidance from my mentor, is going to be great. We are going to plan together since we both have CP classes,
so I think we will be doing the same thing. (L. Carter, interview, December 24, 2012)

This was a relief to Lucy, who had wanted a collaborative science department to work in and share ideas with fellow professionals (L. Carter, interview, September 29, 2012).

As mentioned previously, Lucy floated into classrooms during the 2012-2013 school year. Debbie clearly understood Lucy was young and wanted to use technology in her classroom; in fact, it was one of Lucy’s strengths, and Debbie hoped Lucy would help teach other science department members how to use technology more effectively. Debbie bought Lucy a laptop computer to move with her from class to class to ensure she could access her files for student instruction. Debbie arranged for Lucy to use rooms with Promethean boards, document cameras, and Acti-Votes.

Lucy was happy about the technology resources but expressed she needed help with simple things, such as gathering materials. On September 29, 2012, she explained,

I have no idea where I can get materials like disposable pipettes, which all science teachers should have a large supply of. I guess this is a weakness of every first-year teacher, just the lack of experience in finding materials. (L. Carter, interview, September 29, 2012)

Lucy divulged her observation that each teacher’s classroom had materials in different places and there was no central storage for items like pipettes, beakers, graduated cylinders, or wood splints. She acknowledged she was unsure of where to look for items and did not want to interrupt or bother teachers who were teaching during her planning period. Debbie and Lucy’s mentor both declared the school had bought all materials for
all of Lucy’s classes, but no one had any idea whose classroom they were put in or where they were being stored, which increased Lucy’s frustration level (L. Carter, interview, September 29, 2012).

By the end of the fall semester, Lucy stated she needed her own classroom due to the amount of materials she carried around and the technology she wanted to utilize in the classroom (L. Carter, midyear interview, December 24, 2012; D. Thomas, preparticipation interview, October 9, 2012). While Debbie wanted to provide a classroom for Lucy, teachers were utilizing all the rooms at Reidville High School, but construction was underway for a new wing to open in Fall 2013, so all teachers on campus would eventually have their own classroom. The lack of space for science material setup caused Lucy to feel as though she could not provide her anatomy and physiology students with a truly engaging educational experience (L. Carter, reflective journal, April 12, 2013, and interview, April 20, 2013).

While the district and school provided resources in the form of induction, mentoring, and technology, Lucy noted preparing for laboratory activities was difficult because she lacked access to the classrooms to set up experiments and activities because she was a floating teacher. She described her morning routine:

If I have a lab, I try to get things on a cart, and when I wheel it into the room, I am throwing lab materials on the lab desk before a class starts. So if we want to be honest, my lab prep is 8 minutes, which is the time between class changes.

(L. Carter, interview, September 29, 2012)
She further explained she did not like to try to set up in the morning or the day before because the teachers in the classrooms needed the space for their instruction. Lucy wanted to be sure teachers’ classrooms were not a mess and tried her best to clean as she went, making sure she and the students put items back, but it was hard when she had to go from one class to another in a short time frame, therefore wasting instructional time (L. Carter, interview, September 29, 2012).

By April, Lucy was frustrated about floating and her inability to set up a classroom for the day. Lucy wrote,

Floating is such a pain! I have heard that two science teachers will not be returning next year, and although I am not happy that either of them is leaving, I am hoping this means that I will get a classroom! You have NO idea how much more I will like teaching having a place to call my own. A desk to set my pens and papers, a lab that I can leave set up throughout the day, etc.! Just the thought of having a room next year is giving me the push to get through the end of the year as I repeat over and over in my head “I think I can, I think I can, I think I can!” (L. Carter, reflective journal, April 12, 2013)

Debbie understood Lucy’s concern, and while Lucy felt unprepared, Debbie said Lucy was meeting and exceeding her expectations as a first-year teacher (D. Thomas, interview, April 12, 2013).

Debbie offered Lucy the opportunity to attend several conferences within the state and regional area, with all expenses paid by the school. Lucy attended the National Science Teachers Association (NSTA) conference in October 2012, located in Atlanta,
Georgia. During the midyear interview, Lucy declared the information she received while at the NSTA conference was invaluable and got her through the weeks until Thanksgiving. Lucy was also able to acquire some information for the spring semester for her anatomy and physiology classes (L. Carter, reflective journal, October 20, 2012, and interview, December 24, 2012).

Debbie selected Lucy to receive training to teach a new curriculum coming into Reidville High School. The school was pursuing certification to offer Project Lead the Way (PLTW), a national program to prepare students for future careers in science, which was an $80,000 venture for the school. Lucy was excited she would be attending the training for the PLTW Biotechnology Curriculum, a program being developed at Reidville High School in order to keep up with the changes in South Carolina related to STEM education. Lucy indicated she was pleased about the faith administration had placed in her to allow her new opportunities to grow and develop (L. Carter, interview, April 20, 2013). Debbie was confident Lucy was the right teacher for this new curriculum due to her enthusiasm, youth, knowledge of technology, and desire to develop as a teacher and professional (D. Thomas, interview, April 12, 2013).

Although Lucy was pleased with much of the support from the school, she was disappointed in the lack of assistance she received with the marine science class during her first semester. This was a class Debbie assigned to her and for which Lucy assumed responsibility, replacing another department member who was developing a new STEM curriculum for the school. The former teacher provided Lucy with minimal assistance. Lucy explained that the help provided to her consisted of the opportunity to meet with the
teacher on several occasions during the summer to review the marine science curriculum. Lucy noted, “The meetings did not do much good; he just gave me indiscernible notebooks of information with no true direction, pacing guide, scope and sequence, or instructional resources, which left me feeling frustrated, lost, and incompetent” (L. Carter, interview, September 29, 2012). Lucy explained she could not seek Debbie’s advice and help because the veteran marine science teacher was Debbie’s husband. Lucy worked not only to learn the relevant material but also to create interesting activities and dissections to engage students, causing her more stress than she would have liked to experience during her first semester teaching (L. Carter, interview, September 29, 2012; L. Iacuone, observation, December 10, 2012).

At the end of the year, Lucy stated the two things she wanted in the form of resources included her own room and help with the marine biology curriculum. She believed these two items would have provided her with more opportunities to challenge students and become a better teacher. Lucy understood the school only had a certain number of classrooms and provided them to veteran teachers before new teachers, but she hoped someone would leave from the science department so she would have a room for the 2013-2014 school year (L. Carter, interview, April 20, 2013).

3. Instructional Practice

Lucy’s instructional practice developed over the fall semester partly as a result of the classroom management issues and her desire to improve her pedagogy but also because of a change in classes. Lucy declared, “The content is better for me, so I naturally am more comfortable. Therefore, I am probably more organized with my cart,
and I able to redo some items the second time around” (L. Carter, interview, April 20, 2013). Lucy admitted she had to do a lot more planning compared to other teachers because she did not have a classroom of her own, causing her to work some late nights at the high school, which Debbie noted (D. Thomas, interview, December 10, 2012).

When planning for laboratory experiments or instructional activities, Lucy tried to make sure there was as little downtime during class as possible. She had equipment baskets set up for laboratory experiments prior to students’ entering class to minimize opportunities for students to become behavior concerns and maximize the amount of instructional time (L. Carter, interview, December 10, 2012). This preparation allowed students to have everything they needed with them in one place to complete the assignment.

The lack of attention from students to instructional activities in Lucy’s second-period marine biology class became a frustration during a laboratory experiment in October with students who wanted to “roam the room” (L. Carter, reflective journal, December 1, 2012). In a moment of haste, Lucy reacted and decided she would not allow this class to do experiments, making all students sit down and proceed with a lecture. Upon talking with Debbie, her mentor, and reflecting that evening, Lucy concluded that seven students should not ruin the learning experiences for 17 others, so she decided to remove students who roamed from the activity and required them to sit at their desks and complete the work with pictures rather than preserved specimens. That evening, due to Debbie’s advice, Lucy contacted the parents of the students she removed from lab and explained why the students would not be participating in future laboratory activities; she
received full support from the parents. Lucy later allowed these students back into lab and let them stay as long as they showed appropriate behavior, which she reported all of them had; this demonstrated Lucy was a reflective teacher (L. Carter, reflective journal, December 1, 2012).

Debbie was proud of Lucy and praised her instructional practice with her marine biology students after an observation she conducted in the fall. Debbie knew this class contained students who needed a final science credit, yet the majority of students would not be continuing on to a 4-year college. Debbie highlighted Lucy’s preparation for the project she was assigning to ensure all students had the materials they needed to complete the assignment. Lucy had taken the time to get to know her students, which was evident from the following statement in her long-range plan: “Many of these students are on free and reduced lunch and therefore do not have money to bring in materials for projects” (L. Carter, long-range plan, September 15, 2012). Debbie was impressed: “Lucy had planned far enough in advance to have all the materials her students would need for the project, from the poster board to the glue” (D. Thomas, interview, December 12, 2012).

As a result of discussions with her mentor and supervising administrator after observations, Lucy refined her instructional strategies and engagement activities with students in her classes as a reflective teacher. She explained she did a lot of informal formative assessments, such as, “Hold up your hand and show me five, about how comfortable you are with the material” (L. Carter, interview, September 29, 2012). Lucy believed this allowed her to quickly gauge what students knew in order to identify
whether she needed to revisit the content. Lucy also conducted many formative quizzes before tests to check for understanding, and when she gave tests, she explained they were basically parts of the quizzes she pulled together for the summative assessment, so she was planning with the end in mind (L. Carter, interview, September 29, 2012). Debbie was impressed with Lucy’s instruction and continued to encourage and praise Lucy’s formative assessment practices (D. Thomas, walk-through observation form, October 2012).

One of Lucy’s biggest frustrations in the fall, at the end of the first 9 weeks, was that students were turning in work late. Lucy’s philosophical belief was that students should be able to turn in work to show understanding of the content. However, Lucy was having difficulty holding students accountable for their assignments. She complained, I hate grading makeup work, and especially as a floater. I might not have all my binders on hand to be able to pull out a key really fast, so getting late work really does take some more time to go back, find the answer key, grade it, and return the paper. It is not something I can do instantaneously. (L. Carter, interview, December 24, 2012)

Lucy expounded on the issue by explaining, at the end of the 9 weeks, right before grades were due,

I am digging for keys before grades are due, and I do not want to do that again. A bigger problem was not just getting it and grading it, but finding it sometimes because I am floating. So, the kid would say, 3 weeks later, “Oh I gave that to you, and you never got that back to me.” Well, I don’t have anything from the
whole semester on my cart, so, you know, then I’d say, “Oh, I’ll get it for you after class,” and of course I would forget, and then it was just trying to locate this worksheet that was worth 10 points here and there. I wanted it to be like, “Oh my gosh, I just don’t even want it, and it’s not going to make a difference in your grade,” but I can’t say that. (L. Carter, interview, December 24, 2012)

To combat feelings of helplessness and frustration, Lucy took the initiative to talk with other teachers and get their help with information on how to deal with late homework assignments, establishing those procedures in the classroom, letting students redo assignments, and acquiring guidelines about how long after the due date to accept late work (L. Carter, interview, December 24, 2012; D. Thomas, interview, December 10, 2012). Lucy demonstrated she had learned from her discussions with other teachers in her new makeup work policy she began enforcing:

When students are absent, they truly have 5 days to make up assignments and give them (the assignments) to me. I am not taking them a month later like I was last semester. And I don’t mind putting a zero in the grade book. It sounds harsh, but these are juniors and seniors I am teaching, and they need to start being responsible and held accountable for their actions and choices. After the first zero as a homework grade they learn that I am not a pushover, and they step up to the plate. Exactly what I should have done last semester! (L. Carter, reflective journal, January 15, 2013).

Lucy made the decision, after professional conversations with colleagues and Debbie, to only accept work 1 day late as well. She determined this would help decrease the need to
search for answer keys and reduce the likelihood of losing student work, therefore allowing her to concentrate on creating engaging lessons (L. Carter, interview, December 24, 2012).

It was evident Lucy was growing more confident in her teaching practice, and the researcher and Lucy’s supervising administrator noticed this in observations. From the first observation the researcher completed in December 2012 to the last observation in April 2013, the communications from Lucy revealed she was more comfortable in the classroom with both the content and the students. In the fall, when the researcher observed her marine science class, Lucy seemed timid in her interactions with students. She would tell students what to do and where to look for information (e.g., “You should be looking for the nictitating membrane”), and she was hesitant in her corrective directions, asking students to “please put your phone away.” By April, Lucy was asking students questions in the laboratory environment rather than telling them where to look, and she was more direct in her assertions, with statements like, “Phones in your bag, get your notebooks out, and be ready for your quiz in 2 minutes” (L. Iacuone, observations, December 10, 2012, and April 12, 2013).

During Debbie’s observation in October, Lucy used technology in her classroom, and Debbie noted on her observation form, “Great use of the Promethean Board with notes and drawings. Students are working hard and expectations are high” (D. Thomas, observation, October 3, 2012). Debbie continued to praise Lucy in her December observation for letting the students use their phones to take pictures of the dissections to study later (D. Thomas, interview, December 10, 2012). While distracting use of cell
phones was a concern for Lucy, this concern did not stop her from using the devices for instructional benefit. Debbie commented on Lucy’s work with dissections and was amazed students had such good notes and were looking up the information in their notebooks to answer the questions Lucy asked the class. During the December observation debriefing, Debbie commended Lucy for helping students learn how to take such good notes to practice skills that would benefit the students in college (D. Thomas & L. Carter, observation debrief, December 10, 2012).

Debbie also pointed out how clear and concise Lucy was with directions by instructing students they had a certain number of minutes at each station to view the dissections and providing a time limit for cleanup (D. Thomas, interview, December 10, 2012). Moreover, Debbie applauded Lucy’s use of note-book ing as a study tool and organization technique for her students, which she observed in a classroom observation on April 15, 2013. These examples showed how Lucy was meeting Debbie’s expectations of preparing students for college, therefore establishing her confidence in her teaching ability and assimilation to Reidville High School from Debbie’s perspective and developing her professional teaching practice.

Debbie was impressed with Lucy’s ability to paint a picture of what she expected from students for an assignment. Lucy pointed out the misconceptions students might have and the potential pitfalls, saving students time in completing the assignment. Debbie explained this ability is something many teachers struggle with for the first few years of teaching, but Lucy seemed to have it now. Debbie continued to emphasize that students were learning and engaged in the assignment, which was a credit to Lucy’s
ability to engage students, and encouraged Lucy to continue to foster study habits in the students (D. Thomas, interview, April 12, 2013).

Lucy stated she had been planning for the next year in her last observation debrief with Debbie. While the two were discussing plans for Lucy’s schedule the following year, Lucy explained she was preparing for next year already. When Debbie questioned how, Lucy explained she was making notes about how long it took to complete different activities, worksheets, and laboratory experiences and was also considering the level of student engagement for better planning next year. Lucy said she recorded how much time each piece of work took and made notes about where students had misconceptions about content, which demonstrated Lucy was a reflective teacher. Debbie stated she was happy to hear Lucy was preparing; Debbie reminded her to be sure to submit her science order to the department head so that person could order Lucy’s materials over the summer (D. Thomas & L. Carter, observation debrief, April 19, 2013).

While Lucy was reflecting, revising, and implementing changes in her classroom management policies and instructional practices, Debbie saw the science department change as well. Debbie discussed Lucy’s impact on the science department during the 2012-2013 school year on April 12, 2013. She asserted Lucy would be returning next year and disclosed her thoughts about Lucy:

Lucy has done a jam-up job. She has worked with other science department members, she has embraced the curriculum that she was given, but she also made adjustments to the curriculum. And the person that mentored her actually taught her as a student, but I was speaking with that mentor yesterday, and she said she
has herself, as a veteran teacher, who was the best teacher to the school, she said, “I’m a better teacher this year because Lucy has pointed out some things to me that I can do differently.” So she said it has been very exciting for her. I have told Lucy that I want her to know that I have a lot of faith in her and we do have a future for her; I have told her time and time again that “I have high expectations of you, and I think your future here is bright.” (D. Thomas, interview, April 12, 2013)

As Lucy reflected on what she could do to improve her instructional practice, she indicated that while the school provided opportunities for her to attend professional development, she had not done a lot of reading on her own. She stated she needed to do more reading, such as going through the NSTA magazine when they send it to me, and staying updated on relevant science information. I just need to set time aside to actually do the reading, because I think a lot of science teachers get set in their ways, and once they develop their curriculum, they don’t change anything and do the same stuff year after year to the kids. (L. Carter, interview, April 20, 2013)

In addition, Lucy planned to continue her professional development by attaining certification to teach Advanced Placement (AP) Environmental Science in the summer of 2013; the following summer, she planned to complete the AP Biology certification. Lucy said she wanted to teach different classes in the future and believed what she learned in these AP-certification classes would help her with any class her administrator assigned her to teach (L. Carter, interview, April 20, 2013).
4. Teacher Perception of Administrative Support

The assistant principal, Debbie, believed she had a very good relationship with Lucy. Debbie had worked specifically to foster the relationship through initiating various conversations during the year, ensuring Lucy had the resources she needed, and completing observations with debriefing sessions with Lucy each month. She praised Lucy’s teaching ability and professionalism at the end of their debriefing conversations with statements that included, “You are doing a good job,” “Keep up the good work,” and “You are a good teacher,” therefore supporting Lucy’s teaching practice and giving her feedback, although not specific (D. Thomas, interviews, November 5, 2012, and April 19, 2013).

While Lucy was happy with her relationship with her supervising administrator, felt lucky to be at the school from which she graduated, and felt valued at Reidville High School, she expressed concern that the administration never communicated their expectations of her as a teacher. Lucy said, “I guess they assume teachers know their role and what they are expected to do” (L. Carter, interview, December 24, 2012). She presumed that if the administration had any issues or problems with what she was doing, they would talk with her. Since there had been no conversations, Lucy assumed either everything was okay or the administrators just did not know what was going on in her classroom.

Lucy experienced her relationship with administrators as “business,” stating, I definitely would not go to any of them and ask about their weekend, and they [administration] don’t know anything about John [fiancé] or personal stuff with
me. If I need something, I can go to them, and they will absolutely help me with what I need, or they might come to me and ask questions, but that’s pretty much it. (L. Carter, interview, December 24, 2012)

Lucy noted she had not started thinking of Reidville High School as part of her family. John and Lucy got engaged on December 25, 2012, making him a huge part of her life, which she had not shared with anyone at the school, showing she maintained a business, rather than a personal, relationship with both department members and administrators (L. Carter, interview, April 20, 2013).

Lucy noticed during the year the only people completing observations in her classroom were Debbie and an assistant principal. Lucy clarified,

I had one observation by another principal early on, and it was fine, and he said I was good. I got a little note in my box. I think he was there for 5 minutes, so it wasn’t like it was a real observation, it was just a . . . walk-through. (L. Carter, interview, December 24, 2012)

She expressed concern that her mentor, the other assistant principals, and the principal had not been by to watch her teach and to provide feedback. Lucy indicated she would like acknowledgment from administrators other than Debbie of how hard she had been working in her classroom (L. Carter, interviews, September 29, 2012, December 24, 2012, and April 20, 2013).

Lucy described her relationship with Kevin, the assistant principal of discipline, as supportive. She acknowledged that the time he spent on the phone at 8:00 p.m. giving her the details of the drink investigation and informing her of the next steps was an extra
step he did not have to take, but it was one she appreciated, as was evident in the following description:

I just know he [Kevin] cares. I mean, I know there are so many teachers that they [administration] are overwhelmed, but I know he cares about me. So I think he is the one I always go to if I need help, because I know he cares and will help. Some of the other ones [administrators], I have never even had a conversation with. So I don’t really know what I expect from them, but I would never go to them for help because I don’t know them. They have never approached me, and they have never asked me anything. (L. Carter, interview, September 29, 2012)

Kevin told Lucy that due to the incident he investigated, different administrators would be “dropping into my classroom from time to time,” but as of the end of September 2012, she had yet to see any administrators come by to see how things were going, including Kevin, and was disappointed (L. Carter, interview, September 29, 2012, and reflective journal, October 1, 2012).

This disappointment with and lack of attention from administrators was a concern for Lucy, who stated, “I wish they [administration] would pop in more. I think a lot of teachers hate it when principals pop in, because they think the principal feels teachers are not doing a good job, or it makes them nervous” (L. Carter, interview, September 29, 2012). Lucy knew she was struggling with classroom management and stated, “If there is a greater administrative presence or just the assistant principals doing a 30-second walk-through, popping in, and waving at everyone, the students would be more aware of them,
and a lot of my management issues would dwindle” (L. Carter, interview, September 29, 2012).

By December, Lucy summarized the view she had developed of the administrative team at Reidville High School:

They are a hands-off administration. They kind of let you do your thing, and I feel like if there is an issue or if they need to talk to you, they come talk to you. I think I would like more guidance. I would like for them to say, “Yeah, you are doing the right thing”; I’m just trying to get through my day and do the right thing. (L. Carter, interview, December 24, 2012)

Lucy considered that overall she had the support of administration when she approached them or had an issue in the classroom; however, they had not sought her out to provide help and guidance. Lucy was not sure whether she had been doing everything correctly and worried that later in the year administrators would criticize her for something she did not know she was doing incorrectly.

Lucy expressed her disappointed in administration on one account throughout the year. During Lucy’s first interview with Debbie, Lucy asked her how the science department worked together. Debbie told Lucy the science department was very collaborative and worked together to support novice teachers (L. Carter, reflective journal, September 1, 2012, and interviews, September 29, 2012, December 24, 2012, and April 20, 2013). In retrospect, Lucy felt Debbie, who hired her, misled her. Lucy’s experience over the year with the science department was not collaborative. She observed in the September 29, 2012, preparticipation interview,
I expect to receive, share stuff, share lesson plans and materials with other teachers that teach the same classes as I do. And then just the support of saying, “I have been in your shoes, I know what you are going through,” or when I have a question or a problem or I don’t know how to handle this, just a teacher saying, “Oh, well this is what I would do, or this is what I have done in the past.”

Lucy explained collaboration had not occurred, and she was disappointed the department did not meet her expectations as Debbie led her to believe. She did not have anyone in the fall with whom to share materials or collaborate on instruction, and no one was helpful with handling the day-to-day difficulties of being a first-year teacher on a regular basis (L. Carter, interview, April 20, 2013).

While Lucy was excited about the faith administration had placed in her, she worried they would assign her to teach marine science again. Although Lucy believed she had great relationships with and support from the administrators, she had not been completely honest and assertive with Debbie about the marine science class. Lucy developed an intense dislike for the class due to her feeling of incompetence in the material, and she did not want to teach this class again. However, she had been fearful of telling Debbie this, so much so she had been plotting with another teacher to be sure she did not have to teach it again. She hoped if this plan did not work, another new teacher would get the class (L. Carter, interview, April 20, 2013).

During the last observation debriefing in April, Lucy told Debbie, “You know, if it came down to it, I would love to teach Project Lead the Way rather than marine science.” Debbie replied, “Don’t you want to teach marine again so you can improve on
it?” Lucy responded, “I’m not going to lie, if I don’t have to, I really don’t want to” (D. Thomas & L. Carter, observation debrief, April 19, 2013). As of the end of the study, Debbie had not decided who would teach the marine science class in the fall of 2013, showing a disconnect between Lucy and Debbie, as demonstrated in the end-of-year interview when Debbie shared her plan to have Lucy teach marine science, PLTW, and some anatomy and physiology classes to fill out Lucy’s schedule, leaving Lucy disappointed (L. Carter, interview, April 20, 2013; D. Thomas, interview, April 12, 2013).

**Case Analysis 2—Teacher 2: Barbara Talls**

Barbara was a mother of two: one child in middle school and one in high school. Barbara worked as an engineer before her first child was born but decided to stay at home with her children and entered the field of teaching at a local technical college. In 2011, due to the demands on technical schools to increase their course offerings, methods of delivery, and time of classes, Barbara decided to begin the search for employment in a high school setting where she hoped to have a more regular schedule to be home with her children. Barbara found a job at Reidville High School in December 2011 to teach science in the spring of 2012, as a replacement for a teacher who was retiring. Although Barbara taught at a technical college, she did not have a South Carolina teaching certificate, so she entered the Program of Alternative Certification for Educators (PACE) in South Carolina to earn her teaching credential. She completed winter PACE through attendance at Saturday PACE sessions and summer PACE by the end of June 2012.
Barbara commuted 45 minutes to school each way; therefore, she had been absent in the evenings for sporting events or extra tutoring hours, and she had not sponsored extracurricular activities unless they were mandatory. The administrators of Reidville High School asked their teachers to work with an extracurricular activity, and Barbara chose to work with the Junior Engineering and Technology Students (JETS), who met one morning a week, with three other teachers. Barbara stated the four sponsors each had to take 1 day a month so that they only had to be at school early one morning a month for this club. This group competed at one robotics competition in a local nearby city in the spring of 2012. Barbara explained every teacher had to sponsor something, so this was a good activity for her to sponsor due to her schedule (B. Talls, interview, December 26, 2012).

1. Classroom Management

Barbara had worked at Reidville High School for a semester, but her primary concern was classroom management and discipline in the 2012-2013 school year. Barbara stated the first weeks of teaching this year had been more challenging and eye opening because she realized her students barely had food to eat each day, and the majority of their parents were not home after school. She had been wondering whether the classroom disruptions were attention-seeking behaviors (B. Talls, interview, September 23, 2012). Barbara stated she was unsure of whether her rules, policies, and procedures were appropriate because she did not receive guidance from any administrators or her mentor in dealing with classroom management issues and
Barbara decided to use the rules and consequences from the teacher for whom she took over in the spring of 2012 (see Table 9). She reviewed the rules and consequences in class and sent them home in a parent letter to ensure parents knew what Barbara expected in her classroom. Although classroom management and discipline had been her main concern, she did not post the rules and consequences in the classroom so they would be visible to students on a daily basis (L. Iacuone, observation, December 10, 2012).

Table 9

*Barbara’s Classroom Rules and Consequences for Fall 2012*

<table>
<thead>
<tr>
<th>Rules</th>
<th>Consequences</th>
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<tbody>
<tr>
<td>1. Enter the classroom quietly.</td>
<td>1st offense, verbal warning</td>
</tr>
<tr>
<td>2. Sit in your assigned seat by the time the bell rings.</td>
<td>2nd offense, teacher detention</td>
</tr>
<tr>
<td>3. Do NOT move the desks unless instructed to do so by the teacher.</td>
<td>3rd offense, referral</td>
</tr>
<tr>
<td>4. Do not speak unless you are acknowledged.</td>
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<td>5. No cell phones are to be visible during lectures, labs, or tests.</td>
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<td>6. You may go to the bathroom after the lecture is over and only one at a time.</td>
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<td>7. If you need to see another teacher, you may go see them at the end of the class period.</td>
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Barbara described an issue that occurred in early September with a student who came into class. Within 5 minutes of class starting, the student asked to go to the bathroom. Barbara pointed out to the student, who had just come from lunch, she had
plenty of time to use the bathroom during lunch and on the way to class, and Barbara’s rule was students could only go to the bathroom after the lecture. Barbara explained that the student began to question her authority and demanded to know why she could not go to the bathroom, and Barbara again referred her to the letter home to parents. The student walked out of class and never returned, causing Barbara to write a referral. Barbara worried the student would go home and tell her mother the teacher would not let her go to the bathroom and the mother would call the school, leading to problems, but Barbara never sought out an administrator or her mentor for guidance (B. Talls, interview, September 23, 2012).

By December, Barbara had decided to change her bathroom policy for the second semester in order to keep students in class. Barbara explained she had not been strict on keeping them in class, and she intended to be much stricter on the front end this time. She stated, “I am going to tell the students there are no bathroom visits during the first 30 minutes of class or during lecture” (B. Talls, interview, December 26, 2012). At the time, she explained, she was stopping class for 5 minutes during each of her periods to allow students to go to the bathroom so she could continue to teach with all the students in the room, but she believed this new approach was better for instructional time (L. Iacuone, observation, December 10, 2012; B. Talls, interview, December 26, 2012). Debbie, Barbara’s supervising administrator, believed this rule was appropriate for a 3-hour college course but not for a 90-minute high school class, highlighting that Barbara was having difficulty transitioning from college to public high school (D. Thomas, interview, December 10, 2012).
Debbie explained Barbara had been having trouble with the cell phone policy at Reidville High School. During a follow-up meeting between Debbie and Barbara after an observation in October, Barbara explained cell phones were a constant battle with students, which was evident in the researcher’s December observation of her class, when two students had their cell phones out using Facebook while Barbara was giving instructions (L. Iacuone, observation, December 10, 2012). Barbara commented to Debbie that the students were always on their cell phones, checking Facebook or Instagram. She knew this because while she had been walking around in the classroom, she had seen what students were viewing on their phones. Barbara said she had given them a warning to put the cell phones away, but she was frustrated because it was the second 9 weeks, well into the semester, by which time the students should have known to put away their cell phones. Debbie pointed out to Barbara she was teaching students who would be going to college, and they knew the difference between what they should and should not be doing. Debbie told Barbara,

If the kids are looking on their Facebook in your class and this is something that you want to stop, then you put that in your instructions. They know the rules. If they [students] are not using them [cell phones] for instructional purposes, they should not be out. You just need to write a referral. (in D. Thomas & B. Talls, observation debrief, October 30, 2012)

Barbara asked whether she had to provide warnings, showing she was unsure of the rules at Reidville High School, and Debbie explained she did not because she had already
provided a warning if she had a cell phone policy, which Barbara did not (B. Talls, syllabus, October 22, 2012; D. Thomas, interview, October 31, 2012).

In the same observation debriefing, Barbara brought up the cell phone issue again, telling Debbie students were not listening to her. Barbara referred to the policy Reidville High School had during the Spring 2012 semester, when Barbara first joined the faculty. This policy included one warning to students to put the mobile device away, and if the teacher saw the cell phone out again, the teacher would confiscate the cell phone. The teacher would then turn the phone into the office, and parents had to come and see an administrator to get the phone back. Barbara explained her experience in the spring was that once she took the first phone, the other students knew she meant business, and therefore they did not use the phones in class. Barbara complained she did not like the new school-wide policy, which required teachers to create their own classroom policy without confiscation of the phone. Debbie explained to Barbara the school board did not want administrators and teachers to confiscate phones that may get lost, which would require the school to reimburse the family. Debbie reminded Barbara that Reidville High School practiced “BYOD” (bring your own device), and cell phones are a device. Debbie instructed Barbara to be sure to create her own classroom policy and to inform the students (D. Thomas, interview, October 31, 2012).

In the midyear interview, Debbie described the frustration she had with Barbara about the cell phone policy:

Barbara keeps talking about the cell phone policy and how [the] students are allowed to have phones. It depends on the teacher’s policy whether or not they
could use them. We are not wireless, and we do not have as much technology in the building as we want. So if a kid has a smartphone and they are working on something, the teacher can say, “Okay, you can get your phone out and work.” It is left up to the teacher to determine the policy, and she [Barbara] says she is constantly dealing with that issue. So in a conference that we had with [George (principal)], we just said to Barbara, “You don’t have a policy, and that is the number one problem. You can’t discipline a kid if you let something happen one day and something different the next.” So we asked her to put out a policy to those students and follow it from that day forward. (D. Thomas, interview, December 10, 2012)

In the midyear interview, Barbara stated, “The cell phone policy is about to push me over the edge. I have decided that I have to be mean one day about cell phones and just keep it up for the rest of the semester” (B. Talls, interview, December 26, 2012). When asked whether she had created a policy for her classroom, Barbara said no because she was not sure what would be enforced, and she wished for the old policy back.

Bathroom and cell phone issues were only two of the problems for Barbara. Barbara struggled with classroom management in other areas as well. Barbara told Debbie she was keeping students for detention and having them clean benches and tables and pick up trash as part of their punishment. Debbie responded to this consequence, “Perfect,” and gave Barbara permission to continue with this consequence. However, as Debbie probed Barbara about her classroom management plan, she asked whether Barbara had been calling the students’ homes and getting the parents involved. Barbara
replied she had not, and Debbie encouraged her to make parent contact. Debbie explained to Barbara that once the teacher has made contact with the parent, then administration can give harsher consequences (D. Thomas, interview, October 31, 2012).

Barbara confirmed the administrative disciplinarians were helpful, as they provided follow-up on referrals she sent. For example, she referred a student to the office who stated Barbara was lying about a situation. The administrator brought the student to her classroom, and the three of them had a discussion during her planning period in which the student accidentally confessed, therefore proving Barbara was not lying. Barbara was grateful the administrator took the time to investigate, but she complained the investigation took place 2 weeks after the incident, not immediately, so she posed the question, “What has the student really learned?” (B. Talls, interview, December 26, 2012).

Based on difficulties during the first semester, Barbara decided to change her classroom rules for the second semester to address the issues she faced in the first semester, as shown in Table 10.
Table 10

Barbara’s Classroom Rules and Consequences for Spring 2013

<table>
<thead>
<tr>
<th>Rules</th>
<th>Consequences</th>
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<tr>
<td>1. Enter the classroom quietly.</td>
<td>1st offense, verbal warning</td>
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<tr>
<td>2. Sit in your assigned seat by the time the bell rings.</td>
<td>2nd offense, teacher detention</td>
</tr>
<tr>
<td>3. Do NOT move the desks unless instructed to do so by the teacher.</td>
<td>3rd offense, referral</td>
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<td>4. Do not speak unless you are acknowledged.</td>
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<tr>
<td>5. If you need to see another teacher, you may go see them</td>
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<td></td>
<td>at the end of the class period.</td>
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The changes to the classroom rules included the removal of Rule 5, “No cell phones are to be visible during lectures, labs, or tests,” and Rule 6, “You may go to the bathroom after the lecture is over and only one at a time,” from Table 9. Barbara believed changing the policy would allow her to have more control in the classroom (B. Talls, interview, December 26, 2012).

While Barbara removed the rule about cell phones, she amended her parent letter home to include the following policy about cell phone use: “Cell phones are not to be used or seen during class, lab or lecture. If I see them during class, lab, or lecture, you will receive a written referral. This is your only warning” (B. Talls, syllabus, January 5, 2013). She also provided a written copy of her cell phone policy, which she required students to sign stating they understood her policy, consequences, and expectations of cell phone use in class (B. Talls, interview, April 10, 2013). Barbara believed this adjustment made a huge difference for her in the spring, decreasing the frustration and
problems she was having with cell phones, because students saw she was enforcing her policy and consequences (B. Talls, interview, April 10, 2013).

Barbara also included a policy about bathroom use in the parent letter home:

You will not be allowed to go to the bathroom within the first 30 minutes or the last 15 minutes of class or during lecture. If it is a long lecture day, a 3 minute break will be given to allow for water, bathroom and stretch breaks that may be needed. (B. Talls, syllabus, January 5, 2013)

She revealed that at the end of the year she had very few students leaving her classroom to go to the bathroom, and she credited the change to the policy and the break she had put into the class (B. Talls, interview, April 10, 2013).

Barbara acknowledged these rules helped with her 10th-grade students, whom she was excited to have second semester. She revealed, “I . . . feel they are still fresh and excited; they can’t exempt their exam, so it is not all about the grade, it is more about the knowledge” (B. Talls, interview, December 26, 2012). Barbara’s discipline referrals dropped from 13 the first semester to 11 the second semester, and she credited this to changing her rules and consequences as well as placing them on the wall to remind students each day. Barbara said she was explicit in her cell phone and bathroom policies and was enforcing them without fail (B. Talls, interview, April 10, 2013, and discipline referrals, April 14, 2013).

While Barbara confirmed her classroom management had improved, she expressed her disappointment in administration with another cell phone incident. Barbara explained she followed the cell phone policy she created and referred a student to the
office for using her cell phone in class. According to administrative policy, the student should have received administrative lunch detention. When administration called the student to the office for her consequence, the student said she used her cell phone because there was a family emergency. An administrator came to explain to Barbara the student’s version of the story and inform her there would be no discipline for the student. Barbara expressed her irritation during her end-of-year interview about the incident: “If it was a family emergency, why was the girl showing the text to her friend and not asking the teacher if she could step outside and call her family?” (B. Talls, interview, April 14, 2013). Barbara was frustrated about how much the administrators listened to the students rather than the teachers, noting she did not feel supported by administration at the school site, but she followed her new cell phone policy, so she did her part (B. Talls, interview, April 14, 2013).

2. Resources Allocated

Barbara participated in the same induction program as Lucy but did not reap the benefits of starting the preservice program. Debbie forgot to submit Barbara’s name to the district office as a new hire during the summer when the district created the induction program roster. Due to this omission, Barbara did not attend the 3-day induction in-service for new teachers. In another instance during the same week, Barbara stated she received a phone call from the school secretary on a Thursday evening at 9:30 p.m. asking why she did not attend Reidville High School’s administrative in-service meeting. Barbara explained she did not receive any information about the meeting via e-mail, phone call, or letter. The secretary requested she be at the meeting on Friday morning.
When Barbara asked Debbie about the error, Debbie told her it was a mistake that her name was left off the induction program list and an oversight that she did not receive a letter over the summer about the administrative in-service for new teachers. Barbara believed this set her up unfairly for future problems with administration because it appeared as though she forgot to attend or decided not to attend (B. Talls, interview, September 23, 2012).

The first few weeks of school were strenuous for Barbara due to the missed induction program in-service and administrative in-service. In addition, Barbara was disappointed her mentor and other science department teachers had not been forthcoming and helpful with syllabi, parent letters, support, curriculum resources, and information about the curriculum or science supplies for her new room. Barbara viewed her mentor as a mentor on paper rather than one who provided actual assistance, and she cited a time she requested help from her mentor to address some classroom management issues. Her mentor stated, “You have some of the worst kids in the school, so you better be sure to never leave the room unattended” (B. Talls, interview, September 23, 2012). Barbara said her mentor left without providing advice or suggestions on how to deal with procedures such as letting students go to the bathroom; disciplining students for using cell phones, talking in class, or failure to follow directions; or referring students to the office, leaving Barbara to flounder on her own (B. Talls, interview, September 23, 2012).

Barbara was struggling with her lack of knowledge about the routine due dates of the school year:
I did not find out about the date long-range plans were due until the very last minute, and I’m sitting there on Friday morning counting up how many free and reduced lunches I have and nationalities and things like that. I struggle with things like the tardy roster and students bringing me these lists of things I am supposed to do but am not sure what to do; no one has told me. (B. Talls, interview, September 23, 2012)

When Barbara requested advice on how to handle the tardy roster, her mentor told her to ask administration. When she requested help with her long-range plans from her mentor, Barbara stated her mentor giggled and said, “I have not turned those in the past 3 or 4 years; they don’t really look at those plans” (B. Talls, interview, September 23, 2012). Barbara did finally receive help with her long-range plans from Lucy’s mentor, who also taught the anatomy and physiology classes. Barbara asked for a scope and sequence for planning purposes, which Lucy’s mentor provided.

Barbara described another less-than-favorable encounter with her mentor. The mentor mentioned to Barbara, “I guess I am supposed to come and observe you sometime,” showing the mentor did not know the expectations of a mentor or how to help assimilate Barbara to the school and science department. According to Barbara, her mentor never came to her classroom to conduct an observation. Barbara lacked trust in her mentor and said she and her mentor had never had a formal conversation that was helpful, nor did her mentor try to meet with her or provide extra help. Barbara thought her mentor should be visiting her to ask if she needed help and had expected the mentor relationship to be more about the mentor’s “imparting of knowledge and less of me
seeking it,” making her adjustment to public high school easier (B. Talls, interview, April 14, 2013).

Barbara found herself struggling to find answers and fit into a science department with veteran teachers who were alumni, had graduated from traditional teaching programs, and had years of experience at Reidville High School. Barbara described her experience with the science department:

I have not gotten the warmest reception because a lot of them [science department faculty] felt like I was friends with an administrator. Many were not real quick to open up or help me out. I had to break through some of that, and I am starting to feel a little bit more confident that I can go to a teacher and say I need help and they are not looking down on me saying, “Why don’t you know this?” There have also been some comments about me being a PACE teacher and that most of the PACE candidates have never taught and don’t know how to teach. I don’t think they understand that I taught before, just not in a high school. (B. Talls, interview, September 23, 2012)

In the midyear interview in December, Barbara admitted she still had not broken down the barrier in the department, nor had she utilized her mentor. Barbara felt her assigned mentor was unapproachable. Instead, Barbara had been working with another newer teacher who had the same planning period, was closer to her in age, and shared the same teaching style (B. Talls, interviews, September 23, 2012, and December 26, 2012).

Barbara was disappointed in the lack of personnel support from her mentor and veteran teachers, but she was excited about the technology provided to her. Barbara’s
new classroom had a laptop computer she could take home, six laboratory computer stations, a high-volume printer shared between two classrooms but housed in hers, a TV, and a LCD projector. Debbie also assigned a digital visual presenter to her that Barbara had found incredibly helpful while teaching the anatomy and physiology classes. She stated,

I got a document camera, and I kept thinking this is just kind of lame and I would rather have a Promethean board. However, I have actually enjoyed having the document camera better than I think I would the Promethean board because I do not have to reinvent the wheel every day. I can use the document camera because whatever I do for them, I make a copy for me and I write on it myself. So I really thought I wanted a Promethean board, but I am really enjoying this for right now because it is not one more thing that I have to do. (B. Talls, interview, September 23, 2012)

Barbara had been using the document camera on a regular basis, and students had been responding to the use of the camera very well, asking questions and copying what Barbara wrote on the paper (L. Iacuone, observation, December 10, 2012).

Barbara also received $250 for classroom supplies, which she spent on markers, pens, scissors, rulers, and items for students to use in the classroom. Barbara explained that if she had an unlimited budget, she would order more models of the human body for the anatomy and physiology class. She observed that Reidville High School had a lot of materials, but they were located in other teachers’ classrooms; when she asked to borrow something from other teachers, they wanted it back that day. Barbara stated she had been
returning items she borrowed in the same or better condition to try to show the other
teachers they could trust her, and she believed this had opened up some doors for her.
She continued to state she submitted the order for the materials she would use this year in
the summer, and the department head ordered everything she was going to need for her
biology classes and anatomy and physiology classes, but she never received a curriculum;
the administrators just expected her to know the curriculum, which was frustrating
(B. Talls, interview, September 23, 2012). By the end of the year, Barbara still was not
sure what materials were available at the school. She said, “I really struggled to know
what was actually available to use for my classes” (B. Talls, interview, April 14, 2013).

Barbara pointed to a time in February when she needed microscopes, and the
honors biology teacher told her she was not allowed to use the microscopes because they
were only for honors students. Barbara was amazed the department labeled materials for
levels of classes when the standards were the same and believed this was unfair for
students. She eventually found another set she could use but felt the extra time she spent
looking for the materials was unnecessary; it would have simplified things for her if the
department had told her where items were and what she could use for which classes
(B. Talls, interview, April 14, 2013).

At the end of the year, Barbara revealed, “I was never really sure what resources
we had. I always found out after the fact that we could have done this and we could have
done that” (B. Talls, interview, April 14, 2013). Barbara concluded her classes could
have been more engaging and activity centered if she would have known where materials
and supplies were or how to obtain the resources. The lack of materials prevented her
from creating hands-on instructional opportunities for students throughout the year since she was planning on almost a day-by-day basis, with little time to find or purchase materials (B. Talls, interviews, December 20, 2012, and April 14, 2013).

In December, Barbara discovered she did not have a teacher’s edition textbook for one of her classes. She recounted she had requested a teacher’s edition in August, but when the books arrived at the school, there was no teacher’s edition. She did not question the lack of a book because she assumed there must not be a teacher’s edition available, as her previous college textbooks did not always have teacher’s editions. In late September, Barbara took her book home one day and left it at her house, so she needed to borrow a book for the day; she became aware she had been using a student edition and there was a teacher’s edition. She discovered the teacher’s edition had tips, tricks, suggestions, and advice on teaching various topics. Barbara also found the teacher’s edition contained directions for mixing solutions for laboratory experiments, something she had previously spent hours researching; having access to this resource would have been a huge time saver (B. Talls, interview, December 26, 2012).

Another resource Barbara said she lacked was access to her classroom during her planning period. The school did not provide science teachers with extra time for laboratory setup, teardown, or cleanup, and since one of the two floating science teachers used Barbara’s room during her planning period, she found she did not have time to set up her board, the lab, or her computer for her classes, which caused her to feel disorganized:
When I was doing microscopes, it was usually about 5-10 minutes to set up and about the same time to take it down, and a lot of that was just walking around and putting the scopes where they need to be and making sure they were still working. So the first time was a little bit more than the second time because I knew which ones worked and which ones did not. (B. Talls, interview, April 14, 2013)

Barbara marked the microscopes and believed the ones reserved for honors students would have been in better condition and saved her time, but she did not know how to argue the point.

Barbara was frustrated that a floating teacher used her classroom during her planning period and felt she continuously wasted instructional time during class setting up activities. She expounded,

The enzyme lab takes about 30 minutes to set up for students. This is time that I could save from class if I could use my planning period to set up, but I can’t; another teacher is in the room. (B. Talls, interview, April 14, 2013)

Barbara understood the need for laboratory activities and had a realistic view of what it means to be a science teacher:

I know as a science teacher I am going to have more setup and takedown prep time than a social studies teacher. However, I don’t always have the grading time they are going to have because I am not having them [students] write large essays or research papers like English teachers, which they can grade anywhere. But other teachers don’t have to set up their rooms like science teachers for lab activities. (B. Talls, interview, September 23, 2012)
Barbara was excited about the spring classes because she was teaching the same class the entire day, so once the labs were set up, she could leave them up the entire day; this helped with prep time (B. Talls, interview, December 26, 2012).

According to Barbara, she had not received opportunities for professional growth and development and was “frustrated that the same people get selected for conferences” (B. Talls, reflective journal, November 9, 2012). Barbara had been using a program called USA Test Prep that the school purchased for all content areas. Barbara noted, “I was supposed to go to a Test Prep USA conference, but nobody told me that I was not registered” (B. Talls, reflective journal, November 9, 2012). Barbara said she worked late in the evening to prepare substitute plans, but on the morning she was to attend training, the school did not have a substitute for her. When she investigated this mistake, she learned no one actually registered her for the conference. However, as the group was about to leave, one of the other teachers who was registered to go called in sick; therefore, Barbara was allowed to go and use his registration. Barbara was very upset about this incident because she used this resource with her students as review during the school year as she completed topics, and she wanted to know more about the full power of the program that could be used at home or school, as long as the students had Internet access. Barbara believed this was another example of how administration did not support her, and she found it frustrating (B. Talls, interview, December 26, 2012).

3. Instructional Practice

Barbara was not worried about her instruction; she asserted one of her strengths was her
confidence in the material because I know my subject matter. I don’t memorize well, so I have a tendency to teach unique ways to learn things because I have to be able to remember it myself, so I try to teach students the ways that I have learned. (B. Talls, interview, September 23, 2012)

Debbie agreed Barbara’s content knowledge was a strength for her, and she expected to see high grades in the class, which is why Debbie assigned her the anatomy and physiology classes. Because “she [Barbara] has taught at the technical college level, I gave her the classes with students who would most likely be attending technical college” (D. Thomas, interview, October 31, 2012). From Debbie’s perspective, she was supporting Barbara by giving her classes with content with which she was familiar.

Barbara explained she worked to provide content for students in a variety of ways, but she provided most of the instruction in a lecture format. Barbara was working on increasing her instructional strategies and activities by referring to her PACE class to make the anatomy and physiology class more engaging. She explained, “I had students participate in a jigsaw to get the information and teach it to others. This was successful and I definitely gained some confidence in trying some new methods that I have not before” (B. Talls, reflection journal, October 26, 2012). In November, she wrote, “I used an organism relationship activity to put students into pairs that then did a card sort on relationships” for a test, which was a success (B. Talls, reflective journal, November 9, 2012). Students discovered the terms and relationships they were having trouble understanding, allowing for effective remediation within class time. Barbara knew she needed to make her transitions smoother during the block and teach various learning
styles rather than just lecture, and she began trying different instructional strategies (B. Talls, interview, September 23, 2012; D. Thomas, interview, October 30, 2012).

As Barbara was getting braver in her instructional practice, she was branching out and trying new strategies outside of what she learned in her PACE course:

I had students make labels for the parts of the heart and then [they] had to put them in order on the paper. Students then took red yarn to show [where] the oxygenated blood was and blue yarn for where blood is deoxygenated [to show they understood the circulatory system]. (B. Talls, reflective journal, November 20, 2012)

Students had been completing more laboratory activities; for example, “To show diffusion, we put gummy bears in tap water and salt water to show isotonic, hypertonic, and hypotonic solutions. The students seemed to find the examples fun and it stuck with them” (B. Talls, reflective journal, February 15, 2013). The quiz grades had been increasing, providing a feeling of success and accomplishment for Barbara.

Barbara had also incorporated projects into her classroom instruction and begun talking with other teachers about instruction:

I had them [students] choose cell respiration or photosynthesis and write it as a storybook for a younger age. I know I stole the project from somebody and I modified it, but it worked, and the students remembered the parts of the cell because they had to learn it a new way for someone younger. (B. Talls, interview, April 10, 2013)
She continued,

I had a student do a car cell book. He used the parts of a car to make analogies for his cell book, and the student really learned and was able to use something he was passionate about to connect to cells. (B. Talls, interview, April 10, 2013)

By December, Barbara had also added graphic organizers as a method for note taking and games like memory, crosswords, timelines of the content, and Jeopardy to have students review the content. While she believed students did not see the instructional benefit and only saw the fun, they were remembering the content more, and this translated to higher grades, which Barbara knew Debbie wanted to see in the gradebook. Barbara had also been receiving parent compliments on the visual and kinesthetic learning strategies she was implementing in the classroom (B. Talls, interview, December 26, 2012, and reflective journal, February 20, 2013).

Barbara’s frustration with student grades continued to grow, and the researcher saw this during her observation of Barbara’s class in December, where the students appeared more concerned about their grades than the content they were learning. The students began a discussion about their grades, questioning why grades had not improved with their last project. Barbara responded she needed time to check PowerTeacher again, because their grades should have been improving. Barbara explained to the class about averages and grades at this point to keep the class under control rather than preparing for the final exam (L. Iacuone, observation, December 10, 2012).

Debbie and Barbara met to discuss Barbara’s instructional practice and Debbie’s perception of a lack of rigor and quality instruction after an observation in the anatomy
and physiology class. Debbie said when she was in Barbara’s class observing, “The students were spending a lot of time labeling in the class, which can be done at another time” (in D. Thomas & B. Talls, observation debrief, October 30, 2012). During the observation, Debbie noted there was no objective, essential question, or agenda on the board for the students to know and understand what they were going to be learning to hold them accountable. Barbara defended her classroom practice by explaining to Debbie she did not have her classroom first period to set up since a floating teacher used the room; therefore, she had been setting up the board after the class started because she was busy looking for cell phones to ensure students were paying attention, rather than explaining to students five times what they would be doing in class that day. Debbie instructed Barbara this practice needed to change and explained that if she put the information on the board, then students would know they had work to do and would put the cell phones away (D. Thomas, interview, October 31, 2012). While Barbara was willing to comply with Debbie’s direction, she believed it was unfair to the floating teacher because she was going to inform the floating teacher she could not erase Barbara’s board (B. Talls, interview, December 10, 2012).

Barbara was struggling with the instructional sequence of the anatomy and physiology class, based on Debbie’s observations and the debriefing meeting between Debbie and Barbara. Debbie was concerned Barbara’s class was falling behind the other anatomy and physiology classes. Barbara explained she was behind in the instructional sequence of the class for two reasons: (a) she had not taught the class before, so she was learning, and (b) she was creating the instructional materials. Barbara told Debbie she
had trouble developing a long-term instructional plan for the class since South Carolina did not have state standards for an anatomy and physiology class. Also, while Barbara received the scope-and-sequence information for the class from the department head, Lucy’s mentor, it was not available until September. Barbara explained the instructional sequence was basically just a list of chapters to teach for the class, but it was left up to Barbara to find resources and create a curriculum for the class. Debbie told Barbara she was going to have to figure out a way to catch up to where the students needed to be in relation to other teachers’ classes. Barbara said, “I will probably end up giving more homework as far as labeling and identifying insertions and origins” (in D. Thomas & B. Talls, observation debrief, October 30, 2012). Debbie agreed on the plan to catch up and expressed the need for Barbara to talk with other anatomy and physiology teachers.

Debbie had academic concerns about Barbara and her ability to provide effective classroom instruction to her students. Debbie said parents and students complained that Barbara did not provide review guides or study sheets for her students. Debbie stated Barbara was called in to talk on November 5, 2012. Debbie explained to Barbara she was receiving a lot of parent phone calls about students failing the class. Debbie provided her with a directive to address the parent complaints:

If there are 75 things you want them [students] to know about the heart, let them know, “These are the things I want you to know.” If that is what you expect, then let them know. Don’t do all this other stuff and then tell them about the 75 items they have to know. Learning should not be a mystery. If you set expectations and tell them, “This is what I expect of you, this is how we are going to get there,”
then the kids will do it. But the kids have to like you, and you can’t be sarcastic and ugly. (D. Thomas, interview, December 10, 2012)

Barbara was concerned she was “dumbing down the curriculum” and not meeting Debbie’s expectation that teachers would treat students as if they were going to be taking freshman college biology or chemistry, where they should only have a few tests, some quizzes, and lab reports, and the teacher should be the facilitator of the classroom (B. Talls, interview, December 26, 2012).

Barbara was very concerned in December about her performance and wanted to be sure to make the correct decisions to prevent instructional problems in the spring semester. She reported that students began asking questions about the final exam, and Barbara deferred to Debbie for advice regarding how long the final exam should be, how many questions, what type of questions, and whether she should provide a study guide or not. However, Barbara noted Debbie did not want to answer the questions or did not know the answers and therefore sent her back to the science department for answers, leaving administrative expectations unclear since Barbara was given a directive about instructional practice in one situation but not another (B. Talls, interview, December 26, 2012).

At the start of the new semester in January, Barbara was excited about teaching CP biology to 10th graders; however, she soon discovered she “can only do 10 minutes of lecture or it is lights out for the students,” implying the students would fall asleep. She said, “I feel like I am the daily entertainment” because of switching engagement activities all the time to maintain student participation (B. Talls, interview, April 14, 2013). She
also worried about keeping students on approximately the same schedule with class times between 90 and 97 minutes while dealing with classroom management and more transitions due to shorter lectures. Barbara was learning to break the class into smaller chunks of time to more effectively reach students to improve learning (B. Talls, interview, April 14, 2013).

Barbara stated in her February reflective journal entry she really had not received help the majority of the year but was now teaching new classes. She wrote,

I have had more success finding meaningful activities that the students enjoy for the most part. When we did enzymes this first week, I did the toothpickase lab. The students really got the concept of enzymes, and denatured enzymes. The best part of this activity for me was that I got so much help from my mentor! The even better part was that she offered it. (B. Talls, reflective journal, February 1, 2013)

Barbara felt excited about the rest of the year and the activities she was working on planning for the students. She realized the students had to be actively participating in the class rather than sitting and receiving information from her. She revealed her use of performance-based formative assessments had increased:

A lot of their [students’] knowledge comes through, not necessarily a grade assessment, but going through and seeing what they [students] can do and what they can’t do. When we did the DNA replication activity, they were able to show me they had matched all the bases together correctly. And that way I knew, okay,
they get replication and how to figure out which ones were parents and which ones were complementary. (B. Talls, interview, April 10, 2013)

At the end of the year, Barbara revealed she would like to work on assessment and pacing for the following year of teaching and “incorporating my labs into my lecture. When I taught at the technical college, I would lecture for an hour and then I would have lab for 3 hours on another day, allowing me to connect everything together” (B. Talls, interview, April 10, 2013). Barbara liked teaching and working with students to see their understanding develop; however, she wished she had more time with the students to work on laboratory skills and experiments.

4. Teacher Perception of Administrative Support

Barbara stated in her preparticipation interview she expected more help, guidance, and information about expectations from administration and fellow science department teachers. She stated that as a teacher,

I think I expected not to be thrown to the wolves. They [administration and the science department] knew I had not taught high school, so there were things that I didn’t know. I expected to be told the expectations [they had] of me. I tell my students their expectations, so I expected the same thing. (B. Talls, interview, September 23, 2012)

Barbara said she was sometimes confused about what administration expected from her because she received conflicting messages from different administrators. The principal had told her she was doing a good job, as he did in December, but Debbie had told her she was doing everything wrong (B. Talls, interview, April 14, 2013).
She related, regarding her initial expectations of the school, that in addition to receiving conflicting messages, she could not seem to make one of the assistant principals happy. Barbara had a sick child and missed her duty week; she e-mailed another teacher to cover for her, and she took the other teacher’s duty week. She informed the assistant principal of the change but stated he was not very appreciative and actually was mad she did not contact him directly and allow him to cover the duty. Barbara explained the situation to Debbie for guidance on how to approach the assistant principal to make amends. Debbie explained to Barbara that the assistant principal she spoke with was just a “matter-of-fact” type of guy, and no one would get anything more than an “okay” from him; Debbie told Barbara not to take it personally because it was just his personality (B. Talls, interview, September 23, 2012; D. Thomas, interview, October 31, 2012).

By winter break, Barbara had not developed a supportive relationship with her administrators. In the midyear interview, Barbara described the following situation that happened in November:

This last semester was very rough because I felt like I got thrown under a bus. I’m dealing with the seniors; I was brought in once to talk about my study guide and my testing, and then the next time I was brought in twice in 1 week. And the second time I was brought in, it was, “Bring your study guide and your test,” and then when I got in there, it was nothing about that [study guide or test], and I did not ever feel like I got a chance to defend myself. It was, “This is what we’ve heard from students; you need to fix it,” and there was no “What do you think?”
There was no support; there was nothing I could do. So I was really caught completely off-guard. (B. Talls, interview, December 26, 2012)

Barbara believed whenever parents called, the administrators automatically assumed the parents were correct, but she felt the administrators were forgetting that the story the parents told them came from the student, not from Barbara, the teacher.

Barbara assigned a project in November in order to help increase student grades, and most of the students did well, but when she used PowerTeacher and put the grades in, the student grades did not increase, indicating there was a problem. Barbara stated she asked for help from some fellow teachers, who could not help, so she finally did some research and found there was an error in how she had PowerTeacher set up (B. Talls, reflective journal, December 14, 2012). She stated,

Once I found a problem in PowerSchool and their [students’] grades went up, then all of a sudden, all the problems were gone. There was no longer a professionalism issue, there was no longer, you know, “She’s the worst teacher ever.” It was more of, “Oh, I actually might get to exempt now; she is wonderful,” and that was what bothered me. (B. Talls, interview, December 26, 2012)

In addition, Barbara was upset Debbie never approached her to commend her on finding the issue in the grading system or to make sure things were running smoother, leaving Barbara to feel as though all that mattered was that parents did not call Debbie.

Barbara told Debbie in their October debriefing interview that the science department had not been open or welcoming to her, and the teachers had made several
statements about her being a PACE teacher rather than going through an accreditation program. Debbie tried to put Barbara’s fears to rest and explained Reidville High School had several PACE teachers, and they were always welcome at the school, but Barbara said she never felt welcomed (B. Talls, interview, April 14, 2013). Barbara also revealed to Debbie that the induction program facilitator seemed to have a problem with her being in the induction class as a PACE candidate, making comments about how the state department of education should provide its own induction program for PACE teachers.

Debbie explained that she had no control over the induction program facilitator, who taught at a local university and was an assistant superintendent’s wife, indicating Debbie was not going to make any phone calls on Barbara’s behalf, leaving Barbara to feel unsupported (B. Talls, interview, April 14, 2013; D. Thomas, interview, December 10, 2012).

Barbara was extremely frustrated with administration and their lack of support; this was evident when she described a situation where an administrator came into her classroom the same day Debbie called her into her office. Debbie told Barbara a group of five senior students talked with her about their low grades in the class, and some of the students’ parents called to complain about their students’ low grades. According to Barbara, as the administrator walked in the door of her classroom, a student said, “Now she is going to get busted” (B. Talls, interview, December 26, 2012). Barbara said this was the point she realized, “The student knew I was going to be observed and obviously knew more about what was happening with administration than teachers did, or at least [more than I did]” (B. Talls, interview, December 26, 2012). Barbara hoped the
administrator noticed the standard, objective, and agenda on the board and observed the students playing on their cell phones, talking, and writing notes so that the students would be more “busted” than she was. Barbara was disappointed because the administration never noted anything or reviewed the situation. Barbara did not believe the administration did anything about the group of five students who complained to Debbie, and there did not seem to be any follow-up after the grade calculations improved in PowerTeacher, leaving Barbara to believe students and parents could complain without any repercussions (B. Talls, interviews, December 26, 2012, and April 14, 2013).

In March, Debbie shared the news that Barbara would not be invited to teach at the school the following year. She stated several administrators had observed Barbara’s classes, and there were concerns about the lack of rigor. Debbie said she spoke with Barbara several times about her classes, the level of rigor, and instructional practices, but Barbara did not make the changes administration was hoping to see. Rather than continue to spend time and resources on her, Debbie stated the principal made the decision to not rehire Barbara (D. Thomas, interview, April 12, 2013). Barbara left the meeting and took “a moment to look back through my observation write-ups from this year and truly felt blind-sided and very upset. There was no warning and no written reprimand or conversation of a problem” (B. Talls, reflective journal, March 15, 2013).

Barbara shared, during her end-of-year interview, her feelings of frustration, confusion, and despair about administration and their decision not to rehire her:

They [administration] told me, “Don’t forget that you are not teaching at a technical college anymore; you have to bring the rigor down. Even though it is
[a] college preparatory class, you cannot teach it like a college class.” And I understood, and I really did think I was. I know I had some classroom management issues, and I will be the first to admit I was afraid to write students up because I wasn’t really sure what the policy was; the referral process and what you refer is kind of an ambiguous policy. (B. Talls, interview, April 14, 2013)

Barbara indicated she did not believe her mentor or administration gave her support to alert her to problems and allow her to change her performance:

I guess my personal feeling is that if there was a problem, they should have addressed it. If there was truly an issue, they should have gone to my mentor and said, “Please give her more guidance.” I don’t know. I just feel like there was only one time I was addressed for a negative situation, or positive for that [matter]. I feel like if there was truly an issue, there would have been more observations, more sit-down talks to discuss what they want to see. (B. Talls, interview, April 14, 2013)

Barbara did not believe administration blatantly told her there were issues and what exactly those concerns were during the year, nor did her mentor or department head provide her with guidance and help in dealing with the concerns, leaving her unsupported to flounder and fail (B. Talls, interview, April 14, 2013).

Case Description—School 2: Kennerly High School

Kennerly High School is located near Columbia, South Carolina, and opened in 1992 with an incoming freshman class. The district is home to four high schools, four middle schools, 12 elementary schools, and one academy for alternative education. This
suburban PK-12 district serves a community of professionals who work in the nearby capital city. In 2013, during this study, the district educated approximately 16,500 students in its 21 schools, employing 1,209 teachers. The mission of this district is as follows: “In partnership with community, to provide challenging curricula with high expectations for learning that develop productive citizens who can solve problems and contribute to a global society.” The vision of the district is to create situations where students are empowered to exceed expectations for academic, social, and emotional growth. The district provides a learning environment for students to be creative and develop problem-solving skills to meet the changes in the global economy. In addition, the district maximizes the use of resources through community, business, and educational partnerships. The district has a reputation for preparing students for their next level of education or employment.

Kennerly High School boasts a different mission statement from that of the district, which includes the school becoming a family where education and achievement are the top priorities. The school wants to ensure academic, social, physical, and personal growth of students by providing them with a curriculum that challenges students to think and requiring teachers to use effective teaching strategies to create an environment that promotes the love of lifelong learning.

The high school achieves its mission through a collaborative school climate. Administrators expect teachers to work together in data teams to address the needs of the school, departments, and their individual classrooms. Administrators allot time on Wednesday mornings (students arrive at school 2 hours later than normal) for teachers to
collaborate in order to ensure student achievement. Kennerly is a high-performing school, ranked by U.S. News & World Report as one of the top 400 schools in the nation. The school offers a STEM program to which many students apply in hopes of being one of 50 freshman students accepted upon entering the school as ninth graders. Kennerly High School has a population of approximately 2,100 students and a teaching faculty of 127, with an average teacher retention rate of 88.3% from 2011 to 2013, according to state report cards (South Carolina Department of Education, n.d.).

The schools in this district are well supported by the local community. Alumni of the four high schools in the district move back to the area to raise their families because of the educational opportunities in the area. Teachers in this district undergo an intense interview process involving three different rounds of interviews after a paper screening. The two teachers who participated in this study were Melanie Hampton and Tyson Thompson, and their supervising administrator was Susan Lofton.

School-Site Administrator at Kennerly High School: Susan Lofton

Susan was a fourth-year administrator at Kennerly High School. She served 1 year as an administrative assistant principal; in this role, she worked in the classroom for half a day and as an administrator for the other half. She then moved into a full-time assistant principal position in which she had served for 3 years at the time of the study. She had a Bachelor of Arts in Secondary Education and a Master of Education in Administration from two different accredited universities in South Carolina (S. Lofton, interview, October 12, 2012).
Susan was a former English language arts teacher and admitted she had limited knowledge of science content. Although she lacked a science background, she was familiar with best practices and good teaching, which was what she looked for in the classroom. Susan stated she believed the role of a science classroom teacher is making the learning relevant. There is so much real-world application to what they’re [students are] learning and why they need to know it. I think the science classroom is the perfect place for students to have some hands-on experience, to be doing labs and actually interacting with the material. So I do expect a lot of discovery and a lot of scaffolding. (S. Lofton, interview, October 11, 2012)

At the time of the study, Susan served as the assistant principal of instruction, where she oversaw guidance, testing, the master schedule, parent outreach, student attendance, teacher evaluation, and observations for all Summative ADEPT Formal Evaluation of Teachers (SAFE-T), requiring her to work closely with teachers who were in their first 2 years of teaching. In addition to Susan’s job responsibilities, she was involved in hiring faculty and staff, including both novice science teachers whose case studies are presented in this dissertation.

1. Implementation of a High-Quality Induction Program

Melanie and Tyson both participated in the district induction program for novice teachers. The class, containing teachers of prekindergarten through Grade 12, met twice a month at a centralized building equidistant from the 21 schools in the district. The human resources department ran the program and employed a retired teacher to facilitate meetings.
According to Melanie and Tyson, the instructors were individuals from within the district, mainly district office personnel, who explained what their jobs were at the district and which services were available to the novice teachers. While the program facilitator would occasionally separate the teachers into bands of Grades PK-5, 6-8, and 9-12, this happened rarely and only when the speaker for the meeting had made provisions for this to occur. Melanie and Tyson both said they wished they had more time to talk with other teachers and plan instruction (M. Hampton, interviews, October 11, 2012, and January 17, 2013; T. Thompson, interviews, October 15, 2012, and January 8, 2013).

2. Implementation of a High-Quality Mentoring Program

The district provided support for a mentoring program through a small stipend for the mentors who completed a year of service. Susan was responsible for maintaining the mentoring program at Kennerly High School by arranging for a variety of teachers to receive training as mentors to meet the needs of novice teachers.

Susan had to consider mentor relationships for the two novice science teachers who participated in this study. She explained, “I decided to assign Melanie a mentor who is right next door to her room since I could not arrange a similar class schedule or a common planning period” (S. Lofton, interview, October 11, 2012). The teacher in this room was a department head, had taught physical science before, had a similar personality to Melanie’s, and was very aware of the district and school initiatives, the need for collaboration, and “the desire for everyone to get along in the science department after a turbulent past 5 years due to a former department head and a
department split into two factions” (S. Lofton, interview, October 11, 2012). Susan described Melanie’s mentor as a teacher with strong classroom management, organizational, and time management skills, which she believed would be beneficial for Melanie.

Susan explained that choosing a mentor for Tyson was more difficult due to his overconfident personality. She elaborated,

Tyson was assigned a mentor who is across the hall from him and who is the exact opposite of his personality. The mentor he was assigned plans on a regular basis and is one who sought help as a new teacher to the school. Tyson’s mentor has a very strong character and will tell him exactly what he needs to hear without trying to give him the information subtly. The concern with assigning him this resource is his teaching schedule. Tyson is teaching two classes of honors physics and four of honors physical science, while his mentor is teaching only physical science. (S. Lofton, interview, October 11, 2012)

Susan made this choice because the physics teacher, who would be the other logical choice for Tyson’s mentor, was two hallways down and not as direct in her line of communication as the mentor Susan assigned to him, while the chosen mentor was only two doors away from Tyson’s classroom (S. Lofton, interview, October 11, 2012).

3. Provision of Facilities and Resources

Melanie was hired to teach biology at Kennerly High School, but the science portion of the master schedule Susan thought she could build did not come to fruition. There were not enough sections for Melanie to have biology classes throughout the day;
therefore, Susan arranged for Melanie to teach all physical science classes, with a mixture of honors and CP. Melanie taught four honors and two CP physical science classes on an A/B yearlong schedule in which Wednesdays were late-arrival days for students so that teachers had common collaborative planning time. Melanie had first-period planning on A days and second period on B days. She had her own classroom, which comfortably seated 25 students in individual desks.

Tyson was hired to teach chemistry and physics at Kennerly High School. The former AP physics teacher left, and a veteran teacher in the department took the two classes of AP physics, leaving two classes of honors physics open. Susan assigned Tyson these two classes and four honors physical science classes for the 2012-2013 teaching schedule. He taught the classes on an A/B block schedule and had first-period planning on both days.

The school’s science department is housed on the second floor. The rooms are set up in a square configuration with desks that can be moved and furniture arranged to meet the needs of the students and learning environment for the day. Teachers share one of six lab rooms. The lab rooms are traditional, with two fume hoods on either side of the room and eight hexagonal tables within the room. Also included in the lab rooms are interactive whiteboards, LCD projectors for instruction, and walls lined with cabinets for shared storage of materials. The department has identified one of the six laboratory rooms as physics, two as chemistry, with the other three as combination biology and physical science laboratory areas. There are several storage closets on the ends of halls that contain shared resources including SparkVues, PASCO equipment, office supplies,
and other general science equipment to ensure teachers have the materials they need to be successful.

Susan assigned both Melanie and Tyson their own classrooms, which seated 25 students comfortably. The classrooms were the same size and had the same arrangement, with a Promethean board, LCD projector, dry erase board, and demonstration desk at the front of the room. Both rooms had a large two-door closet, which could be locked. The difference between the two rooms was that Melanie’s room had a window since she had an exterior classroom, and Tyson’s room was on the interior of the school. Tyson had chosen to set his desk up in the front of the room beside the demonstration table, and Melanie had chosen to place her desk off to the side of the room.

4. Supportive School Environment

Susan believed if she could hire novice teachers, train them, provide resources, arrange for professional development, and help them grow to develop into teachers the school needed and wanted, it would make her job easier in the end. To move toward that goal, Susan arranged to meet with her two new science teachers monthly. During several of those months, the principal met with them to foster professional relationships as well.

Susan could not arrange for Melanie or Tyson to have common planning with their mentors or to be free of duties during their novice year of teaching (S. Lofton, interview, October 11, 2012). Susan was able to arrange for Melanie to have morning hall duty outside her door every other day for 15 minutes; Tyson had morning cafeteria duty every day for 20 minutes due to his first-period planning schedule. Tyson explained in his preparticipation interview that he believed Susan assigned him morning duty in the
cafeteria because a male presence was needed in that area, and there were not as many male teachers as females. Both Melanie and Tyson stated other (veteran) teachers did not have any duties, and while neither was upset with their duty schedule and viewed it as “part of paying their dues,” they both said they could have used that time to prepare for classes in the morning or work with their mentors (M. Hampton, interview, January 17, 2013; T. Thompson, interview, October 15, 2012).

After spending the year with these two novice teachers and helping them navigate the first-year waters, Susan admitted she felt a fondness for Melanie. She noted,

I really do prefer her [Melanie], and maybe even I prefer her to some of the veteran teachers. I do like her. I do think she’s done a good job. I do see really great things for her down the road. I could see her being a department chair one day. I hope she stays here for a while. And Tyson, he surprised me, but at the same time, if he said that he was leaving next year, I wouldn’t cry about it.

(S. Lofton, interview, April 11, 2013)

Susan was confident she had done her best within the constraints of the master schedule and current faculty to offer support for these two novice science teachers. However, she also stated, “I have seen them [Melanie and Tyson] more, and I have met with them more, but I still don’t feel like it’s enough. I wish it was more” (S. Lofton, interview, December 13, 2012). Susan would have liked to work more closely with the novice teachers to help them develop faster, but she acknowledged both teachers had completed their first year teaching and showed improvements over the year in classroom management and instructional practice (S. Lofton, interview, April 11, 2013).
Case Analysis 3—Teacher 3: Melanie Hampton

Melanie was a 23-year-old teacher with a Bachelor of Science and Master of Arts in Teaching from an accredited university in South Carolina. Melanie was hired at Kennerly High School to teach biology after she completed student teaching at another high school in the same district. Upon completion of the master schedule and the loss of two teachers to a new career and technical education center opening in the district, as well as the loss of a teacher due to a family situation, Susan assigned Melanie to teach physical science rather than biology, the subject she thought she would be teaching when hired.

This change in assignment put an extra strain on Melanie during the 2012-2013 school year since she was not highly qualified to teach physical science. To maintain her employment in the district, she needed to complete two physics classes at the local college and pass the appropriate PRAXIS exam by June 30, 2013. This timeline forced Melanie to complete the additional coursework during the school year rather than the summer, while she was teaching a subject with which she was not familiar. In addition to completing additional coursework requirements, Melanie coached the dance team from the local middle school and helped with the high school dance team.

1. Classroom Management

As a novice science teacher entering her first full-time teaching job at Kennerly High School, Melanie was excited and nervous about the upcoming school year. Melanie wanted to
create an environment where the kids feel comfortable and safe to ask questions. I don’t want them to feel afraid or have a stern barrier between the students and me because I want them to stay, “Wait a minute Ms. Hampton, I don’t get it.” (M. Hampton, interview, October 11, 2012)

She believed her one weakness and the area where she needed the most help was classroom management, and Susan shared the same concern due to Melanie’s youthful appearance. As Susan pointed out, “Melanie looks like she is still a high school student herself. She is petite, cute, and enthusiastic—all the qualities of an involved high school student” (S. Lofton, interview, October 11, 2012). Susan did not view this as a real problem as long as Melanie could build some confidence in her ability to manage a classroom.

Tables 11 and 12 show the classroom rules and consequences Melanie established based on the school’s Positive Behavior Intervention System (PBIS) initiative.

Table 11

*Melanie’s Classroom Rules for the 2012-2013 School Year*

<table>
<thead>
<tr>
<th>School PBIS expectation</th>
<th>Interpretation in classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Be respectful</td>
<td>• Keep yourself and others on task.</td>
</tr>
<tr>
<td></td>
<td>• Follow directions the first time they are given.</td>
</tr>
<tr>
<td></td>
<td>• Be courteous and respectful to the teacher, property, and others.</td>
</tr>
<tr>
<td>2. Be responsible</td>
<td>• Be prepared for the class activities.</td>
</tr>
<tr>
<td></td>
<td>• Work quietly in your assigned place at all times.</td>
</tr>
<tr>
<td>3. Be reputable</td>
<td>• Do nothing to disrupt the learning environment.</td>
</tr>
</tbody>
</table>
Table 12

Melanie’s Consequences for the 2012-2013 School Year

<table>
<thead>
<tr>
<th>Offense</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Student warning</td>
</tr>
<tr>
<td>2nd</td>
<td>Individual conference/parent contact</td>
</tr>
<tr>
<td>3rd</td>
<td>Teacher detention for 30 minutes after school</td>
</tr>
<tr>
<td>4th</td>
<td>Office referral</td>
</tr>
</tbody>
</table>

Susan was concerned Melanie’s interpretations of the school expectations were not specific enough to help regulate student behavior. During the year, Melanie did encounter problems and concerns, which she addressed. During the course of the school year, Susan helped Melanie to define her classroom management plan and asked her mentor to provide guidance as well (S. Lofton, interview, October 11, 2012).

Susan also worried Melanie’s student teaching experience, which took place at an affluent school, had not prepared her for the type of students attending Kennerly High School (S. Lofton, interview, October 11, 2012). Melanie shared this concern and stated,

I am most concerned about my classroom management. I think that coming out of my student teaching and a master’s program, you get some experience, but every situation is so different, and it’s hard to know how you are going to react to various situations or what those situations are, due to different types of students. I haven’t quite figured all that out yet. (M. Hampton, interview, October 11, 2012)

When Melanie accepted the position at Kennerly High School, she was aware the students were different from the students she had taught and would need a different plan than the one she utilized as a student teacher.
On one particularly difficult day, Melanie wrote in her reflective journal,

I had an incident in my classroom which pushed me to my almost breaking point.

Two students got into a verbal altercation in my classroom and at the end of the day my nerves were shot and my desire to teach was at an all-time low.

(M. Hampton, reflective journal, February 2013)

Immediately after the altercation, Melanie explained, an administrator walked into the room, saw the look on her face, and asked her what was wrong. Melanie told the administrator her 4A and 8B classes were just hard to manage, and she cried as she described the verbal and physical altercation between two students during her 8B class (M. Hampton, reflective journal, February 2013, and interview, April 8, 2013).

Melanie was thankful the administrator listened with a kind ear and that the administrator came back the next day during her 4A class and stayed the entire block of time. During Melanie’s planning period, the administrator provided her with suggestions of small changes she could use in her classroom procedures to curb the discipline problems. A few of these suggestions included a bell-ringer booklet that required students to focus when they walked into the classroom, chunking the lessons into smaller time periods, and writing the directions on the board/PowerPoint so students could visually see what they were doing (M. Hampton, interview, April 8, 2013).

Melanie expressed surprise that when she put these small changes in place, students got used to the routine classroom procedures very quickly, and some of the problems decreased for a while, but then issues of students texting on cell phones, talking excessively, and getting up out of their seats again arose. Melanie stated she was trying
to give warnings, but she was giving too many warnings for different classes and began to lose track of the number of warnings she had given to each student, so it was not working. She changed the process and began warning the students and having them meet her in the hallway to discuss the problem behavior. Melanie stated that while this was working, it took away from other students and instruction in the class, so she was still looking for a solution that would work for her teaching style (M. Hampton, interviews, January 17, 2013, and April 8, 2013).

Although Melanie was struggling with the normal day-to-day issues with student discipline, it was evident she knew how to handle the extreme cases, such as fights where student safety may be a concern. Susan concluded Melanie was better at classroom management than Melanie believed:

She [Melanie] was standing out in the hallway and I [Susan] was sitting in the back of the room, and two kids got into a shoving match at the front of the classroom. I saw it, but I purposely didn’t jump up and address it. She [Melanie] was already doing it, so I just sat back and watched how she was going to handle it [the situation], and she just said, “You, out in the hall. You, sit down.” She came in and gave them direct verbal commands, and the tone of her voice was appropriate. The volume level was appropriate; she was not screaming. She did come in with confidence and told them exactly what she wanted them to do, and so the kid walked out in the hall, and this kid is huge—like a 6’2 kid—ninth grader, but he’s big. She stood out there and talked with him, and after a few
minutes I walked out and joined them, but I did not have to do anything.

(S. Lofton, interview, October 11, 2012)

Susan indicated she was impressed with Melanie’s classroom presence and believed she could handle situations and assert her authority when necessary. Susan observed, “She [Melanie] gives too many warnings. She’s got a great classroom management plan. At some point she has to hold the line. If she is only going to give one warning, then she should just give them one” (S. Lofton, interview, December 12, 2012). Susan credited part of Melanie’s success to her routines and procedures and believed Melanie would be able to get the classroom under control with some experience and adjustments to her classroom rules for future years.

Melanie was trying different ways to manage her class within the confines of Kennerly High School’s PBIS, which included the rules (a) be respectful, (b) be responsible, and (c) be reputable. All classroom rules established by individual teachers had to fall within these three areas to support the PBIS initiative. Melanie reported she had been rewarding positive behavior by giving students links, which were paper strips students hooked onto each other. The goal was for each class to get its paper chain across the room first to earn a reward. In October, Melanie said she had been a little slack about giving out links and needed to get back into the habit again. She said the management strategy worked really well when she was religiously following the plan, but as she got busy, she had stopped, and behavior was deteriorated (M. Hampton, interview, October 11, 2012).
Susan was supportive of Melanie’s innovative ideas for classroom management and liked Melanie’s ability to accept guidance and suggestions from her mentor and other administrators to adjust her classroom management policy, implement consequences, or change a procedure. Susan had seen growth in Melanie’s classroom management and noted she believed Melanie was more aware of how she was responding to student misbehaviors (S. Lofton, interview, December 13, 2012). Susan encouraged Melanie to continue to enforce the rules and consequences and to get parents involved in helping students behave better in the classroom through parent contacts. Melanie was constantly asking students to sit down and stop talking, which she felt was getting old. During the midyear interview, Melanie realized that to get additional help in the classroom from administration, she was going to have to follow through with enforcing her consequences for students. Melanie explained she had been hesitant to write up students because she did not want the students in trouble; however, they continued to need constant reminders to change their behavior (M. Hampton, interview, January 17, 2013).

Melanie’s hesitancy in writing up students and enforcing consequences was evident in the researcher’s December 3, 2012, observation of her class. Toward the end of class, Melanie was trying to get students to put away materials after an activity. Her intention was to provide students with their grades before they left the classroom so they were prepared for their exam the following week; however, the students were not cooperating. Melanie made the announcement, “If you are not sitting, you are not leaving” (in L. Iacuone, observation, December 3, 2012). However, four students still did not sit; one was standing in the aisle, one was sitting on the desk, and two were
standing at the back of the room against the wall. Melanie did not address these students individually but instead repeated, “Everyone needs to sit in their desk like normal” (in L. Iacuone, observation, December 3, 2012). Melanie did not identify what “normal” was, and the four students standing made no effort to sit down. Rather than wait for the students to comply or enforce her directive, Melanie continued her lesson and began questioning the students on the activity they completed, thereby reinforcing the behavior of the students who were not following her directives (L. Iacuone, observation, December 3, 2012).

Melanie decided to try another classroom management technique in January with refocus sheets, which she learned from a teacher at the academy, the alternative school. She printed refocus questions on blue paper, and when a student did something wrong, Melanie provided him or her with the paper, which the student filled out. This blue paper required the student to identify three things: (a) what the student was doing wrong, (b) why it was a problem, and (c) what he or she should have been doing instead. Melanie stated this method helped for a bit to change the behavior because students did not want a blue sheet to fill out in class. However, Melanie confessed, “Most of the students do not fill it out completely or put something ridiculous on the paper” (M. Hampton, interview, April 8, 2013). Melanie emphasized she was not upset when students did not fill out the paper correctly because it left a paper trail, allowing her to show administration and the parents what the students were doing. However, she confessed, “It is a lot of work to get to that point” (M. Hampton, interview, April 8, 2013).
At the end of the year, Melanie was having the same problems in class as she did in December: Students were not following her directives. During the researcher’s observation in April, a student entered Melanie’s classroom bouncing a basketball. Melanie took the ball away and instructed the student to sit down. The student pulled out a golf ball and began bouncing the golf ball in place of the basketball. This continued until another student pointed to the visitor (this researcher) in the classroom, and only then did the student put the ball away, showing he knew what Melanie expected of him, but she did not enforce the appropriate behavior and consequences (L. Iacuone, observation, April 9, 2013).

Throughout the year, Melanie tried different methods to help manage the classroom; however, none involved truly enforcing her rules and using her consequences from her syllabus. She struggled with the day-to-day classroom experiences of getting students started at the beginning of class, dealing with cell phones and excessive talking, and enforcing the directions she provided to students. Melanie described her desire for the students not to hate or be mad at her; therefore, she had a hard time disciplining them for fear of losing the rapport she had established. Overall, she had written 13 referrals in the fall and five in the spring (see Table 13). Melanie credited the decrease in the spring referrals to her work with an administrator who provided tips on classroom management.
Table 13

*Office Referrals From Melanie During 2012-2013 School Year, by Semester*

<table>
<thead>
<tr>
<th>Type of infraction</th>
<th>Fall number of occurrences</th>
<th>Spring number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive talking</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Cell phone</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Defiance</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Disrespect</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Altercation in classroom</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

In the end-of-year interview, Melanie stated she really wanted to learn from her classroom management issues that year and knew she should have written up many more students for behavioral issues. She knew she needed to find a method and consistently enforce her rules and consequences. She stated in her final interview that she had tried “everything under the sun, and it is no wonder the students don’t realize that I mean business; I change things all the time on them” (M. Hampton, interview, April 8, 2013). In order to learn from this experience, Melanie had written down all the things she wanted to change to ensure a better 2013-2014 school year, and she was planning on doing more “teach to’s” the following year to set procedures in place so students would know her expectations from the beginning of the year (M. Hampton, interview, April 8, 2013).

2. **Resources Allocated**

Melanie’s mentor was in the classroom next door to hers. The two had a great relationship. Melanie knew she could approach her mentor with any questions or
problems; however, her mentor did not teach the same content, nor did she have the same planning period. Melanie said, “We don’t meet one-on-one. It is more of talking during class change in the hall or if I have a problem. If I need to know how to respond or handle something, I will go to her room” (M. Hampton, interview, April 8, 2013).

Melanie said her mentor “is real good at emotional support when I get kinda crazy. She is there to let me vent” (M. Hampton, interview, January 17, 2013). Melanie would have liked more help with lesson planning and curriculum development from her mentor but said, “It is hard because she does not teach the same class I do” (M. Hampton, interview, October 11, 2012). Although her mentor provided her with a binder of notes and activities for physics and chemistry, Melanie would have liked someone she could plan with more diligently (M. Hampton, interview, April 8, 2013).

Since her mentor could not help her with planning and curriculum development, Melanie thought she could get assistance from her colleagues in the department. She expressed disappointment in her interactions with department members and elaborated,

I would just hope to see more collaboration. It has been hard for me because a lot of the support has been when I ask for it. It has not been very open and free to give from teachers without me asking. That is the hardest part there is—not much communication unless I initiate it. (M. Hampton, interview, October 11, 2012)

Melanie explained that during her first interview, her supervising administrator, Susan, told her Kennerly High School was highly collaborative and teachers who taught the same content shared the same curriculum so that all students had similar experiences in the classroom; Susan corroborated this belief about the culture in her preparticipation
interview. Susan had said, “One of the strengths of Kennerly High School is the climate and culture of collaboration among the teachers through the use of data teams during Wednesday mornings” (S. Lofton, interview, October 11, 2012). Susan described a process the entire district used called data teams, in which content-area teachers shared student data, analyzed strengths and weaknesses, and decided on instructional strategies as a group to increase student achievement.

When prompted as to why she thought there was a lack of support and communication even though the culture of the school was focused on data teams and collaboration between teachers, Melanie responded,

I don’t know if it’s because they think I already know what I’m doing or if it’s because they are so wrapped up in their day. I don’t know if it is because I don’t ask, they think I am doing okay, and I understand everybody’s busy. Some teachers will come to me and say, “You doing okay?” But it is more of like a story time. It is not, “Do you need lesson plans? Do you know how to teach this appropriately? Do you understand that we need to add these topics?” It’s not the type of support that I feel I need. (M. Hampton, interview, October 11, 2012)

Melanie cited another example of a roadblock to collaboration she experienced when Susan asked her to work with another first-year teacher’s mentor for additional help. While she found the other mentor, who taught physical science, to be helpful, the mentor was not forthcoming in offering help. Melanie had to seek her out and ask very specific questions to get what she needed. Melanie was frustrated with having to search for the mentor teacher when they were on the same data team and therefore met once a
week, and she believed their discussions should have encompassed the areas where Melanie needed help.

Melanie was also concerned with finding enough lab resources, as she stated in an interview on October 11, 2012,

Labs, I guess, is one area that comes to mind which I don’t have knowledge of yet. Is there a good lab to do? I don’t know because physical science is so different than what I was accustomed to [biology]. I don’t know what labs are good or what labs are going to get the point across to the students, and this is what I need help with.

Melanie had experienced difficulty choosing appropriate labs for students, leaving her feeling as though her data team could have spent the collaboration time more wisely in deciding which instructional activities would be the most beneficial to students. She explained,

I have approached Mrs. Tuggle [colleague] and found her helpful, but she is not very forthcoming with her stuff. I can go to her and ask her for help, but she is not going to lay it on my desk; I have to specifically ask her for a very specific lab, which is stressful because I don’t know what to ask for, which is why I am asking for help. (M. Hampton, interview, January 17, 2013)

Melanie believed prodding her colleagues for help was a lot of trouble and took a lot of time, which should not be necessary.
During the January 17, 2013, midyear interview, Melanie stated,

I’m getting there with labs. I wanted more collaboration with the physical science teachers, and I have found that if I just ask, they will be more accommodating. It’s not that they don’t want to give up their stuff; it’s not that they are being greedy, it’s just they probably think, you know, “She’s probably got it. If she’s not asking, maybe she doesn’t need it.”

During the spring semester, Melanie felt more confident in asking other teachers for help and was happy her colleagues were working more closely with her. She was also pleased to learn some of the teachers began using instructional materials she created in their classes.

By spring, it was evident Melanie was providing information to other teachers based on conversations she had with the researcher, building-level administrator, mentor, and induction teachers. Melanie explained that the physical science data team had a meeting in March in which there was a heated discussion about the lack of collaboration during the school year. The data team decided the two factions needed to put aside their differences and begin to work toward coming together because no one could do it alone and everyone was suffering, both students and teachers. After this discussion, Melanie noticed a few of the teachers became more open to collaborating and willing to talk. Her mentor said, “It is evident they are starting to see Melanie as someone who is an instructional leader and making great strides to increase student achievement in her classroom” (B. Barren, interview, April 18, 2013).
The administration gave Melanie an opportunity to begin planning for other instructional activities in the department, and she wrote,

I have been given the opportunity to go to Chicago for a professional development conference at the beginning of February. I am so excited to have this opportunity. . . . The conference will teach me how to use the Anatomy in Clay models and [the] overall idea of constructing anatomical models out of clay.

(M. Hampton, reflective journal, January 12, 2013)

Melanie was excited to learn how to use the materials and implement the Anatomy in Clay system in the school. She also expressed how happy it made her that the administration supported her and provided the resources for the trip. Melanie wrote, “It is easy to get stuck in a traditional teaching model, but this conference will push me to use an inquiry-based hands-on learning approach” (M. Hampton, reflective journal, January 12, 2013). She expressed hope this would help spark a fire to plan additional inquiry-based physical science activities.

Kennerly High School’s science department budget for science materials was another positive gain for Melanie. The department provided Melanie with resources she needed, such as her textbooks, CDs for her textbooks, planning guides, and office supplies. Melanie stated she was actually shocked by the office supply closet that was available to her as a teacher. In addition to the office supplies, the department provided Melanie with a basket of items when she first arrived at her classroom “that contained binder clips, a stapler, folders, and a few other items all teachers need” (M. Hampton, interview, October 11, 2012).
Melanie was also happy she had all the technology she needed and stated, “Within the first couple of days of school, they [the librarians] were in my room giving me a document camera, an iPad to use, and hooking up my SmartBoard” (M. Hampton, interview, October 11, 2012). She also had access to a computer lab, a mobile iPad cart, and Pasco Spark Units. Melanie stated she had all the technology and resources she could foresee needing. When asked about specific items for laboratory experiments, she stated, “As far as needing supplies, based on what I know now, which is not a lot, I just tell the science department head” (M. Hampton, interview, October 11, 2012).

Melanie did share she had spent over $500 of her own money on supplies to get her classroom going, and while the school had reimbursed her for $250, she knew she would need to spend this money to get her classroom started the way she envisioned (M. Hampton, interview, October 11, 2012). Melanie explained she had not spent any additional money on science supplies because she discovered the science department’s chemical storage room completely stocked with anything she could need for the chemistry portion of physical science, and she found the physics storage room for the next portion of her course (M. Hampton, interview, January 17, 2013). Melanie said everything she needed was there. She understood the ordering process for the upcoming school year, so she could create her order list for the resources she needed for experiments the following year (M. Hampton, interview, April 8, 2013).

3. Instructional Practice

Melanie shared her belief that her greatest strength was her ability to plan and design engaging lessons for students (M. Hampton, interview, October 11, 2012). Susan
said Melanie’s strength was her openness to suggestions, flexibility in making changes in her classroom based on suggestions, and eagerness to learn and always improve. When talking about Melanie, Susan explained, “She is very solid. She’s thorough. I think she plans very well. She spends a lot of time preparing her lessons and trying to be creative and researching different ways of presenting the material” (S. Lofton, interview, October 11, 2012). Susan revealed her main concern with Melanie was her ability to manage stress. She observed, “Melanie gets overwhelmed and has not yet figured out how to step away from the work to relax” (S. Lofton, interview, October 11, 2012). The science department head and administrators at the school appreciated Melanie’s willingness to be flexible, seek feedback from others, and try new instructional strategies with students. They hoped her enthusiasm for planning would influence other science department members (S. Lofton, interviews, December 12, 2012, and April 11, 2013).

Melanie had been breaking up the block of instruction for her students. She explained to her mentor and Susan, “I try to keep the lectures pretty short, you know, like 20 minutes, and then we will take a little breather and switch up the activity” (in S. Lofton & M. Hampton, observation debrief, October 16, 2012). Susan appreciated this and agreed that changing activities was good to keep students engaged in the instruction. Susan was impressed Melanie had discovered the need to break up the block for student engagement and achievement so early in her first year of teaching (S. Lofton, interview, December 13, 2012).

The researcher witnessed Melanie’s innovative instructional strategies during her fall observation. Melanie had students break into five different groups and provided the
students with 16 pieces of paper with different chemical reactions written on them. The groups of students had to categorize the chemical reactions based on what the students knew and could determine about the chemical formulas of the reactions. Next, the students had to determine their justification for why they put the strips into each grouping and verbally explain it to the teacher and the class, thereby providing a chance for concept attainment and argumentation within the science classroom (L. Iacuone, observation, December 3, 2012).

While Melanie’s instructional strategies were innovative and engaging, Susan had indicated to Melanie that she was worried about the level of rigor and her ability to differentiate between her CP and honors physical science classes (S. Lofton, interview, December 13, 2012). Susan noted,

I think with Melanie [she] had some early frustrations, and she would try something that she thought was at an appropriate level for an honors class, and then when it didn’t work, instead of saying, “Okay, what do I need to do differently next time?” or “How can I fix this part of this?” she would just say, “They can’t handle it,” and would back down. Therefore, she eventually got comfortable planning for one level rather than trying to differentiate. (S. Lofton, interview, December 13, 2012)

Susan requested, during the November 11, 2012, classroom observation debriefing meeting, that Melanie hold students to a much higher standard by increasing the rigor in the classroom. During this meeting, Melanie stated she understood what Susan was requesting and would work on increasing the rigor of her honors physical science classes.
Melanie struggled with this directive, and it was clear she was not sure how to increase the rigor and required guidance, as referenced in her reflective journal on November 16, 2012. Melanie wrote,

I appreciate her [Susan’s] feedback and am going to try as hard as I can to implement her suggestions. One of her suggestions was that I needed to increase the rigor in my honors class. From our conversation, I got the impression that she did not think I was making my honors class challenging enough for my honors students. I struggle with what to add to an honors class to make it more rigorous. My first thought was, if I make it more rigorous, then are more students going to do poorly? I immediately thought back to my failing percentage and wondered: how do I keep a good balance between rigor and achievement? I also thought back to some activities I have tried that were more student-centered [but] which didn’t go as well as I would have liked. I immediately started to worry that if I increase rigor and raise my expectations, are the students going to learn everything they should? (M. Hampton, reflective journal, November 16, 2012)

During the conversations between Melanie and Susan, there was no documented discussion about what increasing the rigor in the classroom would look like for the students or examples of how Melanie could achieve this. Melanie’s reflective journal clearly indicated the frustration she was experiencing of wanting to do what Susan asked of her but struggling to figure out what this looked like in action for her classes.

Susan asked another science teacher to help Melanie differentiate instruction in the classroom by including her in planning conversations with another novice teacher.
(S. Lofton, interview, December 11, 2012). The master teacher invited Melanie to join the conversations. In January, Melanie admitted she had changed her instruction in terms of differentiation for honors and CP classes, and the collaboration had helped. Melanie did not realize she would be teaching two different classes; she thought she would just increase the level of difficulty for the honors class but the students would still be doing the same basic work. She had begun realizing what the differences were between the classes since she had been able to observe some other honors teachers and was a participant in the Gifted and Talented Education (GATE) certification class. Melanie’s participation in the GATE certification class allowed her to explore different ways to engage students and increase the rigor of material without just providing “more work for students” (M. Hampton, reflective journal, November 2012, and interview, January 17, 2013).

While Melanie was working on increasing rigor, she was also feeling the frustration and pressure related to her instructional practice in two main categories: student engagement and student achievement (percentage of failures). In her November 12, 2012, meeting with Susan, Melanie alluded to her concern about students’ completing assignments; this concern was later revisited on February 21, 2013, during a conversation between Susan and Melanie about the percentage of failures Melanie had in her classes. This was not a new concern for Melanie, who shared in the one-to-one midyear interview that she was concerned about losing her CP students. She revealed,

I’m scared that as the time goes on and they age more, they will become more bored with school and I’m going to lose them. I can already tell they are tired.
They are done with the whole chemistry part of physical science. I’m scared they are going to lose interest, so I am trying to do as much as possible to help them stay engaged. My concern for my honors kids are they are not going to be ready for next year. I feel like they are learning, but I don’t know if they are going to be 10th graders as far as study habits, and I’m trying to incorporate that [study habits] as well as teaching them physical science at the same time. (M. Hampton, interview, January 7, 2013)

In order to try to engage students continuously, Melanie wanted to try new strategies, according to her reflective journal. Melanie had students write down two New Year’s resolutions for academics when they returned from winter break, and she helped students design strategies to achieve those resolutions. She reflected in her journal,

At the beginning of the year, I had my students write New Year’s resolutions. They wrote one personal resolution as well as one academic resolution for themselves. After writing their two resolutions they had to write down a step-by-step process to achieve their resolutions. It was interesting to read through their goals and see that many of them knew what to do in order to bring their grades up. Many of them set reasonable resolutions and I look forward to seeing how many of them stick with their resolution. I am hoping this activity will start the semester off on a good note and turn some of their attitudes around about school. We will revisit the resolutions periodically to remind them of their resolutions and the process they created to achieve them. (M. Hampton, reflective journal, January 2013)
Melanie expressed in her interview that she believed the students just needed to follow through with the strategies they developed to succeed in their resolutions (M. Hampton, interview, January 11, 2013). This was an example of how Melanie was growing as an innovative and reflective teacher to help students achieve.

At the end of the first quarter, Melanie had to submit grades for her students. She wrote in her reflective journal,

> I turned in my first set of grades for the quarter. After writing down my grade distributions I had to take a step back and really reflect on my teaching. It is always hard to give a student a failing grade because I know what anxiety it would cause me. I don’t think I realized the guilt and struggle I would have with giving students an “F” on their report card. This is another hurdle in my first year that I have to learn how to deal with. (M. Hampton, reflective journal, October 2012)

Melanie wanted all of her students to be successful so they could move on to other science classes. She worried her instruction was too hard for the students, but she did not want to provide easy assignments that were not challenging.

In February, Susan and Melanie’s conversation surrounding the percentage of failures brought up Melanie’s concern again about her students’ level of motivation for academic success as ninth graders. She said to Susan,

> Right now in the CP [classes], I feel like they [students] have no motivation. I mean, it’s not even an ounce of motivation. I gave them a trial test as a reminder of what was going to be on the test and then gave them the exact same test and
graded them last night, and they still did poorly. I don’t know if they don’t know how to study or if they are not studying. I’m not sure. And then I think their math is really weak, and when it comes to the math part in the chemistry and in the physics, they don’t get it. I can’t put my finger on it, but part of me thinks it is motivation, but part of me thinks it’s prerequisite skills. I am trying to do more in class with them to boost their grade so tests are not killing them, but many of them just won’t do the work and turn it in, which leads me to believe [the issue is] motivation since I will help them with the prerequisite skills. (S. Lofton & M. Hampton, observation debrief, February 21, 2013)

During this conversation, Susan openly stated she did not know the solution to this problem; it was an issue with which all teachers struggled, and each student and class had different motivators. Susan suggested Melanie seek her mentor’s advice and expertise to help be part of the solution (S. Lofton & M. Hampton, observation debrief, February 21, 2013).

The communication between Susan and Melanie had changed during the spring semester from directives to collaborative conversations, allowing Melanie to feel she was contributing to her own growth, professional development, and the success of the school. Melanie continued to demonstrate how she was becoming reflective in her instructional practice through her journals. In late spring, she identified the lack of responsibility students took for their academic work. Melanie wrote,

I remind students verbally, write their information down on a sticky note, post the sheets and lists and they still do not make up the work. It makes me worry about
their idea of responsibility and what I can do differently to increase student accountability. I have not decided how I am going to change this for next year, but when they get to 10th grade they are going to struggle. It is frustrating to put forth all the effort to remind them over and over again and they do not take responsibility for their own learning or making up their assignments.

(M. Hampton, reflective journal, March 8, 2013)

The lack of effort from Kennerly High School students in Melanie’s class was still apparent in April during the end-of-year interview when Melanie expressed her frustration with students who did not come to school, turned in work late, or did not take responsibility for their grades and achievement. She noted,

I don’t think I can be doing anything more to help them pass. I don’t want to put it all on them, but I felt like I was doing my part, and it was the students’ part that wasn’t done. (M. Hampton, interview, April 8, 2013)

In the fall, Melanie was already planning ideas for how to hold students more accountable the following semester and observed, “I think having a grasp on the content now would allow for better activities in the future. My goal is to increase student centered activities if I were to teach this class again” (M. Hampton, reflective journal, October 2012).

For the 2013-2014 school year, Melanie would be prepping a whole new class that juniors and seniors would be taking. She stated,

I’m real accustomed to freshmen right now. So when I get seniors and juniors in here, I am worried about how it’s going to go. I have a little bit of experience
with that in my student teaching, but they were not necessarily my kids, so I’m anxious to see how that’s going to go. (M. Hampton, interview, April 8, 2013)

She had identified with the freshmen and had handled specific classroom management problems, but she was worried juniors and seniors already had experience in “playing the classroom game” and wondered how classroom management and instruction would change. She expressed her concern about how to handle seniors’ slacking off and developing senioritis the following year (M. Hampton, interview, April 8, 2013).

Melanie made strides over the 2012-2013 school year. At the beginning of the year, she viewed her science teacher role as one of a classroom manager and provider of information (M. Hampton, interview, October 11, 2012). In April, Melanie thought her role as a teacher had become “a little bit more of a facilitator in some classes instead of the sage on the stage” (M. Hampton, interview, April 8, 2013). She decided in some classes to “adopt a bit more of a traditional role because of the classroom climate and how the kids interact with one another” (M. Hampton, interview, April 8, 2013). However, Melanie believed she was “more at ease with the kids, and they are more at ease with me. So I don’t want to say I’m routine, but I have my kids on a schedule, and they know what to expect of me” (M. Hampton, interview, April 8, 2013). It was evident she had grown in her instructional practice through the school year from her first description of her role as a science teacher to her last.

4. Teacher Perception of Administrative Support

Melanie acknowledged the importance of having administrative support and appreciated that administrators were in the hallways and visible in case students or
teachers needed their help. She admitted her building-level administrator, Susan, intimidated her a little because “she is hard to read,” but Melanie was not afraid to ask her questions or seek her out for help. She appreciated that Susan was trying to help prepare her for the following year by completing a SAFE-T observation. Melanie believed Susan was willing to help regardless of what her schedule was like, indicating Melanie felt important to Susan, and she appreciated the time Susan spent helping her grow and develop professionally (M. Hampton, interview, January 17, 2013).

However, Melanie pointed out there was not consistency in when and if the administrators checked on her or completed observations. Melanie provided the following description of her administrative support at Kennerly High School:

The principal has been in here [classroom] a handful of times, and the assistant principal has been in here one time. Then we met in the principal’s office for a debriefing of my observation and just to check on me and make sure that I’m doing okay, and that was helpful. When they come in my room, I get really nervous because I automatically think I have done something wrong; I would like a little snippet back that says, “Good job,” or, “Here is what you might need to work on,” because some administrators have come into my room, and then I have never heard back from them. However, on the positive side of that, it makes me know they are aware and then they are visible, which makes them more approachable. (M. Hampton, interview, October 11, 2012)

In October, Melanie said she did not know if her administrators thought she was a good or terrible teacher because they had not provided her with feedback. Her principal had
been in her classroom and stayed a lot during her 8B class, which was her hardest class to manage, but she had not received any feedback from the observation (M. Hampton, interview, October 11, 2012). By the end of the year, Melanie was more confident in her ability to talk with Susan and believed the administration saw her as someone they could count on to provide good instruction for students (M. Hampton, interview, April 11, 2013).

Classroom management continued to be a struggle for Melanie in two of her classes. Melanie said she had told the “kids to stop talking and messing around in class until [she was] blue in the face” (M. Hampton, interview, October 11, 2012). She explained, “I e-mail different administrators, and they say I can go straight to the referral rather than continue doing the minor behavior infraction referral” (M. Hampton, interview, October 11, 2012). The ninth-grade administrators had visited her classroom several times; while this occurred more at the beginning of the year than later, both administrators had been helpful, and Melanie was appreciative of their support.

One assistant principal came into Melanie’s classroom and observed for an hour and then “sat down with me and [gave] me some suggestions, and she is really good with classroom management. I wish I could just be in her classroom because she is stern with students, and they respect her” (M. Hampton, interview, January 17, 2013). Melanie explained the administrator gave her suggestions for little things to help with classroom flow and transitions. The assistant principal who worked with Melanie suggested always having a bell ringer, setting the tone of the classroom, having an agenda present, chunking the lesson into smaller parts, and having a box taped off on the board
containing a warning, detention, and referral section so that neither Melanie nor the students would forget where Melanie was in assigning consequences (M. Hampton, interview, April 8, 2013). Melanie said she felt this was the assistant principal she needed to go to for guidance because they had similar personalities and classroom styles.

Another supportive administrator had been the ninth-grade assistant principal, who had been in Melanie’s 8B class and observed the students; “he knows that it is a rough bunch and a bad combination of kids” (M. Hampton, interview, January 17, 2013). Melanie said this assistant principal had been helpful and instructed her to “write them [students] up, and I’ll deal with it” (M. Hampton, interview, January 17, 2013). Melanie reported when she went to him with concerns about student behavior, he helped her, but he did not always come by her classroom to see how she was doing. While Melanie still felt supported, she was learning how to interact with the site administrators.

Melanie noted her administrators had been available to help her with classroom management issues and stated,

I feel like our administration is very supportive. If I send them an e-mail with a concern about a student, they will always have a suggestion. I don’t really feel they can do anything more than what they are doing. (M. Hampton, interview, October 11, 2012)

**Case Analysis 4—Teacher 4: Tyson Thompson**

Tyson was a 24-year-old first-year science teacher who was certified to teach physics and chemistry, but he specialized in physics. He was hired at Kennerly High School in late July after completing his Master of Arts in Teaching at an accredited local
university in South Carolina. Tyson was a wrestler in high school and as an undergraduate in college, so he was excited about teaching at Kennerly High School because of the wrestling program. He had chosen to volunteer as a wrestling coach for the high school wrestling team, which practiced and competed from October to February.

When asked what he considered his strengths and weaknesses as a science teacher, Tyson immediately replied,

> Content knowledge and the kids like me. Those are the two things I can say without a doubt are true. I have a lot of content knowledge, and it’s not hard for me to get the kids to like me. (T. Thompson, interview, October 15, 2012)

Tyson stated his weakness was “work ethic. If I am excited about something, I’ll do it. I get in moods where I am driven and I get stuff done, but I honestly don’t like work, and I procrastinate” (T. Thompson, interview, October 15, 2012). Tyson’s work ethic was a concern throughout the year in a variety of situations as he worked with his mentor, science department head, and supervising administrator. Tyson’s opinion of his strengths did not change throughout the study, and it was only at the end of the study, at the last meeting, that Tyson admitted he might have a weakness in planning and organization.

1. Classroom Management

Kennerly High School is a PBIS school with the rules (a) be respectful, (b) be responsible, and (c) be reputable. Administrators expected Tyson to follow the PBIS school-wide rules, which were part of a PBIS district initiative. He could establish his own personal rules, provided he aligned them with the PBIS rules. However, due to
Tyson’s lack of planning and attention to details, he had not enforced classroom rules during the year (S. Lofton, interviews, October 11, 2012, and April 4, 2013).

Tyson had posted the PBIS school rules on the board in the front of the classroom, listed on a poster provided by the school (L. Iacuone, observation, January 8, 2013). Tyson had established classroom rules (Table 14), which were not posted in the classroom but could be found in his long-range plan (T. Thompson, long-range plan, August 31, 2012). However, the rules he turned in for his long-range plan were dated March 2009, indicating he was using someone else’s rules. During Tyson’s preparticipation interview, he stated he had two rules in class: (a) “Don’t talk while I am talking,” and (b) “You won’t have a problem as long as you stop the first time I tell you”; these were different from the rules found in the long-range plan (T. Thompson, interview, October 15, 2012). Neither set of Tyson’s rules for his classroom were clearly visible in the classroom or on the syllabus; only the poster from Kennerly High School with the PBIS rules was posted.
Table 14

Tyson’s Classroom Rules for the 2012-2013 School Year

<table>
<thead>
<tr>
<th>Rules in long-range plan</th>
<th>Rules stated in interview</th>
<th>Rules posted in room (PBIS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Come to class on time with your notebook, calculator, textbook and writing supplies.</td>
<td>1. Don’t talk while I am talking.</td>
<td>1. Be respectful</td>
</tr>
<tr>
<td>2. Be respectful of all others in class.</td>
<td>2. You won’t have a problem as long as you stop the first time I tell you.</td>
<td>2. Be responsible</td>
</tr>
<tr>
<td>3. Stay in your seat, unless given permission to get up.</td>
<td></td>
<td>3. Be reputable</td>
</tr>
<tr>
<td>4. No food, gum or drinks in class (except water).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Follow lab safety rules.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In November, Tyson wrote in his reflective journal that the talking and loudness of his class were beginning to get out of hand, so he changed the seating chart for his classes and implemented music as a way to provide an incentive for students to get started on their work upon entering the classroom. He considered the implementation of a seating chart and music a success of classroom management because the behavior had changed and he could focus on teaching (T. Thompson, reflective journal, November 28, 2012). However, during the researcher’s midyear observation of Tyson’s class, the music covered the noise of students entering the classroom and getting settled rather than creating a change in behavior. When the music ended, students were still talking and moving around out of their seats, showing the behaviors Tyson believed he extinguished were still present (L. Iacuone, observation, January 8, 2013). When the researcher pointed this out to him, Tyson felt this was a whole classroom issue and was at a loss as
to how to adjust his rules and expectations to address this issue because he was more worried about handling individual students who did not meet his expectations (T. Thompson, interview, January 8, 2013).

Tyson explained he was big on expectations. He wanted students to follow school rules and be where they needed to be when they needed to be there. He stated, “I think I have had one girl tardy all year long” (T. Thompson, interview, April 11, 2013). He believed this lack of tardiness was because of the expectations he had of the students and their respect for him, which made them want to meet his expectations. Susan believed his students’ lack of tardiness was because Tyson had first-period planning. Drastically fewer students were tardy for Periods 2-4 than for first period in every teacher’s classroom (S. Lofton, interview, April 11, 2013). During both of the researcher’s observations, Tyson allowed students to enter the classroom, ask permission to leave for a variety of reasons, and return after the bell rang; therefore, those students were technically tardy. However, since Tyson gave students permission to leave, he did not consider them tardy and therefore did not mark the students as tardy (L. Iacuone, observations, January 8, 2013, and April 11, 2013). This reaffirmed that Tyson did not follow Kennerly High School’s policies and procedures.

Tyson shared his frustration about one of his physics students who was trying to “upstage” him in class. Tyson believed the student had an attitude problem and thought he was smarter than everyone else, including adults, so he tried to undermine Tyson’s authority in the classroom. Tyson shared this issue with his mentor, and his mentor assured him the problem was the student’s and not the teacher’s. She explained the
behavior of the student had been a source of irritation for other science teachers in the department the previous 2 years. When Tyson was prompted to explain what the student was saying and doing, he indicated the student did not actually do anything but called Tyson out for not having papers graded and returned to the class or asked procedural questions about expectations in the classroom. Tyson wanted to handle the situation without involving guidance counselors or administration, so he and his mentor decided that if the student was causing difficulty, he would be sent to the mentor’s classroom to sit and complete worksheets. Tyson explained he talked to the student and told the student that if he had questions, he needed to ask Tyson privately or else Tyson was going to start sending the student to his mentor’s classroom to sit and do work from the textbook (T. Thompson, interview, January 8, 2013).

Although Tyson had not sent any discipline referrals to administration, he had what he termed “nuisances,” such as excessive talking between students, which he said did not bother him, and he would just call the students out on it. He explained, “They [the students] think they are so funny, but I make them feel ashamed for their behavior when it causes problems in the classroom” (T. Thompson, interview, January 8, 2013). Tyson did not have specific rules or consequences visibly displayed in the classroom, so students had no reminder of his expectations on a day-to-day basis.

Tyson reported he handled the majority of the discipline on his own with phone calls to parents, calling the students out in class, creating a seating chart, or making students stay for detention with him rather than sending them to the office (T. Thompson, interview, October 15, 2012). Tyson admitted in the end-of-year interview that he was
not sending students to administration, but he believed everything was going well in his classroom. He believed since administration had not been getting referrals from him, they knew he had handled the problems in his classroom, and therefore they must have thought he was a good classroom manager (T. Thompson, interview, April 11, 2013).

Tyson’s lack of attention to classroom management during the year had been causing problems in the classroom the last 2 months of school; Tyson was starting to panic about how he would manage his classroom through the end of the year. In the end-of-year interview, he stated he had been trying a few different strategies to manage the classroom over the last few weeks, such as stopping and staring at the students until the behavior stopped. He had also used a stopwatch, which he started when the students began talking excessively. At the end of the class, he added the time onto the class and kept the offending students until he got the time back; he released students he verified were not talking so they could leave the classroom early (T. Thompson, interview, April 11, 2013).

During the last quarter of school, the final 9 weeks, Tyson admitted he was having trouble in the classroom with cell phones and talking between students. Tyson had written up one minor behavior infraction but did not turn it in to administration because the student returned to the classroom and served detention. Tyson said he was not even sure how to write up a referral because he had not done one that year; instead, he had been dealing with all of his discipline in his classroom. His statement in the interview was,
I’m not actually sure how to turn in a slip if I were to actually write someone up. I’d fill out the slip, and I know [it] goes to administration, but this [part of the slip] says it goes home, but does that mean I just tear it off? I literally don’t know if I tear it off and give it to them [students] like that. Do I walk it down to the administrator? Do I give it to the kid and send them? I literally don’t know. (T. Thompson, interview, April 11, 2013)

He did not want to approach his mentor, science department head, or administrators for the answer because he thought he should already know how to write referrals. He expressed hope he would not actually need to do this in the last 2 months of school but stated during the interview, “If the need arises, I will ask someone” (T. Thompson, interview, April 11, 2013).

Susan disclosed her genuine relief and surprise in December when she talked about Tyson’s ability to get along with his honors students. She said,

He has a way with students. He almost has like a gift. He just relates to kids. He says things that are funny. He relates the material to TV shows and, you know, student experiences, things they are familiar with, and they really do like him. They really get along with him well. (S. Lofton, interview, December 12, 2012)

Susan also pointed out, “Tyson is teaching all honors classes this year. These are students who typically are not discipline problems, want to learn, and will learn regardless of who is in the classroom.” Susan expressed her concern about Tyson’s future teaching career when he has CP or below-grade-level classes. Susan stated,
The college prep or on-grade-level kid who comes in and immediately puts his head down and Tyson is like, “Look, sit up and pay attention,” and the kid is like, “Whatever, dude,” and puts his head back down. I am just not sure Tyson will know how to handle that effectively, and I could see some real negative interactions taking place. I don’t know if Tyson has the patience. (S. Lofton, interview, April 11, 2013)

Susan predicted Tyson would have a hard time connecting with nonhonors students and would lose his patience with them if he had to repeat himself multiple times (S. Lofton, interview, April 11, 2013). Tyson validated Susan’s concern when he claimed one of the most frustrating things he experienced was repeating himself to students. He wrote in his reflective journal,

I never mind explaining myself, or repeating myself if I am misunderstood. But when I say something or something is written on the board or in their text and I am then asked about it in a way that indicates a lack of listening or reading, I am frustrated. (T. Thompson, reflective journal, October 13, 2012)

Susan, Tyson’s mentor, and the science department head assumed he was avoiding student referrals because he did not want administration to know about his inability to maintain an appropriate classroom management plan that was fair and consistent for all students (B. Barren, interview, May 2, 2013; S. Lofton & T. Thompson, observation debrief, March 15, 2013). The science department head concluded Tyson avoided working with administration to solve problems because he was afraid his inability to complete his teaching duties in a timely manner would become apparent
(B. Barren, interview, May 2, 2013). Susan believed Tyson’s lack of follow-through with referrals pointed to his lack of planning, concrete rules, consequences, policies, and procedures in the classroom, and she was concerned about his success the following year (S. Lofton, interview, May 8, 2012).

2. Resources Allocated

Tyson’s main resource Susan assigned to him was his mentor, who was a 7-year veteran teacher and served as the director of the STEM program at Kennerly High School. His mentor spent a lot of time working on guiding 200 students through the STEM program at the school, which included a research project they started during their junior year. Tyson described his mentor as really good about the support. I run things by her a lot because she’s my mentor, and she is great. She either loves what I’m going to do or what I say I’m going to do instead of criticizing it. She will say, “Well I have done this in the past,” and I think that is her tactful way of saying, “I think this is better, which is the way I think you should do it.” (T. Thompson, interview, October 15, 2012)

Tyson wrote in his reflective journal that although Susan had assigned him a mentor, he received a lot of help from the chemistry teachers whose classrooms were located on either side of his classroom for the chemistry portion of the physical science class he was teaching. These two chemistry teachers had helped him figure out the logistics of the project he assigned to his physical science students, and they helped him prepare the chemicals he needed for student laboratory activities and demonstrations (T. Thompson, reflective journal, October 13, 2012, and October 28, 2012). Tyson had
been happy with the science department resources and had been building relationships with these teachers.

Tyson was searching for an appropriate personnel resource to help him understand Kennerly High School students. Tyson’s frustration was apparent during the preparticipation interview as he described the students, who he felt were not honors students. He stated,

You know, I’ve got a lot of kids who I wouldn’t say are honors. They are smart, they are not dumb by any means, but they are not what I have come to consider honors as I went through high school and then when I was in college. Great kids, love having them in class, but they are struggling a little bit with the material, even the simplest material; I just have to say stuff a million times. I give them work, and they still just don’t remember it. It’s not understanding; it is an actual memory problem. (T. Thompson, interview, October 15, 2012)

He said his biggest concern was finding someone who had experience to help him adjust his high expectations of students to be age appropriate for freshmen. Tyson related, “I just have a lot of trouble thinking on a freshman level, and I do need people who are good at it to be my mental barometer” (T. Thompson, interview, October 15, 2012). Data team meetings were an established resource to help Tyson with determining the level of activities for freshmen; however, Tyson only attended meetings once a month, according to his science department head (B. Barren, interview, April 18, 2013). Tyson’s request for this resource validated Susan’s concern about his ability to differentiate and teach a
variety of classes during his teaching career. She believed he may only be able to teach honors-level students who are juniors or seniors (S. Lofton, interview, April 11, 2013).

Another resource available to Tyson, of which he failed to take advantage, was the observation of his colleagues. Susan encouraged Tyson to visit other teachers’ classrooms to gain information and insight on their classroom instruction, room arrangement, work with formative assessments, and rigor in the classroom (S. Lofton, interview, April 11, 2013). Tyson said he had watched his mentor teach because it was required for the induction class, but he had not observed any other teachers except when he went to get materials for his physics class and saw the other physics teacher teaching as he cut through her classroom. Tyson said during wrestling season he needed his planning period every day to set up activities, grade papers, and create assessments; therefore, he could not sacrifice the time to observe other teachers in their classrooms (T. Thompson, interview, January 8, 2013).

Setting up activities was easy, according to Tyson. Glassware, hardware, science materials, and office materials were in ample supply; Tyson pointed to his desk and revealed that the school provided over half the items (e.g., stapler, hole punch, pens, scissors, paper, binder clips, markers, highlighters, expo markers). He said he had access to more office supplies if he needed them (T. Thompson, interview, October 15, 2012). Tyson was impressed with the supply closet and explained that one day he told a science department member he needed zip-lock bags, and the teacher took him to the lab to show him the supply closet. Tyson stated, “Kennerly has been around long enough, the science department has accumulated all the science stuff you need. I haven’t had to purchase
anything for laboratory activities” (T. Thompson, interview, October 15, 2012). Tyson explained that during his student teaching experience, he had to purchase supplies on his own for labs (T. Thompson, interview, January 8, 2013).

At the end of the year, Tyson was still impressed that Kennerly High School had the materials he needed to complete labs with his students, including multimeters, batteries, wires, and circuit boards. He noted that if the school did not have the equipment, there was “a process in place to get what I need.” Tyson had been keeping a list of things he would like to order for his classroom and activities he wanted to implement the following year. He was hoping to have his own set of materials so that he did not have to share with other teachers (T. Thompson, interviews, January 8, 2013, and April 11, 2013).

Tyson admitted a resource he desired was a different classroom. He stated, I need a bigger room. They [administration] have me in the first-year room, which is no big deal; I don’t have a problem with that. I don’t have much stuff to fill it with anyway, but I am going to start to accumulate stuff, which all teachers do. I look at my mentor’s room, and she’s got places to put it. I have nowhere to put things. (T. Thompson, interview, January 8, 2013)

When asked if he had spoken with the department head or his mentor about his desire for a larger room, Tyson indicated he did not want to complain because he knew he was “paying his dues” (T. Thompson, interview, January 8, 2013). He explained that with the new school opening, there were a few teachers leaving, so he was planning to “steal” one of their rooms to meet his needs (T. Thompson, interview, January 8, 2013).
Tyson had said he would like one additional resource: He wanted feedback from administration on his progress and development as a teacher. If he was doing something wrong, he wanted to know so he could make adjustments immediately. He believed the lack of administrator observations of his classroom was a sign he was doing well (T. Thompson, interview, October 15, 2012). Tyson described how at one point the principal came into his classroom and asked Tyson how he knew whether he was a good teacher; Tyson told the principal, “I will let the students’ grades speak for me” (T. Thompson, interview, January 8, 2013). A week later in the cafeteria, the principal asked how the test went, and Tyson felt the principal was checking up on him to see whether he was doing well. He reported to the principal that the students did pretty well on the test but he had not finished grading them (T. Thompson, interview, January 8, 2013).

Tyson stated he liked the principal and tried to talk with him every day. He believed the principal was trying to keep informed on Tyson’s progress through their chats in the morning during duty. Tyson said he understood the educational hierarchy at the school and believed administration knew what he was doing and what was happening in the classroom via his mentor, who reported to them (T. Thompson, interview, January 8, 2013).

Although Tyson spoke as though he would have liked more help and resources, in October he was not yet effectively utilizing the resources available to him. According to Susan, Tyson did not internalize and agree with the problems he was having, nor did he use the resources available to him to solve them. During the observation debriefing
meetings, Susan had pointed out Tyson’s obligation to post his rules and consequences in his classroom, which he had not done (S. Lofton & T. Thompson, observation debrief, October 23, 2012). Tyson had been late to his meetings with administrators, and the administrators had instructed him to work with his physical science data team to plan lessons appropriate for freshmen, but he missed the meetings, saying he was working with the physics teacher in her data team (S. Lofton, interview, December 11, 2012; S. Lofton & T. Thompson, observation debrief, December 6, 2012).

Due to Tyson’s lack of follow-through, Susan asked him to take 2 weeks off from his duty as a volunteer coach for wrestling so he could catch up on his grading. This request came about after Susan received parent and student complaints, which Tyson ignored because he wanted to be a wrestling coach someday (T. Thompson, interview, April 11, 2013). Susan had to remind Tyson, “You are the teacher first. You are the coach second” (S. Lofton, interview, December 13, 2012). She reminded him, “There should not be a ‘hit’ to your classroom instruction because you are coaching. Your classroom comes first, and if you need your planning time to prepare for classes, you should not be meeting with coaches” (S. Lofton, interview, December 13, 2012).

At the end of the year, Tyson complained students were failing his class. When probed as to what steps he took to reach out to administration, his mentor, or his department head for help in working with these students to identify other ways to help them pass the class, he said he had not talked with anyone. He explained he would just go on a spiel about what he had done for the students and how he had helped them, and he knew his mentor and administration would say there was nothing left to do, so there
was no reason to speak with them about the failures (T. Thompson, interview, April 11, 2013).

At the end of the study, Susan shared her concern that Tyson’s overconfidence in himself and inability to accept help from others were harmful to his students’ achievement and to his growth and development as a teacher. Susan worried about his ability to assimilate into Kennerly High School as a collaborative member of the science department and pointed out she could not have a teacher on campus who could only teach honors students; he had to be able to teach all levels (S. Lofton, interview, April 4, 2013).

3. Instructional Practice

Tyson’s lack of planning for his classes was first observed when comparing his long-range plan and syllabus. Tyson stated in his first interview, “I did physical science and physics last year for my student teaching. So I’ve already got it written, but I have to tweak it for this year” (T. Thompson, interview, October 15, 2012). Tyson used his supervising teacher’s long-range plan, and while he did change names, room numbers, and schools, he did not align the information from his long-range plan with the syllabus he provided to students. The policies and procedures identified in his long-range plan (see Table 15) were missing from the syllabus, but Susan considered these important for students to know to be successful (S. Lofton, interview, October 11, 2012).
Table 15

Procedures From Tyson’s Long-Range Plan Not Found in Syllabus

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Statement in long-range plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom instruction</td>
<td>Classroom instruction will consist of lecture, discussion, question and answer, problem solving, demonstration, and cooperative learning. Students are expected to keep up with assignments in order to participate in the classroom activities. Lab work will be performed in assigned groups. Important Note: This class builds on concepts taught from day one. . . . If you fall behind, you are only making it harder on yourself to catch back up. Keep up!</td>
</tr>
<tr>
<td>Schedule &amp; handouts</td>
<td>At the beginning of each unit, a schedule of topics that will be covered in class will be made available through email. This schedule will include homework, announced quizzes, labs, test dates, so you will know about these in advance. All handouts should be considered as part of a given day’s reading assignment and should be saved in your notebook. YOU ARE RESPONSIBLE FOR THIS MATERIAL! BEING ABSENT IS NOT AN EXCUSE FOR NOT HAVING YOUR MATERIALS. If you are absent you are fully responsible for the material covered during that day. I suggest you get notes from a fellow classmate and go over the notes. If you are confused about the material after attempting it yourself—see me fast! Do not come to me the day of a test or quiz and tell me that you were absent the day I taught the material. Being absent is NOT an excuse for not doing your work.</td>
</tr>
<tr>
<td>Test retakes</td>
<td>My test retake program provides an opportunity for you to retake a test given in class if you happen to not score as well as you would have liked to. My requirements for retaking a physics test in a ALEC [Afterschool Learner Enrichment Center] setting are as follows: • This is NOT for retakes on quizzes or other assignments or for making up a test due to an absence. • Homework avg. must be 80% or better (no more than 2 zeros) • No missing daily or lab assignments • You have two Fridays after a test is given in class to retake. You must retake the test with me. NO OTHER OPTIONS FOR RETAKING • You MUST log TWO tutoring sessions WITH ME in 317 before I will allow you a retake. See me to schedule tutoring sessions. • The score you earn on the retake will be the replacement test grade, better or worse. • You should be prepared to be tested on the same content through a different set of test questions, similar to the ones on the original test.</td>
</tr>
</tbody>
</table>
The procedures Tyson defined in his long-range plan may have created situations where students found it difficult to be successful because of Tyson’s lack of availability. He was only available on Mondays, Tuesdays, and Wednesdays outside of wrestling season. During wrestling season, which lasted from the beginning of October to the end of February, Tyson was only in his classroom on Wednesday afternoons. Tyson indicated he had difficulty understanding how his policies and procedures affected his students during observation debriefing meetings with Susan and his mentor (S. Lofton & T. Thompson, observation debriefs, November 11, 2012, December 16, 2012, and February 21, 2013).

Tyson’s lack of belief in his students’ abilities as honors students brought into question his instructional strategies and practices, which were of great concern to his building-level administrator, Susan. Tyson already believed students designated at Kennerly High School as honors were not truly honors students. He stated,

I’ve got a lot of kids who . . . are smart, they are not dumb by any means, but they are not what I have come to consider honors as I went through high school and . . . college. [They are] Great kids, love having them in class, but they are struggling . . . with the . . . simplest material. (T. Thompson, interview, October 15, 2012)

To prepare novice teachers for their second year of teaching and their formal evaluation, Susan completed two practice observations using the same documentation. Susan provided Tyson with the following statement and suggestion to assess and enhance learning:
Many of the students were having difficulty understanding/completing the warm-up activity. The teacher frequently said, “I’ve already showed you this. . . . It is the same thing we have been doing. . . .” In moments like this, the teacher might consider calling the attention of the whole class and going through the expectation for the assignment again or reviewing the material as needed. (S. Lofton, ET1: Classroom Observation Form, November 8, 2012)

According to Susan, Tyson was not surprised by this observation and justified his actions by explaining he had spent 3 days on the concept already and should not have had to review the material again.

As indicated by his reaction to the formal observation, Tyson believed honors physical science students should be able to hear things one time or read the textbook and understand simple concepts, allowing him to teach the more difficult and interesting concepts rather than answer student questions (T. Thompson, interviews, October 15, 2012, and January 8, 2013). To address this issue, Tyson decided to implement more strategies to encourage listening and reading when his physical science students asked questions. When students asked a question, Tyson planned to direct them to read the text and answer it for themselves (T. Thompson, reflective journal, October 13, 2012). Tyson opined, “Physical science stuff is so obvious. Why do I need to teach this? You [the students] should be able to teach yourself this so I can teach you the cool stuff” (T. Thompson, interview, January 8, 2013).

By the end of the year, Tyson’s perception of teaching physical science had hit an all-time low. When asked what his role as a science teacher was, he replied,
I’m not making a joke about babysitting. I would like to say it is facilitator, but they [physical science students] are going to learn or they are not going to learn. That is up to them. I do a lot of stuff that either works or doesn’t work with a lot of the kids. (T. Thompson, interview, April 11, 2013)

Tyson was disgruntled he had students who were failing and explained one student told him she was “just waiting to get out of [his] class; she knew she was going to fail and had to take it over” (T. Thompson, interview, April 11, 2013).

Tyson was consistently behind in assessing work. In each interview, reflective journal, and debriefing meeting with Susan, Tyson mentioned the need to grade student work and get caught up. Susan had encouraged him to use formative assessments to determine what the students knew before administering the summative assessments, but Tyson was always behind, so his formative assessments became summative in nature. He offered, “I came up with a lot of different tricks and methods to keep me more efficient in grading” (T. Thompson, interview, April 11, 2013). When prompted for examples, he laughed and pointed to the trash can, implying he threw papers away. He added,

If I send something home, I don’t expect them [students] to be doing it for accuracy because they don’t have access to me. I don’t really verify it is their work, so I just give someone a grade on completion, and I can do that really fast.

(T. Thompson, interview, April 11, 2013)

This type of assessment of student work did not allow Tyson to determine what students knew and were able to do, therefore leaving students to struggle during his physical science and physics classes. This was most likely the reason for the high number of
failing students about which Tyson had expressed concern (T. Thompson, interview, April 11, 2013).

Tyson acknowledged he enjoyed teaching the physics classes because there were no standards, and therefore he could teach anything. He had treated his classes as college physics classes and wanted students prepared for their first year of college physics. When asked about how he decided what to teach, Tyson said he spoke with the AP physics teacher, and they discussed what he should teach in class. He said he was worried he had set his standards so high that no one could pass, so he had been working with the AP physics teacher to review her tests and ensure his tests were at CP level so his honors students could pass his class. He noted for his honors class he added a few harder honors-type problems at the end for those students who were truly honors (T. Thompson, interview, January 8, 2013).

Tyson was having trouble with his physics classes. He wrote in his reflective journal, “My physics students are whiners and I have had to talk with one of them in the hall about undermining me in the classroom” (T. Thompson, reflective journal, November 25, 2012). When prompted for examples of how the student was undermining him, Tyson explained the student questioned when Tyson would return the homework, quizzes, and tests; pointed out problems on quizzes and tests, such as misspelled words or questions if they practiced a similar problem in class; and asked what the students would be doing over the next week in class (T. Thompson, interview, January 8, 2013).
Tyson was struggling with instruction and understanding scaffolding for students who needed to gain an understanding of the concepts he was teaching. He wrote in his reflective journal,

I am disappointed when even one student fails. When certain students get scores less than 40% and sometimes even 30% then I am extremely disappointed and start questioning my effectiveness. These students clearly either don’t care or have given up and I don’t know how to change that. I have grown in my ability to teach and explain and foster learning in general but I am still not confident in my ability to motivate students. (T. Thompson, reflective journal, February 3, 2013)

Tyson saw student failures as the fault of the students and did not see the need to change his instructional practice to accommodate students. He stated, “My biggest concern, as always, is laziness. I am making strides with reducing laziness in class by offering incentives for work, but I am still struggling to inspire homework” (T. Thompson, interview, March 10, 2013). He was concerned about students’ lack of homework completion and asking questions when he had already gone over the material, and he worried about the number of failures he would have.

Susan was concerned about the failure rate of Tyson’s honors physics and physical science classes as well. She knew he would not always have only honors and upper level classes. Susan explained,

These students are going to come with a different skill set. They are going to come with more varied experiences and deficiencies in prerequisite skills, which Tyson is not prepared to handle. He really has not had any classroom
management or student learning “roadblocks” this year. He will expect kids to just do it [assignments], and they won’t know how to do it. (S. Lofton, interview, April 11, 2013)

In fact, for the upcoming school year, Susan knew Tyson would be teaching CP physics and CP physical science because she had already started working on the master schedule (S. Lofton, interview, April 11, 2013).

During several observations, Susan noticed Tyson missed opportunities to use his instructional time effectively. He was missing an objective and/or essential question on the board, and Susan indicated Tyson had not been clear in his instructions to students about activities they were doing in the classroom. Susan observed, “I was confused about what I was supposed to know; I know it was about bonding and formulas, but I was unsure of the goal” (in S. Lofton & T. Thompson, observation debrief, November 11, 2012). During the observation debriefing with Tyson, Susan explained that students who may have been absent for a day or two before the lesson or confused would have difficulty following along and needed direct learning goals for the day. She instructed him to be sure he wrote an essential question or objective on the board each day. Susan stated she thought he understood what she was saying and would begin putting the required information on the board for students (S. Lofton & T. Thompson, observation debrief, November 11, 2012).

To help Tyson with instructional strategies and practices, Susan directed him during the October and November debriefing meetings to look at increasing the rigor and
varying instructional strategies in his honors physical science classes. She wrote on his observation form,

The teacher’s instructional strategies did little to challenge the students to promote a high level of thinking. Most of the lesson was on the understanding/remembering level. The teacher is encouraged to think of ways that he can be more of a facilitator of the students’ learning, to provide the students with more opportunities for discovery, and to choose instructional strategies that will challenge advanced learners. (S. Lofton, ET1: Classroom Observation Form, November 8, 2012)

A second observation revealed Tyson’s dependence on direct instruction. Susan noted, “I was in there for a full class period, and he relied on direct instruction. Not that it was not appropriate, but he overrelied on it. He needs to vary his instructional strategies” (S. Lofton, interview, December 13, 2012). She explained to him that by increasing the rigor and changing instructional strategies, he would be able to engage the students more effectively, thereby helping him with classroom management and student achievement (S. Lofton & T. Thompson, observation debriefs, November, 12, 2012, and December 6, 2012).

Tyson later stated, “Ms. Lofton said she did not know a whole lot about science, so when she observed my lessons, she was able to observe the teaching aspects, but she did not really know the content” (T. Thompson, interview, January 8, 2013). He continued,
I remember one of her critiques was she wanted to see more rigor in my class, but what we were doing was fairly rigorous, but she did not understand because she does not have a science background. That was probably the reason she thought it was not rigorous, because of the way that I presented it to her. We were doing naming, bonding, and formula writing. So it is fairly rigorous. (T. Thompson, interview, January 8, 2013)

Tyson chose to ignore many of the directives Susan gave him, even though she was his supervising administrator and was responsible for the curriculum of the school.

Susan expressed one of her apprehensions about Tyson was his lack of planning early in the school year. She stated in October during the preparticipation interview,

I don’t know that he sees long-term learning goals. I haven’t sat down with him and talked to him about it, and I want to see what he’s doing and ask him how he plans, but he seems to me to be a very one-day-at-a-time type of guy. But I don’t know that for sure, but that’s my impression. He doesn’t plan the way that we would like him to. He also thinks that he has got it going on, and in some ways [he does], and in others he does not. It is hard to explain this to him because of his overconfidence; he does not see the problems. (S. Lofton, interview, October 11, 2012)

To help him become more proficient at planning instruction, Susan directed Tyson, both in writing and during their debriefing session, to meet with other physical science teachers to plan instruction for the next unit (S. Lofton, ET1: Classroom Observation
Tyson did meet with the two other physical science teachers, and they shared with him their unit, which contained the atom project he had his students complete. Tyson’s students turned in projects that he said “demonstrated significant effort.” Tyson wrote,

I am proud of them and their success at the activity. This is also a source of frustration because it shows they are not working to their potential. They are lazy and I sometimes worry if I am enabling their laziness. (T. Thompson, reflective journal, October 28, 2012)

In April, during the end-of-year interview, Susan was still apprehensive about Tyson and his lack of planning to maximize student learning and become an integral part of the science department, even after working with a mentor, an assistant principal, and being asked about lesson plans. She summarized at the end-of-year interview,

I think he [Tyson] still needs to work on planning, organization, time management, multitasking, prioritizing; he’s a procrastinator. I don’t worry about him with any particular type of student necessarily he has this year, but with college prep students next year, I worry. I don’t worry about his content knowledge. I don’t even really worry about his professionalism, but I think he could be a better planner. I think he would be a better teacher if he slowed it down a little bit and thought through some things a little bit better. I keep hearing little bits and pieces about him rushing to meet a deadline, not showing up to
common planning, data teams, or coming in unprepared. Those are the types of issues I think he has. (S. Lofton, interview, April 11, 2013)

Tyson did not view his lack of planning as a problem. He did not understand how his lack of planning affected other aspects of his classroom and the school. When asked if the focus of his conversations with Susan had been on planning, Tyson stated, “We have not really talked about planning” (T. Thompson, interview, January 8, 2013), which was in direct conflict with the data collected through (a) interviews between Susan and Tyson; (b) the three-way meetings involving Tyson, Susan, and his mentor; (c) interviews between Susan and the researcher; and (d) interviews between Tyson and the researcher. Tyson’s lack of planning was evident in April during the last interview, which the researcher scheduled with him 3 weeks prior, with a reminder sent 1 week prior. Tyson was not prepared on the day of the interview and stated he forgot about the interview and did not have time to complete the interview, as he still had to set up for his second block class (T. Thompson, interview, April 11, 2013).

Tyson had difficulty meeting deadlines and knew he was behind in letting students know where they stood academically in his class. He expressed his frustration with the lack of motivation from students in completing work, and therefore he had no motivation to grade the work (T. Thompson, interview, January 8, 2013). While Susan said she had not received any phone calls from parents, she was concerned the lack of motivation from students was due to their not receiving feedback in a timely manner; therefore, it was possible they did not see a reason to turn in any homework, classwork, or projects on time.
During Susan’s November observation debriefing meeting with Tyson, she questioned him about his formative assessment of students. He avoided answering her question by discussing how busy he was with wrestling and how much work he had to grade. Susan suggested he plan to implement more formative assessment opportunities for students to receive immediate feedback on their learning, which would allow him to make better instructional decisions to use class and grading time more efficiently. Susan also instructed him to observe three other science teachers to see how they broke up the block to engage students and to use formative assessments, which he never completed (S. Lofton & T. Thompson, observation debrief, November 11, 2012).

Tyson showed his obliviousness to Susan’s suggestions, guidance, and directives, as well as his disdain for those who tried to help him, when he corroborated the information and explained Susan did talk with him about this observation, but he stated Susan did not have a science background, so she would be lost in his class. He decided not to observe three other science teachers because of his commitment to wrestling. He asserted, “I need my planning [period] almost every day; I have not been able to sacrifice it” (T. Thompson, interview, January 8, 2013). Tyson did not understand how observing other teachers could benefit him. He knew he could lecture for 90 minutes; “in fact, I can talk forever, and therefore I have to stop myself and give students time to work on the practice problems, but the students know what they are doing” (T. Thompson, interview, January 8, 2013).

Tyson knew Susan’s other concern was valid. His lack of time management in returning work was an issue, and he addressed it in an interview. In the midyear
interview, he said, “Time management has become next to impossible since I have to be at practices and matches now. I am managing to get the basics done but I am having to come in on weekends” (T. Thompson, interview, January 8, 2013). He was still struggling as he recorded in January in his reflective journal,

I am in the middle of wrestling season, so I am still super busy which makes it harder to get everything done. It is, however, forcing me to find new and better ways to be more efficient. Now, the problem is just finding the time to actually do the grading. (T. Thompson, reflective journal, January 13, 2013)

Susan suspected Tyson lacked the reflective ability needed to become a successful long-term teacher. When asked about various directives from administration and his mentor over the past year, Tyson replied he did not think too much about the past because he was always looking to the present or future, so if the directives were about something that happened in the past, he did not worry about it, as he was already moving forward. He declared,

I typically just show up where people tell me to be and do what I know needs to be done. . . . They [administration] don’t hate me. The phrase that sticks out in my mind when I’ve talked to Ms. Lofton about actual feedback stuff is she’s said several times that she’s surprised how well I’m doing, or at least how well she sees me doing in class; she says it’s just because I am a new teacher, so she was surprised. (T. Thompson, interview, January 8, 2013)

Tyson’s instructional practice had not changed since the beginning of the year to accommodate his students’ needs. Tyson still continued to teach the way he would learn
and did not make accommodations for differentiation in his students’ learning styles.

Even at the end of the year, upon reflecting about his weaknesses and how to improve, Tyson acknowledged organization in the classroom and time management were the two biggest concerns but said wrestling helped with his time management (T. Thompson, interview, April 11, 2013). This was in direct contradiction to his previous statements and concerns where he stated he was behind in his grading and assessment of students during wrestling season, when he only had time for the basics of teaching (T. Thompson, interview, January 8, 2013).

While Tyson was late with his long-range plan, unit work sample, information for his department head, administration of benchmarks, and turning in required documents to the school, he asserted, “I haven’t really missed any school-appointed deadlines” (T. Thompson, interview, April 11, 2013). This was evidence of Tyson’s lack of comprehension and compliance with explained procedures and directives. He continued, “I try to grade in a timely manner. I don’t always meet my own standards, but with wrestling, it took away all my free time” (T. Thompson, interview, April 11, 2013). Tyson’s standards were different from those of the district, which expected teachers to return work to students after three class periods, allowing the teachers 6 days for grading, since the school was on an A/B block schedule. Tyson explained in an interview that he was taking 2 weeks to get work back to students. This amounted to five class periods, providing little to no feedback for students to study and make adjustments for their learning (T. Thompson, interview, January 8, 2013).
Tyson’s teaching practices as far as planning, organization, instruction, assessments, and meeting deadlines were concerns for Susan; there had been numerous situations with students, comments from Tyson, and a lack of effort to cause concern about Tyson’s instructional practice. The science department head and Tyson’s mentor validated Susan’s worries about Tyson’s planning and time management with reports that Tyson did not attend data team meetings on Wednesday mornings, was late to department meetings, did not attend district leadership meetings, was late in administering science benchmark tests, skipped the physical science benchmark testing meetings, and missed paperwork deadlines (B. Barren, interview, April 18, 2013; S. Lofton, interview, April 11, 2013).

4. Teacher Perception of Administrative Support

Tyson expressed appreciation for his administrative team and said they were good about sending out information via e-mail when a teacher needed to know something. He felt like Susan was taking care of him because she sent him “something the other day about the gifted and talented stuff because I teach all honors, and I want to continue teaching honors, so I need to do the gifted and talented certification thing” (T. Thompson, interview, October 15, 2012).

At the beginning of the school year, within the first 3 weeks of school, Tyson was invited to meet with Susan and the principal to talk informally for about 20 minutes. Tyson described the conversation as one where “they just asked a lot of the same questions. How am I doing? How am I getting help? And they gave me some feedback” (T. Thompson, interview, October 15, 2012). Susan’s summary of the same meeting was
different from Tyson’s. Susan commented on Tyson’s avoidance of discussing issues and concerns about his classroom teaching by asking questions about how to attain recertification as a teacher, which she thought was his way of deflecting from the struggles that were really going on in the classroom. She remembered trying to bring the conversation back to instruction, at which point Tyson began talking about taking his physics students to the fair. Susan noted, “Yet, he hasn’t even asked about field trip procedures. It is very disconnected” (S. Lofton, interview, October 11, 2012).

Tyson believed the administration at Kennerly High School cared about students and teachers. He pointed out the administrators were always around and talking with teachers, which was not something he had seen at other schools but appreciated. Tyson stated that as a teacher,

I want to know when I’m doing something wrong, you know, because I hate being wrong, and so I want to know if I’m doing anything that I shouldn’t be doing or isn’t the best; I want them to say stop. I do want to know what I’m doing well so I continue doing well. (T. Thompson, interview, October 15, 2012)

He was confident the administrators at Kennerly High School would provide him with feedback so he could make corrective changes during the year.

Tyson believed he could approach his administrators for resources and concerns about curriculum. He described his concern during registration. He thought the guidance department was not doing enough to encourage students to take physics during their junior and senior years. Tyson spoke with Susan, who explained the course offerings and pathway progressions to him more clearly, putting his mind at ease (T. Thompson,
As for resources for curriculum, Tyson believed administration made sure the science department had all the money it needed to order supplies, and he was hoping to get a full physics lab the next year because he had to share materials with the other physics teacher, who taught her AP class at the same time, making equipment scarce. Tyson said he would like to have more board space as well to solve physics problems, because one problem filled up the entire board, but he thought the issue would be solved when he was able to change classrooms (T. Thompson, interview, April 11, 2013).

Tyson had utilized his mentor and fellow science teachers during the year for support and help. He was thankful Susan paired him with the mentor he had been working with over the year. He observed in his reflective journal, “My fellow teachers are supportive when I complain but I don’t feel I am getting much out of it” (T. Thompson, reflective journal, February 3, 2013). To support Tyson, Susan had requested his mentor to arrange for the other teachers to talk with Tyson about his instructional planning (S. Lofton, interview, December 12, 2012). Tyson did not view this as assistance; he wrote, “I am excited about physics and I know more about it, I have even had certain teachers come to me to talk about physics and how I am teaching it” (T. Thompson, reflective journal, February 17, 2013). He believed teachers in the department were coming to him to seek assistance rather than to assist him.

Tyson felt supported by the other science teachers in the department and perceived administration as laying the foundational groundwork for this support. He had been able to have meaningful conversations with other teachers because of the time set
aside on Wednesday mornings for collaboration. Tyson said, “The conversations I have had with a lot of the teachers are good. I can just walk down the hall and go, ‘Hey, can you help me with these solutions?’ and it’s done” (T. Thompson, interview, January 8, 2013). He appreciated the help, as it saved him time, and the department was cohesive enough for him to be able to ask for help.

Tyson appreciated when the principal came into his classroom because he perceived administration was checking in on him to see what a great job he was doing. Tyson said he had been getting classroom mosaic evaluations from Susan but not from other administrators, and he appreciated the feedback. He was unsure of the reason, but two other administrators had come by his classroom also just to see him teach, making him feel supported. Tyson said he appreciated the assistant principal of discipline, who came to take students out of class. He explained,

He will grab students out of the classroom now and then, but what I like is that he waits for me to stop talking and then makes the request; he does not say, “I need this,” he says, “Can I have so-and-so?” He reinforces my authority as a teacher. (T. Thompson, interview, October 15, 2012)

In the very last interview with Tyson on April 11, 2013, it was apparent he was starting to pull together all of the information he had received and was beginning to see he may have some problems in passing his formal evaluation during the 2013-2014 school year. He admitted,

While I have gotten a lot of positive feedback, I have gotten negative feedback on my organization and just different things that people do differently. There are
certain things I agree with and certain things I don’t. I have gotten feedback from my mentor and Ms. Lofton, which I don’t want to say is negative but is critical, and they are very good at presenting it in a way that does not get you riled up.

(T. Thompson, interview, April 11, 2013)

Tyson was starting to understand that Susan was identifying problems that he needed to correct. While Susan had been pointing out problems with planning, organization, instruction, and assessment to Tyson over the past year, he had refused to accept responsibility for his actions. In his last interview, Tyson complained about how the South Carolina teacher evaluation system was set up. While this may have been a defense mechanism for his subpar teaching performance, he objected to the system because he would not receive feedback until the end of the year rather than during the year, which he claimed he would never do to students (T. Thompson, interview, April 11, 2013). Tyson seemed to be ignoring the fact that he received feedback throughout the year, each month, from several individuals but chose not to act on the feedback to make appropriate changes for his growth and development as a Kennerly High School science teacher.

Cross-Case Theme Analysis

Similarities and Differences

1. Classroom management. The four teachers involved in this study—Lucy, Barbara, Melanie, and Tyson—all shared some commonalities as novice science teachers. The four struggled with establishing a management plan within their classrooms, finding
support for curriculum needs, and developing their classroom instructional practices
during the school year.

Lucy’s experience with the hand sanitizer in her water early in the school year,
while a terrible event that troubled her for 2 weeks, solidified her feelings of support from
administration and allowed her to see her students as young adults who did not always
make good decisions. She explained in her midyear interview that she had to remember
these students would be going to college soon and had to be held responsible for their
behaviors and choices. During the school year, Lucy experienced several incidents for
which she sought administrative support as she developed a classroom management plan
that worked within Reidville High School’s culture and her classroom. By the spring of
2013, Lucy developed a classroom management plan, as Melanie did over the year, and
began a new semester with new policies and procedures.

Melanie, who believed her diminutive size and youthful appearance were
detriments to her as a teacher, showed her ability to maintain order in her classroom
during an observation when two students got into a fight in her classroom at the
beginning of the school year. Her ability and efficacy in managing the classroom
developed over the year, as evidenced by her constant attention to students, correcting of
behavior, and sending an increased number of referrals to the office. These changes
showed she had developed an understanding of what she would and would not accept as
student behavior in the classroom.

Unlike Lucy, Melanie had the same students the entire 2013-2014 school year on
an A/B block schedule, allowing Melanie to refine her plan but not reinvent a plan. In
addition, Kennerly High School operated under a PBIS model, which limited the number of extra rules Melanie could have in her classroom. Any rules or procedures she established had to fall under one of the PBIS areas the school had set forth as a school-wide rule. According to both Lucy and Melanie, their administrators supported them through a variety of situations including removal of students causing extreme problems, guidance in the development of their policies/rules, and discussions of how to handle certain issues during conversations with their administrators.

Tyson and Barbara did not state they felt success in the development of classroom management procedures. Barbara struggled throughout the year with students using their cell phones in class. This was an issue she brought up during two conversations with administrators. In her view, there was no help from administrators in developing a cell phone policy in which Barbara felt supported and that administration could uphold, making this a problem for the entire school year. Barbara said she constantly felt frustrated and defeated whenever she had to deal with cell phones or other electronic devices. Barbara desired a school-wide cell phone policy, and while administration pointed out to her that was not going to happen, they did not guide her in the development of an electronica policy in her classroom.

While Tyson did not appear to have classroom management problems throughout the year, by the spring semester it was evident he did have difficulty with students. However, Tyson stated in his end-of-year interview that he really did not know how to refer students to administration for discipline problems. When asked whether administration went over the referral procedure with him, Tyson responded that he was
sure they did at the beginning of the year but that he did not pay attention because he got along well with students and did not think he would have any discipline problems. Tyson used his sarcasm and humor to sustain his classroom and ignored the students who were behavior problems, sending them to his mentor’s classroom when they became a problem in class to give them time to cool down. By February, there were some students Tyson was sending to his mentor’s classroom three times per week, causing his mentor finally to question what he was doing and prompting him to send students to the office for discipline.

2. Resources allocated. All the teachers participated in an induction program from which they stated they did not receive a lot of support, advice, or help. Lucy, Barbara, Melanie, and Tyson all believed their respective induction programs concentrated on elementary issues rather than secondary issues, and they felt their time could have been better spent in their classrooms grading papers, making lesson plans, or creating assessments. When asked at each of their midyear interviews if any of them had talked with their induction facilitator, they each said “no.” However, in March when Lucy was asked about her induction program, she reported she did talk to the facilitator after her interview with the researcher in December, and the facilitator split the last two meetings of the year between secondary and elementary teachers. Lucy stated she was not sure if this was due to her discussing the situation with the facilitator or if the facilitator had always planned it that way; however, Lucy noted it was helpful because the secondary teachers had more time to talk about their concerns.
Mentors were another resource all teachers participating in the study received. However, none of the teachers received the full support the literature suggested for a truly effective mentoring relationship (see Table 16).

Table 16

*Participating Teachers and Suggested Mentoring Accommodations*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Close proximity</th>
<th>Same content in the fall</th>
<th>Same content in the spring</th>
<th>Same planning in the fall</th>
<th>Same planning in the spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucy</td>
<td>Sometimes (floating teacher)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Barbara</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Melanie</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tyson</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Lucy and her mentor, who was her former teacher, had a great relationship from the start, according to Lucy. Lucy stated she felt very comfortable with her mentor and could ask her any questions she wanted. The main concern for Lucy was that in the fall she had no one with whom to discuss the marine science classes. Lucy expressed she felt lost, confused, and unsure of herself during this time with new and unfamiliar content, and there was no one of whom she could ask questions since she was not comfortable asking the former marine science teacher. In the spring, Lucy reported her relationship and time spent with her mentor was much more useful and valuable because they were teaching the same course and therefore could help one another. Lucy jokingly said she did not feel like a parasite anymore, taking all the materials from her mentor, but was providing her mentor with information, lesson plans, and new activities as well. While
Lucy was getting what she needed from other teachers in the department by the second semester, she was struggling to find fulfilling relationships at the school with individuals of the same age group, but she admitted there were not a lot of 24-year-old teachers at Reidville High School.

Barbara, on the other hand, was struggling with relationships with her mentor and other teachers at the school. She was not getting the support she wanted and felt the other teachers looked down on her because she was a PACE teacher, and they presumed she should understand high school students since she had experience teaching at the technical college level. Unlike Lucy, Barbara had none of the suggested accommodations with her mentor. They did not teach the same classes or have the same planning period, nor were their classrooms in close proximity to one another. Neither of the adults was invested in the mentoring relationship where each could get something out of it through their conversations, leaving very little reason for the two of them to communicate other than it was a requirement put forth by administration. Barbara complained the other teachers in the department did not approach her and invite her to eat lunch with them or ask how she was doing, and she did not approach them either. She reported feeling isolated from the other teachers and therefore left school every day between 3:45 and 4:00 p.m. to make sure she was home to be with her family.

Melanie’s and Tyson’s mentors at Kennerly High School both met two of the three suggested requirements of mentors. Their classrooms were in close proximity, and they had common planning with their mentors. Melanie developed a relationship with her mentor that was mutually beneficial. Although they did not teach the same classes,
her mentor had taught physical science every other year, so the mentor had materials to share with Melanie and valued what Melanie shared with her. Their close proximity to one another, next door, allowed the two teachers to have conversations between classes as they stood at their doors to welcome students and to debrief quickly about situations from the previous class period. Melanie stated she “values what [her mentor knows], and I know she would never give me incorrect or bad information on purpose. She has been there when I cried and celebrated my successes” (M. Hampton, interview, April 8, 2013). Melanie’s mentor told this researcher that she valued her relationship with Melanie as well and had learned as much from Melanie as she hoped Melanie had learned from her.

Tyson’s mentor also met two of the three suggested requirements: teaching the same class and classrooms in close proximity. While Susan, Tyson’s administrator, tried to match Tyson with a mentor who was the best fit and met all three categories of a good mentor, she stated Tyson was “a little odd and was hard to match” (S. Lofton, interview, October 11, 2012). She decided to pair him with a strong teacher who had difficulty with collegial relationships but was a fantastic teacher. She explained that while neither individual was gregarious, that may be the best reason to put them together; they would not have hurt feelings if they did not spend a lot of time together, and their relationship would be all business. Tyson expressed in his initial interview in the fall that he did not need a mentor, especially one who did not teach the same classes as he did, and that he could get through his first year of teaching on his own. He worked with the other physics teacher, but she taught the AP level, while Tyson taught CP and honors physics, so the content was different. By December, Tyson was struggling with his classes and locating
materials he needed. After his midyear conference with his mentor and administrator, his mentor began to counsel him more. While Tyson did not heed his mentor’s advice about content, he did begin to take her suggestions and help with classroom management by the spring semester.

All of the teachers presented in this study received support for their science instruction. Each teacher had access to a fully outfitted classroom(s). Tyson, Melanie, and Barbara each had his or her own classroom, while Lucy floated from classroom to classroom. Tyson and Melanie had uninterrupted time in their classrooms, whereas Barbara had a floating teacher in her room during the first period of the first semester of school, which was inconvenient for her. Tyson expressed his desire for a different room when the opportunity arose because other classrooms that were built for science had cabinets and were a little larger for the storage of physics equipment. However, each teacher who participated in the study felt the administrators met his or her classroom needs based on the resources that were available at the site, with minor issues.

Barbara floated from classroom to classroom her first semester at Reidville High School, which was spring of the 2011-2012 school year, and then her supervising administrator assigned her a classroom for the 2012-2013 school year. Barbara stated having a floating teacher in her classroom was problematic because it prevented her from setting her room up correctly in the morning and preparing for her classes during the day. Barbara explained in a meeting with Debbie that she could not set up her board with the essential question and agenda because the floating teacher may need the board, nor could she set out materials for her classes for fear students in the previous class would disturb
the materials. At this time, Debbie did not help Barbara find a solution to her problem, such as having everything on a PowerPoint slide to project at the beginning of class or setting everything up on a cart to roll into the classroom when class began, rather than pulling and gathering materials during class.

Lucy stated being a floater made staying organized almost impossible, even with a cart. She explained that one of her biggest frustrations was with late work from students because she often did not have the answer keys or information she needed at hand to grade the work when the students turned it in. She also explained that other teachers limited her ability to use their classrooms by asking her to not erase a certain part of the board, asking her to keep students from a certain area of the room, or complaining items were missing from the room 2 days later; in the last case, Lucy thought it could have been one of the teacher’s own students who removed items from the classroom. Lucy stated she felt like an intruder in the other teachers’ classrooms even though they tried to be nice about her being there. She admitted at the end of the year that while she had tried to be positive about floating and being a team player, she was very happy she would have her own room for the next year.

None of the teachers had complaints about the technology the schools provided to them. All of the teachers were happy to have the equipment available to them and found effective ways to utilize the materials. Although Barbara initially wanted a Promethean board, she realized the document camera she received was a better tool for her to have with the classes she taught. All four teachers stated they had the basic science materials required for laboratory experiences. While Barbara and Lucy had difficulty
locating those materials, they were available at the school for the instructional activities their classes completed.

The teachers in the study admitted they struggled with finding materials in the science department and were unsure of what their respective science departments had for teacher use or where to find the materials. Tyson was surprised by how many PASCO materials the school provided, and the department provided markers and paper if he needed them. Melanie had no idea there was so much physical science equipment in the department for her to access. Both Barbara and Lucy knew Reidville High School had materials; however, the materials were in different teachers’ rooms, and both Barbara and Lucy stated when they asked to borrow the materials, they were unsure of whether they were the teachers’ personally bought items or if the teachers who harbored the materials just felt responsible for them. Either way, Lucy and Barbara both stated it was an uncomfortable situation to have to request the use of biology materials for the classroom, and therefore they would spend their own money to purchase supplies on their own or would take time to make the desired items.

3. Instructional practice. Growth in instructional practice takes time and happens in stages. While all teachers grow throughout their time in education, there are growth spurts that occur. For two of the four participants, growth in their instructional practice occurred throughout the year. Both Melanie and Lucy, from two different schools, continued to strive to make changes in their teaching and classroom management procedures based on reflections, conversations with administrators, and the desire to improve and make changes during the year. While each had her setbacks throughout the
year, by the end of the year, each determined how to improve lessons, make adjustments, and increase student achievement through hands-on, engaging instructional activities in the classroom. As Melanie’s mentor commented at the end of the year,

Melanie is becoming an instructional leader in the department. Teachers are going to her classroom to see what is going on and how she is teaching students content in different ways so they can borrow her ideas and provide suggestions to improve hers. It is a win-win situation, and she has really brought the data team she works with closer together. (B. Barren, interview, May 5, 2013)

Lucy continued to revise her classroom management policies as she moved forward during the year, making changes at the start of the spring semester to address the disruptions that had interrupted her teaching the most during the fall. She learned how to deal with consequences, identified what worked and did not work, and made adjustments during the semesters so learning could continue in her classroom. Debbie talked about Lucy’s effect on the science department when she explained how the teachers were starting to use more technology in their classrooms. She credited Lucy with that change in attitude through her use of Polleverywhere.com and the apps for anatomy and physiology that students could download on smartphones. Debbie explained that Reidville High School wanted to incorporate more technology but could not afford to go to a one-to-one device yet; Lucy’s practice of allowing students to use their personal devices for instructional purposes was the direction the school was moving, and Debbie was happy to have someone like Lucy show veteran teachers the power of technology.
Tyson and Barbara did not make the gains in instructional practice that Lucy and Melanie did. By his own admission, Tyson believed no one could help him with physics; while that was true since he taught a singleton class, Tyson’s colleagues could still have helped him with pedagogy and instructional strategies. Over the year, Tyson grew to respect his mentor and used her for some classroom management help; however, he did not seek her help in creating engaging instructional lessons to help his students learn more in class, as directed by his administrator. Tyson also struggled with keeping students on task during his class due to his lack of classroom management, and he did not have a coherent plan aligned with school expectations, showing his disregard for classroom management policies and procedures.

Barbara’s inability to work with other department members and become a contributing member of the science department affected her ability to make instructional changes in her classroom. She did not approach her fellow science teachers in an attempt to ask questions, which was evident when she approached Debbie to ask about the number of questions she could place on her exam after her meeting with Debbie in relation to student and parent complaints about Barbara’s assessments. Debbie directed Barbara to speak with other teachers in the science department about the expectations for exams, which should have been Barbara’s first step. In addition, Barbara did not change her teaching style while she was at Reidville High School, according to Debbie. Barbara continued to lecture to students and provide them with coloring sheets, which was not up to par for Reidville High School’s expectations for students. Debbie sounded frustrated as she talked about the time she spent with Barbara in the fall directing her to work with
other teachers to maintain the expectations for students at the school. It was evident Debbie had given up on Barbara in the spring because she did not complete walk-through observations, nor did she have additional conversations with Barbara about professional growth and changes that she should make in her classroom. The comment Debbie made in the fall about not having time for teachers who would not be successful was a foretelling statement of Barbara’s fate at Reidville High School.

4. Teacher perception of administrative support. Three of the four teachers who participated in the study perceived their administrators as supportive in their first year of teaching. Lucy, Melanie, and Tyson all felt supported by their supervising administrators and others at the school, contributing to a successful year in which each was asked to return to the school.

At Reidville High School, Debbie felt her relationship with Lucy was strong, and she was pleased with their conversations and interactions during the year. While Lucy was still a bit distrustful and unsure of Debbie, she did appreciate the faith and support Debbie provided through their conversations and by sending Lucy for professional development. One of the key moments for Lucy to determine Debbie was supportive and trustworthy was when Debbie offered her professional development opportunities. Debbie sent Lucy to the NSTA meeting and PLTW training, which solidified Lucy’s perception of Debbie’s support.

Barbara had a completely different experience and felt as though she was left alone to struggle with no support from any administrator or her mentor, whom Debbie chose. In retrospect, Barbara stated she felt as if she was set up to fail during the school
year based on the lack of notification about the induction program, the missed administrative meeting given by the school, a poor mentor, the loss of her classroom during her planning period, the lack of professional development provided, and the fact that she was a PACE teacher. Debbie admitted that by December she had decided Barbara would not be returning to Reidville High School. Debbie did not want to waste any more of her time on Barbara, who argued at every directive, refused to accept help from others, left immediately after school, and was mean to students both academically and socially. At this point, Debbie stopped meeting with Barbara, providing suggestions, and supporting her with anything other than required activities.

Melanie and Tyson both perceived a positive and supportive relationship with Susan and their supporting administrators. Susan worked very hard on developing a relationship with Melanie, who she felt had a bright future at Kennerly High School and whom she hoped would stay in the department. Susan worked to ensure Melanie had the support she needed administratively, with materials, a great mentor, and professional development at the Anatomy in Clay conference. Melanie, while slightly intimated by Susan, valued their relationship and was happy to have a supportive administrative staff that was visible in the halls.

Susan was supportive of Tyson, but she admitted she found it hard to be supportive because of his overconfident and overbearing personality. She believed he did not understand his flaws or see any wrongdoing on his part in anything he did, and she worried about his potential at Kennerly High School. Due to the lack of highly qualified physics teachers, the administrative staff at the school decided to offer Tyson a position
for another year at the school in hopes of working with him on planning, formative assessments, and collaboration with other science teachers. Tyson perceived the administrators at Kennerly High School as supportive of him and believed they thought he was doing a great job in the classroom. He believed the administrators would help in any way they could if he requested their assistance.

**Assertions and Generalizations**

Educational support is necessary for novice secondary science teachers to improve their instructional practice during their first year of teaching, whether that support is from an administrator or a mentor teacher whom the administrator chooses to guide the novice teacher. The four participants in this study had ups and downs, growths and setbacks in the areas of classroom management, locating resources, instructional practice, and developing relationships with administrators during the 2012-2013 school year.

It is apparent the administrator–novice science teacher relationship is a critical factor in the success of individual science teachers during their first year of teaching. Therefore, the following are recommendations to foster this relationship:

1. Administrators should complete regular observations and meet with novice science teachers after the observations to discuss classroom management issues, instructional practices, and formative assessment strategies.
2. Administrators should provide novice science teachers with at least one opportunity for professional development outside the district.
3. Administrators should require a science department inventory list with the location of materials identified.

4. Administrators should set aside time throughout the year to answer questions about policies and procedures of the school and to develop relationships with the novice science teachers.

5. Administrators should select mentors for the novice science teachers who satisfy all three requirements of a high-quality mentoring program.

6. Administrators should consider the teachers’ personalities as a key indicator of their socialization into the science department and school.

   As the research progressed, the personalities of the secondary novice science teachers surfaced as an important factor in their development as educators. The participants in this study who were able to accept constructive criticism, internalize it, and grow from the observations developed as instructional leaders at a quicker pace. The same participants became integral parts of their respective science departments, helping other teachers develop as well. This is an area that warrants further research for the hiring of novice science teachers with the potential to be successful so that schools and districts can allocate time and money more effectively and efficiently.
CHAPTER FIVE

FINDINGS AND IMPLICATIONS

From an organizational perspective, administrators have a vitally important role and influence in choosing retention strategies at the school site to retain novice science teachers (Corbell et al., 2010; Friedrichsen et al., 2007). Over the past 15 years, the increase in the number of teachers, particularly science and math teachers, leaving the education field within 5 years of entering the teaching profession has highlighted the need for research studies to identify the cause of their exodus from the classroom (Ingersoll & Smith, 2004; Patterson et al., 2003; Pogodzinski, 2012). Research studies revealed eight reasons teachers commonly cite for leaving the field of education (see Table 2 in Chapter One). This research study did not address two of those reasons, family concerns and salary issues, as administrators cannot attend to these at the school-site level. The primary reason teachers cite for leaving the classroom is a lack of administrative support. The problem is the literature reviewed did not identify what teachers consider as administrative support. Some teachers would state that the other five reasons teachers cite for leaving the classroom—student discipline problems, poor facilities and resources, poor mentoring and induction programs, poor student motivation/engagement, and a lack of influence in the decision-making process—are considered administrative support (Brown, 2002; Curtis & Wise, 2012; Luther & Richman, 2009; Pogodzinski, 2012; Pogodzinski et al., 2012; Robertson et al., 2006).

The goal of this multiple-case study was to identify how novice science teachers in two districts in South Carolina, who had consistent interactions with administrators,
developed during their first year of teaching. Administrators who spend time working with the novice science teachers hired at their school sites will assist them in developing skills to address the reasons teachers cite for leaving the classroom. The administrators who participated in this study conducted regular observations, held observation debriefing sessions, engaged the novice teachers in dialogue about their classroom instruction, helped with classroom management issues, assigned a mentor, provided technology, bought science supplies, and provided professional development opportunities as supports for their novice science teachers. To capture the experiences of the participants, the researcher collected data through semistructured interviews, reflection journals, observations, and student discipline referrals throughout the academic year. Additional artifacts collected from teachers included résumés, syllabi, letters home to parents, long-range plans, and information from administrator-conducted and researcher-conducted observations. Artifacts collected from administrators included résumés, informal and formal observation records, and audio recordings of any conversations the administrators had with the novice science teachers and/or mentors.

The researcher analyzed data during and following data collection using Creswell’s (2007) techniques of case study analysis. The researcher developed a detailed description of each case from all of the artifacts available to provide a case context and rich description of the participants. Next, the researcher coded data sources for each pair of administrators and novice teachers. Commonalities emerged among the four novice science teacher case studies relating to the research questions: (a) development of a classroom management plan, (b) the need for and use of resources, (c) development of
instructional practice, and (d) the perception of administrative support. After developing individual cases for each of the administrator/novice science teacher pairs, the researcher completed a cross-case analysis to search for patterns. This chapter describes conclusions drawn from the findings in Chapter Four.

**Summary of Major Findings**

The answer to the overarching research question emerged through the subquestions of the study. The following section addresses each research subquestion and includes a table to summarize the findings at the end of the section.

**Research Subquestion 1**

*How does administrative support influence classroom management in novice science teachers’ classrooms?*

The cases showed that novice science teachers who collaborated with administrators who provided guidance, offered support, and answered questions made more changes in their classroom management policies and procedures that reflected the school culture. The teachers who felt confident they had administrative support were more willing to make changes and try new methods to manage their classroom to discover what would work for their personality and teaching style to stop student disruptions, which are a major cause of stress for novice teachers (Shen et al., 2011). Lucy and Melanie participated in conversations with their mentors and assistant principals to discuss reasons for student misbehavior to address the underlying causes of the disruptions, allowing them more help in comprehending the complexities of
classroom management and appropriate discipline for behaviors that their educational programs did not cover (Boger & Boger, 2000).

Shen et al. (2011) found, “Administrators who work to decrease teacher frustrations (e.g., student discipline, paperwork, duty load, helping with time management) are identified as supportive administrators,” thereby helping teachers decrease their stress, burnout, and apathy toward students over time (p. 210). Lucy and Melanie both asked a variety of questions and reworked their classroom management policies, procedures, and instructional strategies as the year progressed and they discovered what worked and did not work in their classrooms. Both teachers received help from their respective mentors as well as from their supervising administrators to ensure their classroom management plans reflected their school’s culture and expectations over the year.

As the year progressed, both Lucy and Melanie needed less intensive help with their classroom management. This outcome was supported by Brill and McCartney’s (2008) study, which found teachers who participate in classroom management discussions with other educators become confident in their classroom management abilities and therefore do not need as much administrative support over time.

Barbara had a directly opposite experience with administration at Reidville High School. Barbara probed for help addressing the lack of a cell phone policy, but her supervising administrator did not provide her with assistance in developing a plan of action. When Barbara questioned the administrators at Reidville High School as to what practices and procedures she should follow, they chastised her and redirected her to
different individuals, leaving Barbara with the perception of constantly changing expectations she could not meet. This caused Barbara to feel abandoned and distrustful of administration (Luther & Richman, 2009). The researcher’s interviews with Debbie and Barbara and the lack of conversations between Debbie and Barbara revealed conversations between the novice science teacher and the supervising administrator were at times argumentative and stopped in October unless they were required due to parent complaint or chance circumstance. Barbara’s feelings were congruent with those of teachers who did not receive professional assistance from administrators and left their positions because of a lack of agreement with administrative decisions (Baker, 2007).

**Research Subquestion 2**

*How does the appropriation of building-level and instructional resources affect teachers’ perceptions of administrative support?*

The artifacts collected in this study revealed novice science teachers who had access to appropriate resources were able to change their instructional practice. The administrators who participated in this study provided a variety of supports to the novice science teachers based on their individual needs. Some resources, such as the mentoring and induction programs, are a requirement of all districts and sites due to state laws and mandates. However, school districts and sites have the authority to determine how they implement these programs, the extent to which they monitor them, and how much funding they allocate to the programs.

The participants in this study were part of an induction program in their respective districts, but none of the participants found their respective induction programs
beneficial. All four participants felt the focus during the monthly induction program meetings was more on elementary school issues and teachers rather than secondary concerns and needs, creating frustration, anger, and resentment among the participants for having to attend the mandatory meetings. Induction programs should work to improve teaching performance in the classroom, promote the personal and professional well-being of the beginning teachers, and transmit the culture of the education system to the new teachers (Allen, 2000; AFT, 2001; Berry et al., 2002; Brill & McCartney, 2008; Colaric & Stapleton, 2004; Davis et al., 2006; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Ingersoll & Smith, 2004; Smith & Ingersoll, 2004). The participants revealed to the researcher their induction programs consisted of topics unrelated to secondary teachers during the first three meetings, but they were hesitant to complain to their respective administrators about their concerns regarding the lack of benefit the programs offered. In March 2013, Lucy spoke with the induction facilitator about her concerns, and the last two meetings were split, with K-5 teachers and Grade 6-12 teachers meeting on two different days. Lucy reported this was beneficial in order to share concerns and seek solutions with other teachers of the same grade level.

Lucy, Barbara, and Melanie all verbalized the lack of information concerning teaching performance during their induction program during their initial or midyear interviews. Lucy, Barbara, and Melanie felt their time would be better spent in their classrooms designing lessons, creating tests, setting up laboratory activities, or grading papers from the day’s activities. The participants from both school sites reported there was little discussion about instructional strategies or practices for the secondary teachers.
and explained the topics of focus were practicing classroom routines and procedures, and teaching students how to walk in hallways.

Kaufmann (2007) and Huling-Austin (1988) both found induction programs promote the personal and professional well-being of novice teachers. However, Lucy found the induction meetings to be a source of sadness and frustration. She developed the perception that other induction participants were more successful in the classroom, making her sad and causing her to question her decision to teach during the weeks following the induction meetings in the fall. These thoughts furthered her feelings of frustration concerning the isolation within the science department in which she was having trouble relating to other teachers due to age differences. In the spring, Lucy’s despondency about the lack of a collaborative partner changed as she began working to plan anatomy and physiology units with her mentor, allowing her to reassess her feelings of efficacy as a science teacher (Fry, 2007; Patterson et al., 2003).

Induction programs should transmit the culture of the school system to the novice science teachers. Each of the districts included in this study runs one induction program for the district; therefore, the culture that is transmitted is the overall culture of the district rather than the culture of individual school sites (Patterson et al., 2003). At Kennerly High School, Melanie and Tyson reported the fall semester of their induction program included classes in which district office personnel were introduced, which indicated the district office plays a large role in the school sites. During these meetings, Melanie stated, the district office staff members spoke with the induction class about the positions they held at the district office, what services they could provide to the novice teachers, or
what the novice teachers were required to do for them. Melanie reported feeling overwhelmed with the amount of information she was required to provide to the district office by the end of the school year from the meeting in the fall.

Overall, the participating teachers did not feel the induction programs were beneficial and supported their development as secondary science teachers. The lack of specific information provided to the teachers that they could apply in their classroom was apparent to each participant but not explained to the supervising administrator. Networking and collaboration opportunities were limited for the participants of this study, which may have limited their emotional development as teachers from sharing similar experiences to find solutions (Kaufmann, 2007).

The supervising administrators in this study provided an instructional resource, in the form of a highly trained mentor, to all teachers. However, the administrators did not pair any of the participating novice teachers with mentors who adhered to the three main components of mentoring programs: (a) teaching the same grade level/content, (b) having common planning, and (c) having classrooms in close proximity to one another (AFT, 2001; Berry et al., 2002; Huling-Austin, 1988; Smith & Ingersoll, 2004).

The administrators took different approaches in mentor assignments. Susan was extremely methodical in her selection for Tyson and Melanie; however, Debbie seemed to choose Lucy’s mentor carefully and to haphazardly choose Barbara’s by location only. Lucy’s and Tyson’s mentors met two of the three criteria during the year, while Barbara’s and Melanie’s mentors only adhered to one of three main components of a high-quality mentoring relationship (see Table 16 in Chapter Four). Susan’s choice for Melanie’s
mentor was a great fit, allowing the pair to share information and support one another and thus showing the importance of choosing the right person to work with the novice science teacher in order to build trust and collaboration, but she was not as successful in her selection for Tyson (Luther & Richman, 2009; Pogodzinski, 2012). Tyson believed he was smarter than his mentor and therefore did not utilize her effectively, showing a lack of trust that is harmful to a mentoring relationship (Boreen & Niday, 2008).

Barbara did not have a successful mentoring relationship, but it is hard to determine a causal relationship with one factor: The failure of the relationship may have been due to the lack of a common planning period, not teaching the same science content, the lack of proximity, a personality conflict, or the age difference between her mentor and her. In contrast, during the fall semester, Lucy’s mentoring relationship met two of the three conditions for success: teaching the same content and having classrooms in close proximity to each other. In the spring, Lucy’s mentor shared the same planning period, thereby meeting all three mentoring criteria and providing Lucy with a mentoring program deemed successful (AFT, 2001; Berry et al., 2002; Huling-Austin, 1988; Smith & Ingersoll, 2004). Lucy’s end-of-year observation, end-of-year reflections, and final interview showed how valuable her mentor was in the spring semester to her development as a science teacher. Lucy felt working with her mentor so closely helped her combat the feeling of isolation and lack of support many novice teachers experience during their first year, contributing to their decision to leave the teaching profession (Kaufmann, 2007).
Multiple studies have concluded mentors should be formally trained to provide appropriate assistance and should have access to the novice teachers during the traditional school day to provide support in areas such as classroom management, lesson planning, pedagogy, time management, and emotional support (Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Moir & Gless, 2001). The lack of common planning time, close room proximity, and/or shared teaching content in this study made it difficult for the relationships between the novice science teachers and their respective mentors to develop. The participating teachers may have found more success in their mentoring relationships if the administrators would have chosen mentor teachers who fulfilled all three components of a successful mentoring program, as Lucy did in the second semester.

The administrators in this study adhered to the research of Corbell et al. (2010) and Johnson and Birkeland (2003), who found novice teachers believed they needed many resources to be successful. These resources included enough paper and supplies, textbooks for all students, a classroom dedicated to teaching, a properly functioning building, science equipment, curriculum, and textbooks. The teachers involved in this multiple-case study stated they had the resources they needed at the beginning of the year and felt supported by their administrators. The schools provided each teacher with a computer, LCD projector, desks, and supplies such as staplers and pens in the classroom at the beginning of the year. The novice teachers’ perceptions of the availability of resources began to change over the course of the year as they gleaned a better understanding of what technology, resources, and rooms were available in the school.
Some courses in secondary education are more expensive than others; science is the most expensive of the four content areas, due to equipment required for the different science disciplines and consumables that the school must purchase on a year-to-year basis (Corbell et al., 2010; Howe, 2003). One study found that novice science teachers who perceived they had adequate resources reported their perception of administrators as supportive, and this informed their decisions to stay at the school site teaching (Pogodzinski, 2012). The teachers who participated in this study had all the physical materials they needed; however, some had trouble locating the necessary resources their administrators, science department heads, and mentors reported were in the building. The teachers stated they were told the materials they needed for their respective classes were in the department somewhere, but the novice science teachers in this study did not know where to locate the materials. Each explained that while he or she could ask another department member, many times the novice science teacher was at home planning or needed the materials fairly soon, and it added another stressor to the day and took time out of the teacher’s schedule to locate materials. The four participants stated it was easier to purchase many of the materials on their own or to find another instructional activity to teach the concept rather than borrow the resources from other classrooms.

The novice science teachers at Kennerly High School had access to a science coordinator and a Gifted and Talented Education (GATE) coordinator for resources and instructional coaching, thereby helping the novice science teachers learn the curriculum (Beyer & Davis, 2008; Boger & Boger, 2000; Freiberg, 2002). Melanie utilized these human resources and found them to be helpful in terms of answering questions, providing
insight into district expectations, completing observations to provide feedback for growth in instructional practice, and giving her instructional materials.

All the research participants participated in off-site professional development opportunities during the year. These opportunities allow novice teachers to develop a network of experienced teachers who can provide professional support, develop appropriate instructional practices that work best for the students in their classrooms, and feel valued and appreciated by their administrators who allow them to leave the school for a day to learn (Luther & Richman, 2009).

The experiences of Lucy and Melanie supported the work of researchers who asserted targeted professional development is beneficial for a change in instructional practice (Moir & Gless, 2001). Debbie provided Lucy with two professional development opportunities, demonstrating to Lucy that Debbie supported her professional growth. Lucy returned from the professional development with a variety of instructional strategies and ideas for the classroom, many of which she shared with her department and implemented in her classroom. Susan provided Melanie with professional development for a curriculum she would be teaching in the upcoming year; the training also allowed her to make changes in her instruction immediately upon her return. Melanie’s professional development opportunity required her to miss a week of school, which Susan supported, allowing Melanie to feel valued. Melanie and Tyson both received targeted professional development from their districts in GATE to address student needs, as Davis et al. (2006) suggested.
Research Subquestion 3

*How are teachers’ practices in the classroom affected by administrative support?*

The case studies presented revealed that a teacher’s practice in the classroom can be affected by informal observations, formal observations, and walk-through observations with targeted, specific feedback that the observer and novice science teacher discuss. Different research studies support this finding by showing there are two ways to increase science teaching performance during the first years of teaching: (a) targeted professional development relative to the content area and grade level of the teacher, and (b) formal observations from a trusted individual with whom the novice teacher has a collegial relationship (Allen, 2000; Berry et al., 2002; Brill & McCartney, 2008; Fry, 2007; Glassford & Salinitri, 2007; Huling-Austin, 1988; Wiebke & Bardin, 2009).

Lucy and Melanie had formal observations from a variety of sources they trusted; they were encouraged and felt comfortable to make changes to their instructional practice, including trying new instructional strategies. While Tyson and Barbara had formal observations completed as well, neither of them completely respected or trusted their observers, and therefore they did not embrace the feedback they received and did not make changes in the classroom to develop their instructional practice. Therefore, Tyson’s and Barbara’s instructional practice did not develop over time to engage students in the learning process (McCann et al., 2005).

Two of the four case studies revealed the best way to improve instructional practices is to have collegial conversations with another individual who has completed observations of the novice teacher or taught the same disciplinary content. Berry et al.
(2002) noted the benefit of this practice and found novice teachers should receive ongoing guidance from an expert such as a mentor to guide their development as teachers. Susan praised Melanie’s growth over the year and was proud Melanie searched for answers to questions about how to manage her classroom, spend more time on content, try new instructional strategies, and provide engaging learning experiences for students. Susan hoped Melanie would have an effect on the science department at Kennerly High School through her reflective classroom practice.

While Susan did not consider Tyson successful, she was never concerned about his content knowledge since he had recently graduated with two degrees. Luft (2007), Towers (2012), and Curtis (2012) agreed that content knowledge is not a concern for recent college graduates. The concern for the graduates who are novice science teachers is their ability in “delivering instruction, aligning curriculum to the diverse academic needs of students, and managing classroom behavior” (Brown, 2002, p. 424). Administrators can be supportive by visiting novice science teachers’ classrooms to observe instruction, asking probing questions about decisions, conferencing to identify target growth areas, and engaging in reflective discourse (Brown, 2002). Susan wondered if Tyson’s avoidance of conversations related to instructional practice was a strategy he employed to change the focus of the meetings to avoid criticism and mask his lack of confidence in instructional planning.

At Reidville High School, Debbie experienced a similar successful/unsuccessful situation as Susan with her two novice science teachers. Lucy consistently impressed Debbie with her insight, modifications, and changes to her classroom management plan,
which influenced Lucy’s teaching methods over the year. Lucy believed she had grown as a teacher and enjoyed her discussions with her mentor and Debbie about content and instruction. These findings support McCann et al.’s 2005 study, which found that novice teachers benefit from spending time with individuals who can explain and help them understand the curriculum of the school. Lucy learned more by working collaboratively with her mentor in the spring, when they had the same planning period and content, than she did any other time.

Barbara did not have the same success as Lucy and felt unsupported by everyone at the school. Debbie believed Barbara would rather complain and question everything than make changes to benefit students. Barbara’s dissatisfaction with the school’s new policies and administrators became problematic, supporting Ingersoll’s 2012 study, which found a link between a teacher’s perceived level of control over social and instructional decisions and administrative support. The poor relationship between Barbara and Debbie caused Barbara’s feelings to permeate the science department and may have resulted in perceptions of conflicts between administrators and teachers (Pogodzinski et al., 2012).

**Research Subquestion 4**

*How do novice science teachers perceive interactions with administrators?*

The research indicated that during the first few months of the academic school year, novice science teachers are wary of their supervising administrators as they determine what these administrators expect of them as teachers in the school. Pogodzinski et al. (2012) explained the novice teachers’ hesitancy in opening up to
administrators as a method to protect their newly attained positions. Lucy demonstrated her lack of trust by withholding personal information and details about her life outside the school day. Tyson revealed his wariness of administrators by changing the topic of discussion in conversations to a neutral topic that did not involve a comment on his teaching practice. Both Lucy and Tyson were hired by their supervising administrators and, according to Pogodzinski et al., should have had a sense of loyalty to and trust for their respective supervisors, which developed over time in three of the four case studies.

Each of the case study teachers struggled with negotiating a balance among work, their personal lives, relationships within the school, and needing support from someone in the building. They sought relationships built on trust and respect to guide their development as novice science teachers and to inform them of what was expected from new teachers in the field of education (Fry, 2007; Huling-Austin, 1988). As the year progressed and the novice science teachers interacted more with their supervising administrators, three of the four science teachers perceived the administrators as more approachable, supporting Luther and Richman’s (2009) finding that “administrators who are supportive and accessible are the most effective, and when these individuals develop positive relationships with the faculty, everyone, including parents and students, benefit from the collegiality” (p. 29).

Two of the participants found success in the different school sites with their supervising administration. These individuals were flexible and believed they could learn from others, and they used the feedback they received as constructive criticism to make adjustments in their instructional practice to grow and develop as educational
practitioners. During debriefing conversations with their supervising administrators and mentors, both novice science teachers engaged in dialogue to develop an understanding of where improvement could be made in the classroom, asking for their advice, clarifying the suggestions, rephrasing what the administrators and mentors said, and discussing possible solutions. These two cases showed the consistent observations, feedback, and support for the novice science teachers to be effective strategies to retain novice teachers (Baker, 2007; Caples & McNeese, 2010; Curtis & Wise, 2012; Towers, 2012).

Two of the case study participants formed positive relationships with their administrators and faculty members, which is supported by Brill and McCartney’s 2008 research, which found that a welcoming faculty that strongly socialized new teachers and allowed the new teachers to feel like they could talk with their colleagues to share ideas and strategies increased the likelihood the new teachers would stay at the school. The principal or another administrator often leads the socialization of new teachers; schools with weak leadership and poor socialization can cause a new teacher to leave the school, exit the profession, or have continued stress, as evidenced by one participant’s inability to socialize or form a relationship with anyone at the school or in the department, regardless of whether the fault was her own, the administration’s, or the science department’s (Brill & McCartney, 2008; Fry, 2007).

Luther and Richman (2009) found teachers want to be treated as valued members of a school. Lucy and Melanie both believed they had trust and support from their supervising administrators, as evidenced by the teachers’ being sent to professional development, the discussion of the new classes and curriculum, changes in room
assignments, and responsibilities Lucy and Melanie would engage in for the following school year. Luther and Richman also gave praise to principals who encouraged teachers to try new strategies and techniques, were open to change, and were balanced and fair in dealing with teaching conflicts.

Tyson, who viewed his administrators as supportive, was invited back for a second year at Kennerly High School. While he believed the administrative team viewed him as a fantastic teacher, Tyson was unconscious of the true reason the administrative staff engaged him in conversations during morning duty. The administrators developed these morning conversations to check on Tyson regularly and offer him support. Susan, who was pleasantly surprised by Tyson’s success, felt he required another opportunity to grow and develop as an educator and hoped he would develop better time management strategies to complete grading in a timely manner as well as better instructional strategies. Susan wanted to see how Tyson interacted with students considered on grade level, rather than the honors population, before she made the decision to release Tyson. Susan felt she provided Tyson with an easy schedule, discipline-wise, by providing him with honors classes during the 2012-2013 academic school year, and she hoped he would be as successful with a more challenging class as he developed as an educator (Luther & Richman, 2009).

Barbara, the participant who lacked trust in the administration, began to create a culture of conflicts, causing the workplace to be stressful and seem like a threatening environment (Luther & Richman, 2009; Pogodzinski, 2012; Pogodzinski et al., 2012; Saka et al., 2009). Upon reflection, Barbara agreed she was not a good match for the
school, revealing the relationship between her as a teacher and administration was lacking. This finding supports the research of Pogodzinski et al. (2012), who found novice teachers who perceived administrative relationships as weak or poor chose to leave the school. Barbara stated she felt as though her supervising administrator gave up on her in October and made that clear to the other administrators, and therefore she had no hope of success.

First-year science teachers’ perceptions of administrative support influence their development as educators during their novice year. The type of administrative leadership at the school influences their growth in how they handle classroom management situations, seek help from their mentor, find resources, implement instructional strategies, engage students, interact with the faculty, and become socialized into the school culture. This makes the relationship between administrators and novice science teachers important, and while it is not the main focus of a school year, this relationship can set novice science teachers up for success or failure due to their perception of support, as demonstrated in all four case studies.

This dissertation study revealed administrative support is important for novice science teachers and could have a large and influential impact on the development of the teachers. This impact occurs if the new teachers are receptive to feedback, both positive and negative, in the form of constructive criticism. Teachers participating in this study who were able to dialogue about suggestions, concerns, and criticisms adjusted their classroom management plans, located necessary resources, changed instructional strategies, and developed relationships with their administrators that they perceived as
positive, allowing them to develop as reflective teachers. The participating novice science teachers who engaged in regular discussions with their administrators about classroom practices felt supported and able to grow and develop their overall teaching practice as science educators, as illustrated in Table 17.
### Table 17

**Summary of Findings by Research Question**

<table>
<thead>
<tr>
<th>Research question</th>
<th>Findings</th>
</tr>
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| 1. How does administrative support influence classroom management in novice science teachers’ classrooms? | - Novice science teachers who had an incident requiring administrative guidance felt supported in the area of classroom management.  
- Novice science teachers who requested help from administrators in the area of classroom management felt greater confidence in enforcing their classroom management procedures and consequences over the year.  
- Novice science teachers who had administrators help them develop classroom management strategies saw improvements in student behavior.  
- Novice science teachers who had an administrator’s encouragement tried different management strategies. |
| 2. How does the appropriation of building-level and instructional resources affect teachers’ perceptions of administrative support? | - Novice science teachers felt supported by the materials they were provided upon arrival at the school site.  
- Novice science teachers felt supported by their administrators when they received materials they requested to be able to teach science.  
- Novice science teachers who taught the same discipline as their mentors interacted more frequently.  
- Novice science teachers had difficulty locating resources at the school. |
| 3. How are teachers’ practices in the classroom affected by administrative support? | - Novice science teachers who engaged in dialogue about their classroom practices made more changes in their instructional strategies.  
- Novice science teachers with a mentor who taught the same discipline collaborated more frequently.  
- Novice science teachers who attended professional development outside the district changed their instructional practice. |
<table>
<thead>
<tr>
<th>Research question</th>
<th>Findings</th>
</tr>
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| 4. How do novice science teachers perceive interactions with administrators? | • Novice science teachers who had administrators visit their classroom viewed the administrators as positive.  
• Novice science teachers who had administrators answer their questions viewed them as supportive.  
• Novice science teachers who were able to ask administrators questions felt supported.  
• Novice science teachers who were able to have discussions with administrators felt important and supported.  
• Novice science teachers who were offered professional development felt supported and valued. |

The researcher has kept in touch with the research participants since the study was completed. Debbie, the administrator at Reidville High School, resigned her position as assistant principal during the fall of 2014. As recently as Spring 2015, she was not employed with any school district in the state of South Carolina. Lucy got married during the summer of 2013 and moved to the lower part of the state a year later for her husband to pursue his career. She is teaching high school in the town they live in and feels successful and supported. Lucy feels the resources, mentor support, administrative guidance, and relationships from Reidville High School provided a strong base for her success at her new school site. Barbara was hired at the local high school that her children attend. This is the same school at which she interviewed twice before and was not hired due to previous knowledge of her argumentative personality from personal friends. The school went through an administrative change, and Barbara applied again and was hired. After some deep reflection, cognitive coaching sessions, and developing
an understanding with administration, she has become socialized into the culture of the school. Her mentor at the new school site has a strong but calming personality according to Barbara, which has helped her learn about the school culture and assimilate into the faculty. She sent the researcher her long-range plans and syllabi for the 2014-2015 school year after the study, and the researcher reviewed them for her to help with corrections. Barbara passed the Assisting, Developing and Evaluating Professional Teaching (ADEPT) program and was given an annual contract. She is coaching a robotics team with another teacher and working with Project Lead the Way (PLTW).

Susan is still the assistant principal at Kennerly High School and is doing extremely well. She has great ideas that are being implemented at all of the high schools in the district. Susan started her doctoral program at a regional university, and she says it is because of participation in this study that she has the courage to proceed. Susan was recently named the assistant principal of the year for the state of South Carolina and has published two articles on data teams in electronic journals. Tyson finished his second year at Kennerly High School and was not invited back. He did not do well with the on-grade-level students and continued to make smart remarks about administration to other science teachers, which caused some dissention in the department. Tyson’s time management did not improve, according to Susan, and his instructional practice proceeded to consist of mostly lecture and worksheets, according to observations Susan completed during the 2013-2014 school year. He refused to make adjustments to his instruction and had numerous parent complaints about sarcasm in the classroom, which forced the Kennerly High School administrative team to not offer him a contract for the
2014-2015 school year. Melanie became engaged in the spring of 2014 and changed schools to be closer to her fiancé’s home. Melanie is actually at Lucy’s former school, Reidville High School, and is doing fabulous. She stated the administration this year has changed and she did not receive the support she did at Kennerly High School as a novice science teacher, but she also remembered that while she is a newer teacher, she is not considered a novice teacher and therefore may not receive all the support. Melanie is closer to home, is teaching anatomy and physiology, and gets along well with the department. She credits her success at Reidville High School to the positive relationships, dialogue about instruction, and support in trying new strategies with Susan and her mentor, which provided the personal and emotional support sheneeded her first year of teaching.

The guiding research question of this study was, How do novice science teachers who have consistent interactions with administrators develop during their first year? The data show consistent interactions between novice science teachers and their supervising administrators involving feedback about classroom observations are beneficial and influence the development of the novice science teachers during the first year of teaching.

Teachers who were observed regularly and engaged in discussions with the observing administrators about classroom management strategies were willing to adjust their classroom policies and procedures to decrease student disruptions. Lucy and Melanie received assistance and support from their supervising administrators in the area of classroom management, allowing them to feel more confident as the year progressed in dealing with individual students and classroom behaviors that impeded instruction.
Participants who engaged in conversations surrounding feedback from observations about best practices of classroom instruction implemented a variety of instructional strategies during the study. These strategies were designed to engage students, increase student motivation, and foster student achievement in their classrooms, resulting in the new teachers’ feelings of self-efficacy at the end of the study and the desire to plan during the summer for the upcoming school year.

Novice science teachers who received appropriate resources perceived their administrators as supportive. The appropriated technology resources allowed participating teachers the ability to engage students in a variety of different media, keep students interested in the content, and develop technology-based skills. Administrators who provided science resources were perceived as supportive; however, the novice science teachers had difficulty locating the resources within the science department when they needed materials, causing frustration for the novice science teachers.

During the study, three of the participants—Lucy, Melanie, and Tyson—had consistent interactions with and perceived their administrators as supportive to their development as novice science teachers. They credited the administrators with guiding them to become a part of the school and helping them transition into the school culture while showing an interest in their development as teachers. Lucy and Melanie developed into reflective teachers very quickly due to a growth mindset. These two individuals have personalities that allow them to see the need to be flexible, adapt to changes in the classroom, and work collaboratively with others. Both participants had a desire for feedback and were able to hear constructive criticism and make adjustments in their
teaching practice based on the feedback provided. Lucy and Melanie were open to hearing other points of view and wanted to dialogue about possible solutions to address situations in the classroom.

Barbara and Tyson did not exhibit a lot of development as teachers and had difficulty receiving feedback from the administrators. In both cases, although they had different administrators, the participants used the time reserved for dialogue to deflect conversations regarding their classroom practice. Their desire and ability to circumvent dialogue to improve instructional practice resulted in stagnant classrooms with little adjustment to meet the needs of the learners. Barbara and Tyson have personalities some individuals perceive as arrogant, rude, egocentric, and infallible, resulting in their refusal to take ownership of problems, concerns, and incidents that occurred in the classroom. These novice science teachers’ personalities caused them to spend time making excuses for incidents rather than working with their administrators to discuss solutions and become proactive to prevent subsequent problems.

Conclusion

Novice science teachers who had consistent interactions with their supervising administrators made more changes in their teaching pedagogy. The teachers who perceived their administrators as supportive engaged in discussions with their supervisors and felt supported, and as a result, they felt confident in making changes to their classroom management policies and procedures, instructional strategies, and classroom practices during the year.
Three points of interest rose from the research. The first point was regarding feedback to each of the novice science teachers from their supervising administrators after the debrief discussions. The teachers who engaged in discussions with the administrators about teaching practices seen during the observations utilized the feedback to make targeted changes in their classrooms each time. Administrators should be aware of their use of educational terminology with novice science teachers. Terms like rigor and relevance are defined differently based on the professional development and philosophy of the administrative team, which may differ from the definition understood by a teacher emerging from a teacher preparation program. In both schools, participating teachers were asked to increase the rigor of their classes in one observation. The teachers felt they increased the rigor but were informed in a following observation that the rigor was still not present in the classroom instruction, leaving each to wonder what the administrator’s definition of rigor was and how he or she would implement rigor in the classroom. Providing site-based professional development to develop an understanding of initiatives, goals, and common terminology would be beneficial.

The second point of interest involved resources. While all participants stated they had the technology they needed and all were told materials they would need to teach their subjects were at the school site, neither the administrators nor the mentors could locate materials. The participating teachers were told the materials were ordered and they just had to find them. While the resources may have been at the school sites, they were inaccessible to the novice science teachers when they needed them, and some materials were never located. In addition to lost science resources, some resources were reserved
for particular classes or earmarked for certain content area classes and were therefore unattainable to the novice science teachers, causing frustration. Providing novice science teachers with a list of materials and their location could ease the frustration and provide information for the novice science teachers as they gather materials to complete instructional activities.

As the research progressed, the third point of interest emerged. The personalities of the secondary novice science teachers surfaced as an important factor in their development as educators. The participants in this study who were able to take constructive criticism, internalize it, and grow from the observations developed as instructional leaders at a quicker pace. The same participants became integral parts of their respective science departments, helping other teachers develop as well. This is an area that warrants further research for the hiring of novice science teachers with the potential to be successful so that schools and districts can allocate time and money more effectively and efficiently.

**Limitations**

The qualitative methods in this study led to limitations and a lack of generalizability. This dissertation study included semistructured interview questions developed from different instruments, which looked at the mentor–mentee relationship. The first use of this interview instrument was during this multiple-case study; therefore, questions were not field tested. The lack of a field test of the questions can contribute to misunderstandings due to word choice.
The convenience sample for this study included high school science teachers in their first year of teaching from two public school districts in South Carolina, one in the upstate and one in the midstate region. This limits the generalizability of findings to other novice science teachers in elementary or middle levels, other geographic areas, or private schools.

The researcher for this study knew each of the participants personally. The researcher met Lucy as an undergraduate student, and Lucy shadowed the researcher for a day at her place of employment. The researcher lived in the same town as Barbara, and they attended fitness classes together. The researcher was the science coordinator in the district in which Melanie and Tyson taught, so there were interactions between the participants and the researcher outside the research paradigm. The researcher is also a member of several leading science organizations in the state and holds officer positions.

The results were dependent on candid responses and the comfort level of the participants in revealing information to the researcher. The data collected were vulnerable to personal bias based on the participants’ perceptions of events. An additional concern for accurate data was the participants’ responses based on their concern about how the researcher would perceive them.

Another limitation was the dependence on two additional individuals as data collectors. Two administrators recorded conversations for use in the study without the researcher’s presence. The two public school sites also had different observation forms administrators used, which the researcher collected as data. Both administrators who participated in this study engaged in regular conversations with their respective novice
science teachers, and both administrators at the different sites stated at the end of the process they felt more connected with their novice science teachers than in previous years. Both credited the research data collection process as the reason they conducted longer observations, completed more walk-throughs, and engaged in debriefing conversations, which they believed they should do with each novice teacher at their respective schools.

Finally, the researcher’s perspective and personal bias in interpreting the data was a limitation of the study. The researcher is an advocate for novice teachers, specifically science teachers. The researcher taught for the Program of Alternative Certification for Educators (PACE) at the South Carolina Department of Education, served on several induction and mentoring committees, and facilitated an induction and mentoring program in a district in which she was previously employed. In addition, the researcher has mentored novice science teachers over the 14 years of her educational career.

**Implications and Recommendations for Future Research**

According to the literature reviewed, teachers stated they decided to leave the classroom due to job dissatisfaction stemming from (a) a lack of administrative support, (b) student discipline problems, (c) poor facilities and resources, (d) poor mentoring and induction programs, (e) poor student motivation/engagement, (f) a lack of influence in the decision-making process, (g) salary issues, and (h) family concerns (Brill & McCartney, 2008; Corbell et al., 2010; Friedrichsen et al., 2007; Ingersoll & Smith, 2004; Patterson et al., 2003; Shen et al., 2011). The literature provided recommendations for districts to increase teacher retention through implementing several strategies within the district:
(a) implementing a high-quality induction program, (b) implementing a high-quality mentoring program, (c) providing appropriate instructional resources, and (d) providing administrative support (Brill & McCartney, 2008; Corbell et al., 2010; Friedrichsen et al., 2007; Howe, 2003; Smith-Davis & Cohen, 1989; Sterling & Frazier, 2008). This multiple-case study supported the findings of previous studies and arrived at six implications for administrators to enhance the development of novice science teachers at their school sites, identified and explained as follows.

**Implication 1**

**Administrators should complete regular observations and meet with novice science teachers after the observations to discuss classroom management issues, instructional practices, and formative assessment strategies.** Novice science teachers in this study wanted administrators to enter their classrooms, complete observations, and provide feedback about their classroom practices, procedures, and instruction. The participants reported positive feelings and desires to make changes in their teaching practices to increase student engagement and learning but were unsure how to make beneficial corrections or if the changes implemented were effective from an administrative lens.

In order to provide novice science teachers with consistent support and address their desire for administrators to visit their classrooms, administrators should reserve time on their calendars to complete observations and provide feedback. In order to maximize the use of time while continuing to provide the support new teachers seek, a monthly observation cycle with four interactions is recommended. This study contained two
interactions between the teachers and administrators, including an observation and a
debriefing session. The addition of two walk-throughs, one before the observation and
one after the debriefing dialogue, would ensure the novice teacher knows the observation
will take place soon and follow-up will occur based on feedback. The walk-through
before the observation would give the administrator an idea of what to concentrate on
during the observation, and the walk-through after the discussion would provide time for
the administrator to observe whether changes discussed have been implemented or what
additional supports might be necessary. While novice science teachers should feel
comfortable asking their administrators for assistance if the new change is not effective,
the literature review revealed novice science teachers are hesitant to seek out
administrators and engage them in discussion for fear of being considered weak or
incompetent (Anhorn, 2008; Worthy, 2005). The four interactions during the observation
cycle would provide scheduled time for the novice teachers to become comfortable
engaging the administrators in discussion.

The proposed observation model is a four-part cycle that requires an interaction
between the administrator and novice teacher during each portion (see Table 18). Part 1
is a 10-minute classroom walk-through to view potential concerns or successes on which
to concentrate. Part 2 is an observation lasting an entire class period, from bell to bell,
with a predetermined observation tool. Part 3 is a postobservation debrief/discussion
with dialogue about the observation with specific feedback. Finally, Part 4 is another 10-
minute classroom walk-through to see if potential concerns were corrected, if agreed
upon changes were implemented, and/or which successes continued. This cycle should
be completed monthly during the first year of teaching, therefore providing consistent weekly support.

Table 18

*Suggested Observation Cycle for Administrators Supervising Novice Science Teachers*

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
<th>Purpose</th>
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| 1    | 10-minute informal observation          | • Allows the administrator a chance to identify some potential concerns, areas for improvement, or successes  
• Allows the novice science teacher to become comfortable having an observer in their room  
• Signals to the teacher that the longer observation is forthcoming |
| 2    | Observation lasting a full class period  | • Provides the administrator with time to observe a variety of events in the classroom  
• Gives the administrator time to determine what classroom management policies and procedures are working and which ones may need to be adjusted or changed  
• Provides the teacher time to begin and end class, showing maximum use of instructional time  
• Allows the teacher time to transition from one activity to another to show a variety of instructional methods |
| 3    | Postobservation debrief/dialogue         | • Allows protected time for the administrator and teacher to develop a collegial relationship  
• Provides time for the administrator and novice science teacher to dialogue about classroom instructional practice, including successes, changes to be implemented, and if changes agreed upon are implemented  
• Gives the administrator time for specific feedback |
| 4    | 10-minute informal observation          | • Provides the administrator with the opportunity to see if concerns were corrected  
• Gives the administrator the opportunity to see if successes are still continuing  
• Allows the teacher time to demonstrate agreed-upon changes were implemented  
• Shows the teacher a follow-up from the discussion will occur |
Administrators can work with the novice science teachers to select the appropriate classes to observe during different months. Administrators should encourage novice teachers to select the classes in which they find classroom management is the most challenging in order to help correct student discipline problems early in the year.

The consistent observations and dialogue that will occur during a cycle maintained during the school year can build trust between administrators and novice science teachers, who will interact on a weekly basis. Teachers who feel administrators listen to them and include the teachers’ input in the decision-making process perceive their administrators as supportive (Pogodzinski, 2012). The observation cycle will also allow administrators and new teachers to see where targeted professional development may be necessary for the novice science teachers to improve their teaching pedagogy. Administrators who spend time completing various types of observations followed by dialogue can coach novice science teachers to develop classroom management practices and instructional strategies to increase student achievement.

**Implication 2**

**Administrators should provide novice science teachers with at least one opportunity for professional development outside the district.** Novice science teachers in this study who were given the opportunity to attend professional development felt valued by their administrators and the school. The science teachers who were provided with the ability to engage in off-site professional development reported they returned to the site with advice, instructions, and materials to implement new instructional strategies for their classrooms. The novice science teachers who engaged in
multiday professional development training reported a sense of excitement to return to their classrooms.

Research on induction programs has acknowledged the need for professional development for novice teachers targeted at the teachers’ needs (Ingersoll & Smith, 2004). Administrators should be able to identify from their continuous observations and discussions with their novice science teachers what type(s) of professional development would be beneficial. The decision on the type, location, and time of the professional development should be a collaborative decision made between the administrators and novice science teachers. The collaboration in this decision-making process will ensure the novice science teachers are committed to attending and participating in the professional development. Implementation of the strategies learned during the professional development can be seen during the observation cycle from Implication 1, above. In addition, the professional development in which the novice teachers participate will provide a network of individuals from the meeting(s) with whom the novice science teachers may stay in contact to continue to develop.

**Implication 3**

**Administrators should require a science department inventory list with the location of materials identified.** Novice science teachers in this study reported a lack of knowledge of what materials, supplies, curriculum resources, laboratory resources, and equipment their respective science departments contained; they were also not aware of the location of said items.
The district and school site should require an inventory list of materials and supplies from each department in the school in case of fire, natural disaster, or theft, for insurance purposes. While Occupational Safety and Health Act (OSHA) standards require high school departments to keep detailed records of the chemicals and their specific location at the school site in case of emergencies relating to fire and chemical spills, they do not regulate general science supplies (Stroud & Roy, 2014). Science departments should keep a detailed list of expendable and nonexpendable materials that includes the identification of their location in classrooms or storage areas. Administrators must inform science departments of the OSHA regulations and require science departments to complete a full inventory of the chemicals and science supplies.

To ensure a complete record of the science department’s inventory, administrators will need to provide time for the science department to discuss the best format, identify the information to be collected, and determine the process to compile a complete and thorough inventory. A yearly inventory process should be implemented to ensure science materials are accounted for and in working condition (Corbell et al., 2010; Kardos & Johnson, 2007). Administrators who require a complete inventory of the science department, including the location of the materials, can help save the novice science teachers time in locating materials and can help novice science teachers plan more efficiently by giving them the knowledge of what is available for their use in the classroom (Johnson & Birkeland, 2003).
Implication 4

Administrators should make time throughout the year to answer questions about policies and procedures of the school and to develop relationships with the novice science teachers. The novice science teachers in this study reported they were intimidated by their administrators and overwhelmed at the beginning of the year with a plethora of information from different key district, school, and department policies and procedures. Novice science teachers reported they knew they had been given information but were unsure of how to use that knowledge at the time.

It is recommended administrators create time for novice science teachers in two ways. The first is through the proposed observation cycle from Implication 1. Administrators who implement and complete the observation cycle will interact with novice science teachers on a weekly basis. The consistent, frequent interactions will allow novice science teachers the opportunity to ask questions about policies and procedures in a safe environment during one of the administrators’ two short visits to the classroom, the full classroom observation, or during the postobservation debriefing.

The second method of creating time for novice science teachers is by holding monthly meetings as part of a site-based induction program. The meetings would allow administrators to help improve teaching performance by identifying the expectations of teachers in the classroom, setting the tone for classroom instruction, and highlighting expected assessment practices through the review of the observation tool and professional development minisessions. The monthly meetings would transmit the culture of the school to the novice science teachers by explaining and clarifying upcoming events,
discussing deadlines, and addressing novice teachers’ concerns. Having time reserved to review policies such as attendance and grading would allow the novice science teachers to ask questions about district and school policies. While attendance and grading policies are routine in nature for teachers, these two policies are often questioned by parents or students near the end of grading periods, and these questions are directed to teachers during grading conversations. When novice teachers understand the details about policies that are questioned regularly, they gain confidence in answering questions and working with students and parents. During the course of the school year, it is important for administrators to take the time to review procedures with new science teachers. Some procedures required by school sites do not happen often during the year, such as the opening of school, closing of school for extended breaks, or turning in yearly paperwork. Monthly meetings would allow novice science teachers the time to ask questions to ensure compliance with district policy and school requirements (Pogodzinski, 2012; Pogodzinski et al., 2012). Having the novice science teachers meet as a small group at the school site would promote their personal and professional well-being by providing a forum to discuss critical issues with administrators who can help guide them to potential solutions (Kaufmann, 2007).

Administrators who provide an opportunity to revisit the policies, procedures, and deadlines during the year can help novice science teachers continue to clarify their understanding to support the district, school, and department policies and procedures. Through professional conversations, relationships can develop to decrease the feelings of
intimidation novice science teachers experience, allowing them to feel more comfortable in seeking assistance from their administrators.

**Implication 5**

Administrators should select mentors for the novice science teachers who satisfy all three requirements of a high quality-mentoring program. Administrators should assign novice science teachers mentors who (a) teach the same content, (b) have common planning time, and (c) have classrooms located in close proximity to the novice teachers’ classrooms. None of the participants in this study received all three considerations for the entire year. The novice science teachers who participated in this study believed their mentor teachers would have helped more in their development over the year if they would have taught the same content, had the same planning period, and had classrooms in close proximity to one another.

Administrators must be proactive in planning to meet all three mentoring criteria. At the end of the school year (May), administrators should review the science positions they will be filling and consider the location of novice teachers’ classrooms. In order to create space for novice science teachers and their mentors to be in close proximity, careful planning by administrators must be done. Veteran teachers who are asked to change classroom locations should be informed of the change at the end of the school year to provide them with time either at the end of the school year or the beginning of summer to change locations.

Administrators should review the master schedule when it is near completion and make sure the mentors and novice science teachers have a common planning period.
(Bianchini & Cavazos, 2007; Ingersoll & Smith, 2004; Koballa et al., 2008). The novice science teachers and their mentors should have at least one class in common that they teach per semester. This allows for common planning so they can collaborate to create effective units with engaging lessons, create formative and summative assessments, and discuss classroom instructional practices (Beyer & Davis, 2008; Bianchini & Brenner, 2010; Koballa et al., 2008; Luft, 2007).

Most beginning teachers believe they were matched with a mentor who is respected and assume the mentor knows best practices and should be followed. Administrators who carefully select the mentors for novice teachers and provide situations like common planning and shared content in which the two practitioners have time to work together create dialogue between the two teachers to discuss effective instructional practices to increase student achievement.

**Implication 6**

*Administrators should consider the teachers’ personalities as a key indicator of their socialization into the science department and school.* The personality of a potential new hire is difficult to determine in a 20- to 30-minute question-and-answer style interview with six to eight questions, but determining personality traits may be the most important factor in determining whether the potential science teacher will be successful at the site. The successful teachers in this study who made improvements in their classroom management and instructional practice and had positive perceptions of their administrators were flexible, open to constructive criticism, and willing to enter into
dialogue with their mentors and administrators to discuss solutions to problems or concerns of the classroom.

Administrators should require a respected member of the science department to participate in the interview process when hiring a science teacher for the department. The science department member will know the personalities of his or her colleagues and can ascertain if the potential new hire will assimilate into the department easily. Administrators should make arrangements for the science department member to spend 20-30 minutes showing the potential employee the rooms in the science department; asking questions about instructional practice, classroom management policies and procedures, and assessment practices; and discussing the expectations of the school’s science department. If possible, having the potential new science hire spend a day at the school in the science department may provide insight into whether the candidate is an appropriate match for the science department and administration at the school site.

Spending time talking with potential new hires is especially insightful if the novice science teachers are coming from teacher preparation programs or alternative teaching programs. Novice science teachers coming from traditional teaching programs do not have recommendations from classrooms of which they were in charge independently. Their recommendations are based on classwork completed for their college classes and come from their cooperating teacher, who was usually in close proximity during their student teaching experience. Novice science teachers searching for a science position as PACE candidates will provide recommendations based on former job experience, which may or may not have involved teaching secondary students.
Determining if potential new hires will assimilate into the culture of the school, fit into the science department, and be willing to make changes based on observations, feedback, and dialogue should be of paramount importance. The time that administrators, mentors, clerical staff, and fellow teaching colleagues spend working with new teachers is considered to be part of the hidden costs of teacher turnover (Synar & Maiden, 2012). Administrators should arrange to take the extra time to invite a science department member to participate in the interview process to search for potential science teachers who have the right personality for the school.

Administrators who take an interest in developing novice science teachers, as well as other novice teachers, are perceived as supportive and strong leaders. To develop the perception of administrative support, the administrative team must develop and implement strategies, such as the six implications presented above, to provide novice science teachers with the necessary supports to be successful. When novice science teachers feel supported and successful, they are more likely to choose to remain at the school site.

Induction and mentoring programs are of paramount importance in the development of new teachers. This study’s findings show the need for more administrative involvement in the development of the novice science teachers. An area of program development and suggested research would be to create an administrator mentoring program similar to the South Carolina mentoring model in order to inform administrators of how crucial their role is in the development of novice teachers. Administrators need to conduct observations, provide feedback, engage in dialogue about
instructional practice, and foster relationships to develop novice science teachers to increase student achievement, school climate, and culture.

Another area of suggested research would be to examine whether the needs of career changers entering the teaching profession are the same as those of the traditional preservice teachers coming out of college and entering the field of education for the first time. The age and experience of career changers could influence their needs as related to an induction program, professional development, selection of mentors, implementation of a mentoring program, and support from administrators. More targeted research should be conducted to determine the most effective way to address career changers’ needs to retain them in the teaching profession.

The role of the school administrator has changed over the years from a manager of a school building to an instructional leader who supports teachers. Robertson et al. (2006) found administrative support has different meanings to educators based on their experience; therefore, teachers with 0-3 years of experience exiting the classroom may cite the myriad student discipline problems, lack of facilities and resources to teach, weak mentoring and induction programs, troubles with student motivation/engagement, or the lack of influence in the decision-making process as a reason they leave. Each of these stated reasons can be attributed to a lack of administrative support, which is the number one reason novice teachers cite for leaving the classroom. The support of administrators is an integral component in teacher retention because administrators have “the resources and big-picture view to create school structures that encourage the work of supporting beginning teachers” (Clark, 2012, p. 199). As the instructional leader, it is the site-based
administrator’s job to hire, develop, and support novice teachers at the school to become the effective educators the students need. This endeavor takes time and a sustained staff trained in the school initiatives. Schools in which teachers perceive administrators as strong and supportive have greater teacher retention rates than schools in which teachers perceive the administrative team as weak.
APPENDICES
## Appendix A

### Preparticipation Questions for Teachers

<table>
<thead>
<tr>
<th>General Questions</th>
<th>How does administrative support influence classroom management in the novice science teacher's classroom?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What are you most concerned about in this upcoming school year?</td>
<td>• Describe your classroom management policies and procedures?</td>
</tr>
<tr>
<td>• What do you see as your greatest strength as a new science teacher?</td>
<td>• Probe: Rules and Consequences, Procedures</td>
</tr>
<tr>
<td>• What do you see as your greatest weakness as a new science teacher?</td>
<td>• Where did these rules and consequences originate from and how successful do you see them being?</td>
</tr>
<tr>
<td>• On a 5 point scale (with 5 being the highest), how successful do you expect to be as a first year teacher?</td>
<td>• Probe: Supervising teacher, mentor, college class, administrator</td>
</tr>
<tr>
<td>• Probe: Explain your answer please.</td>
<td>• What problems do you anticipate with students in the classroom?</td>
</tr>
<tr>
<td>• What kind of support do you expect to receive from other teachers in your school?</td>
<td>• What do you feel are your strengths in classroom management?</td>
</tr>
<tr>
<td>• Tell me about your classes.</td>
<td>• What do you feel are your weaknesses as it relates to classroom management?</td>
</tr>
<tr>
<td>• Probe: Size, Ability Level, Gender Breakdown, SES</td>
<td></td>
</tr>
<tr>
<td>• What are your needs now as a novice science teacher?</td>
<td></td>
</tr>
<tr>
<td>• What do you believe you need from administration to be have a successful year as a new science teacher?</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>How does the appropriation of building level and instructional resources affect their perception of administrative support?</td>
<td>- Tell me about your class schedule and duties assigned to you?</td>
</tr>
<tr>
<td></td>
<td>- Describe the assistance you have received so far as a beginning teacher?</td>
</tr>
<tr>
<td></td>
<td>- Probes: mentor, informal meetings, scheduled meetings, administrator, class</td>
</tr>
<tr>
<td></td>
<td>- Tell me about the assistance you will be receiving this year?</td>
</tr>
<tr>
<td></td>
<td>- How has your administrator helped you so far?</td>
</tr>
<tr>
<td></td>
<td>- Probe: Discipline, communication, orientation</td>
</tr>
<tr>
<td></td>
<td>- What expectations does administration have of you as a new science teacher?</td>
</tr>
<tr>
<td></td>
<td>- Probe: Hands-on, inquiry based learning</td>
</tr>
<tr>
<td></td>
<td>- What classroom supplies or instructional resources have you been provided?</td>
</tr>
<tr>
<td></td>
<td>- Probe: Office supplies, curriculum guides, textbooks, lab equipment in your room or for you to take home</td>
</tr>
<tr>
<td></td>
<td>- What technology have you been provided or anticipate needing?</td>
</tr>
<tr>
<td></td>
<td>- Probe: Computer, LCD, SmartBoard</td>
</tr>
<tr>
<td></td>
<td>- What help have you been given in developing instructional strategies for your content area?</td>
</tr>
<tr>
<td></td>
<td>- How much time do you have for lab preparations?</td>
</tr>
<tr>
<td></td>
<td>- Probe: Is this the same as a teacher’s outside of science?</td>
</tr>
<tr>
<td></td>
<td>- Do you receive additional funds for supplies to teach your classes?</td>
</tr>
<tr>
<td></td>
<td>- Probe: How do you order?</td>
</tr>
<tr>
<td></td>
<td>- What assistance, time or help have you been given for field trips?</td>
</tr>
<tr>
<td>How is a teacher’s practice in the classroom affected by administrator support?</td>
<td>- How do you describe your role as a teacher?</td>
</tr>
<tr>
<td></td>
<td>- What type of support do you expect from administration?</td>
</tr>
<tr>
<td></td>
<td>- What do you feel the role of laboratory experiences plays</td>
</tr>
</tbody>
</table>
- How many laboratory/inquiry experiences are you planning per week? Month? Semester?
- How will you know students understand?
- How will you know learning is occurring in your classroom?
- How will you maximize student learning?
- What expectations have you been given by administration?
### Appendix B

**Preparticipation Questions for Administrators**

<table>
<thead>
<tr>
<th>General Questions</th>
<th>How do you describe your role as an administrator?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How do you describe the role of a classroom science teacher?</td>
</tr>
<tr>
<td></td>
<td>What are the general demographics of each of the teacher’s classes?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Size, Ability Level, Gender Breakdown, SES</td>
</tr>
<tr>
<td></td>
<td>What do you perceive are the needs of the new science teacher?</td>
</tr>
<tr>
<td></td>
<td>What do you feel are the impediments for providing support to the new science teacher?</td>
</tr>
<tr>
<td></td>
<td>Is there anything else you would like to tell me about your school year that would be good to know?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How does administrative support influence classroom management in the novice science teacher’s classroom?</th>
<th>What do you foresee as some of the biggest challenges this teacher will face in terms of classroom behavior and management?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What are some of the considerations you have made for new science teachers in terms of scheduling?</td>
</tr>
<tr>
<td></td>
<td>• Probes: Class size, classroom location, duties, teaching schedule, planning periods, mentor selection.</td>
</tr>
<tr>
<td></td>
<td>What are some of the considerations you have made for new science teachers in terms of classroom management?</td>
</tr>
<tr>
<td></td>
<td>• Probes: Students placement with a history of discipline problems, extra training, common school discipline.</td>
</tr>
<tr>
<td></td>
<td>What types of referrals, if any are coming from the new science teacher?</td>
</tr>
<tr>
<td>How does the appropriation of building level and instructional resources affect their perception of administrative support?</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| • Tell me about the assistance the new science teachers have received?  
  • Probes: mentor, informal meetings, formal meetings, special considerations, reduced duty load  
| • What resources are you planning on providing the novice science teacher?  
  • Probe: Instruction coach, money for supplies, books, furniture  
| • What are some of the considerations you thought about when choosing a mentor for the new science teacher?  
  • Probes: Content/Grade, common planning period, room proximity, personality, age  
| • Tell me about the assistance new science teachers will receive during the year?  
| • What is the support network / hierarchy if the new teacher needs help?  
| • What preparation time is provided for lab set up and clean up?  
  • Probe: Planning Time?  
| • What funds are available to the new science teacher for lab supplies?  
| • What support has been provided for field trips?  
<table>
<thead>
<tr>
<th>How is a teacher’s practice in the classroom affected by administrator support?</th>
</tr>
</thead>
</table>
| • What are you most concerned about for this upcoming school year in terms of your new science teachers?  
| • What is the culture that you would like to transmit to the novice science teacher?  
| • Has the new science teacher implemented any advice, suggestions or directives you have made?  

### Appendix C

**Midyear Participation Questions for Teachers**

<table>
<thead>
<tr>
<th>General Questions</th>
<th>How do you describe your role as a teacher now?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tell me about the administrator you answer to?</td>
</tr>
<tr>
<td></td>
<td>What are you most concerned about for the rest of the school year?</td>
</tr>
<tr>
<td></td>
<td>What do you see as your greatest strength as a new science teacher?</td>
</tr>
<tr>
<td></td>
<td>What do you see as your greatest weakness as a new science teacher?</td>
</tr>
<tr>
<td></td>
<td>On a 5 point scale (with 5 being the highest), how successful do you expect to be as a teacher for the rest of the year? Why?</td>
</tr>
<tr>
<td></td>
<td>Tell me about your classes.</td>
</tr>
<tr>
<td></td>
<td>• Probe: Size, Ability Level, Gender Breakdown, SES</td>
</tr>
<tr>
<td></td>
<td>What are your needs now as a novice science teacher?</td>
</tr>
<tr>
<td></td>
<td>What do you believe you need from administration to be have a successful year as a new science teacher?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How does administrative support influence classroom management in the novice science teacher’s classroom?</th>
<th>Describe how your classroom management policies and procedures are working?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Probe: Rules and Consequences, Procedures</td>
</tr>
<tr>
<td></td>
<td>What types of discipline problems are you finding most common?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Talking, Cell Phones, Disrespect</td>
</tr>
<tr>
<td></td>
<td>What type of support are you receiving in dealing with classroom discipline?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Mentor, Administrator</td>
</tr>
<tr>
<td></td>
<td>Tell me about a time when you needed help from an administrator in dealing with classroom management issues?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Did they help?</td>
</tr>
</tbody>
</table>
| How does the appropriation of building level and instructional resources affect their perception of administrative support? | • How many conversations have you had about classroom management with your administrator? How have them been helpful in addressing your concerns?  

• Walk me through a typical school day for you as far as time is concerned?  

• Describe the assistance you have received so far as a beginning teacher?  
  • Probes: Degree of usefulness  

• What support have you had from administration?  

• How has your administrator helped you?  
  • Probe: Discipline, communication, orientation  

• Tell me about the assistance you will be receiving the rest of this year?  

• How do you decide what to teach and what not to teach in your science classes?  

• What opportunities have you had to have meaningful conversations with veteran teachers and administrators in a setting free of evaluation?  

• What opportunities have you had to visit and observe exemplary teachers?  

• Tell me about any classroom supplies or instructional resources have you needed or used?  
  • Probe: Did you have to wait, who did you ask for them?  

• What technology have you needed?  
  • Probe: Has it been provided?  

• Describe the duties assigned to you?  
  • Probe: Time intensive, easy, hard, the duty no one wants?  

• What time do you have for planning?  
  • Probe: Uninterrupted? Same as mentor? Duties during planning? |
<table>
<thead>
<tr>
<th>What help have you been given in developing instructional strategies for your content area?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much time are you using for lab preparations?</td>
</tr>
<tr>
<td>Have you received any additional funds for supplies to teach your classes?</td>
</tr>
<tr>
<td>Probe: If so, how have you ordered them?</td>
</tr>
<tr>
<td>What do you feel the role of laboratory experiences plays in your science class?</td>
</tr>
<tr>
<td>How many laboratory / inquiry experiences are you planning per week? Month? Semester?</td>
</tr>
<tr>
<td>What assistance, time or help have you been given for field trips?</td>
</tr>
<tr>
<td>When you meet with your mentor? Administrator?</td>
</tr>
<tr>
<td>Probe: When you meet, what do you discuss?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tell me how you have changed since the beginning of the school year as a teacher?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe: Ask about months if necessary</td>
</tr>
<tr>
<td>How have the expectations from administration of you as a teacher stayed the same or changed since the beginning of the school year?</td>
</tr>
<tr>
<td>Tell me about a time when you needed help from an administrator?</td>
</tr>
<tr>
<td>Probe: Did they help?</td>
</tr>
<tr>
<td>What kind of support have you received from other teachers in your school?</td>
</tr>
<tr>
<td>How do you decide to move on in your classroom?</td>
</tr>
<tr>
<td>How do you know students understand?</td>
</tr>
<tr>
<td>How do you know learning is occurring in your classroom?</td>
</tr>
<tr>
<td>How do you maximize student learning?</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Were you satisfied with your teaching performance since the beginning of the school year?</td>
</tr>
<tr>
<td>Describe a time that you needed help and who helped you?</td>
</tr>
</tbody>
</table>
## Appendix D

### Midyear Participation Questions for Administrators

| General Questions | • What are the general demographics of each of the teacher’s classes?  
|                   |   • Probe: Size, Ability Level, Gender Breakdown, SES  
|                   | • What do you perceive are the needs of the new science teacher?  
|                   | • What do you feel are the impediments for providing support to the new science teacher?  
|                   | • Is there anything else you would like to tell me about your school year that would be good to know?  
| How does administrative support influence classroom management in the novice science teacher’s classroom? | • Can you talk about some of the considerations you have made for new science teachers in terms of classroom management?  
|                                                               |   • Probes: Students placement with a history of discipline problems,  
|                                                               | • How has the classroom management changed in terms of improvement or worsen over the year?  
|                                                               |   • Probe: Why has it gotten worse or better? New students, change in classes, poor rapport with students?  
|                                                               | • What do you foresee as some of the biggest challenges this teacher will face in terms of classroom behavior and management?  
| How does the appropriation of building level and instructional resources affect their perception of administrative support? | • Can you tell me about the assistance the new science teachers have received?  
|                                                                |   • Probes: Degree of usefulness  
|                                                                | • Can you tell me about the assistance new science teachers will receive during the rest of the year?  
|                                                                |   • Probe: Instruction coach, money for supplies, books, furniture  
<p>|</p>
<table>
<thead>
<tr>
<th>What resources are you have you provide or are you planning on providing the novice science teacher for the next semester?</th>
<th>What are you most concerned about for this rest of the school year in terms of your novice science teacher development?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Probe: Instructional coach, money for supplies, books, desks?</td>
<td>• What funds are available to the new science teacher for lab supplies?</td>
</tr>
<tr>
<td>• Can you tell me about the assistance the new science teachers have received?</td>
<td>• Have they asked for additional funding or supplies?</td>
</tr>
<tr>
<td>• Probes: mentor, informal meetings, formal meetings, special considerations, reduced duty load</td>
<td>• What support has been provided for field trips?</td>
</tr>
<tr>
<td>• What opportunities have the new teachers had to visit and observe exemplary teachers?</td>
<td>• Have they asked to take a field trip?</td>
</tr>
<tr>
<td>• What preparation time is provided for lab set up and clean up?</td>
<td>• Planning Time? Student Assistant, Science Department Collaboration</td>
</tr>
<tr>
<td>• Probe: Have they asked for additional funding or supplies?</td>
<td>• How is a teacher’s practice in the classroom affected by administrator support?</td>
</tr>
<tr>
<td>• What are you most concerned about for this rest of the school year in terms of your novice science teacher development?</td>
<td>• What are you most concerned about for this rest of the school year in terms of your novice science teacher development?</td>
</tr>
<tr>
<td>• Can you tell me how the teacher has changed since the beginning of the year?</td>
<td>• Ask about months if necessary</td>
</tr>
<tr>
<td>• Probe: Ask about months if necessary</td>
<td>• Were you satisfied with their teaching performance so far this year?</td>
</tr>
<tr>
<td>• Can you tell me about a situation where the new teacher needed help and who they approached?</td>
<td>• Why or why not? What will you do to monitor or cause change?</td>
</tr>
<tr>
<td>• Probe: Mentor, Admin, Another Colleague</td>
<td>• Can you tell me about a situation where the new teacher needed help and who they approached?</td>
</tr>
<tr>
<td>Question</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>During your professional conversations, what is the novice teacher’s role in the decision making process</td>
<td></td>
</tr>
<tr>
<td>How is transmitting of the culture of the school being received by the novice science teacher?</td>
<td></td>
</tr>
<tr>
<td>Has the new science teacher implemented any advice, suggestions or directives you have made?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

End-of-Year Participation Questions for Teachers

<table>
<thead>
<tr>
<th>General Questions</th>
<th>How do you describe your role as a teacher now?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Will you be returning to the same position next year? Same preparations?</td>
</tr>
<tr>
<td></td>
<td>• Probe: If not, when was the decision made to leave and what influenced this decision.</td>
</tr>
<tr>
<td></td>
<td>• Probe: If yes, what are you looking forward to next year?</td>
</tr>
<tr>
<td></td>
<td>• On a 5 point scale (with 5 being the highest), how successful were you this past year as a first-year science teacher?</td>
</tr>
<tr>
<td></td>
<td>• What are you most concerned about for the next school year?</td>
</tr>
<tr>
<td></td>
<td>• Is there anything else you would like to tell me about your school year that would be good to know?</td>
</tr>
<tr>
<td></td>
<td>• Tell me about your classes.</td>
</tr>
<tr>
<td></td>
<td>• Probe: Size, Ability Level, Gender Breakdown, SES</td>
</tr>
<tr>
<td></td>
<td>• What are your needs now as a novice science teacher?</td>
</tr>
<tr>
<td></td>
<td>• What do you believe you need from administration to be have a successful year as a new science teacher?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How does administrative support influence classroom management in the novice science teacher’s classroom?</th>
<th>Describe your classroom management policies and procedures?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Probe: Rules and Consequences, Procedures</td>
</tr>
<tr>
<td></td>
<td>• What types of discipline problems are you finding most common?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Talking, Cell Phones, Disrespect</td>
</tr>
<tr>
<td></td>
<td>• Are you getting support in dealing with classroom discipline?</td>
</tr>
<tr>
<td></td>
<td>• Probe: Mentor, Administrator</td>
</tr>
<tr>
<td></td>
<td>• Tell me about a time when you needed help from an administrator in dealing with classroom management issues?</td>
</tr>
</tbody>
</table>
| How does the appropriation of building level and instructional resources affect their perception of administrative support? | • Please walk me through a typical school day for you as far as time is concerned?
• Tell me about the duties assigned to you?
  • Probe: Time intensive, easy, hard, the duty no one wants?
• How have the expectations from administration of you as a teacher stayed the same or changed since the beginning of the school year?
• Describe the assistance you received this year?
  • Probes: Degree of usefulness
• Tell me about the assistance you will be receiving next year?
• What kind of support have you received from other teachers in your school?
• What kind of support have you received from school administration?
• Do you have time for uninterrupted planning?
• How has your administrator helped you with classroom instruction and resources?
  • Probe: Discipline, communication, orientation
• When you meet with your mentor? Administrator?
  • Probe: When you meet, what do you discuss?
• What opportunities have you had to visit and observe exemplary teachers?
• Tell me about any classroom supplies or instructional resources have you needed or used?
  • Probe: Did you have to wait, who did you ask for them? |
| How is a teacher’s practice in the classroom affected by administrator support? | • What help have you been given in developing instructional strategies for your content area?
• What technology have you needed?
  • Probe: Has it been provided?
• What opportunities have you had to have meaningful conversations with veteran teachers and administrators in a setting free of evaluation?
• Describe a time that you needed help within your classroom and who helped you?
| • How many laboratory / inquiry experiences did you plan per week? Month? Semester?
• How have you have changed over the past school year as a teacher?
  • Probe: Ask about months if necessary
• How do you decide what to teach and what not to teach in your science classes?
• How do you decide to move on in your classroom?
• How do you know students understand?
• How do you know learning is occurring in your classroom?
• How do you maximize student learning?
• Were you satisfied with your teaching performance this year
  • Probe: Why or why not? Will it stay the same for the upcoming months?
• What do you see as your greatest strength as a new science teacher?
• What do you see as your greatest weakness as a new science teacher? |
Appendix F

End-of-Year Participation Questions for Administrators

<table>
<thead>
<tr>
<th>General Questions</th>
<th></th>
<th>Will your novice science teachers participating in this study be returning for the following school year?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Probe if answer is no.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Will the teacher be returning to the same position next year? Same preparations?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Probe: If not, when was the decision made to not rehire and what influenced this decision.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Probe: If yes, what are you looking for them to change for the next year?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What are the general demographics of each of the teacher’s classes?</td>
</tr>
<tr>
<td></td>
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<td>Probe: Size, Ability Level, Gender Breakdown, SES</td>
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<td></td>
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<td>What do you perceive are the needs of the new science teacher?</td>
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<td>What do you feel are the impediments for providing support to the new science teacher?</td>
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<td>How much more time did participating in this study involve than what you would normally spend with novice science teachers?</td>
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<td></td>
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<td>Has this process resulted in developing the teacher’s practice?</td>
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<tr>
<td></td>
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<td>Is there anything else you would like to tell me about your school year that would be good to know?</td>
</tr>
<tr>
<td>How does administrative support influence classroom management in the novice science teacher’s classroom?</td>
<td></td>
<td>How has the classroom management changed in terms of improvement or worsen over the year?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Probe: Why has it gotten worse or better? New students, change in classes, poor rapport with students?</td>
</tr>
<tr>
<td>Table</td>
<td>Questions</td>
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</tbody>
</table>
| How does the appropriation of building level and instructional resources affect their perception of administrative support? | What do you foresee as some of the biggest challenges this teacher will face in terms of classroom behavior and management?  
What changes have they made based on your professional conversations, advice and directives over the year?  
Tell me about the assistance the new science teachers have received?  
Describe the assistance new science teachers will receive next year?  
What opportunities have the new teachers had to visit and observe exemplary teachers?  
What preparation time was provided for lab set up and clean up?  
What funds were available to the new science teacher for lab supplies?  
What support has been provided for field trips?  
How is a teacher’s practice in the classroom affected by administrator support?  
What are you most concerned about for the next school year?  
How has the novice science teacher changed over the past school year as a teacher? What do you feel attributed to this change?  
Were you satisfied with the teacher’s teaching performance this year?  |
| | Probes: Degree of usefulness  
Probe: Instructional coach, money for supplies, books, desks?  
Probe: Did they ask for additional funding or supplies?  
Probe: Have they asked to take a field trip?  
Probe: Ask about months if necessary  
Probe: Why or why not? What will you do to monitor or cause change?  |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>• During your professional conversations, what is the novice teacher’s role in the decision making process</td>
</tr>
<tr>
<td>• How is the novice science teacher adjusting to the culture of the school?</td>
</tr>
<tr>
<td>• Has the new science teacher implemented any advice, suggestions or directives you have made?</td>
</tr>
</tbody>
</table>
Appendix G

Questions for Reflection Journals

- What celebrations did you have over the past two weeks?
- What frustrations are you experiencing over the past two weeks?
- What support and from whom have you received that support over the past weeks?
- What changes do you hope to implement in the upcoming weeks?
## Appendix H

Discipline Referral Totals

<table>
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<tr>
<th>Month</th>
<th>Types of Referrals</th>
<th>Number of Each Type</th>
<th>Consequences</th>
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<td>March</td>
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Appendix I

ET1: Classroom Observation Form

Teacher’s name: ____________________  Course: ____________________

District: ____________________  School: ____________________

Date: ___________  Time: from ___________ to ___________

Lesson topic: ____________________  Observer: ____________________

Domain 2: Instruction

**APS 4: Establishing and Maintaining High Expectations for Learners**

An effective teacher establishes, clearly communicates, and maintains appropriate expectations for student learning, participation, and responsibility.

A. What did the teacher expect the students to learn from the lesson? How did the teacher convey the purpose and relevance of the lesson to the students? In what ways did the students demonstrate that they understood what the teacher expected for them to learn?

B. What did the teacher expect the students to do during and after the lesson? How did the teacher convey expectations for student participation and for accomplishing related assignments and tasks? In what ways did the students demonstrate that they understood what the teacher expected them to do?

C. How did the teacher help the students take ownership of the learning (e.g., by making the learning relevant to the students, using scaffolding, providing opportunities for students to engage in self-assessment and reflection, teaching compensatory strategies when necessary)?

**APS 5: Using instructional strategies to facilitate learning**

An effective teacher promotes student learning through the effective use of appropriate instructional strategies.

A. What instructional strategies did the teacher use during the lesson?

B. In what ways did the teacher vary the instructional strategies during the lesson, and why?
### APS 5: Using instructional strategies to facilitate learning

**AN EFFECTIVE TEACHER PROMOTES STUDENT LEARNING THROUGH THE EFFECTIVE USE OF APPROPRIATE INSTRUCTIONAL STRATEGIES.**

C. What evidence suggests that the instructional strategies were—or were not—effective in terms of promoting student learning and success?

### APS 6: PROVIDING CONTENT FOR LEARNERS

**AN EFFECTIVE TEACHER POSSESSES A THOROUGH KNOWLEDGE AND UNDERSTANDING OF THE DISCIPLINE SO THAT HE OR SHE IS ABLE TO PROVIDE THE APPROPRIATE CONTENT FOR THE LEARNER.**

A. What evidence suggests that the teacher did—or did not—have a thorough knowledge and understanding of the content? If content errors were made, did the teacher recognize and correct them?

B. What was the content of the lesson, and how did the content relate to the learners and the learning?

C. How did the teacher organize and present the content in order to make it clear and meaningful to the students and to promote higher levels of knowledge, skills, and/or cognitive processing?

### APS 7: MONITORING, ASSESSING, AND ENHANCING LEARNING

**AN EFFECTIVE TEACHER MAINTAINS A CONSTANT AWARENESS OF STUDENT PERFORMANCE THROUGHOUT THE LESSON IN ORDER TO GUIDE INSTRUCTION AND PROVIDE APPROPRIATE FEEDBACK TO STUDENTS.**

A. How did the teacher monitor student engagement, understanding, and performance during the lesson?

B. What adjustments, if any, did the teacher make during the lesson, and why?

C. What types of instructional feedback did the teacher provide to the students, and how effective was the feedback in terms of enhancing student learning?

### Domain 3: Environment

### APS 8: MAINTAINING AN ENVIRONMENT THAT PROMOTES LEARNING

**AN EFFECTIVE TEACHER CREATES AND MAINTAINS A CLASSROOM ENVIRONMENT THAT ENCOURAGES AND SUPPORTS STUDENT LEARNING.**

A. Describe the physical environment of the classroom.
**APS 8: MAINTAINING AN ENVIRONMENT THAT PROMOTES LEARNING**
AN EFFECTIVE TEACHER CREATES AND MAINTAINS A CLASSROOM ENVIRONMENT THAT ENCOURAGES AND SUPPORTS STUDENT LEARNING.

<table>
<thead>
<tr>
<th>B. What type of affective climate did the teacher create for the students?</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. In what ways did the teacher establish a culture of learning in the classroom (e.g., by facilitating inquisitiveness, motivation to learn, cooperation, teamwork)?</td>
</tr>
</tbody>
</table>

**APS 9: MANAGING THE CLASSROOM**
AN EFFECTIVE TEACHER MAXIMIZES INSTRUCTIONAL TIME BY EFFICIENTLY MANAGING STUDENT BEHAVIOR, INSTRUCTIONAL ROUTINES AND MATERIALS, AND ESSENTIAL NONINSTRUCTIONAL TASKS.

<table>
<thead>
<tr>
<th>A. What were the teacher’s expectations for student behavior? In what ways did the students demonstrate that they understood the ways in which they were expected to behave? How did the teacher address inappropriate student behaviors, if any, during the lesson?</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. In what ways did the teacher maximize—or fail to maximize—instructional time?</td>
</tr>
<tr>
<td>C. How did the teacher manage noninstructional routines and transitions between activities and/or classes?</td>
</tr>
</tbody>
</table>

**Additional comments:** (optional)
Appendix J

Reidville High School Walk-Through Observation Form

Dorman High School
Walk-Through Observation

Teacher: _______________ Date: ____________
Subject: _______________ Period: ___________
Observer: ___________________________
Instructional Objective: ____________________

Effective Teaching Practices Observed:
☐ Teacher demonstrates effective classroom management skills
☐ Teacher is positive, enthusiastic and energetic
☐ Teacher is helpful to all students
☐ Teacher is well prepared
☐ Teacher addresses disruptive behavior consistently
☐ Teacher has developed a positive, caring learning environment
☐ Teacher uses smooth transitions
☐ Teacher uses effective questioning techniques
☐ Teacher uses a variety of instructional strategies
☐ Teacher uses a variety of assessment techniques
☐ Teacher allows students the opportunity to practice skills
☐ Teacher’s use of content is free of errors
☐ Teacher interacts with students

Student Activities Observed:
☐ Students are actively engaged in learning
☐ Students interact with teacher
☐ Students interact with each other
☐ Students demonstrate an understanding of objective being presented

Description of Classroom Culture:

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## Appendix K

### List of Artifacts

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<td>Carter, Lucy</td>
<td>Preparticipation Interview Interview</td>
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<td>October 15, 2012</td>
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REFERENCES


