ALTERNATIVE CERTIFICATION TEACHER DEVELOPMENT: A STUDY OF NOVICES’ PLANNING AND IMPLEMENTATION OF DIFFERENTIATED INSTRUCTION

By

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To my Grandma
ACKNOWLEDGMENTS

I thank my parents for their unwavering support. I also thank Diane for her constant pushes and encouragement, Nancy for helping me talk it out, Dorene for helping me do no harm, and Rod Webb for the reminder that the answer is in the data. Finally, I thank Jennifer and Stephanie for listening to my frustrations and reminding me to take baby steps.
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### THE CASE OF ROSE

**Rose’s Snapshot**

**Analysis Themes**

- **Collegial Relationships:** Collegial Relationships Strengthen Planning
- **Classroom Management:** Classroom Management Facilitates Growth
- **Planning for a Standard:** Linking Lesson Components Strengthens Planning
- **Planning for Student Need:** Knowing Students Enables Differentiation
- **Openness to Consider Feedback in Planning:** Embracing Feedback Strengthens Planning

**Self-Regulation as an Over-Arching Theme**

**Rose’s Ability to Self-Regulate within Each Theme**

- **Collegial Relationships**
- **Classroom Management**
- **Planning for a Standard**
- **Planning for Student Needs**
- **Openness to Consider Feedback in Planning**

**Conclusion**

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### THE CASE OF MARY

**Mary’s Snapshot**

**Analysis Themes**

- **Collegial Relationships:** Collegial Relationships Strengthen Planning
- **Classroom Management:** Classroom Management Facilitates Growth
- **Planning for a Standard:** Linking Lesson Components Strengthens Planning
- **Planning for Student Need:** Knowing Students Enables Differentiation
- **Openness to Consider Feedback in Planning:** Embracing Feedback Strengthens Planning

**Self-Regulation as Over-Arching Theme**

**Mary’s Ability to Self-Regulate within Each Theme**

- **Collegial Relationships**
- **Classroom Management**
- **Planning for a Standard**
- **Planning for Student Needs**
- **Openness to Consider Feedback in Planning**

**Conclusion**

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### THE CASE OF JANE

**Jane’s Snapshot**

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<td>Alternative Certification</td>
<td>State certification for those teacher candidates who did not graduate from a college or university with a degree in education.</td>
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<tr>
<td>Instructional Planning</td>
<td>The planning a teacher does in order to prepare instructional lessons for a classroom. By state requirements, these lessons need to include state standards.</td>
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<tr>
<td>Differentiated Instruction</td>
<td>As defined by Tomlinson (2001), “provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively.”</td>
<td></td>
</tr>
<tr>
<td>Coach</td>
<td>The individual working at each school to provide support to the apprentice teachers. This person is responsible for observing the apprentice teachers, providing feedback and support as needed, and providing apprentices with instruction during weekly seminars. In this case this person is specifically working for the University.</td>
<td></td>
</tr>
<tr>
<td>Mentor teacher:</td>
<td>The teacher of record with whom the apprentice works most closely. The apprentice joins the mentor’s classroom.</td>
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<tr>
<td>Apprentice:</td>
<td>A person who is enrolled in the Transition to Teaching (TTT) program for Alternative Certification, working towards certification for grade levels 1-6. The apprentice works in the mentor’s classroom each day, and the mentor slowly passes responsibility for planning and classroom management to the apprentice teacher.</td>
<td></td>
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<tr>
<td>Self-regulation:</td>
<td>The skill a teacher uses to pro-actively reflect on and make change to her practice.</td>
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The nation continues the struggle to provide qualified teachers to every classroom. Teachers are entering the classroom through multiple alternative routes and as a result, many new teachers are learning how to teach with limited knowledge of effective teaching methods and practices. The purpose of this study was to understand how apprentice teachers in an Alternative Certification Elementary Apprenticeship Program develop in their planning and implementation of Differentiated Instruction. The apprentice teachers followed during this study simultaneously took classes geared towards certification readiness and apprenticed in elementary school classrooms for one full year. The research question driving this study is, “How do apprentice teachers in the Alternative Certification Program in a Florida urban school district develop in their planning and implementation of Differentiated Instruction?” The sub-questions in this study include: “What are the key elements that facilitate or inhibit alternatively certified teacher planning for differentiated instruction?”

A qualitative case study approach using purposeful sampling methods was used to select three elementary apprentice teachers. Lesson plans, reflections on practice, and observation notes were collected for each apprentice teacher, and analyzed in search of unifying themes related to
teacher development in lesson planning skills. Five major themes were identified as influencing
the planning process, and the stages representing each apprentice’s growth within each theme
emerged on a continuum moving from emerging, to developing, to accomplished. The major
themes included: collegial relationships, classroom management, planning for a standard,
planning for student need, and openness to considering feedback in lesson planning. In looking
across each of these themes, the degree to which the apprentice developed self-regulation highly
influenced their ability to plan and implement differentiated instruction. The findings of this
study will benefit teacher educators, teachers earning alternative certification, their coaches, and
their mentor teachers. Knowing the areas in which apprentice teachers need to succeed will make
it possible for educators and supervisors to stress those areas as they coach alternatively certified
novice teachers. Furthermore, the themes made explicit in this study will also allow apprentice
teachers to be cognizant of what it takes to develop as a teacher.
CHAPTER 1
INTRODUCTION

The recent federal mandates influenced by the No Child Left Behind Act (2001) have had an impact on staffing schools throughout the nation. One of the requirements of the act is that a “highly qualified teacher” must teach each child. The United States Department of Education predicts that by the 2008-09 school year between 1.7 and 2.7 million teachers will be needed to fill vacancies in public schools (Salyer, 2003). Although universities in the United States are producing a large number of education graduates, the National Commission on Teaching and America’s Future states that nearly one-fourth of new teachers leave the profession within their first three years of teaching (as cited in Curran and Goldrick, 2002). In urban areas, the attrition rate is even greater since about half of the new teachers in urban schools leave the profession within five years (National Commission on Teaching and America’s Future 2002, as cited in Curran and Goldrick, 2002). Furthermore, teachers working in schools in which the minority enrollment is greater than 50% tend to leave at rates more than twice those of teachers in schools with fewer minorities (NCES, 1998 as cited in Haycock, 2000).

Alternative Certification programs have been developed to recruit people possessing bachelor’s degrees or higher in another area of study to a teaching position. These programs vary by school district, but the shared goal of placing qualified teachers in classrooms remains the same. Feistritzer and Chester (2000) described a taxonomy of teacher certification consisting of nine approaches to certification. The approaches articulated in the Feistritzer and Chester taxonomy are outlined using Classes A through I (Table 1). In addition, a tenth class (Class J) has emerged as school districts offer opportunities for paraprofessionals to prepare themselves to be teachers of record. Each Class incorporates varying degrees of mentorship as well as placement within different grade levels and subject areas. Programs such as these are necessary
due to the high number of openings in schools, especially in urban settings, where approximately half of new teachers leave within five years (National Commission on Teaching and America’s Future 2002, as cited in Curran & Goldrick, 2002).

Alternatively prepared teachers often earn their teaching certificates by taking certification classes each year while they teach full time. Typically, teachers with the least amount of teaching experience are most often found in high-poverty schools (Carey, 2004), and often beginning teaching in high-poverty schools brings special challenges, many of which are difficult for an experienced teacher to handle. First, because these alternative entry teachers have not previously taken child development, planning, methods, or classroom management classes, they are sometimes unprepared for the rigors of being a teacher. Second, although research indicates that teachers teach best the subjects they know best, only one-third of teachers in high-poverty schools are certified to teach their subject (Carey, 2004). Third, many alternatively certified teachers secure jobs in schools much different from those they attended as students, since many teachers are middle-class white women working in often high-needs school. In order to counter these challenges, alternatively certified teachers often need additional support in order to create, instruct, and evaluate curricula that can maximize student learning (Haberman, 1991). These teachers need to develop the ability to successfully plan for student learning as well as use a gamut of teaching strategies and instructional methods (Berry, 2001; Haberman, 1991). By engaging in professional development targeted at these areas, they will be better prepared for their classrooms.

For those entering the teaching profession, learning to plan lessons appropriate both for students’ needs and grade level requirements is imperative. According to Ornstein (1997), novice teachers need to practice writing plans, and then implement those plans into their student
teaching placements in order to gain the experience needed to bring what is learned in teacher education classes into their lessons. Without this experience, novice teachers will have difficulty bringing what is discussed in class to a live student audience. John (1991) agrees that practical experiences are the primary influence on how novice teachers learn to plan. Because the importance of practical experience is a common theme in the existing literature, it is crucial that Alternative Certification teachers, many of whom do not receive the breadth of methods classes that education majors receive in their university programs, are given plenty of opportunities to plan and implement their lessons so they can gain personal experiences with students to enable them to plan more relevant lessons as they further their practice.

Almost all of the elementary students attending the schools of the apprentices participating in this study are Black. Two of the apprentice participants are white women. Because of the different culturally backgrounds of the apprentices and the students they serve, culturally responsive teaching strategies are necessary. According to Ladson-Billings (1995), one of the three criteria for culturally responsive teaching is for all students to “experience academic success.” One of the ways to ensure learning by all is through Differentiated Instruction. Applying Differentiated Instruction strategies allows a teacher to meet the varied needs of all students by adjusting how students present information they have learned and how the students learn new material (Tomlinson et al., 1995). Planning for Differentiated Instruction takes additional work on the teacher’s part because the teacher needs to create modifications to the original lesson plan that are specifically tailored for groups of students. Because this method of planning takes time and practice to master, collaboration is suggested (Lawrence-Brown, 2004). Additionally, lesson planning with individual students’ needs in mind is a critical part of learning to teach students in a high-needs environment.
Thus, the purpose of this research is to understand Alternative Certification candidates and their development in planning differentiated lessons. The literature already elucidates the importance of developing the professional skills of alternatively certified teachers, and the importance of implementation opportunities in learning to plan for instruction. However, less is understood about the elements that influence the degree to which Alternative Certification novices plan to address student needs through Differentiated Instruction. Therefore, the research question for this study is: How do apprentice teachers in the Alternative Certification Program in a Florida urban school district develop in their planning and implementation of Differentiated Instruction? The sub-questions in this study include: What are the key elements that facilitate or inhibit alternatively certified teacher planning for Differentiated Instruction?

In order to answer this question, data gathered during observations and conferences with the apprentices was collected, as well as lesson plans, portfolio submissions, and personal communications written by the apprentices. The three apprentices selected to participate in this study represented one high-poverty elementary school in an urban school district in Florida. All apprentices were female. One limitation to this study was scheduling. There were many times throughout the year when an observation needed to be rescheduled due to conflict. There were times when a rescheduled lesson did not go through the revision process, or it may have been taught out of context in the classroom. Additionally, because I only taught three workshops on differentiation, and then observed and attended conferences regarding those three subsequent lessons, a second limitation is the limited number of lesson plans for analysis. There may have been further instances where differentiation was used that were not captured. Finally, it was often difficult to find evidence of self-regulation within the themes due to the limited reflection-type questions the apprentices answered. Questions designed to probe the apprentices’ thinking
regarding how they decided to make or not make particular changes to their plans would have
provided valuable information regarding their development in self-regulating their teaching.
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<td>A</td>
<td>This class is designed to attract “talented” individuals with at least a bachelor’s degree in a field other than education. These programs are not restricted to teacher shortages. These programs provide necessary mentoring and instruction before, during, and after the school year.</td>
</tr>
<tr>
<td>B</td>
<td>This class follows the same guidelines as class A in terms of recruitment. The only difference is that these programs provide specifically designed mentoring and formal instruction. In addition, these programs are restricted to shortage and/or secondary grade level and/or subject areas.</td>
</tr>
<tr>
<td>C</td>
<td>This class reviews the individual’s professional and academic background. Participants receive individualized in-service training and coursework necessary to reach competencies required for certification. State and local school districts have major responsibility for program implementation.</td>
</tr>
<tr>
<td>D</td>
<td>This class follows the same guidelines as class C except an institution of higher education has major responsibility for program implementation.</td>
</tr>
<tr>
<td>E</td>
<td>This class includes post-baccalaureate programs which are based at an institution of higher education.</td>
</tr>
<tr>
<td>F</td>
<td>This class includes the preparation of teachers through emergency teacher certification implemented by local school districts. Prospective teacher are issued emergency certificates that allow them to teach. These teachers do not receive the same support as class A or B teachers. These teachers are expected to complete the traditional teacher education courses requisite for full certification.</td>
</tr>
<tr>
<td>G</td>
<td>This class allows individuals who have few requirements left to fulfill before becoming certified through the traditionally approved college teacher education program. This can be individuals with a minor in education, certified individuals relocating from another state, certified individuals in one content area seeking to become certified in another, and individuals in other Alternative Certification programs changing to another program.</td>
</tr>
<tr>
<td>H</td>
<td>This class allows individuals with “special” qualifications to teach certain subjects. For example, Toni Morrison could teach African- American Literature without certification.</td>
</tr>
<tr>
<td>I</td>
<td>Some states refuse to offer alternative routes to teaching.</td>
</tr>
<tr>
<td>J</td>
<td>This class encourages individuals interested in becoming teachers who do not yet have a bachelor’s degree to work as paraprofessionals as they become certified to teach. (Not part of Feistritzer and Chester’s Framework).</td>
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CHAPTER 2
REVIEW OF THE LITERATURE

Given that this study focused on understanding how apprentice teachers in the Alternative Certification Apprenticeship Program of an urban school district in Florida develop in their planning and implementation of Differentiated Instruction, this review of the literature provides an overview of four major areas of research that underpin, situate, and inform this study. The four areas include Alternative Certification, planning, Differentiated Instruction, and self-regulation. Although not exhaustive, this review makes a case for the importance of the study as well as identifies self-regulatory processes that could potentially influence teacher development in the area of instructional planning.

**Alternative Certification**

In reviewing the conceptual and empirical alternative approaches to certification literature, a number of essential elements emerge as central to the growth and retention of quality teachers. These elements, presented in Table 2.1, fall under two overarching themes: Quality Control, which is often viewed as a bureaucratic and gate keeping function, and Professional Development, which focuses on teacher learning within a specific teaching context. In combination, the elements that emerge under these two themes offer insight into the structures that support quality teacher preparation and enhance the likelihood of retaining these newly recruited and highly needed teachers.

The elements that are included within the Quality Control theme highlight the importance of: 1) the evaluation of new teachers (Brooks, 1987), 2) the documentation and evaluation of the teacher preparation activities (Haberman, 1991, 2002; Haberman and Rickards, 1990), 3) a viable selection process used to identify successful teaching candidates for specific contexts (Haberman, 1991), and 4) the monitoring of candidate progression towards certification (Huling-
Austin, 1990). The second theme that underpins quality preparation of alternatively certified teacher candidates is Professional Development (Huling-Austin, 1990; Darling-Hammond, 1992; McKibbin & Ray, 1994; Bradshaw & Hawk, 1996; Jelmberg, 1996; Miles-Nixon & Holloway, 1997; Berry, 2001). The elements identified as essential under the umbrella of Professional Development include: 1) a mentored field experience of substantial duration (Berry, 2001; Feistritzer, 1996, 1998; Feistritzer & Chester, 2000; Haberman, 1991; and Huling-Austin, 1990), and 2) the development of contextually sensitive professional knowledge. Berry (2001) indicates that effective alternative preparation programs appear to last from 9 to 15 months with substantial mentoring support. This mentored field experience necessitates a skilled mentor who can provide one-on-one teacher support targeted at the teacher’s own classroom, own students, and unique professional challenges. According to Feiman-Nemser (1999), good mentoring is a complex activity that is essential for entry into the profession. Quality mentoring requires careful mentor preparation and support within a work context that enables mentors to work with novice teachers.

In addition to the element of providing quality mentoring within the field experience, efforts must also be made to cultivate the professional knowledge essential to enhancing teacher performance (Feistritzer & Chester, 2000). The professional knowledge element must be contextually sensitive and influence the format of the induction program (Brooks, 1987). This effort requires opportunities for teaching candidates to: deepen content knowledge (Berry, 2001), enhance their repertoire of instructional methods (Berry, 2001; Haberman, 1991), develop strong classroom management skills that are effective for the student population being served (Berry, 2001; Haberman, 1991), prepare teachers to understand, implement, monitor, and develop curricula that is appropriate for their students (Haberman, 1991), and enhance teacher knowledge
of the context, politics, and culture of schools and teaching (Huling-Austin, 1990). As indicated, the alternative preparation of teachers requires a complex interaction between teacher learning and structural support targeted at enhancing teacher performance.

Given that these elements are central to alternative entry for teaching candidates, a review of the literature by Darling-Hammond, Wise, & Kline (1999) and Marchant (1990) found that alternatively prepared teachers had difficulty with a particular subset of these professional activities: curriculum development, pedagogical knowledge, classroom management, attention to learning styles, and organizational skills. Additionally, Cleveland (2003) echoed concern for these factors as he identified organization/disorganization, support/lack of support, coursework, mentoring, time, and frustration as challenges alternatively certified teachers face.

Adding to this complexity, the measurement of teacher quality is also complicated by multiple orientations toward the knowledge base of teaching. For example, Darling-Hammond & Berry (1988) articulated the presence of two dominant orientations to teacher preparation. The first is the bureaucratic orientation that emphasizes techniques, tools, and methods as central to teacher learning and effective teaching. The second orientation recognizes the professional nature of teaching that requires moving beyond techniques, tools, and methods to emphasize the complex decision-making that teachers must engage in on behalf of children. Current definitions of teacher competence emerge from the National Board for Professional Teacher Standards (NBPTS), the Interstate New Teacher Assessment Support Consortium (INTASC) and the National Council for Accreditation of Teacher Education (NCATE). According to Mitchell, Robinson, Plake, & Knowles (2001), these three sets of standards “explicitly acknowledge that teachers’ actions or performances depend on many kinds of knowledge and on dispositions to use that knowledge and to work with others to support the learning and success of all students”
As a result, the professional, rather than the bureaucratic orientation, needs to be evident in the framework for developing the complex professional knowledge necessary for the growth of alternatively certified teachers.

In summary, literature on Alternative Certification stresses a need for quality mentoring of the teacher candidate by a strong teacher of record (Berry, 2001; Feistritzer, 1996, 1998; Feistritzer & Chester, 2000; Haberman, 1991; and Huling-Austin, 1990). Additionally, much attention is focused on the evaluation of new teachers and what criteria are considered in determining whether a new teacher is successful. Most literature agrees that teaching is more than the interactions between the teacher, the content, and the students. Teaching also includes professional knowledge that integrates content knowledge, curriculum development, pedagogical knowledge, classroom management, and attention to learning styles. This type of knowledge is referred to as pedagogical content knowledge (PCK) (Grossman, 1990). It is within the area of cultivating PCK that many novice teachers struggle (Darling-Hammond, Wise, & Kline, 1999; Marchant, 1990). Unanswered in the literature is how teacher educators can develop this needed professional knowledge in alternatively certified teachers as they enter and work within the classroom. Additionally, how can teacher educators provide this support “just in time,” before the issues become serious problems in these new teachers’ classrooms?

**Planning**

One area of teacher development that contributes to developing a professional rather than a bureaucratic orientation to teaching is the central role of the teacher in planning for instruction. The professional orientation relies on the teacher as a curricular decision-maker and this orientation is needed for the implementation of Differentiated Instruction. In learning to plan and develop a classroom curriculum, a teacher needs have not only content knowledge, but also pedagogical content knowledge, and an ability to plan for specific student needs through the use
of Differentiated Instruction. The sections that follow illustrate the concepts of pedagogical content knowledge, Differentiated Instruction, and lesson planning which are each essential to understanding the professional knowledge orientation to learning to teach.

**Pedagogical Content Knowledge**

By developing a novice’s ability to plan for instruction, the novice will become better prepared to make professional decisions based on complex professional knowledge. The most complex form of professional knowledge is referred to as pedagogical content knowledge (PCK), and PCK prominently appears in the process of instructional planning. Building on Grossman (1990), Shulman (1986, 1987), and Magnusson et al’s (1999) work, pedagogical content knowledge is the teacher’s ability to transform content knowledge into pedagogy by planning learning experiences that organize and represent the knowledge and processes of a content area in light of particular contexts and students. The construction of PCK is an intellectually demanding and complex activity that cannot be captured in a curriculum designed to allow little teacher input. PCK requires the teacher to be a skilled decision maker who integrates and crafts the features of content, context, students, self, and pedagogy in unique ways. Developing novice teachers as decision makers who can cultivate pedagogical content knowledge is essential in teacher preparation. Alternatively prepared beginning teachers, who are often placed in urban schools, must construct the pedagogical content knowledge necessary to design, implement, assess, and adjust instruction to some of the most challenged students in some of our hardest to teach contexts. One way to cultivate and access the development of PCK is by attending to the process of instructional planning.

Given that few have investigated this notion of how alternatively certified novice teachers develop in their ability to plan for Differentiated Instruction, I expanded the search terms used to include traditional teacher preparation and professional development efforts. As a result, the
literature for this review of instructional planning comes from a search of three databases: WilsonWeb, ERIC, and the Professional Development Collection of EBSCOHost. Search terms included: pre-service teachers, Differentiated Instruction, differentiation, curriculum development, interns, teachers, coaching, Alternative Certification, planning, and lesson planning. These terms were searched individually and in combination. This literature, although not exhaustive and, in some cases, focused on other pathways to teaching, sets the stage for helping us understand how alternatively certified teachers, those gaining certification through means other than a four-year degree granting university teacher education program, develop in their ability to plan for instruction.

Given that a lesson plan is a way for a teacher to systematically and purposefully develop a guide for facilitating student learning, teachers need to incorporate learning and instructional theory into their planning process (Panasuk & Todd, 2005). Existing literature discusses the need for prospective teachers to practice writing and implementing their lesson plans in an authentic classroom setting in order to learn how to write lesson plans (Davenport & Smetana, 2004; Ornstein, 1997). Ornstein (1997) also argues that learning how to plan solely in teacher education classes is only moderately effective; instead, novice teachers need to observe and talk with veteran teachers about their lessons. Once novice teachers gain classroom experience, Ornstein (1997) says, they are better able to target instruction to student needs and abilities. Given these findings, the opportunity to implement planned lessons within an authentic classroom context appears critical to novice teacher development in the area of planning for instruction.

In his conceptual piece, Ornstein (1997) also describes the parts of a lesson plan and how a novice teacher begins to plan for each section. Ornstein discusses the components of an inclusive
lesson plan: objective, attention-grabber, activities/content, methods, materials, summary, and assessment/homework. He further explains that novice teachers’ lessons at first focus on what the teacher is doing throughout the lesson, and eventually the teacher’s gaze shifts to a focus on students’ needs and what students are learning. Additionally, Davenport & Smetana (2004) emphasized in their conceptual piece that when teachers write detailed lesson plans, they are able to develop stronger lessons. They (Davenport & Smetana, 2004) further state that, although many new teachers try to avoid writing detailed lessons, doing so means they are thinking through the lessons, thus creating stronger lessons than they would otherwise.

The research on planning also identifies phases that emerge as teachers develop. For example, a number of studies describe how novice teachers’ ability to plan appropriate lessons develops through time and with experience (John, 1991; Kim & Sharp, 2000; Thompson & Smith, 2004). John (1991) explains the growth in planning exhibited in the specific cases of five preservice, secondary teachers over the course of their internship year. His study centered on several research questions geared toward the thought practices of these five interns. Further, this study tried to determine what factors influenced the perspectives of novice teachers in writing their lesson plans. John (1991) found evidence that the interns moved through specific developmental phases in their planning, planning for student need, and available resources before incorporating subject matter. In the first of these stages, preservice teachers think about what they want to teach, including the topic, resources, and activities; they may consult with colleagues in this phase. During the second stage, preservice teachers more formally consider those ideas and organize them into a narrower idea of what can be done in their specific classroom. Finally in the third phase, preservice teachers put their ideas together into the actual classroom plan, which may be then used to guide them during the presentation of the lesson. As
they gained practical experience, a key influence to their planning, the preservice teachers passed through these stages more quickly (John, 1991).

One component of instructional planning that research indicates is difficult for novice teachers to develop is purposeful strategy selection. Kim and Sharp (2000) noted that, although preservice teachers may understand the importance of incorporating specific learning strategies into their lessons, they were unable to clearly explain either a particular strategy or when to use it. Anhalt, Ward, & Vinson (2006) found that over time, preservice teachers assign more tasks to the students, rather than filling the lesson with lecture and teacher constructed activities. By taking the work away from themselves and giving it to their students, novice teachers are increasing the active learning time their students receive. In their qualitative study of elementary education majors in a mathematics methods class, Anhalt, et al. (2006) illustrated that the types of tasks changed during the course of the semester as well, with an increase in tasks that encourage student thinking. Thompson and Smith’s study (2004), focusing on the development of a new university program for preparing prospective teachers to teach in a high needs, urban setting, found that given time to experience planning, preservice teachers felt they were better able to meet both long and short term student needs. The key, however, is time spent implementing those plans in a student classroom.

Research on field experiences has historically indicated the power of the teaching context in influencing novice teachers’ approaches to teaching. In line with that research, this study (Kim & Sharp, 2000) determined that the transfer of instructional strategies from the methods class to the prepared lesson plan was limited at best. Similarly, Jones and Vesilind (1996) found that lesson plans created by middle-grades preservice teachers changed through their field
experiences to reflect their experiences in their field placements rather than due to what they were learning during their university methods classes.

Another complication related to planning for instruction highlights the difficulty of automatizing novices’ process for instructional planning based on the student learning goal. Although preservice teachers could explain the value in planning a lesson by starting with the required standard or chosen objective, many still planned their lessons around their chosen activity, believing they would improve this order with experience (Strangis, Pringle, & Knopf, 2006).

As indicated, developing pedagogical content knowledge is an intellectually demanding and complicated process that takes time and first hand experience. Novice teachers must have authentic experiences if they are to create this professional knowledge and assume a professional orientation to teaching. These authentic experiences provide a living text that influences their instructional planning decision making. Without authentic experiences, they are creating lessons for students without attention to the unique variation in student needs within a class and without a deep understanding of each student’s unique needs. The literature does indicate that these planning experiences allow novices to shift their lessons from teacher-centered to student-centered activities as they strengthen their planning ability.

Differentiated Instruction

As discussed, the instructional planning process requires teachers to use pedagogical content knowledge to make decisions regarding strategies and content, based on the specific needs of the students in the teacher’s classroom. By differentiating instruction, teachers learn how to make these planning decisions in light of particular students and contexts. Differentiated Instruction (DI) is an approach that recognizes the strengths and weaknesses of diverse learners and requires the teacher to base instructional accommodations on those strengths and weaknesses
(Tomlinson, 2001). Specifically, DI strategies are used by the teacher to adjust the content, process, or product of instruction depending on the needs of the students (Tomlinson, 2001). To date, little empirical research has focused on how prospective teachers develop their understanding of planning for instruction and for using DI strategies. Additionally, only a handful of studies have explicitly explored how the coaching process can help support teacher development in the areas of instructional planning and Differentiated Instruction.

Differentiated Instruction is an approach to teaching that allows students the opportunity to gain, process, or present their learning in a manner that addresses their readiness level, interest, or learning style (Tomlinson, 2001). Differentiated Instruction increases learning for all students by incorporating active learning, student interest, and student learning style into lessons (Lawrence-Brown, 2004). McTigue and Brown (2005) agree that effective instruction takes into account these individual differences, and that active, purposeful learning, as promoted by differentiating, is the best way for students to learn. Davenport and Smetana (2004) also state that teacher candidates must learn to differentiate instruction if they are to meet the needs of all students.

Teaching in this manner allows all students to learn at their level, including both gifted students and those with learning disabilities. Curriculum for students with severe disabilities should be prioritized so they are learning both the goals on their Individualized Education Plans and their appropriate grade-level standards (Lawrence-Brown, 2004). Gifted students who may need enriched rather than prioritized curriculum also stand to gain from having their needs met. The main difficulties teachers face when trying to accommodate the needs of their gifted students include a lack of subject knowledge and difficulties modifying the curriculum (VanTassel-Baska & Stambaugh, 2005).
In addition to learning how to plan lessons, prospective teachers also learn how to accommodate for student differences in their planning. According to Ladson-Billings (1995), accounting for student differences is a necessary component of planning for student success. This is especially true in schools with a minority population, where Ladson-Billings (1995) says teachers should use student culture as a means to increase student interest and achievement. In addition to accommodating for differences in culture, preservice teachers also need to learn to plan for differences in student achievement levels. In *Preservice teacher preparation in meeting the needs of gifted and other academically diverse students* (Tomlinson et al., 1995), the authors discuss the need for novice teachers to differentiate instruction to meet the needs of all students. This focus on accommodating student differences requires recognizing the differing needs of students, and then providing assignments and further evaluation according to those needs (Tomlinson et al., 1995). One recommendation is to pre-assess students and then group them by need (VanTassel-Baska & Stambaugh, 2005).

The role of mentoring and modeling also is key to novices’ ability to understand and use Differentiated Instruction. Preservice teachers should be exposed to real models of DI, either in person or video and be offered guidance while learning how to plan differentiated lessons (Davenport & Smetana, 2004; Edwards, Carr, & Siegel, 2006; Tomlinson et al., 1995). Brimijoin and Alouf’s study (2003) focused on professional development for mentor teachers and the effects of that development on their preservice teachers. In part, this study used surveys, completed by mentor teachers, about the training they received in workshops during the school year and summer as well as their mentoring responsibilities throughout the school year. Surveys were also completed by both mentor teachers and preservice teachers concerning their own work and skill level in differentiating student instruction. This study found that differentiation in
professional development would be beneficial and further training provided to mentor teachers in DI and how to model the approach would also help them coach their preservice teachers effectively. Both Edwards et al. (2006) and Tomlinson et al. (1995) express that the key to modeling is the power of preservice teachers’ observation of veteran teachers using the differentiation strategies in their classrooms. Tomlinson et al. (1995) found that current support for novice teachers in implementing DI is not sufficient; they need more guidance in implementing these strategies within the existing classroom structure. Edwards, Carr, and Siegel (2006) also note room for improvement in the area of preparing preservice teachers in teacher education programs to plan for meeting the needs of diverse learners.

Several of the studies also discussed time, pace of change, and lack of resources as constraints faced by veteran, mentor, and preservice teachers in both planning and implementing DI strategies in the classroom. For example, Edwards, Carr, and Siegel (2006) found that successfully implementing Differentiated Instruction in a classroom is something that takes time for both new and veteran teachers to accomplish. Lawrence-Brown (2004) suggests adding differentiation slowly over time, rather than trying to differentiate everything all at once. Teachers entering the profession need to also be aware of circumstances outside of their control that may hinder implementation of DI, such as lack of funding, planning time, and supervisory support (Renick, 1996). However, collaboration with other teachers (Lawrence-Brown, 2004) may make the work easier and further promote student learning. Additionally, Renick (1996) found that several hindrances, such as lack of funding, planning time, and supervisory support, can prevent teachers from executing these strategies to the extent to which they would like. John (1991) states that preservice teachers experience the planning phases at their own rates; as they gain experience in planning and teaching, they go through the phases more quickly. Also
changing over time is the idea of a classroom being a mutual environment, where the students’ needs play a role in planning, rather than the teacher being in control of all aspects of the classroom (Jones & Vesilind, 1996).

In short, although differentiation is a critical part of planning lessons to promote learning for all students, it is not a task that novice teachers can tackle without support from their mentors and seeing the strategies modeled, either in person or by means of video. Literature does not discuss either how teachers learn how to differentiate or what they think as they plan differentiated lessons for their students.

**Self-regulation**

Life-long learning has become the professional language in education that refers to the concept of self-regulated learning. Schloemer and Brennan (2006) suggest that “self-regulated learners are the type of professionals that many organizations seek because of their ability to adapt to a changing environment” (p.81). Van Eekelen, Boshuizen, and Vermunt (2005) define self-regulated learning as the degree that one is cognitively, motivationally, and behaviorally an active participant in his or her own learning process. The concept of self-regulation has recently emerged within the teacher learning literature and this concept offers insight into the way teachers learn within the context of teaching.

Self-regulation by learners finds its roots in Vygosky’s theory of verbal self-regulation (Vygotsky, as cited in Randi, 2004), and can be applied in this study since the apprentice teachers are learning how to teach within a specific classroom context. Vygotsky’s theory (as cited in Randi, 2004) includes the notion of the zone of proximal development, which is the distance between what a learner knows and can do on his or her own, and what a learner can do with help. In order for the learner to be able to accomplish the more difficult task without help, scaffolding (Bruner, as cited in Manning & Payne, 1993) may occur. Scaffolding is the
assistance given to a learner, which is slowly removed as the learner gains the ability to complete a task on his or her own. In terms of teacher education, scaffolding through means of dialogue is often used to help novice teachers learn how to self-regulate (Pintrich, 2000), the idea being that frequent dialogue between a learner and teacher will help the learner use self-talk as a means to develop self-regulation skills (Manning & Payne, 1993).

The idea of self-regulation in teacher education springs from the view that a teacher should view herself and be viewed as a learner (Manning & Payne, 1993). As such, literature that involves self-regulation can be applied to those learning to be a teacher. There are many definitions for self-regulation, several of which include the idea that self-regulation occurs when a teacher is conscious of his or her own thoughts and decisions as they are happening, and then reflects on those thoughts and takes action (Greene & Azevedo, 2007; Manning & Payne, 1993; Randi, 2004;). According to Manning and Payne (1993), pro-activity is a key characteristic of a self-regulated teacher; pro-activity being the ability of a teacher to do more than simply realize a situation is occurring in the classroom. A pro-active teacher takes that realization and instantly thinks about how to handle the situation, “thinking about [his or her] decisions on how best to ‘put out fires’ or even to ‘leave them burning’” (Manning and Payne, 1993). Additionally, a self-regulated learner can be described as someone who is, “active, efficiently managing their own learning through monitoring and strategy use” (as cited in Greene & Azevedo, 2007).

Vygotsky’s theory (as cited in Randi, 2004) also describes development as a very individualized process, where two people engaged in the same experience interpret and learn from that experience differently. Manning and Payne (1993) state that individual development cannot be easily measured and quantified, but instead is more like “qualitative shifts as the unique past experiences and previous knowledge of individuals interact with the present learning
event. This interaction varies from individual to individual and explains why preservice teachers experience the same learning experience in a multitude of ways.” Because each apprentice is an individual, with very different prior experiences and knowledge bases, each developed within each theme at a very different rate. Development of self-regulation skills is similarly a very individualized process.

According to Corno (2001), self-regulation is defined as the efforts that a learner puts forth to both control and monitor his or her motivation, concentration, and affect to protect his or her goals. Self-regulation learning is when, “the teacher independently and consciously directs the process of attaining learner goals. The degree to which a teacher is able to do so makes the teacher more or less a self-regulated learner” (Van Eekelen, Boshuizen, & Vermunt, 2005). According to Kolb (1984), experiential learning places the learner in an active role as they experience, reflect, conceptualize, experiment situations. Learning through experience is important to self-regulation.

Zimmerman and Schunk (2001) define self-regulated learning as the degree that one is meta-cognitively, motivationally, and behaviorally active participants in their own learning process. In this case, active refers to the degree to which a teacher is engaged in self-generating thoughts, feelings, and behaviors that are oriented toward the learning goals. The degree to which a teacher is able to engage in these activities determines the extent to which the teacher engages in self-regulation. In a summary of empirical literature related to self-regulation, Van Eekelen, Boshuizen, and Vermunt (2005), drawing on the work of Candy (1991), Eraut et al. (1998), and Kwakman (1999) suggest “the unconscious character of work-related learning processes” (p.450). Their review suggests that: 1) most adult learners are not aware of themselves in the learner role, 2) serendipity plays an important role in learning, 3) much
learning arises from and seeks to resolve a specific problem situation, 4) very few learning endeavors are entirely self-regulated, but instead depend on individual motives and interests shaped by interaction with other people, and 5) that self-regulated learning at the workplace is complex and unpredictable, unfolding as it goes along.

The theory of Self-regulation has been applied to developing prospective and practicing teachers. For example, Manning & Payne (1993) identified five tenets that could assist teachers in self-regulation: 1) teachers should be “proactive in their approach to classroom management and instruction” (Manning & Payne, as cited in Randi, 2004); 2) teachers should be aware of which instructional strategies they choose; 3) preservice teachers should gradually be given more responsibility in maintaining the classroom; 4) teacher education programs should “emphasize dialogue so that teachers will ultimately internalize conversations about principles of teaching and learning into self-thoughts that direct their teaching practices” (Manning & Payne, as cited in Randi, 2004); 5) self-talk should become a reminder for teachers to take certain actions they have already internalized. Common amongst the many ideas within self-regulation is that reflection is a key component to becoming a self-regulated learner (Perry & Drummond, 2002; Manning & Payne, 1993; Van Eekelen et. al 2005). Additionally, Paris and Paris (as cited in Randi, 2004) state that a reflective community of teachers who are critically studying their own habits of self-regulation will help delve more deeply into their thoughts and behaviors as teachers.

Several proposed models of self-regulation can be found in the existing literature (Manning & Payne, 1993; Pintrich, 2000; Winne & Hadwin, 1998). Pintrich’s (2000) model (see table 2.3) includes four phases of self-regulation (forethought/planning/activation, monitoring, control, and reaction/reflection) and four areas of regulation (cognition, motivation/affect, behavior, and context). Therefore, an adult learner will learn to regulate each of the four areas
while passing through each of the four phases. For example, a teacher-as-learner can cognitively identify a learning goal (forethought), perhaps to learn how to use CHAMPS as a classroom management program. Once the learner thinks about what she already knows about this program (monitoring), a plan of action is created and implemented (control), and CHAMPS is attempted in the classroom. Once the plan is in motion, the learner then reacts to and reflects on the process, and can then restart the cycle. Since self-regulation is such an individualized process (Manning & Payne, 1993), each apprentice moved through those phases at very different rates.

In looking across the self-regulation literature, there seem to be four factors that influence the degree to which one engages in self-regulated learning. These factors are cognitive, motivational, behavioral, and contextual in nature. The first three factors focus on the nature of the individual. However, the fourth factor suggests the influence of the demand to learn or the demands on learning presented by the specific context. Ball and Cohen (1999) also emphasize the importance of context in teacher learning as they noted that, “Teachers cannot accomplish the work of teaching unless they know how to learn in the contexts of their work” (p.1832).

Additionally, when synthesizing the work of Pintrich (2000) and Vancouver (2000), three phases emerge within the process of self regulation: task identification and planning which focuses on the creation of goals, monitoring and control of learning strategies which emphasizes identifying means to attain the goals, and a reaction or reflection stage which requires identifying means to assess the current state. Recognizing the importance of the phases and factors influencing self-regulation, an understanding of the type of cognitive architecture the teacher needs to engage in self-regulation is important. In this case, teacher cognitive architecture refers to the attempt to model not only behavior, but also structural properties of the teacher’s thinking.
This study seeks to better understand the teacher’s cognitive architecture related to planning for Differentiated Instruction. Self-regulation appears to be a concept that could inform this study.

The theory of self-regulation as it applies to teachers-as-learners explains the notion that teachers pro-actively make decisions to reflect their classroom goals, both for themselves as learners and for their students. Self-regulation is a critical component in helping teachers teach to the context of their own classrooms; being a reflective and self-regulating practitioner allows the teacher to genuinely know their students and what they need to do to increase learning for all.

Questions remain as to how novice, alternatively certified teachers learn to self-regulate, especially as alternatively certified novice teachers come from a different work context where they may already be skilled at self-regulating their work.

**Limitations in Found Literature and Conclusions**

One limitation of several studies is their limited number of data sources. With only one data source, it is likely that results of those studies were inadequate. Additionally, only one of the studies (Tomlinson et al., 1995) focused solely on preservice teachers and DI, leaving a great deal of room for continued research on this topic. However, two of the studies (Brimijoin & Alouf, 2003; Edwards, Carr, & Siegel, 2006) did study the effects of developing teacher education programs to allow for learning and practice of DI strategies. One shortcoming of Anhalt et al. (2006) is that the teacher candidates did not teach the lessons they planned; they wrote the lessons for a methods class but did not implement them in a classroom setting.

Limited research exists on the subject of lesson planning and how novice teachers develop skills in planning appropriate lessons for their students. There was no research found concerning Alternatively Certified Teachers and their learning and implementation of DI strategies, which is an important topic of research considering the number of teachers who will be entering the profession through this type of program in the near future. Further work needs to be done in the
combined areas of Differentiated Instruction and Alternative Certification, especially in the area specific to how alternatively certified teachers learn to plan in order to accommodate the needs of all of their students. Due to the specific context in which the novice teachers in this study are working, research related to high poverty, high minority population schools and alternative teacher certification programs is also warranted. Also missing from the literature is work regarding self-regulation and preservice or novice teachers. Because of these limitations in the literature, further studies in these areas are warranted.

The literature reviewed in this chapter provides the conceptual background for exploring how alternatively certified apprentices develop in their planning abilities, and as part of that development understand whether and how these teachers begin to use self-regulation as a means to improve their instructional planning. In the following chapter, the context of this study is explained, along with a description of the participants. Following Chapter 3, Chapter 4 describes the research methods. Chapters 5-7 illustrate the cases of the three participants. Finally, Chapter 8 includes a discussion of the study, its limitations, and needs for further research.
Table 2-1. Essential Elements of Alternative Teacher Preparation Programs

<table>
<thead>
<tr>
<th>Two Facets of Induction</th>
<th>Essential Elements</th>
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<tbody>
<tr>
<td>Quality Control</td>
<td>Teacher evaluation</td>
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<td></td>
<td>Program documentation &amp; evaluation</td>
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<td>Selection process</td>
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<td>Monitor progress towards certification</td>
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<td>Professional Development</td>
<td>Mentored field experience</td>
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<td>Contextually sensitive professional knowledge</td>
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<td>Content knowledge</td>
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<td>Instructional methods</td>
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<td>Classroom management</td>
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<td>Curriculum</td>
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<td>School culture &amp; politics</td>
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<tr>
<th>4 Phases:</th>
<th>Cognition</th>
<th>Motivation/ Affect</th>
<th>Behavior</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Forethought, Planning, Activation</td>
<td>-target goal setting&lt;br&gt;-prior content knowledge activation&lt;br&gt;-metacognitive knowledge activation</td>
<td>- goal orientation adoption&lt;br&gt;- efficacy judgments&lt;br&gt;-ease of learning judgments&lt;br&gt;-perceptions of task difficulty&lt;br&gt;-task value activation&lt;br&gt;-interest interaction</td>
<td>[Time and effort planning]</td>
<td>[Perceptions of task]</td>
</tr>
<tr>
<td>2. Monitoring</td>
<td>-metacognitive awareness and monitoring of cognition</td>
<td>-awareness and monitoring of motivation and affect</td>
<td>-Awareness and monitoring of effort, time use, need for help</td>
<td>-monitoring changing task and context conditions&lt;br&gt;-change or renegotiate task&lt;br&gt;-change or leave context</td>
</tr>
<tr>
<td>3. Control</td>
<td>-selection and adaptation of cognitive strategies for learning and thinking</td>
<td>-selection and adaptation of strategies for managing affect and motivation</td>
<td>-increase/decrease effort&lt;br&gt;-persist; give up&lt;br&gt;-help-seeking behavior</td>
<td>-change or renegotiate task&lt;br&gt;-change or leave context</td>
</tr>
<tr>
<td>4. Reaction &amp; Reflection</td>
<td>-cognitive judgments&lt;br&gt;-attributions</td>
<td>-affective reactions&lt;br&gt;-attributions</td>
<td>-choice behavior</td>
<td>-evaluation of context</td>
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CHAPTER 3
PROGRAM CONTEXT AND DESCRIPTION

Teachers entering Florida’s Alternative Certification Program (ACP) can choose to be part of the Transition to Teaching (TTT) program. This program covers the cost of all certification classes as well as a teaching stipend with the commitment from the program participants to teach in a Title I school for three years after earning professional certification. A Title I school is one which has at least 50% of its students are living in low income households (http://www.ed.gov/legislation/ESEA/Title_I/swpguid1.html). Four counties in Florida participated in this program, with an additional eight counties participating through district grants. A grant participant is awarded federal Title I funding over a five-year period to recruit, train, and retain non-College of Education, second career candidates to teach in high-needs areas. The Florida urban district in this study was a grant participant during the 2006-2007 school year. The particular program was a University-based apprenticeship program, where candidates holding a bachelor’s degree or higher are paid to work as classroom paraprofessionals while they take classes toward certification. During 2006-2007, fifteen apprentice teachers were selected to participate in this program at two Title I elementary schools.

Participants entered the program after completing the application process, which includes an interview with a committee. After acceptance into the program, apprentices are placed with a mentor teacher who is currently working in the classroom. In addition to this mentor, a coach is employed through the University who works at the school three days per week. This coach observes lessons, helps with planning, and provides as needed support to each apprentice-mentor team. During the year-long placement, apprentices are in their assigned classrooms four days each week. On each Thursday, they attend classes provided by the University. These classes are generally taught by the coach, at no immediate cost to the apprentices. These classes include
teaching methods, classroom management, best practices, and lesson planning across curricular areas. Apprentices are given practice-based assignments to complete in order to help them demonstrate exemplary teaching practices, for example lesson plans and projects which can be applied in their classrooms. Many of these practice-based assignments become evidence for their electronic portfolio which is a summative evaluation tool that provides evidence of the novice’s work in each of the Florida Educator Accomplished Practices.

Throughout the first semester of the year, apprentices begin by observing their mentor and other teachers in the building. At times they also co-teach with their coach. As the semester progresses, they slowly assume more responsibilities, such as leading a reading group or word wall practice. After a few months, depending on the capability of the apprentice, they begin assuming more responsibility instructing the class, first for one lesson at a time, then gaining more and more time as lead teacher. In March, apprentices generally take over the majority of the preparation for the day, always with the mentors’ support as needed. In the event that some apprentices are not yet ready for this step, they continue teaching components of the day as determined by their mentor teacher and coach.

The Apprenticeship experience concludes at the end of the school year. At this time, apprentices are required to present a portfolio of artifacts that demonstrate their growth during the year, as well as their understanding of the Florida Educator Accomplished Practices. The portfolios are presented to a committee consisting of the apprentice coach, the university coach, and several other members of school and district staff. This committee determines whether each apprentice shows beginning, developing, or accomplished practice. By this point, apprentices are responsible for taking and passing each of the required state certification exams in order to be
hired as a permanent employee. If they do not meet this requirement, their position can only be considered temporary until they pass each test.

As stated previously, apprentices do not pay tuition for their methods classes as long as they meet the final requirement that they must teach in a high-needs school (at least 40% of students are on free or reduced cost lunch) for the next three years. If they move to a non-high-needs school, they are required to repay the cost of their courses. After the three years to which they agreed, they may then transfer wherever they like. The goal of the program, however, is for at least 90% of those teachers to remain employed in a high-needs school at the end of the three-year period.

**School Context**

In the case of the apprentices in this study, each worked in a high-needs school, where approximately 95% of the students receive free or reduced cost lunch. High-needs schools such as these have very high teacher turnover rates, and the goal of this apprenticeship program is to encourage teachers to remain in the urban schools over the course of their professional career. Any new teacher faces challenges they may not feel prepared for, but alternatively certified teachers in schools such as these face even greater challenges. Thus, it is in the best interest of teacher educators to prepare these participants for the challenges they will face.

The two schools involved in the apprenticeship program are part of a center affiliated with the University which works with high-needs schools throughout Florida to increase student learning. The Center provides these schools with professional development opportunities for teachers and principals, creating a professional learning community relationship between school and University faculty (J. Davenport & L. Smetana, 2004). Elementary School A and Elementary School B are both located in urban Florida neighborhoods.
Elementary School A is a magnet school, its theme being Foreign Language, Art, and Music Enrichment. Eighty-two percent of the 508 students are on free or reduced lunch. Ninety-seven percent of the students are black, two percent are mixed, and one percent is white. In 2007, Elementary School A received a school grade of C, a statewide measure of student gains on the FCAT.

During the 2006-2007 school year, 318 students were enrolled at Elementary School B. Ninety-six percent of those students were eligible for free or reduced lunch. The student population included ninety-six percent black, two percent mixed, and one percent white.

The demographic and Florida Comprehensive Assessment Test (FCAT) score information for Elementary School A and Elementary School B are illustrated in a chart located in Appendix A. Demographic data includes enrollment numbers for each grade, racial breakdown, and percentage of students receiving free or reduced cost lunch. FCAT score data includes both 2006 and 2007 math and reading scores of third, fourth, and fifth grade students, as well as 2006 and 2007 fourth grade writing scores and 2006 and 2007 fifth grade science scores. A chart showing Florida School Accountability ratings from 2002 until 2007 is also included, which denotes whether the school made Adequate Yearly Progress in reading, math, and, starting in 2007, science. Important to notice for both schools is the high percentage of students receiving free or reduced lunch, paired with the percentage of students in grades 3, 4, and 5 receiving scores of 4 or better on the FCAT. Additionally, neither Elementary School A or B showed enough improvement in their scores to make Adequate Yearly Progress according to federal guidelines. This is important to note because it illustrates the need for strong teachers who are capable of helping students make learning gains, especially in schools such as these where students are struggling on FCAT.
Professional Development

Professional development focused on differentiating instruction, and specific methods and strategies became a part of the coursework. Differentiation was chosen as the focus for these workshops because differentiation increases learning for all students by changing the curriculum to adapt to student needs (Lawrence-Brown, 2004). In order for teachers to help all students find success, they need to know how to differentiate their lessons (Davenport & Smetana, 2004). Additionally, this process was designed to help prospective teachers’ develop in their capacity to self-regulate their instructional planning by working with myself and their coach to learn strategies for promoting reflection and self-talk.

First, apprentices were responsible for writing and revising three lesson plans that incorporated Differentiated Instruction strategies, and then teaching these lessons to students in their field placements. Lesson plans were written using the Pathwise template, which is explained in further detail in the Pathwise section below. A typical coaching cycle (Neubert & Stover, 1994) was used in this study, where the novice teacher discussed, in this case via email, the topic and expectations of the lesson, and then had an observation and follow-up conference where the novice teacher and observer analyzed the lesson. In the case of all three observations, the observation focus was the apprentice’s use of Differentiated Instruction. During the post-observation conference, differentiation was the focus, but other topics, such as classroom management and lesson flow were discussed. This coaching cycle repeated three times throughout the year, and allowed the apprentices to integrate learned experiences into lessons. Ornstein (1997) identified that novice teachers need to be able to practice teaching the planned lessons, otherwise principles of writing a good lesson plan will not be actively addressed. Also, John (1991) argues that practical experiences are a primary influence on how novice teachers learn to plan for the next lesson. See Table 3-1 for a summary of data collection methods.
The Differentiated Instruction strategies included differentiating lesson content or student product by interest or student readiness level. Lesson plans were submitted to the researcher via email prior to the lesson observation. The researcher then read and made detailed questions, comments and suggestions regarding the lesson, which were emailed back to the apprentice. The apprentice could then make revisions as needed before the lesson observation. Following the lesson observation, the apprentice and observer engaged in a post-observation conference, where the highlights of the lesson were discussed. Areas where the apprentice showed mastery, as well as areas needing further attention were covered, and the apprentice had the opportunity to ask or answer any questions from the lesson. Following the post-conference, the apprentice then submitted a reflection of the lesson, answering specific questions related to both the lesson plan and taught lesson.

The format of this professional development included lecture, group work, independent study, and video. See Table 3-1 for a chart listing the methods and data collected during each professional development workshop. Each session lasted approximately 3 hours. The first session took place in October of the apprenticeship year. The apprentices had been in their field placements for nearly two months, and most had at least a beginning understanding of their students. The first workshop introduced the main concepts of differentiation, including types of grouping and possible places within the lesson that could be differentiated. This workshop was conducted by the researcher alone, and was lecture based. Prior to any discussion on differentiating, apprentices brainstormed both challenges they face in helping meet the needs of all students, and the challenges some students might face during class. Three video clips of teachers using differentiated strategies were shown during the session. Each clip was followed by a discussion of the teaching that was witnessed. Video was a selected medium for instruction
because it is very important for novice teachers to see models of teachers correctly using effective strategies in their classrooms (Joan Davenport & Linda Smetana, 2004; Edwards, Carr, & Siegel, 2006), and video is practical for logistical reasons, as well as the ability to pause film and discuss. Apprentices discussed both benefits and barriers they saw to differentiating instruction for all learners. They were then given the assignment to differentiate a lesson based on readiness level, and were encouraged to use a pre-assessment in order to determine those groups.

The second session took place in January, when apprentices were beginning to assume more leadership of the classroom. The ideas presented at the first session were reviewed, and the apprentices were asked to create a lesson to be implemented during the next month, for Black History Month. A lesson template was provided which included appropriate grade level standards and instructions for the completion of the lesson. For this lesson, apprentices were asked to create a lesson that differentiated by interest or learning style, or both. They spent one hour working with a grade level partner to create the lesson, and then finished the lesson on their own and submitted the lesson to the researcher.

The final session took place in March, and was presented by both the researcher and another graduate student. During this lesson, culturally responsive teaching strategies were introduced as a parallel to Differentiated Instruction. The focus of the lesson was to help apprentices find ways to get to know their students, which is a prerequisite to effective differentiation. The final lesson plan assignment was to create a lesson for any subject that differentiated by any method. The apprentices could email questions to the researcher if they needed assistance, but once the lessons were submitted, no suggestions were provided to the apprentices.
<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/06/06</td>
<td>Professional Development Workshop:</td>
<td>· field notes from discussions</td>
</tr>
<tr>
<td></td>
<td>· discussion of differing student needs</td>
<td>· rough drafts of first lesson plans</td>
</tr>
<tr>
<td></td>
<td>· video clips of teachers using differentiation with discussion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· assignment: create a lesson differentiated by learning style</td>
<td></td>
</tr>
<tr>
<td>11/09/06</td>
<td>First lesson plans submitted, with lesson differentiated by readiness</td>
<td>· first draft of lesson plan</td>
</tr>
<tr>
<td></td>
<td>· Comments made by researcher, and then returned to apprentices for revision</td>
<td>· feedback from researcher</td>
</tr>
<tr>
<td></td>
<td>· observation, conference with apprentice conducting planned differentiated lesson</td>
<td>· revised lesson plan</td>
</tr>
<tr>
<td>11/28/06</td>
<td>Observation, conference with apprentice conducting planned differentiated lesson</td>
<td></td>
</tr>
<tr>
<td>12/06/06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/18/07</td>
<td>Professional Development Workshop:</td>
<td>· field notes from group work</td>
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<tr>
<td></td>
<td>· review of last session</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· discussion of differentiation by learning style or interest</td>
<td></td>
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<tr>
<td></td>
<td>· grade level teams worked together to create a lesson for Black History Month using provided objectives</td>
<td></td>
</tr>
<tr>
<td>2/18/07</td>
<td>Second lesson plans submitted, with lesson differentiated by interest, learning style, or both</td>
<td>· first draft of lesson plan</td>
</tr>
<tr>
<td></td>
<td>· Comments made by researcher, and then returned to apprentices for revision</td>
<td>· feedback from researcher</td>
</tr>
<tr>
<td></td>
<td>· observation, conference with apprentice conducting planned differentiated lesson</td>
<td>· revised lesson plan</td>
</tr>
<tr>
<td>3/27/07</td>
<td>Observation, conference with apprentice conducting planned differentiated lesson</td>
<td></td>
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<tr>
<td>3/28/07</td>
<td></td>
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<tr>
<td>3/08/07</td>
<td>Professional Development Workshop:</td>
<td>· field notes regarding culturally responsive strategies</td>
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<tr>
<td></td>
<td>· culturally responsive teaching strategies to learn how to get to know students</td>
<td></td>
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<tr>
<td>5/13/07</td>
<td>Final lesson plans submitted. This lesson could be differentiated in any manner chosen by the apprentice.</td>
<td>· Lesson plan</td>
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<tr>
<td>5/15/07</td>
<td>Observation, conference</td>
<td>· field notes from observation</td>
</tr>
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<td></td>
<td></td>
<td>· conference notes with both researcher and apprentice comments</td>
</tr>
<tr>
<td>6/21/07</td>
<td>Portfolio presentation</td>
<td>· transcript of presentation</td>
</tr>
</tbody>
</table>
CHAPTER 4
METHODS

Introduction

The purpose of this study was to understand how apprentice teachers in the Alternative Certification Program in this urban school district develop in their planning and implementation of Differentiated Instruction. Because existing literature in this area is limited, and because Alternative Certification is becoming a mainstream approach to teacher certification, understanding the factors that influence how these novice teachers learn how to plan lessons to reach all of their students is beneficial. Once we are better able to understand this development, we will be able to use this knowledge to help future Alternative Certification candidates learn how to plan lessons to accommodate all of the learners within their classrooms.

Theoretical Framework

This study is of qualitative design, epistemologically grounded in constructivism. Using this epistemology requires that the researcher become involved in the research to help “construct the subjective reality that is under investigation” (Hatch, 2002). In a constructivist study, the researcher uses naturalistic methods which require that a great deal of time be spent in the natural setting of the participants in order to discover how they experience their surroundings (Hatch, 2002). Case study methods were used (Hatch, 2002), which included participant observation, data reduction, analysis of documents, and interpretation of data (Crotty, 1998). Because the purpose of the apprenticeship was for those novice teachers to gain skills to help them become effective teachers, the participants learned about planning by way of workshops, teaching experiences, and observations. Additionally, the researcher became a participant observer by engaging as both the workshop instructor and observation coach. For this reason, a constructivist design was appropriate. The qualitative approach was selected because the study sought to better
understand the process and factors influencing how individuals learn to plan (Patton, 2002). To date, limited research is available that connects novices’ experiences learning to plan with Differentiated Instruction.

The cases in this study were chosen based on purposeful sampling (Patton, 2002) that specifically identified apprentices based on certain characteristics that showed maximum variation. Although there are common patterns established between the cases, they represented a span of instructional planning abilities. Specifically, when looking at the apprentices to determine which of the eight would be studied, some apprentices appeared more advanced than others. In order to capture the range of novice teachers’ learned to plan, a sophisticated apprentice, an apprentice who showed improvement through the year, and an apprentice who was still learning fundamental skills at the end of the year were selected. This selection was based on consensus between the University coach who worked weekly with the apprentices, the university program advisor who had observed each of the apprentices teach, and the research who had both observed the apprentices and instructed them in workshops. By studying these three cases, the study would illuminate the range of needs and abilities related to planning of those seeking Alternative Certification within this program.

Throughout this study, the researcher took a cue from philosopher Martin Buber and strived to create an “I-Thou” relationship (as cited in Patton, 2002), where there is a “relationship, mutuality, and genuine dialogue” (Patton, 2002) between the researcher and subjects. In a practical sense, the researcher planned and conducted several workshops, took field notes, corresponded by email and phone with apprentices, and participated in both observations and conferences with the apprentice teachers. There was consistent dialogue between the researcher and apprentices throughout the school year.
Researcher’s Personal Background

As the researcher, my personal experiences brought me to this study after several years in education. I attended the University of South Florida, where I earned my bachelor’s degree in elementary education, with a minor in psychology, in December of 2000. I was hired for and taught a class of fifth grade, at-risk students for the remainder for the school year. At that time, I moved to Richmond, Virginia, and taught for the next two years at Goochland Middle School, a rural school approximately halfway between Charlottesville and Richmond, Virginia. During my first year, I taught history and math to several classes of sixth graders. For the second year, I taught history and science to sixth graders, including a class of gifted students, for whom I designed the science curriculum and taught without the aid of textbooks for most of the year. During this year, I began working towards certification to teach gifted students. I also was a mentor to several boys who had been retained at least twice and were at-risk of dropping out at the end of the year, as eighth graders.

After the year ended, I returned to Tampa, Florida, to the school where I worked after graduation. During my two-year absence, the neighborhood went through a transition and the school had grown. I taught math and science to a fourth grade class which contained four students with complex behavioral issues. I soon decided that fourth grade was not my specialty, so I transferred to a new magnet school, MacFarlane Park School, the following fall. The principal I had worked for during both teaching experiences in Tampa was opening this school, and since I admired her greatly, I decided to continue working for her as a fifth grade language arts and social studies teacher. I stayed at this school for two years, completing my gifted certification during this time. I also participated in a grant for the History Alive! Program, which piloted the textbook series in my school. After teaching five and a half years, I decided to take a leave of absence and return to graduate school.
One advantage that my experience brings to this research is that I taught a variety of subject matter to a variety of age groups. Because I have my gifted certification, I am also experienced in meeting the needs of these learners and strive to develop lessons that incorporate their needs as well as the needs of students at lower levels. However, I am not experienced with teaching younger students, and I have not developed skills needed to teach children how to read. Additionally, I have not worked in a school with a free or reduced lunch rate as high as the schools studied within this research. I also have not been responsible for purchasing the amount of materials these apprentices will probably need to purchase for their classrooms. Although I am able to relate to their work as a fellow teacher, I cannot personally relate to the problems they may face as they learn to teach within these contexts. However, because I have worked in many different school contexts for several years, I am able to offer assistance to the apprentices as they learn to become teachers.

**Data Collection Methods**

The Institutional Review Board (IRB) at the University approved the use of meeting notes and other documents including lesson plans, interviews, and observations for the duration of this study, as well as other work completed at the University. In order to protect the privacy of the individuals studied during this research, pseudonyms were given to the apprentices and schools, and the specific programs involved are not referenced by name. Multiple sources of data were used to gain insight into the apprentices’ ability to plan Differentiated Instruction. These sources include: Pathwise lesson plans, comments made and subsequent lesson revisions, observation summaries, conference summaries, lesson reflections completed by the apprentice, portfolio submissions, and personal correspondence between the apprentices and both myself and the coach. See Table 3-1 for an explanation of which type of data was collected during each professional development workshop.
Pathwise

For each lesson, apprentices completed a plan using the Pathwise format. Pathwise is an assessment tool created by Educational Testing Service (ETS) and adapted by the University. The Pathwise focuses on four main teaching components: content knowledge, the learning environment, teaching for student learning, and professionalism. During a typical Pathwise cycle, novice teachers would complete a classroom profile, lesson plan, pre-observation interview, and reflection. The observer would complete an observation summary. For this research, only the lesson plan and reflection components were used (See Appendices B and C, respectively). Research suggests that writing a detailed lesson plan, such as with the Pathwise instrument, helps teachers learn how to develop stronger lessons for their students (Davenport & Smetana, 2004).

Reflection on Teaching

Following the first and third lessons, the apprentices completed the Pathwise reflection questionnaire, which provided details regarding their own experiences during the lessons (See Appendix C). These reflection questions were slightly altered from those they answer after other observed lessons; the only addition being that of the words, “Differentiated Instruction” in order to help focus their answers on the differentiation they provided to their students. These questions included items such as, “How has your thinking about planning changed based on this experience with Differentiated Instruction?” This is a regular part of the Pathwise planning that the apprentices complete for each formally planned lesson.

Observation and Post-Observation Conference Notes

During the lesson observation, the researcher took notes regarding the delivery of instruction and the observed occurrences of Differentiated Instruction strategies. These notes included things the researcher saw that were in line with effective teaching strategies, as well as
appropriate classroom management techniques. Additionally, the researcher documented questions that arose during the lesson and ideas that could be implemented to improve either the lesson or its delivery. During the one-on-one post-observation conference, the researcher and apprentice reviewed the observation notes. The researcher added to the note sheet any further comments from their discussion, and then gave the apprentice a copy.

**Portfolio**

After completing the yearlong field experience, apprentices were required to submit a portfolio documenting their knowledge and development in each of the Florida Accomplished Practices. Data related to the Accomplished Practice “Planning for Instruction” was also considered a data source for this study. Portfolios were presented to a committee, the members of which included the university coach, University supervising faculty, researcher, and the supervisor of Alternative Certification for the school district. Additionally at the portfolio presentation, the apprentices had the opportunity to explain the items they included within their portfolios and to elaborate on their stance regarding planning and assessment. These oral presentations were recorded and kept for data collection purposes.

**Data Management**

Once lesson plans were turned in, the plans were reviewed and comments were given to each apprentice via email. Lessons were then put aside until the day of the observation, when they were reviewed prior to the observation. Then, comments made were discussed during the post-observation conference. Additionally, when a new lesson plan was turned in, the previous ones were reviewed to look for trends regarding difficulties each apprentice might be having. All of the data was put aside until the school year came to an end, and data was reviewed at one time. Portfolio interviews were not transcribed, but field notes were taken. The interviews were saved to be used for later triangulation of findings. This was done because the apprentices turned
in a hard copy of their portfolios, with reflections of those submissions, so the relevant information already existed as a hard copy.

All items submitted for review by the apprentices were entered into Hyper Research. Data excerpts from these sources will be noted using the ten-digit reference number assigned by Hyper Research, along with the assigned name for each apprentice and the source type [example: (Rose, reflection one, 19749,19855)]. Personal communication items received, such as emails, will be noted as such, and the name of the sender and date will be included [example: (coach, personal communication, October 13, 2006)].

**Data Analysis**

Analysis included attention to description, analysis, and interpretation as described by Wolcott (1994). The first step of analysis focused on constructing a narrative description of the nature of the apprentice’s development in the area of instructional planning over the course of the year. These narratives organized the apprentices’ development overtime and provided the researcher with the opportunity to engage in early analysis as the narratives were prepared. This early analysis consisted of coding and analyzing the data at two different points of the year as the narratives were being developed.

However, simply describing three unique cases does not shed light on the key concepts that differentiated one’s ability to plan. Thus, after completing the descriptions of each apprentice’s development, this study included analysis that uncovered the common themes which emerged among the three apprentices (Patton, 2002). Once the apprentices had completed the apprenticeship, all digitized data (lesson plans, feedback, reflections, portfolios, coach notes, emails) was converted into several text files, which were entered into Hyper Research, a qualitative analysis software program. This software cut down on time spent coding and created a platform where data codes could easily be combined, altered, and deleted based on need and
without having to start essentially from the beginning each time. At this time, once all of the data was gathered, the analysis began. Although many pieces of data were interesting to read, my first step was to engage in data reduction by only identifying data that shed light on the research question: How do apprentice teachers in the Alternative Certification Program in an urban school district develop in their planning and implementation of Differentiated Instruction?

To start the analysis, a preliminary set of codes were created, which included code names that were almost identical to questions asked on the reflection questionnaire rather than themes which emerged throughout the work. After deciding that these codes did not demonstrate themes, they were all deleted and coding began anew. This time, new codes were discovered. The word ‘discovered’ is appropriate here because the researcher did not name these codes; they named themselves. The new codes were specific to the type of data they came from; lesson plans had codes such as, ‘activity aligned to standard,’ ‘used outside research to prepare,’ and planning using feedback.’ Feedback codes included items such as, ‘request for more detail’ and ‘suggestion.’ From these codes, six major themes emerged which became the basis for further synthesis and, ultimately, the findings of this research. A seventh theme was entertained, that of Writing Measurable, Standards-Based objectives, but it was determined that this was an indicator for the theme of Planning for a Standard rather than its own independent idea, and was therefore eliminated.

These major themes are: collegial relationships; classroom management; planning for a standard; planning for student need; and openness to considering feedback. Self-regulation is considered an over-arching theme. Each theme is explained in full below.

**Collegial Relationships**

Establishing positive, respectful collegial relationships is imperative in a social environment such as a school. There are many times when a teacher needs to interact with other
adults within the building walls, including administration, other members of faculty, and parents. An apprentice demonstrates her ability to have positive collegial relationships by her interactions with other adults at school in such instances as co-teaching, collaborative planning, and generally getting along with others. These relationships depend on the professionalism and respectfulness of each person involved. A teacher must be able to maintain positive collegial relationships in order to plan collaboratively or discuss a lesson with colleagues before or after teaching the lesson is taught.

**Classroom Management**

Each apprentice had to come to terms with the new responsibility of managing the classroom and enforcing classroom rules. Classroom management is defined as the ability of the apprentice to manage student behavior and activity. It includes creating a professional rapport with the students, using a system of reinforcement or consequences, setting guidelines for movement around and outside of the classroom, establishing or following existing class rules, and maintaining consistency throughout. Even the best lesson plan is ineffective if it is implemented in a classroom where the teacher is unable to manage the activity of students within.

**Planning for a Standard**

Since each apprentice is new to the field of education, lesson planning is an unfamiliar task. In order to properly incorporate state standards, which were created to provide consistency from one school to the next, into a lesson plan, apprentices must correlate their lesson objective, activity, and assessment to the selected standard. The objective is a crucial part of the lesson plan, as it guides not only the remainder of the activity, but also the assessment which determines whether a student has met the desired objective. It must be clearly stated and include a
measurable student behavior. Each apprentice varied in her ability to plan lessons that connected to the standard provided to guide each lesson.

**Planning for Student Need**

In addition to learning to plan to incorporate a state standard, apprentices also learned how to plan for the needs of their students. Planning for student need is the ability of the apprentice to create a lesson plan geared toward a student need, including interest, readiness, or learning style. This theme also includes using group, paired, or individual assignments as needed to best address the specific need at hand. The apprentice bases readiness levels on prior student work or assessments, and grouping is flexible based on need during each lesson.

**Openness to Considering Feedback**

Throughout the year, apprentices were given feedback regarding their lessons from their mentor teachers, coaches, and other observers. This feedback was given in order to provide ideas for improving something about an observed lesson, from the lesson plan to its implementation to classroom management techniques. Apprentices varied in their ability and willingness to consider this feedback for future lessons or experiences. Considering feedback is an integral part of teaching, and lesson planning, since teachers are often observed by others, as well as given new mandates to use certain approaches in their classrooms.

**Self-Regulation as the Over-Arching Theme**

Self-regulation occurs when an apprentice is able to reflect upon her own practice and make changes based on that reflection. The apprentice is both critical and complimentary of her teaching, and seeks out opportunities to learn through research, workshops and classes, or observing others in action. When learning, the apprentice showing self-regulation is able to find ways to incorporate ideas and strategies seen without prompting. The apprentice is comfortable in both the teacher and learner role. In addition, the apprentice is prepared to use what she has
learned to help her think on her feet when confronted with a challenging situation within the classroom. Honed self-regulation skills improve lesson planning because the teacher is reflective and willing to adapt her practice to meet the needs of her students. This theme is considered to be over-arching because each of the other themes development was greatly influenced by the apprentice’s ability to self-regulate.

Since the three apprentices demonstrated varying degrees of mastery within each of these themes, a scale was created so that common vocabulary could be used to explain how each apprentice developed over the course of the year. The terms emerging, developing, and accomplished were used. An emerging behavior is one that is just beginning to surface and come into awareness. An emerging behavior may be something that an apprentice is conscious of, but has not yet acted upon. A behavior that is considered developing is one which is gradually unfolding over time. The apprentice is clearly aware of the need for the behavior, but has not yet mastered the skill. In demonstrating accomplishment, the apprentice demonstrated that she is highly skilled in a specific area, or has successfully shown her ability to fulfill a certain theme.

The five themes of collegial relationships, classroom management, planning for a standard, planning for student need, and openness to considering feedback each played a role in the development of the teaching skill of each apprentice. By mastering certain skills early in the year, such as classroom management and developing collegial relationships, apprentices were then able to focus on planning appropriate lessons and learning from their own reflection. When classroom management was not developed, the remaining skills were not developed as fully.

Once the narratives were constructed and the themes and degrees of mastery identified, the analysis moved to an interpretation mode. This interpretation sought to identify ways that the findings connected or disconnected to the self-regulation literature. This interpretive analysis
required movement between the themes and the self-regulation literature and these inferences can be found at the conclusion of each case as well as in the concluding chapter.

**Credibility and Trustworthiness**

Lincoln and Guba identified eight procedures for verifying data (as cited in Glesne, 2006). In the case of this study, three of Lincoln and Guba’s methods were used to check for trustworthiness: prolonged engagement, persistent observation, and triangulation of data sources (as cited in Glesne, 2006). Prolonged engagement and persistent observation refer to the amount of time spent at the school site and the tight focus on the parts of the data most relevant to the research question (Glesne, 2006). In order to ensure the reliability of data, the data sources for this study were triangulated in search of inconsistencies between those sources. The lesson plans, feedback, apprentice reflections, portfolio submissions, and coach’s notes were compared to one other. This was done to “strengthen confidence in whatever conclusions are drawn” (Patton, 2002). According to Glesne (2006), a qualitative researcher uses many data sources “to indicate that the more sources tapped for understanding, the richer the data and the more believable the findings”.

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CHAPTER 5
THE CASE OF ROSE

Rose’s Snapshot

Rose came to the Apprenticeship program from a position as a program manager for a child protection agency. Her interest in children is evident since Rose has always had jobs working with children, and she felt that teaching was the only area in the field that she hadn’t tried. With encouragement from family and friends, she decided to apply for the apprenticeship. In her placement, Rose spent most of her time teaching math and reading lessons to her group of students. Throughout the year, Rose showed tremendous growth in her planning and implementation of lessons, much of which can be attributed to working closely with her coach and mentor teacher, and taking their advice to heart. Not only did she incorporate their feedback into her lessons, but she was also self-reflective and put new knowledge from that self-reflection into practice.

In an effort to describe Rose’s orientation toward teaching, I offer the following excerpt culled from fieldnotes:

Upon entering Rose’s classroom, students are found sitting on the carpet in the front of the room. Rose is beginning a math word wall review and asks for a student volunteer to lead the review. Several students raise their hands, and Rose calls on one of them, who stands up and walks over to the word wall. As the student calls on other students to answer math vocabulary questions, Rose stands listening, asking some students to elaborate on their answers. Once the review is finished, Rose introduces the lesson, and asks to students to return to their desks, which are grouped in fours or fives. Students begin work, talking to each other as needed about the work they are doing. Noise level is at a minimum, and all students are engaged.
Based on this depiction, Rose can be characterized as having developed some of the classroom management skills necessary to transition students during a lesson, allow children to work in small groups, and include children as participants in instruction. Additionally, Rose demonstrates the ability to ask probing and clarifying questions that help her understand what her students are learning.

**Analysis Themes**

Several major themes emerged within Rose’s data, demonstrating how she developed in her planning and implementation of Differentiated Instruction. These themes are not mutually exclusive but rather interdependent. For example, the stage of development in one theme often influenced the development or lack of development in another theme. The major themes that emerged as contributing to the apprentices’ ability to plan for differentiated instruction included: collegial relationships, classroom management, planning for a standard, planning for student need, and openness to considering feedback. Additionally, an overarching theme of Self-Regulation also emerged as I began to identify attribution for a specific demonstrated ability. These themes relate to differentiation because each promotes an understanding of students, which is a necessity for proper differentiation. Collegial relationships allow for collaboration and an idea exchange between teachers, which in turn increases a teacher’s toolbox. When a teacher has clear classroom management procedures, she is able to get to know her students, which is necessary for differentiation. Planning for a standard and for student needs both require knowledge of differentiation because a student cannot learn a required standard of the lesson is at a level far above his or her own ability. Also, a student is more likely to master content if he or she finds it interesting. Finally, a teacher’s willingness to hear feedback from colleagues and then consider the benefits of that feedback in lessons allows the teacher to see her students from an outsider’s perspective. This gives the teacher the opportunity to know her students further.
As each theme is introduced, Rose’s work is described using stages of growth. The stages representing Rose’s growth emerged on a continuum from emerging, to developing, to accomplished. An emerging behavior is one that is just beginning to surface and come into awareness. The emerging behavior may be something that Rose is conscious of, but has not yet acted upon. A behavior that is considered developing is one which is gradually unfolding over time. In this case, Rose shows that she is aware of the need for the behavior, but has not yet mastered the skill. Finally, an accomplished behavior is one that indicates a high level of the skill for a novice teacher in a specific area. The following section illustrates the themes that influenced Rose’s work related to planning for differentiated instruction. Additionally, Figure 5 shows on a continuum Mary’s growth within each theme.

Collegial Relationships: Collegial Relationships Strengthen Planning

Collegial relationships became a key facilitator to strengthening Rose’s planning process because they provided her with the opportunity to hear more ideas and get targeted feedback that was specific to her needs. Rose is considered an accomplished apprentice in the area of collegial and collaborative relationships. Even though she and her mentor teacher had some difficulties at the beginning of the year over their conflicting ideas of noise control and the importance of having a positive attitude (coach, personal communication, September, 2006), Rose and her mentor eventually established a positive and working line of communication. By working with the coach, Rose and her mentor came to understand each other’s perspective and came to a consensus regarding which student behaviors they could adjust to and which behaviors needed attention.

Rose and her mentor teacher’s relationship strengthened over time, as evidenced in their increasing commitment to co-teaching the classroom. By the end of the year, both teachers were fully utilized in the classroom. This working relationship facilitated Rose’s ability to embrace
collaborative planning and teaching. To illustrate this point, an excerpt from Rose’s portfolio is appropriate. Here, Rose discusses the role collaboration played in planning: “I learned that when a lesson is planned by a team of people numerous ideas can be shared and implemented. Each member of the team assists in students’ learning of different strategies to solve problems. I learned planning a lesson takes time and effort on everyone's part in order to be effective in teaching all students” (Rose, portfolio, June 2007). Rose’s belief that the co-teaching technique allowed them to share more instructional ideas was clear throughout the year as she learned to plan instruction. This level of collaboration and her attribution that collaboration contributed to her instructional planning justifies her classification as accomplished.

**Classroom Management: Classroom Management Facilitates Growth**

Given that differentiated instruction requires grouping children and making individual accommodations, the process requires sophisticated classroom management if the children are expected to reach the stated goal. Given the additional complexity of planning for differentiation, Rose actively developed her classroom management throughout the apprenticeship year.

Rose strived to create a positive classroom environment where parents were expected to be involved in their child’s learning. Within the first few weeks of joining the class, Rose began contacting the parents of students she was concerned about. In early October, her mentor teacher designated one of her strengths as “consistent discipline” within the classroom (coach, supervisor notes, October, 2006) indicating Rose’s initial understanding of the importance of classroom management and ability to attend to this theme early in her apprenticeship year, and because it is a skill that Rose worked toward but had not yet mastered, she was considered developing in the area of classroom management at the start of the year.

During an observation in November, Rose’s coach noted that two students in Rose’s class began acting up during a lesson, and Rose did not remove them, even as their behavior escalated.
The observation notes written by her coach stated, “Rose was well prepared and the delivery would have been good except 2 of the boys in the group absolutely ruined the lesson for her. Instead of removing them she continued to try to get them engaged in the group” (coach, observation notes, November 2006). According to her coach, Rose’s desire for the students to stay seated and learn may have gotten in the way of other students’ learning (coach, supervisor notes, 4236, 4555). However, by the end of the year Rose improved her consistency with an unfailing use of the CHAMPS program. Among other tools, she regularly reviewed acceptable student behavior before each lesson and transition period which made the expectation clear for the children in her classroom. Over the course of the year, Rose became accomplished in this area.

Rose’s ability to keep a consistent classroom management plan provided her with an opportunity to get to know her students in a calm, learning-centered environment. Rose was able to observe and listen to her students as they talked through their learning, without constantly having to compete with the din of a room without an enforced management plan. Rose’s management allowed her time to observe her students, identify their needs, and monitor their progress.

**Planning for a Standard: Linking Lesson Components Strengthens Planning**

In the beginning, Rose had difficulty writing cohesive lesson plans that show a strong tie between state standards, lesson objectives, and activities/assessments. As a result, at the beginning of the school year she was clearly considered emerging in this skill. Part of Rose’s difficulty stemmed from not providing adequate detail about the activity in her lesson plans. Although her objectives generally linked to a state standard, the activity or assessment was poorly explained making it difficult to determine whether the objective/standard related to the
assessment and correlated to the activity. The connectivity between the components that is needed for a well-articulated lesson was missing.

For example, Rose’s first attempt at differentiating instruction came during a writing lesson in October. Rose’s written objectives state that “students would generate ideas about writing, use complete sentences and punctuation in writing, and write about people, directly correspond to her selected standards, which include generating ideas before writing, focusing on a central idea, and using end punctuation and capitalization during writing” (Rose, lesson plan 1, October, 2006). Although she was relatively clear in her objectives, her activities were vague and did not address all the objectives and standards. Specifically, she asked students to complete a chart to describe helpers around school. In a different section of her lesson plan, she explained that one group of students will be writing two or three sentences about helpers while the others worked on completing the helpers’ chart. Not all students were working towards meeting the standards provided, and there was no mention of any accommodations within her plan.

In order to better understand how and what to add to her lesson, Rose worked with the coach for about an hour, after which time, the coach stated that, “She seem[ed] to have a better idea of what it’s about” (coach, personal communication, November 7, 2006). After revising her second Differentiated Instruction lesson, observed in March, Rose again was able to match her objective, “Students will tell about famous African-American inventors who contributed to our society,” to a social studies standard, “The student knows significant individuals in United States History since 1880.” This time, Rose was better able to plan an assessment that would evaluate student mastery of the standard. Her assessment activity was appropriate, students would present a skit or drawing and retell information, and her evaluation included questioning the students about their chosen inventor, with extension questions which asked students how that particular
invention is used today. Since students had never done a skit before, she revised the activity so all students would be drawing and telling about their chosen inventor. The corresponding activity for this lesson included students writing about, drawing, and explaining who their inventor was, what the invention was, and how we use that product today. Therefore, the activity matched both the state standard and her written objective.

Rose’s final differentiated lesson plan, a math plan where students worked on solving word problems, was observed in May. She again was able to match her objective to the state standard, as both were related to students’ ability to explain strategies for addition and subtraction, and what the effects of those operations are. The explanation of her activity thoroughly told exactly what she expected to happen during the lesson, students would work to solve addition and subtraction word problems using manipulatives as needed, and she would assess their progress as she moved around the room.

Rose made significant progress in her lesson plan writing. This progress can be attributed to two factors. First, Rose had access to a coach who had enough time to provide Rose with multiple opportunities for one-on-one coaching related to planning. Second, Rose demonstrated an on-going openness as she accepted feedback in her desire to “get things right.” Although Rose made tremendous progress, Rose continues to feel that lesson planning remains a weakness (Rose, personal communication, August, 2007) and as a result she is committed to strengthening this component. Her articulation of this “weakness” indicates that Rose is committed to her own learning and is able to define her own strengths and weaknesses. She is also able to make these weaknesses public. Given the complexity of this theme and Rose’s on-going concerns, Rose is considered developing in this skill.
Planning for Student Need: Knowing Students Enables Differentiation

Although Rose’s lesson planning was often weak, in that her plans were not adequately detailed and lacked connectivity between standard, objective, and activity, she did strive to accommodate all learning styles and student needs within her lessons. Given this personal belief and commitment to her individual students, at the start of the school year this theme was seen as developing in Rose’s instructional planning.

Rose’s commitment to meeting individual student’s needs was evident as she grouped students based on previous assessment scores. For one lesson in February, students who earned below 70% on an equivalency test were put in one group and those who had more success on that particular concept were placed in another group. Using a co-teach model where she partnered with her coach, Rose used the assessment scores to respond to the needs of those students who required some extra help in understanding how to create equivalent numbers through adding and subtracting. In this lesson, her follow-up for those who understood the work consisted of students creating their own number sentences equivalent to the numbers she provided to be the equation answers. Knowing the needs of some of her students, Rose also made manipulatives available to students. The students were not required to use them but they were encouraged to use the materials as she realized that many were not ready for the abstract application of the concept she was teaching.

During another math lesson in May, Rose used a similar strategy, where she reviewed with the students several ways to solve a given problem. Not only did this approach teach the students that multiple approaches exist to solving the problem, but students also had the opportunity to work out the problem in the manner they best understood. Again, they were able to use manipulatives as needed. This accommodated those students who needed tactile or visual assistance to understand the concept, but did not hinder those who did not need the manipulatives.
in order to correctly answer the questions. By using on-going formal and informal assessment to
guide student grouping and providing student choice throughout her lessons, Rose was able to
self-regulate her planning in a way that acknowledged her commitment to addressing the needs
of all of her students. By the end of the year, Rose’s use of student data to inform future
instruction is consequently considered accomplished in planning for student needs.

Openness to Consider Feedback in Planning: Embracing Feedback Strengthens Planning

Throughout the year, Rose was given feedback from her mentor teacher, coach, and this
researcher regarding her lesson planning and implementation. One of Rose’s greatest strengths
was visible here, as she both accepted and applied advice that was given to her. Because of this,
Rose was considered accomplished in terms of being open to feedback when writing lesson plans
throughout the year. Her general demeanor regarding feedback was that she wanted as much
feedback as possible from anyone who would give it to her because she wanted to be a good
teacher. She and her coach spent many hours reviewing and adding detail to her lesson plans,
since thinking about the small details needed to get through a lesson was one of Rose’s self-
identified weaknesses. According to her coach in January, 2007, “Rose has really worked hard to
improve her plan writing and takes feedback and puts it into practice.” Rose’s motivation to learn
from others is a key element of her learning to differentiate instruction.

By the time of her third observed lesson, the activities the students were participating in
were more clearly explained. A math lesson plan on word problem strategies was taught in May,
and Rose’s lesson included exactly what she planned to do, including what she specifically
planned to say to the students. Her lesson included specific instructions for the children to
follow, for example, “When your paper is put at your seat, you may go back to your seat and
begin solving the problem. Be sure and explain your thinking, and show the most efficient way
to solve the problem. If you finish solving the problem before time is called, think about it and
see if you can solve it a different way” (Rose, lesson 3, May, 2007). This increased detail in her lesson was motivated by the requests made by her instructors that she think through and write down, step-by-step, what she expected to say to the students, and also what types of responses she expected to hear from the students. Rose internalized the feedback given to her, and thus wrote stronger plans. Due to her evidenced improvement as a result of how Rose embraced feedback, her accomplished status in this area is clear.

Self-Regulation as an Over-Arching Theme

The idea of self-regulation in teacher education springs from the view that a teacher should view herself and be viewed as a learner (Manning & Payne, 1993). As such, literature that involves self-regulation can be applied to those learning to be a teacher. There are many definitions for self-regulation, several of which include the idea that self-regulation occurs when a teacher is conscious of his or her own thoughts and decisions as they are happening, and then reflects on those thoughts and takes action (Greene & Azevedo, 2007; Manning & Payne, 1993; Randi, 2004). According to Manning and Payne (1993), pro-activity is a key characteristic of a self-regulated teacher; pro-activity being the ability of a teacher to do more than simply realize a situation is occurring in the classroom. A pro-active teacher takes that realization and instantly thinks about how to handle the situation, “thinking about [his or her] decisions on how best to ‘put out fires’ or even to ‘leave them burning’” (Manning and Payne, 1993). Additionally, a self-regulated learner can be described as someone who is, “active, efficiently managing their own learning through monitoring and strategy use” (as cited in Greene & Azevedo, 2007).

In this study, self-regulation is considered an over-arching theme because each of the established secondary themes of collegial relationships, classroom management, planning for a standard, planning for student needs, and taking feedback into consideration during planning require self-regulatory development in order for the apprentice to improve. As stated previously,
development of self-regulation skills occurs at one’s own pace. Additionally, being able to self-regulate in one area does not guarantee self-regulatory ability in another area, which accounts for the varied developmental stages that can be found across the secondary themes. Rose’s case also illustrates that the nature of teacher learning in both the area of Differentiated Instruction and self-regulation is enhanced by the presence of an on-site coach who is both familiar with Rose’s emerging teaching practice as well as the specific students in her classroom and the curriculum that is being taught.

Rose’s Ability to Self-Regulate within Each Theme

Collegial Relationships

By October of her apprenticeship year, Rose demonstrated more than once, the beginnings of self-regulation in developing and maintaining collegial relationships. Rose moved through Pintrich’s (2000) phases of contextual self-regulation in one instance when she was combating negativity in her classroom environment. In this excerpt, from a communication with Rose’s coach, Rose and her mentor were working out a compromise regarding student behavior:

The behavior management issues I had noticed were also ones she's been worried about. It seems to come down to a difference in noise tolerance level between herself and her mentor. They have talked about it and she is working to become a little more tolerant of some chaos because they are still learning and her mentor is willing to let her tighten up in some areas that are driving her crazy. Everything seems pretty good. (coach, Personal Communication, September, 2006).

Rose’s perceptions of her working environment were such that she desired change. She monitored the conditions of the classroom, and made an effort to renegotiate with her mentor the classroom rules and procedures, bringing forth a change that satisfied both Rose and her mentor.
A second instance of Rose’s developing self-regulation skills regarding collegial relations is evident in October, as she considers her motivation for teaching. In this example, Rose finds herself in a negative work environment, of which she feels her mentor teacher is part. Her mentor teacher was absent one day, and the next day, Rose sent her coach an email where she talked about her reasons for becoming a teacher, and how she was managing the negative work environment in terms of her goal of becoming a teacher:

I will deal with whatever comes my way. I love children and I choose this profession because of my love for children. I will not forget my reason for being here. Everywhere you go there will be people that make things harder than it has to be. I'm glad that my mindset has changed over the years. About 10 years ago, I would have had a few choice words for everyone and would have walked out. I'm past that stage in my life.

I have learned to take one day at a time and make sure that I include laughter and fun in my life. This keeps me from melting under the pressure. I'm sure you notice by now that I love to joke around and laugh. At the same time I do take some things very seriously. Don't worry I'm not going to leave.

Yesterday, Mrs. [X] was not there and I had a blast teaching the entire day. I knew at the end of the day that I can and will make this my career. She came in around 4:00 p.m. and was surprised to still see me there. We talked about how the day went and she was very much the person I first met. I really think that she talks with Mrs. [Y] and that's where some of the negative behavior comes from. We will see what happens from here. (Rose, personal communication, October, 2006)

Rose moved through Pintrich’s (2000) phases of identifying her goal of becoming a teacher, awareness and monitoring of overcoming negativity in order to do so, finding herself in control of her own attitude, and attributing her desire to stay to her development in dealing with pressure-filled situations.

A third and final example demonstrating the power of collegial relationships is illustrated within Rose’s portfolio, where she described a collaborative planning situation where she worked with her colleagues to plan for a math unit. She explains,

When a lesson is planned by a team of people numerous ideas can be shared and implemented. Each member of the team assists in students learning of different strategies to solve problems. I learned planning a lesson takes time and effort on
everyone's part in order to be effective in teaching all students. I also learned that when decisions are made collectively, everyone has the same goals and objectives (Rose, portfolio, June, 2007)

Here, Rose reflects that a collaborative context not only helps with identifying common goals for students which is a self-regulating factor, but the sharing of ideas among teachers provides a greater bank of strategies from which she must weigh the most appropriate strategy to share with her students. This self-regulating behavior offers Rose the chance to increase her students’ opportunities to learn.

Rose’s ability to self-regulate in terms of collegial relationships is evident from the beginning of her apprenticeship. She made a visible effort to not only be aware of her surroundings, but also to control the situations she found herself in, reacting and reflecting on her environment in order to proactively steer it in a direction that was comfortable to her.

Classroom Management

Rose also showed the beginnings of self-regulation in her work as she learned from her own experiences with classroom management. During a lesson observed by the researcher during the beginning of the school year, Rose decided to assess her students using a rubric she had designed for her students’ class work activity. The rubric was a tool Rose believed would allow her students to be more successful in their learning. She believed the use of the rubric would allow her students to be more self-regulating and her choice to use the rubric to help her reach her student learning goals indicated a level of teacher self-regulation emerging in her practice. As a result of these beliefs and goals, Rose decided to review the rubric, in its entirety, before her first graders got started on their seatwork. The rubric explanation went on for quite some time, as they had never used one before and Rose made certain to thoroughly go over each section.

Unfortunately, by the time the students got to the activity, many had a difficult time staying on task and focused. Rose realized this through monitoring the behavior of the students
as she reviewed the rubric with them. In her reflection of the activity, Rose stated that she would, “not review the rubric during the lesson. It did somewhat take away from the lesson and it really wasn’t that important at the time” (Rose, personal communication, November, 2006). Once again, Rose displayed teacher self-regulation as she monitored the students’ response. Rose’s goal was to be sure students understood the rubric she was using to grade them, but as she monitored the classroom situation which found her students restless, Rose reflected on the situation and decided to change her use of rubrics in future occurrences. In this example, the goal-setting activity, monitoring and action which are central components of self-regulation (Pintrich, 2000) create a source of dissonance that Rose will need to reconcile in her future use of rubrics. Thus, recognizing this dissonance becomes detrimental to Rose’s learning as the dissonance provides motivation to revise her instructional planning.

During the same lesson, Rose noticed that her lower/middle writers were on task throughout, and she reasoned that this was due to her guidance throughout the lesson, including clues she provided about beginning and ending sentence punctuation. Since she spent additional time during the lesson working with each group, which was a developing strategy, Rose thought about the new successes she felt her students were having and attributed them to her extra assistance. Because she thought about her actions, this is an example of developing self-regulation. By the end of the year, Rose was able to reflect not just on her own lesson, but also on how her actions impacted her students. During her final observation in May, Rose thought about the groups her students put themselves in for a math lesson. She stated, “Grouping would be looked at closely, the students’ personalities sometimes clash” (Rose, lesson three reflection, May, 2007). In effect, she learned from her own monitoring of and reflection on her teaching
experience that even student-led groups may need teacher input. Rose has shown that she is able to think about her actions and take steps to improve her teaching based on that reflection.

Planning for a Standard

Rose had a more difficult time with planning lessons than with either classroom management or developing relationships with her colleagues. Because self-regulation is contextual (Pintrich, 2000) and individual (Manning & Payne, 1993), this uneven development is to be expected. Again using Pintrich’s (2000) model within the theme, Planning for a standard, Rose can be seen actively learning to regulate both her thought processes and behaviors in regards to lesson planning. Rose verbalized her goal, which was to improve as a teacher (Rose, personal communication, November 2006), and, in terms of the monitoring stage of the self-regulation model, she was also aware that in order to improve in writing lesson plans, she would need to work closely with her coach. Knowing her goal allowed Rose to make efforts to seek help and try harder to achieve it.

Much of the feedback Rose received on her lesson plans was related to providing more detail when describing her objectives and her activities. For example, Rose’s first differentiated lesson did not clearly explain what the students would be working on:

Lesson states: The second group will model what the helper does by drawing pictures of the helper. Students will choose which group they would like to take part during the lesson.

Feedback: Does this relate back to the objective? Are they writing anything? Will they write about the picture?

Lesson states: This grouping will allow for students to model and identify who the other group has described.

Feedback: Which DI strategy does this demonstrate?

Lesson states: This method will allow students to demonstrate their writing skill, focus on topic, begin each sentence with a capital letter, and use correct punctuation and form letters correctly.
Feedback: Will both groups work for this standard? One group isn’t writing. (Rose, lesson 1 feedback, 229,267; 269,294; 296,329)

This interaction via email between Rose and me illustrates her beginning lack of detail in her lesson plans. The feedback I provided was meant to help Rose think about the questions left unanswered in her lesson plan that may come up during implementation of the lesson. The email dialogue was a variation of coaching Rose through self-talk, in an attempt to help her think through these points on her own in the future.

Through much of the year, Rose struggled with being able to thoroughly develop her written plans. By increasing her effort, asking for help and receiving individual coaching, Rose was eventually able to increase the level of detail written in her plans. Rose included the following math lesson plan, implemented in May, in her portfolio:

**Opening:** Start by asking a few students what they think efficient means? Two students will be selected to pass out sporks. “I need help passing out theses sporks efficiently”. Select student 1 (pass out one by one), Select student 2 (pass out in bundles). Have class watch students while they pass out sporks. I will then ask “what made this student finish before other student. Then continue with asking which way was more efficient? Allow 2 - 4 students to respond.

Main activity/activities: Tell story problem to students, begin, Today we’re going to look at a story problem. Now close your eyes while I tell you a story:

The other day, I was at the toy store in the mall. I saw two children building a tower out of Lego blocks. They built the tower with 12 Lego blocks. Then they put some more blocks on the tower. They ended up with 27 Lego blocks on the tower.

Have 2 students retell story, Post the story problem (on chart paper) with the question. How many Lego blocks did they put on the tower?

Show student word problem sheet and let them know this is the problem we will be working on today. When your paper is put at your seat, you may go back to your seat and begin solving the problem. Be sure and explain your thinking, and show the most efficient way to solve the problem.

[Ask,] If you finish solving the problem before time is called, think about it and see if you can solve it a different way. (Rose, lesson 3, May, 2007)
This example shows her development in providing detail in her plans. Rose improved in this aspect of her lesson planning, from the earlier example with unclear activities to here, where she details everything that she expects to occur within her lesson. Instead of leaving her instructions up to whatever comes to her at the moment, she has prepared instructions that even take into consideration those students who may finish the assignment earlier than others. By providing such detail, the link to the stated standard is clear; without detail, it was difficult to determine the link between the state standard and the lesson activity. Linking this example to self-regulation, Rose monitored her actions, and then increased the amount of effort she gave to lesson planning, and thus was able to improve her plans. Rose demonstrates that she is able to control her behavior and pro-actively make a focused effort to improve.

**Planning for Student Needs**

Rose’s ability to plan for student needs surpassed her ability to plan using a specific standard to guide her lessons. Her goal from the start of the apprenticeship was for all of her students to learn, and she believed that using differentiated lesson planning strategies was an appropriate way to help each of her students achieve. In her reflection after her first differentiated lesson, Rose states,

I need to keep in mind that each student learns at a different pace and the lesson and activities should accommodate each learner. Make sure that the students are grouped according to ability as well as interest, behavior and motivation.

After this my planning has changed it helps me to take a closer look at how we as professionals need to understand that all students can accomplished task but it has to be in a way that they understand and based on important factors that each student brings to the classroom. All students have some type of knowledge. I need to know each student learning style. (Rose, reflection 1, 3550,3680; 3897,4171; 4174,4257)

Here, Rose demonstrated that she was cognitively aware of her goal for all students to learn. Additionally, she took responsibility for needing to know that students learn in different ways
and at different paces. She recognized that a teacher needs to use that knowledge to plan specifically for and accommodate her students as individual learners.

Rose similarly demonstrated self-regulation in terms of teaching so that students were involved and interested in the lesson. With her goal of student learning in mind, Rose discussed her thoughts regarding modeling and presenting a lesson that has students’ learning styles in mind:

I learned that modeling and students’ participation is also important in the delivery of a lesson. Teachers should plan and think about how students can be accommodated on their learning level. I learned that some students need hands on, others need visual as well as auditory. I learned the students should be engaged and involved in the lesson if it is planned well. (Rose, portfolio, May, 2007)

Rose’s awareness of her efforts in this area allowed her the ability to adjust instruction to meet the needs of her students by supplying manipulatives, and providing both written and oral instructions. Her reflection shows that she is able to make a conscious choice regarding the most appropriate way to implement a lesson.

**Openness to Consider Feedback in Planning**

Providing feedback is one way to scaffold apprentice teachers’ learning by providing support to the novice teacher through dialogue, specifically during lesson plan review and post-observation conferences. According to Manning and Payne (1993), “The quality of the verbal dialogue within the teacher education program is the crux of the scaffold.” Rose’s desire for feedback directly relates to the goal she set for herself and her students: for all students to learn. She takes control of this behavior by asking for help when it is needed, and persisting in her efforts to improve her lesson planning skills. Rose accepted feedback and made appropriate lesson plan revisions, which served to create stronger lessons. This, however, was a developing skill; this example illustrates Rose’s skill in this area at the beginning of the year, showing that,
although she wanted help with her planning, she did not at first put forth the effort to actually receive the help she requested:

10-25-06 Rose was supposed to have her 2nd formal observation today. She requested a meeting last week to work on lesson plan writing. When I came to her room she had nothing prepared so she canceled the meeting. The instructions I gave the group were very clear, lesson plans must be in at least 24 hours in advance so I can give feedback on your lesson plan. Rose did not turn hers in until after 9:00 the night before her observation. What she turned in was incomplete and not even a lesson. I went to her room this morning and told her I would not observe her until she did what was required for the observation. She seemed to know she had messed up and willingly said she'd redo her lesson and choose another day to get observed. I am frustrated with the lack of effort and concerned that she truly doesn't understand what goes in to planning a lesson. I don't know how to help her if she isn't going to hold up her end or even seem to care.

11-7-06 Rose had her 2nd formal observation today. Her lesson plan was much better than previous ones but still needed some editing. It seems to be difficult for her to really think through all the little details of a lesson and keep her focus on what she is trying to teach.

This example shows that although Rose recognized that she needed help with lesson planning, her reaction did not allow her to receive that help. It is not known why she did not act in a manner that would have provided her the help she requested.

As the year continued, Rose made more of an effort to sit with her coach to work on lesson planning. Her coach explained, “Researcher emailed me and asked me to help Rose with her D.I. lesson plan. We sat down and worked on it together for about an hour. She seems to have a better idea of what it's about. Planning continues to be an issue for her” (coach, supervisor notes, November, 2006). Only one month later, Rose’s coach noticed improvement:

Rose's last observation in December was really good. She was much improved with her plan writing and she did a great job of teaching. She and her mentor do a great job of co-teaching together. Rose has really worked hard to improve her plan writing and takes feedback and puts it into practice. (Coach, personal communication, January, 2007)

Sometime between November and her observation in December, Rose increased her effort and took control of her planning and lesson implementation behaviors. This is the third phase of Pintrich’s model for self-regulation, followed only by a reaction and reflection on the behavior,
which is apparent several months later in an email from Rose. When asked what she felt least comfortable doing in the classroom, Rose stated, “In the beginning, the lesson plan and the actual teaching the lesson” (Rose, personal communication, August, 2007). However, “lesson plans and the delivery” (Rose, personal communication, August, 2007) were also considered the areas in which Rose felt she made the most improvement throughout the year. Rose was aware that, although she made improvements, she still needed to work on this skill. Awareness is the second phase of Pintrich’s (2002) self-regulation model, and so at this point, Rose is learning how to self-regulate her practice.

**Conclusion**

Rose showed tremendous growth throughout her apprenticeship. Her lesson plans slowly became more detailed and thorough as she accepted feedback and applied the feedback to her work. Her continued experiences in the classroom also impacted her work as an educator, as she reflected upon those experiences and incorporated her reflections into her future actions. Rose’s awareness of her students as individual learners influenced her instructional planning work. For example, although her written plans started out weak, she had the students in mind and was thus able to create valuable learning experiences targeted at their needs. Rose’s willingness to be self-reflective, seek and accept feedback, and monitor her own learning are each self-regulatory capacities that will allow her the opportunity to continue to learn from both herself and others. See Table 5-1 for a summary of Rose’s self-regulatory development as evidenced by Pintrich’s (2000) chart.
E=Emerging behavior  D= Developing behavior  A= Accomplished behavior

Start of school year (September)  End of school year (May)

Collegial relationships:

Classroom management:

Planning for standard:

Planning for student needs:

Openness to Consider feedback in lesson planning:

Figure 5-1. Rose’s Developmental Themes Continuum

<table>
<thead>
<tr>
<th>4 Phases:</th>
<th>Cognition</th>
<th>Motivation/ Affect</th>
<th>Behavior</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Forethought,</td>
<td>• goal: positive work environment</td>
<td>• determining her weaknesses in lesson planning</td>
<td>• collaboration with peers</td>
<td>• classroom noise level was stressful</td>
</tr>
<tr>
<td>Planning, Activation</td>
<td>• goal: collaborate with peers</td>
<td></td>
<td>• rubric review</td>
<td>• negative work environment</td>
</tr>
<tr>
<td></td>
<td>• goal: all students will learn</td>
<td></td>
<td>• lesson plan difficulty</td>
<td>• different student needs</td>
</tr>
<tr>
<td></td>
<td>• determining her weaknesses in lesson planning</td>
<td></td>
<td></td>
<td>• curricular expectations</td>
</tr>
<tr>
<td>2. Monitoring</td>
<td>• This classroom is a negative work environment</td>
<td>• realizing her lesson plan was not complete in time for</td>
<td>• collaboration with peers is worth the time</td>
<td>• classroom noise level was discussed with mentor</td>
</tr>
<tr>
<td></td>
<td>• collaboration with peers</td>
<td>her meeting with coach</td>
<td>• rubric review took too much time</td>
<td>• conditions are not what would be preferred</td>
</tr>
<tr>
<td></td>
<td>• differentiating instruction is important to reach all students</td>
<td></td>
<td>• awareness that help with planning is needed</td>
<td>• different student needs</td>
</tr>
<tr>
<td>3. Control</td>
<td>• Need to address negative work environment</td>
<td>• deciding to redo lesson after coming to help session</td>
<td>• collaboration with peers about math</td>
<td>• curricular expectations</td>
</tr>
<tr>
<td></td>
<td>• collaboration with peers allows more ideas to be shared</td>
<td>with coach without a finished plan</td>
<td>• rubric review would be done a different day</td>
<td>• classroom noise level was adjusted in some situations</td>
</tr>
<tr>
<td></td>
<td>• differentiating instruction done during certain lessons</td>
<td></td>
<td>next time</td>
<td>• considered own feelings on this matter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• request of help from coach</td>
<td>• different student needs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• curricular expectations</td>
</tr>
<tr>
<td>4 Phases:</td>
<td>Cognition</td>
<td>Motivation/ Affect</td>
<td>Behavior</td>
<td>Context</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>4. Reaction &amp; Reflection</td>
<td>• A negative work environment can be adjusted with a positive attitude</td>
<td></td>
<td>• collaboration with peers helps with writing strong plans</td>
<td>• classroom noise level is improved and tolerable</td>
</tr>
<tr>
<td></td>
<td>• collaboration with peers is beneficial</td>
<td></td>
<td>• rubric review is important, but not at that time</td>
<td>• reflection upon own attitude and how this will be addressed</td>
</tr>
<tr>
<td></td>
<td>• differentiating instruction allowed students to be successful learners</td>
<td></td>
<td>• lesson plans improved</td>
<td>• different student needs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• curricular expectations</td>
</tr>
</tbody>
</table>

Mary’s Snapshot

When she herself was in third grade, Mary decided she wanted to be a teacher when she grew up. However, Mary took a different path once she entered college, working as a loan processor. She states that when she saw the Apprenticeship program opportunity, she decided to make the change in her career, and feels it is, “one of the best decisions [she has] ever made” (Mary, personal communication, August 13, 2007). Mary spent the majority of her time teaching reading. She is considered a more developed apprentice because, from the start, she had an understanding of basic teaching behaviors, including using a consistent classroom management system and creating a positive classroom atmosphere. As a result of these skills, Mary was able to focus on more sophisticated functions, such as openness to consider feedback in lesson planning and developing collegial relationships in order to improve her own practice.

In an effort to describe Mary’s orientation toward teaching, I offer the following excerpt culled from fieldnotes:

Upon entering Mary’s classroom, all students are seated at their desks, which are arranged in groups of five or six. Mary’s desk is in one corner of the room, while her mentor teacher’s desk is located on the far side of the same wall. CHAMPS behaviors are posted on the wall, with the appropriate student behaviors listed for each category. Mary positions herself near the students when she speaks to them, standing away from the whiteboard at the front of the room. She calls them to the carpet, where she explains the day’s lesson and then divides them into groups, one of which she asks to return to one of the groups of six desks. The second group remains on the carpet where she tells them what to do for their assignment. She returns to the group seated at the desks and goes over their task with them, and then circulates around the
room, providing assistance to both groups of students. Students talk with each other about their given assignment as they work together to complete it.

Based on this description, Mary can be characterized as having developed some of the classroom management skills necessary to transition students during a lesson, allow children to work in small groups, and differentiate instruction. Additionally, Mary demonstrates the ability to work with two groups of students engaged in different tasks.

**Analysis Themes**

As identified previously, several major themes emerged within Mary’s data, demonstrating how Mary developed in her planning and implementation of Differentiated Instruction. Each of the major themes will be discussed in terms of Mary’s growth, as evidenced by the stages of emerging, developing, and accomplished. The major themes that emerged as contributing to the apprentices’ ability to plan for differentiated instruction included: collegial relationships, classroom management, planning for a standard, planning for student need, and openness to consider feedback in planning. Additionally, an overarching theme of self-regulation also emerged as I began to identify attribution for a specific demonstrated ability. As the most advanced apprentice of the sample, Mary demonstrates accomplished behaviors within all themes by the end of the school year. The following section illustrates the themes that influenced Mary’s work related to planning for differentiated instruction. Additionally, Figure 6 shows on a continuum Mary’s growth within each theme.

**Collegial Relationships: Collegial Relationships Strengthen Planning**

At the start of the school year, Mary quickly demonstrated competence regarding collegial relationships. Even as an apprentice, Mary became involved with school trainings and brought what she learned back to her grade level team. In September of her apprenticeship year, Mary became the standards coaching grade level representative. In this role, she gave feedback
regarding what she had learned to her mentor teacher. Taking this role on so early in the year demonstrates that Mary was comfortable in the both the learner and peer teacher role within her grade level. Doing this enabled her to develop strong collegial relationships with other teachers at her school.

**Classroom Management: Classroom Management Facilitates Growth**

Mary expressed that the most challenging part of teaching was classroom management. When she entered the classroom, she had a difficult time being firm and consistent. She said, “The one thing I had to really get used to was discipline. I tend to give in and feel bad, so that was something I had a hard time with and had to get over quickly. Once I was over the feeling bad part it was easier for me to discipline. It is a necessity!!” (Mary, 2007). In October, Mary attended a CHAMPS training for behavior management, and by early November, her coach commented that, “She seems to have found more of a balance between classroom management and having fun with the students. She didn’t seem as serious and her relationships with the students were very obvious. Her management has really improved” (coach, 2006). Because she was aware of her difficulty and made effort to improve, she is considered developing at the start of the year. By the end of the year, she consistently implemented CHAMPS and demonstrated complete competence in managing her class, and she was then considered to be accomplished in classroom management.

**Planning for a Standard: Linking Lesson Components Strengthens Planning**

Planning for a state standard means that the objective, activity, and assessment of the lesson plan match. The activity and assessment should be described in full, so that connection to the standard is clear. Mary’s lessons plans were consistently written clearly and thoroughly, and also related directly to the state standards. Beginning with her first observed differentiated instruction lesson plan, implemented in November, Mary’s plan for the students was described in
full. Her objective, “Students will identify author’s purpose,” is measurable and clear, and it
directly relates to her selected standards, the first being to identify author’s purpose, and the
second being to read and organize information for different purposes. Her students were divided
into two groups for this activity, and in both cases, they were given activities in which they
determined the author’s purpose of at least one piece of writing. With feedback, she was able to
do this at the start of the year and was considered at a high degree of developing in writing
strong objectives that tied directly to standards. A later lesson plan had the stated objective,
“Students will discuss during a presentation the importance of using words not violence to make
changes,” with the correlated standard being, ‘The student understands the importance of
participation through community service, civic improvement, and political activities.’ The
activities throughout the lesson plan were well-explained, and the student presentations at the
conclusion of their work time, which was spent researching how famous Civil Rights activists
successfully used words rather than violence to push for change, did address the objective of the
lesson. Mary differentiated this lesson by giving students the opportunity to choose which Civil
Rights activist to research. This activity was part of a greater unit for social studies.

A final example of Mary’s accomplishment in writing standards-based lessons can be
found in May, when she was teaching a math lesson on telling time. Mary explained throughout
what each student would be doing during the lesson. Again, students were divided into groups,
the objective being to “learn how to tell time in increments of 1-minute, 5-minutes, 30-minutes
or 60-minutes using the handmade ‘clock,’” which was crafted using a tortilla face, M&Ms for
minutes, and licorice for hands. The standards she was addressing in the lesson were again
closely tied to her objective: One was related to using graphic models to tell time; the other was
about solving real world problems related to time. Each group was working towards a clear goal,
which was determined by readiness, and she would easily be able to tell which students had and had not met her objective. One group was telling time in 1 minute intervals, while another group was used 5 minute intervals, and the last group worked with 30 minute intervals. Mary consistently wrote her objectives to correlate to a state standard, and therefore is designated as excellent within this the theme of writing clear, measurable objectives to correlate to a standard.

**Planning for Student Need: Knowing Students Enables Differentiation**

Mary strove to address the wide gamut of student needs, from planning fun, hands-on lessons which are essential to student participation, to planning based on academic need. Mary planned many creative lessons throughout the year that directly involved students in their learning. Aside from the aforementioned tortilla clock lesson, Mary also created a grid on the floor of the classroom to help students learn how to use ordered pairs. She turned this grid into the floor plan of a zoo, and students had to use ordered pairs to describe the location of animals in the zoo. As an extension to that lesson, students played a teacher-made version of the game, Battleship, and had to use correct ordered pairs to sink their partner’s ships. As part of a language arts lesson, Mary introduced the topic of non-violent reactions to civic problems by describing a situation to which students could relate. She explained that the city commission was going to put a building where the local baseball field and park was located. She asked students for ways to approach the problem without using violence, and then connected their answers to the main players of the Civil Rights Movement. Making these connections helped Mary involve her students and get them interested in the topic at hand. Each of these lessons was created to catch and maintain students’ interest, but they are also tightly correlated to the lesson, and standard, at hand.

Mary focused a great deal of her attention on monitoring student progress and delivering instruction based on student need. She used a homework tracking system and pre-assessments to
help her determine both student need and growth. Mary developed this system for going over homework with each individual student daily. According to her portfolio, she used this system as a formative assessment, which helped her plan her lessons around what the students seemed to understand or misunderstand. Because she feels that homework should have a purpose, which is to practice the skills students are learning in school, she needed her students to do the work she assigned. In order to guarantee that the homework assignments were done by the students, Mary provided a biweekly incentive for those students who did at least all but two assignments in each two-week period.

Mary frequently used student assessments to guide her practice. This allowed her to create flexible groups, which were catered to match each student’s need during a particular lesson. In one instance during a language arts lesson, Mary was teaching the students about author’s purpose. She gave them a pre-quiz on author’s purpose which she created on FCAT Explorer a few days prior to the lesson. The results of this quiz guided her as she decided which students to place in one of two groups where author’s purpose would be studied. The students who earned the higher scores were placed in a group where they had to write about a page on the topic of their choice. At the end of the writing, they were to explain the purpose of their writing. Once all group members were finished, students exchanged writings and then had to determine the purpose of each other’s writing. The second group of students worked in pairs. Mary provided them with clippings from newspapers and magazines. With their partners, each student had to determine the purpose of each clipping, and write down evidence to support their answers. Clippings included items such as comic strips, advertisements, and news stories. Once the practice was complete, Mary collected the students’ work and looked for evidence of learning. She then determined which students had mastered the skill and which needed further assistance.
The primary assessment allowed her to place students in groups according to their need of practice regarding author’s purpose, and this differentiation allowed all of her students to make appropriate learning gains.

A second example of Mary’s use of assessment to guide her practice is in the case of telling time. Again, she gave the students a pre-quiz to determine readiness and understanding of telling time. The pre-quiz included questions on both clock reading and word problems. From their answers, Mary was able to determine whether students needed to be placed in a group practicing quarter and half hour increments, five minute increments, or solving word problems. Because she gave students a pre-quiz, each student was in a group of other students practicing the same skill; those who needed practice with basic clock-reading skills were allowed to hone their skill, while those more advanced could move forward and work on more abstract thinking with word problems.

Mary often planned for students to work in groups. Within her written portfolio, she stated that putting students into groups provided many benefits. First, it gave the students an opportunity to ask each other for help before consulting with the teacher, which increased cooperation within her classroom. Second, students working together freed her to walk around the room and assist all groups, rather than staying with one struggling student the entire time. During her time telling lesson, Mary planned for students to work in cooperative groups. She required them to pose any questions to their group members before asking her for help. She felt that doing this allowed them the opportunity to gain a greater understanding of the concepts they were working on. Between giving pre-assessments to determine student groups, basing lessons around student interest, and relating activities to what students already know, Mary has shown
from the start that she is accomplished at developing her instruction based on the needs of her students.

**Openness to Consider Feedback in Planning: Embracing Feedback Strengthens Planning**

Another of Mary’s skills is her openness to consider feedback from peers, her mentor, and coaches to improve her lessons. She made a visible effort to take the suggestions of others from the start. One stand out example is found while Mary was planning for her second differentiated lesson observation. The first lesson plan she turned in was decidedly lacking in the detail and thoroughness of her previous lessons. She did not include an objective in her plan, and it wasn’t clear which standard she was addressing. Additionally, her assessment plan was vague, likely due to the fact that she did not have an objective for her lesson. Feedback was provided to her by the researcher, which explained that she needed to more clearly explain what she was expecting of the students. She would need to add an objective and be sure the assessment matched what she decided the students were going to learn. Once Mary focused in on her objective, her lesson became more cohesive, and its implementation was a success.

**Self-Regulation as Over-Arching Theme**

As noted previously, self-regulation is considered an over-arching theme because each of the established secondary themes of collegial relationships, classroom management, planning for a standard, planning for student needs, and openness to considering feedback in planning require self-regulatory development in order for the apprentice to improve. Mary’s ability to self-regulate within each theme is explained in detail below.

**Mary’s Ability to Self-Regulate within Each Theme**

**Collegial Relationships**

Establishing positive relationships with colleagues directly relates to an apprentice’s working environment, or context. In Mary’s case, she made an effort to collaborate with her
mentoring, and when she realized that she had not seen her mentor write plans for an extended period. Mary decided she wanted to understand how this was done, so she asked her mentor to make time for them to discuss how to write lesson plans for a week at a time. By doing this, Mary took control of her context by seeking help to work towards being able to plan on her own. Mary sent an email describing her efforts at meeting with her mentor: “Have a good relationship with my mentor—we are working on getting together once a week to work on lesson plans—haven't seen much of those so this is definitely needed!!” (Mary, personal communication, October, 2006). Mary demonstrates her willingness to seek out help when she feels she needs it; this proactivity is part of self-regulation (Manning & Payne, 1993).

Mary also made several attempts to co-teach with both her mentor and coach. In one particular example, Mary led the lesson and her coach assisted the students. Her coach has this to say about the co-teaching experience:

During Mary’s first spring observation she incorporated me (Lauren) into the lesson as a co-teacher. The co-teaching model utilized was one teach/one assist…My role in the lesson was to walk around and assist the kids with the set up of their game. There were also an odd number of students so I was able to play the game with one of the students. (coach, personal communication, January, 2007)

Mary took advantage of having two adults in the classroom, and used the second adult to assist students with their work, which freed her to circulate around the room and work with students as needed. Mary used foresight in planning a lesson that incorporated available resources. Foresight and planning is an early phase in Pintrich’s (2000) model for self-regulation.

In these instances, Mary demonstrated that she is able to work with her colleagues, and also use available resources to improve instruction for her students. Additionally, she showed that she is willing to take the initiative and request help when needed; asking her mentor teacher for help with planning not only showed that she saw a need, but also showed that she is willing to take control of a situation so she can create a suitable outcome for her learning.
**Classroom Management**

Similar to Mary’s identification of her need to understand lesson planning, Mary also experienced a felt difficulty with classroom management at the beginning of the school year. Her five-week progress report noted that one of her areas of improvement was “consistency with CHAMPS and student flip cards” (coach, personal communication, October, 2006). Very shortly after, Mary attended a CHAMPS training for classroom management, after which Mary commented, “We went to CHAMPS training last week and that was a big help-really enjoyed it” (Mary, personal communication, October, 2006). Mary sought help in an area she felt needed work, and thus improved her skills in the area of classroom management. By the beginning of November, her coach noted, “[Mary] seems to have found more of a balance between classroom management and having fun with the students. She didn't seem as serious and her relationships with the students were very obvious. Her management has really improved” (coach, personal communication, November, 2006). In an email the following August, Mary noted,

> The one thing I had to really get used to was discipline. I tend to give in and feel bad, so that was something I had a hard time with and had to get over quickly. Once I was over the feeling bad part it was easier for me to discipline. It is a necessity!!...Discipline would be what I would say I improved on the most throughout the whole year. Also, just being able to take charge of the class, at first I was intimidated and nervous, but once those feelings go away it was easier and I got a lot more comfortable in the classroom as a whole. (Mary, personal communication, August, 2007)

According to Pintrich’s model, Mary renegotiated her context and adjusted her actions to suit a need. This is the third phase in this model for self-regulation. By further explaining her felt improvement in the classroom atmosphere, Mary reflected on the change she felt when she first realized she was in control of the class.

**Planning for a Standard**

While participating in a January workshop on differentiating instruction, Mary’s class watched a video showing an experienced teacher modeling a differentiated lesson. The teacher
created a hands-on lesson where students used tortillas and candy to create a clock, and then answered readiness specific word problems about time. Mary borrowed this lesson and adapted it to fit the needs of her own classroom. Even though the apprentices were not told to use this specific lesson, Mary saw an opportunity for her students to engage in a fun, hands-on lesson that addressed one of the required grade-level standards. Mary’s reflection after this lesson stated, “A lot of the students finally understood how to count by 5’s on the clock to tell time. All groups were able to make their clocks tell the time they picked- even if they needed help from the others the groups were able to get to the right answer” (Mary, portfolio, May, 2007). Here, Mary’s goal of making sure her students understood how to tell time pushed her to borrow an engaging lesson that she selected to match a required standard, and differentiating the content made sure that all students were learning what they needed to move them to the next level.

Planning for Student Need

Mary was very motivated in addressing student need within her lessons. Time and time again, she used what she knew about the students to create engaging lessons that addressed the standard at hand as well as the needs of her students. After her author’s purpose lesson, Mary reflected on how well her students completed their assigned activities:

When we get back into author’s purpose I will make sure to pay special attention to the students today who still had some difficulty to make sure they get it. I think with more articles and books of different types they will be able to see the Author’s purpose better- they already understood it better than the first time we did it…In the future, I will be more aware of my students’ abilities and try to group them together like I did for this lesson so everyone will be learning on their level. It seems to be more fun for them too- getting away from constant whole group instruction. (Mary, reflection 1, November, 2006)

In this situation Mary cognitively set a goal, for students to understand author’s purpose. She then monitored their progress in learning this skill, selecting specific targets for each student to accomplish, based on their own need. Upon reflection, Mary decided that students had made progress, and would likely continue to do so as they continued working with author’s purpose.
This example illustrates Mary’s movement through each phase of self-regulation in the area of cognition.

Mary also addressed student need outside of daily lesson planning. When she discovered that most of her students were not completing their assigned homework, she thought about and planned a solution to this problem, one within the context of her classroom. In doing so, she moved through Pintrich’s first phase of contextual self-regulation. She accordingly made a plan to change students’ experience of doing homework, creating a homework tracking system, complete with a motivational reward. She then moved to the next phase of self-regulation, changing the context of the assignments. After implementing her homework tracking system, Mary evaluated its success:

I learned that it was difficult to know who understood the lessons being taught daily if homework wasn't checked. You can not just assess students on tests; checking homework daily will show you who is struggling and who understands. By having the students come to me individually I am able to take the time to review the homework before class starts so I know what I need to add to my lesson plans for that day. Checking homework also helps me to see what I can plan for the following day as well if they are ready to move forward…I also learned that a lot of students will not do homework if there are no consequences, good or bad. This is why I implemented the reward every 2 weeks for those who complete homework…This is to keep them doing the homework because a lot of them wouldn't do it in the beginning of the year, but there has been great improvement since I implemented this. (Mary, portfolio, May 2007).

Again, Mary successfully made a full cycle through the phases of self-regulation: perceiving a part of her context she wished to change, making a plan to do so, monitoring the change, and evaluating its worth.

Openness to Consider Feedback in Planning

As an accomplished apprentice, Mary was critical of her own teaching and took her own criticisms, as well as the feedback of others, and used what she learned to improve her practice. During her lesson regarding author’s purpose, Mary noticed that the students in the identification of purpose group were having trouble keeping their clippings organized. This problem was
discussed during her post-observation conference, and she identified the problem and possible solutions, one being to label the clippings with an identifying letter, which could then be recorded within the students’ answers: “My articles I had printed out I feel were good and the students enjoyed them, but I should have labeled them for them so they knew what to call them when writing down the categories on their author’s purpose worksheet. But they made up their own titles so it was fine, but next time I would title it for them” (Mary, reflection 1, 2323,2454). Mary reflected on her lesson, thinking of ways to make change for the future, which is the last phase of self-regulation.

During Mary’s lesson on telling time, students used tortillas and candy to create a clock. She and the students discovered that the tortillas were not the best thing to use for the face of the clock, and so they thought of other items that could be used in their place. Mary planned to use student feedback to make future experiences with this particular lesson even more successful: “The materials I used were effective because it got the students excited to use them and see how they were going to make a clock out of them. They did give me some suggestions on what I could use instead of the tortillas because they smelled-(paper or cardboard)” (Mary, reflection 3, May, 2007). Again, she noted in her reflection ways to make this change for future lessons in order to improve the result. Rather than simply complaining about how a lesson didn’t work perfectly, Mary looked for ways to improve it, listening to feedback from her students, and then wrote down where and what changes needed to occur.

Experienced teachers see possible lesson ideas even when they are not specifically working on planning. Mary shows diligence in learning from her own experience and the experiences of others. Mary herself states that she is comfortable in all aspects of teaching (Mary, personal communication, August 13, 2007). It is clear that her lesson plans show a concern for student
interest and a desire for student learning. Her lessons are both engaging and tightly focused around the required standards, and since she bases her student groups around readiness, her students are learning at their risk level: they are working just above what they already know, but are not frustrated by doing something far above their readiness.

Because she entered the classroom already able to attend to things like positive collegial relationships and classroom management, and planning appropriate lessons that address both stand and student need, Mary was able to focus her attention on self-reflection and considering feedback in her planning. Mary does not only teach day-by-day; she is constantly thinking about her work and pro-actively making changes as she sees fit. These are characteristics of a self-regulated teacher (Manning & Payne, 1993). See Table 6-1 for an illustration of Mary’s use of self-regulation to improve her practice. Although she is not self-regulating in all aspects of teaching, as a beginning teacher, she is able to move through much of the self-regulation cycle by following her goals through from planning to reflection.

**Conclusion**

The most important thing about Mary is that her willingness to both take feedback and try new ideas allowed her the opportunity to learn how to be a better teacher. She got to know her students, which was visible through her ability to plan lessons that address students' interests and abilities. Her lessons were focused and met the required standards, and so were respectful of students' time and effort, and because she checked their homework regularly for needs, her lessons that followed addressed those needs.
E=Emerging behavior    D= Developing behavior    A= Accomplished behavior

Start of school year (September)    End of school year (May)

Collegial relationships:

Classroom management:

Planning for standard:

Planning for student needs:

Openness to consider feedback in lesson planning:

Figure 6-1. Mary’s Developmental Themes Continuum

<table>
<thead>
<tr>
<th>4 Phases:</th>
<th>Cognition</th>
<th>Motivation/ Affect</th>
<th>Behavior</th>
<th>Context</th>
</tr>
</thead>
</table>
| 1. Forethought, Planning, Activation | • Goal 1: How to use 2 adults in the room?  
• Goal 2: teach students so they know author’s purpose | • Awareness of the need to learn how to manage classroom  
• Awareness of the need to learn how to plan lessons | • Didn’t see enough examples of lesson planning, so asked to meet with mentor.  
• Took CHAMPS training | • Students not listening |
| 2. Monitoring              | • There are 2 adults in the room.  |                                           | • More consistent use of classroom management | • CHAMPS training |
| 3. Control                 | • Need to utilize both adults through use of co-teaching.  
• Borrow others’ lesson ideas | • Student behavior improved             | • Students better behaved. | |
| 4. Reaction & Reflection   | • Upon reflection, students improved ability to identify author’s purpose. |                                           | | |
CHAPTER 7
THE CASE OF JANE

Jane’s Snapshot

Jane entered teaching after working as an architect. She cites Jesus as her reason for entering the apprenticeship, believing that teaching is her calling (Jane, personal communication, August 13, 2007). Jane regularly taught science, often connecting the science curriculum to math and language arts standards. Most of her time as an apprentice was spent working on the rudimentary skills of teaching, including classroom management and navigating collegial relationships. Although Jane was capable of planning creative lessons, she had difficulty presenting them at the students’ levels, as well as implementation, because she spent so much time working on these attention-grabbing issues.

In an effort to describe Jane’s orientation toward teaching, I offer the following excerpt culled from fieldnotes:

Upon entering Jane’s classroom, the noise level is very high. Some students are sitting at their desks, while others are walking around the room, seemingly with no destination in mind. Jane stands at the front of the room, working with a group of students seated at a kidney-shaped table, her back to the rest of the class. None of the students behind her appear to be working on any classwork. After she explains the assignment to the students in the small group, she turns around to the others, telling them they need to sit down and get to work. She makes an attempt to circulate to those students, but she is soon called back to the kidney-shaped table to assist some of those students. The rest of the class again starts talking and moving around the room. Jane seems unable to manage either group, as few of the students make an effort to complete the task they are assigned. The atmosphere is chaotic, and it appears difficult for students to concentrate through the chaos.
Based on this depiction, Jane can be characterized as a teacher who has not yet developed
the classroom management skills necessary to keep her students focused and on task.
Additionally, although she made an attempt to attend to student needs, her lack of awareness
regarding her students’ actions keeps her from being an effective teacher.

**Analysis Themes**

As identified previously, several major themes emerged within Jane’s data, demonstrating
how Jane developed in her planning and implementation of differentiated instruction. Each of the
major themes will be discussed in terms of Jane’s growth, as evidenced by the stages of
emerging, developing, and accomplished. The major themes that emerged as contributing to the
apprentices’ ability to plan for differentiated instruction included collegial relationships,
classroom management, planning for a standard, planning for student need, and openness to
consider feedback in planning. Additionally, an overarching theme of self-regulation also
emerged as I began to identify attribution for a specific demonstrated ability. The following
section illustrates the themes that influenced Jane’s work related to planning for differentiated
instruction. Additionally, Figure 7 shows on a continuum Jane’s growth within each theme.

**Collegial Relationships: Collegial Relationships Strengthen Planning**

Jane was first placed in a second grade classroom, where her difficulties establishing
positive relationships with colleagues began. Her mentor teacher did not have a consistent
classroom management system in place, and Jane’s first experiences in the classroom involved
many discipline problems. After approximately one month in the classroom, her mentor
resigned. Before a new teacher was found, Jane called for a parent conference with parents who
have been hostile in the past, without inviting another faculty member. This conference led to
some amount of trouble, as the parents later accused Jane of making inappropriate comments.
Without a witness, Jane was faced with a he said-she said situation. As an apprentice, Jane was
not to take on this responsibility herself; a more experienced faculty member should have been in the room during a situation such as this. This is an early example of Jane’s inability to decipher when she should lead situations and when she needed to work with a colleague, and why she is considered emerging regarding collegial relationships at the beginning of the year.

In October of her apprenticeship, Jane wrote an email to her principal, stating several concerns she noticed during this placement regarding the teacher’s abilities and what content had been taught. Jane stated that she would like the opportunity to take over the class from that point on, even though she had not completed her apprenticeship or gained state certification, and the class was riddled with classroom management problems as they went from substitute to substitute. She reasoned that the students knew her, and she knew them, so she was most qualified to complete the year. However, due to Jane’s inexperience, she was moved to a neighboring classroom with a different teacher, and a new teacher was hired to take over with her original students. This transition did not go smoothly, as Jane again tried to remain with her former charges for reading instruction through the beginning of November. Due to the perceived tone of her email and her subsequent insistence that she take control of the class, the principal was inclined to remove Jane from the program. Jane apologized and worked out the situation with the principal, and was able to stay to finish the year in her new placement. Jane’s preoccupation regarding these matters prevented her from finding the time to plan appropriate lessons for the students. Therefore, she demonstrated that her skill regarding collegial relationships was emerging at this point of the school year.

In April, Jane again asked to be removed from her placement and put with another mentor. Due to Jane’s difficulty keeping day-to-day control of the students, as well as her tendency to teach above the students’ levels, her mentor told her she could not recommend her for a teaching
position. Instead of taking her mentor’s feedback regarding maintaining consistent expectations and toning down her working vocabulary so students could follow her speech, Jane kept doing the same things she had been doing, which invited chaos into her classroom. Her request to switch classrooms was not honored, and Jane remained in this second grade classroom. Even at the end of the year, Jane had trouble adapting her behavior to the needs of her classroom. Although she claimed to get along with her mentor, this is not all it takes for positive relationships with colleagues. Jane did not understand the need to be flexible rather than confrontational, even in May, which meant that she was still considered to be at the emerging level in developing positive collegial relationships.

**Classroom Management: Classroom Management Facilitates Growth**

When Jane entered her second placement in November, she had a lot of ground to make up. She especially needed help with classroom management, as her students appeared to be running the class. Beginning with her first observation, Jane was given a great deal of feedback, including ways to help her keep the students focused on the lesson at hand. During these post-observation conferences, Jane seemed to agree with the feedback, but made no motions to act on it since the same behaviors were seen in subsequent observations. During a lesson observation on October 25, Jane’s coach noted that Jane spent a majority of the lesson yelling over the students, to no avail as she did not gain their attention. Jane asked the coach to take over the lesson for her, which she did successfully. Jane and her coach discussed this issue, but it was seen again in an observation on December 6. Her coach was concerned that Jane did not see classroom management as a trouble area to focus on, even after she was provided with feedback regarding how to implement a consistent management plan. Throughout the year, Jane struggled with classroom management, not using the school behavior program, CHAMPS, which other apprentices used successfully, but instead waiting until April to create an elaborate plan, a token
system in which students earned money to be spent at the end of the year. Because she waited until almost the end of the year to begin, and since students had to wait weeks to purchase their prize, and since control of the classroom was taken away from Jane by her mentor teacher, this management plan was only moderately successful. Jane noted an improvement in student behavior, but her mentor teacher still felt that she needed to take over as the lead teacher. Had she taken the feedback given to her by her mentor and coach, it is likely she would have implemented a management system much earlier in the year, or followed the lead of others throughout the school successfully using CHAMPS.

Jane took a different approach to classroom management during an observation on May 16, a science lesson about volcanoes. The researcher waited outside the door for about 5 minutes, per Jane’s request, as she tried to get the class settled. At this point, she came to the door with several students, and asked the teacher next door to take them during her observation. These students were celebrating the success of being asked to leave before the lesson even began with high-fives and shouts. Jane did not send them out with any work to do, so they spent the next forty minutes missing content and instruction. By asking students to leave before they had a chance to misbehave, Jane shows that she could not maintain the classroom environment so that all students were able to participate in the lesson without disruption.

On several occasions throughout the year, Jane disciplined students in the public forum of the classroom by stopping the lesson midway to discuss inappropriate behaviors. She also spoke harshly to some students (coach, personal communication, April, 2007). Harsh speech was also observed earlier in the year, in January, during a science lesson. The feedback she was given regarding ways to speak to students and the information from literature she was assigned which discussed ways to establish relationships with students went unheeded, and students continued
acting out during her instruction time. Because Jane didn’t try to implement a behavior plan until far into the school year, she is considered emerging at that point, but due to her realization that change needed to make indicates that by year’s end, she could be considered developing: she did not yet effectively handle classroom management, but she did see it as an issue that needed her attention. Jane’s difficulty with differentiating instruction is directly reflected in her difficulties with classroom management because it shows a disconnect between her and her students. There is a cycle of disrespect in her classroom; her students don’t show her respect because she doesn’t show them respect. This creates a problem with differentiation because doing so is possible only when a teacher really knows her students.

**Planning for a Standard: Linking Lesson Components Strengthens Planning**

Jane progressed in her ability to write measurable, standards-based objectives. She started the year at the emerging level, writing objectives that were broad ideas of what she wanted students to be able to do that were loosely based on the state standard. For example, a lesson from October (Jane, Lesson 1, October 2007) had as its stated objectives, “1) to allow the students to practice the reading comprehension skills they have learned this year, 2) allow the students to learn more about spiders and connect this information to the world we live in.” Neither of these objectives relate specifically to the standards Jane chose for this lesson, which required students to read for information and write for a specific purpose. Her objectives did not include a measurable task for students to complete, so it would be difficult for Jane to determine whether students met the goal within her assessment.

By her second lesson in March, Jane had improved in this area. Her objectives for social studies lesson stated that students were to research African Americans who have contributed to American society in the time directly after the Civil War and learn methodologies for communicating information to their colleagues. The standards Jane selected to accompany these
objectives were tied to understanding that history tells a story and the contributions of famous historical figures. In this case, Jane’s objectives are more clear and measurable, but do not both directly relate to a standard. In addition, the assessment for this activity was for students to present a summary of what was learned along with their group project choice. The assessment does correlate to the standard, but it only loosely connects with the objective; in a concise and correct lesson plan, all of these elements should be linked together.

A final example of Jane’s growth regarding planning to address a standard is found in a May science lesson. Her objective for this lesson, to have students learn how and why a volcano is made, does not require a measurable student behavior, and is not related to the standard selected: The student uses maps, globes, and other three dimensional objects to identify and locate places. Her assessment for this activity does match the objective, as it asks for students to either write a paragraph explaining how a volcano is made or draw a picture and label it. Both assignments require students to use specific vocabulary to explain how a volcano is formed. It appears that Jane made an attempt to find a standard to match what she wanted to do with the students, but proper lesson planning should happen the other way: a standard is selected, and then activities are created to teach that particular standard. But because Jane has made an attempt to correlate the standard with the parts of her lesson, she is determined to be developing at this skill at the end of the school year. However, her ability to plan suitable lessons is only the beginning. The next step in planning to a standard will come when Jane is able to plan for a standard with specific student in mind, an idea address in the following section.

**Planning for Student Need: Knowing Students Enables Differentiation**

Jane also struggled with writing her lessons to suit the needs of her students. She is considered emerging in this skill at the start of the year. Although she wrote well-written lessons, they were often above the level of her learners, which caused students to lose focus and become
disruptive. In preparation for the aforementioned activity on spiders, Jane prepared an elaborate display board with maps, text, and pictures related to spiders. She printed text found on the internet and glued it to the board, without the text revisions that would have brought the text down to second grade reading level. The font was very small, and students at the board had a difficult time both reading the text and understanding what was read. Additionally, students at the board were given work packets to complete, also typed in a difficult to read font. Because of these problems, students in the activity board group needed constant help from Jane, who was trying to work with the remainder of the class at the same time. The end result was an entire room of off task students, all of whom needed a question answered before they could progress in their work. Jane was being pulled in several directions at once. Jane did learn from this experience, and subsequent lessons were geared much more closely to students’ readiness levels.

Jane was able to create several relevant and creative lessons for her students. In these instances, she did have their attention and behavior issues were at a minimum. She used her architectural background to catch the students’ interest. In one lesson, Jane reinforced lessons on estimating, measuring, and scale through diagrams and model building. In another language arts lesson, Jane created a scavenger hunt where students searched for words with the ‘a’ sound. Perhaps her most engaging lesson was a school field trip where she brought students outside to study the wind. She introduced the lesson with a discussion with the students, who were seated on the carpet. They talked about personal experiences with wind, and then Jane introduced to the group new vocabulary words and reviewed vocabulary on the topic they had previously learned. The students then lined up and went outside to observe the wind and how it affected the flag that was on top of the school. Jane also used her coach as a team-teacher. Students were engaged and
on task, and although the coach noted some behavior problems, the active lesson brought about fewer problems than usual.

Another strong, active science lesson was observed in February. This time, students worked in groups of four to measure water temperature. One group member was the recorder, and the remaining three were in charge of measuring water temperature in hot, cold, and mixed bowls of water. Only one pencil was available to each group, and all supplies were set up and ready when students returned from lunch. Jane’s coach noted an improvement in classroom management during this lesson, and students were again actively creating their own knowledge about water temperature. Jane was able to make science fun, and students responded appropriately. Her use of active, engaging lessons helped keep behavior issues to a minimum.

Jane eventually began considering the needs of her students when planning lessons; however, she was better able to address their interests than she was able to address their readiness. Her skills in differentiation are rudimentary, as she does not address students’ needs as individual learners instead focusing on gaining the attention of the entire class. Given her difficulties in classroom management, however, this may be considered a valid starting point for Jane. At the end of the year, taking her active, hands-on science lesson plans into consideration, Jane is considered developing in this skill.

**Openness to Consider Feedback in Planning: Embracing Feedback Strengthens Planning**

Jane resisted feedback in all aspects of her practice. As discussed previously, her coach’s suggestions that Jane work on discipline went unheeded until late in the school year. In November, apprentices were required to create a lesson plan showing differentiation. Her lesson on spiders was submitted and feedback was given to Jane. Her lesson required that some of the students create a chart to compare spiders to insects, and other students were asked to fill in the blanks in sentences about spiders, after reading sentences about spiders on a display board and
then use that information to write their own paragraph. The feedback Jane received asked the following: “Have they written a paragraph like this before- picking information to go into a paragraph?” and “Are they good at grouping similar ideas together? ...They will have to know how to group the same things together in order to compare.” Rather than address the feedback when revising her lesson, Jane chose to completely revamp the lesson before the observation, not giving the observer time to review the changes. Her new lesson did not include any part of the original plan, showing a resistance to incorporating suggestions into her first lesson.

Jane did demonstrate that she heard feedback given to her regarding a lesson written in March for a differentiated planning assignment. Her preliminary lesson activity gave the students six choices from which they could choose to complete their activity: a diorama, poster, news report, play, poem, or song. Feedback was given, suggesting to Jane that she limit the activity choices to a more manageable number. She was reminded that she would need to show an example and have a way to score each type of project, and that it may end up being a great deal of work for her as the teacher, rather than what could be a fun learning experience for the entire class. As a result, Jane did limit the activities to a poster, play, poem, or song. She decided that, although the other options were worthy, students would need to learn how to do them prior to the assignment and so would be removed from the list for the time being. Additionally, she limited the number of research choices for the same assignment. By mid-way through the year, Jane did show greater willingness to accept feedback; however, she did not routinely do so. Although considered emerging at the onset of the school year, she is considered to be developing in this skill by year’s end.

**Self-Regulation as Over-Arching Theme**

As explained in pervious chapters, self-regulation is considered an over-arching theme because each of the established secondary themes of collegial relationships, classroom
management, planning for a standard, planning for student needs, and openness to consider feedback in planning require self-regulatory development in order for the apprentice to improve. The follow sections illustrate how Jane demonstrated her ability to self-regulate within each of the aforementioned themes.

**Jane’s Ability to Self-Regulate within Each Theme**

**Collegial Relationships**

Jane had great difficulty forming positive relationships with her colleagues. One reason could be that how she tried to reach her goal for student learning was not aligned with the methods of others at her school. Throughout the year, Jane became preoccupied with matters that did not involve the students in her class, or the methods she was supposed to be learning, both in her university classes and by observation. Jane was very concerned for the future of her students, but this very large-scale worry kept her from seeing the here and now. With her inexperience came a grand vision of affecting every child. She needed to meet with the principal at that exact moment so they could do the ‘one thing’ to make things better for the students, and if they didn’t they would lose the kids. Although the principal also had the best interest of the students in mind, she did not work with the same immediacy as Jane. Cognitively, Jane was able to set a goal for student learning, but she was not able to monitor how her immediacy was negatively affecting the situation. After her original mentor teacher resigned, Jane sent an email to her principal requesting that she take over the class. She expressed concern that the disruption in the students’ education would have serious implications on their future as students. She concluded by saying she would continue to speak up and send emails until the situation was remedied to her satisfaction. According to Pintrich’s (2000) model for self-regulation, Jane made a judgment regarding the efficacy of those around her. However, her zest for an immediate solution of her choosing did not take into account that others around her had more authority than she. Although
she tried to take control of the situation, which is phase three of the model, her failure to understand her lack of authority hurt her relationships with colleagues, and most especially her principal.

Jane had difficulties with the type of professionalism required when working in a school. She seems to focus only on immediate concerns and doesn’t seem to give any forethought to her actions. After the original email she sent to her principal, Jane was required to issue an apology due to her perceived tone. Her apology reflected her inability to understand the hierarchy present in a school setting, and instead relied on her knowledge of the corporate world to decide how to act. Her closing statement expressed a desire to remain at work at this school, and a request for a personal conversation between herself and the principal sometime the following week. This example demonstrates the disconnect Jane felt between her life in the corporate world and her new life in a school. Jane reached the third phase of self-regulation regarding behavior, which was seeking help, but it took her several weeks to come to terms with and accept her assignment, and this came only after she was faced with termination from the program due to what was perceived as her unprofessional behavior.

The following illustration again shows Jane’s trouble with professionalism, this time concerning her new mentor teacher:

Spoke with Jane's new mentor. She is working on Jane's classroom management skills, following the curriculum and professional behaviors. It sounds like she is totally in tuned with what Jane needs. She has her working in small groups with students that are at or above grade level. She said she has really had to get on to her about interrupting her in the middle of teaching or conversations. (coach, personal communication, November, 2006)

Again, Jane was not aware of the behavioral expectations in place in her environment, and she had difficulty interpreting her environment in terms of her own needs. A dichotomy existed here because Jane explained that she didn’t want to interrupt her principal during the work day, and so writes an email instead, but later is told to stop interrupting her mentor teacher during instruction
and conversations. She did not seem able to get past the planning phase, and it could be argued that she did not even enter this phase, as her actions do not give any evidence to support the notion that she used forethought to make decisions to act.

**Classroom Management**

Jane again demonstrated difficulty with self-regulation in terms of the next theme, classroom management. When visiting her classroom, it appeared that she didn’t even notice that students were out of their seats and talking over her. Her voice got louder as she talked over them, but she made no effort to stop their misbehavior. This excerpt is from a classroom visit by her coach in October, “Jane had her 2nd formal observation today…She really needs classroom management. She was screaming over the kids, no one was paying attention; there was no learning taking place. It finally got so bad she asked me to finish the lesson for her. I did and the kids did great” (coach, supervisor notes, October, 2006). Although Jane was aware that her classroom context needed to be adjusted, she could not take control of the situation herself. Because her coach was able to take over the class, with positive results, it is clear that control could be gained. However, Jane did not make any efforts to change her own behavior. For example, even though Jane attended CHAMPS classroom management training in the fall, she did not use the CHAMPS method in her classroom. Using this technique could potentially have had an affect on her students’ behavior, but she did not put her training into practice.

By April, Jane was beginning to take control over her environment, however it was still not consistent and there were still many holes in her approach. The following excerpts, from the coach’s notes from an April observation, show some degree of conscious classroom monitoring on Jane’s part. She made an effort to be clearer with her expectations, but she still seemed to miss a lot of things her students were doing, which shows that she is not able to scan the entire room and monitor the conditions in the room.
- Glad to see you are trying new management methods. I see a big improvement. Instead of talking over them or getting frustrated you are not mentioning every little thing going wrong and interrupting the lesson (moves the tape and trash can away from [student] w/out stopping lesson)

- Getting better at explicit directions (get out your journal; raise your hand if you don’t have one, etc...)

- Are you aware of what [student] is doing in the back of the room?

- Watch how you are speaking to the students. There are a few you seem to have a shorter fuse with... It is so important for the students to think of you as being completely fair. (coach, observation notes, April, 2007).

Although Jane shows her ability to make some changes in her classroom environment, upon reflection, she does not see a problem with the things going on that still need work. Even in May, during another observation, she speaks condescendingly to some students (Researcher, conference notes, May 2007), even though she has been given feedback on this subject before. Her ability to change the context is limited, and her reflection on this matter appears weak.

Planning for a Standard

Jane’s inexperience and idealism kept her from providing the students with an atmosphere to learn. In planning lessons she felt they should be able to do, she missed out on providing them with lessons they were capable of mastering, which would have brought them to those other lessons. Jane was eventually able to plan appropriate lesson objectives that correlated to a state standard, which shows some degree of cognitive self-regulation in this area. However, it is difficult to determine whether Jane considered her own thinking processes when creating her lessons, matching them to an appropriate state standard. There is no evidence of her reflection in this area, but an assumption can be made based on her improvement that she had a goal in mind of improving her planned lessons and tying her objectives and activities more tightly to state requirements. An example of her growth is seen in the difference between an objective written in November, “The first objective of this lesson is to allow the students to practice the reading
comprehension skills they have learned this year” (Jane, lesson 1 revised, 399,534), and a later objective written in March, “The students should learn methodologies for communicating information to their peers that they have acquired through research of the African American of their choice” (Jane, lesson 2 revised, 488,653). Although not all of her plans demonstrate growth in this skill, Jane does show some degree of improvement but it is difficult to determine whether this growth is due to conscious goal-setting and forethought on Jane’s part.

Planning for Student Needs

In planning to address student needs, Jane clearly thought about and planned with students in mind. Her grade book included an intricate chart with student assessment scores in all subject areas, along with possible trouble spots students might be facing. However, her monitoring and control in this area did not necessarily address the needs of the students which she so thoroughly documented, which limits the degree of self-regulation Jane achieved within this theme.

During Jane’s first differentiated lesson observation activity in November, Jane created activity packets for each reading readiness level group. These packets were made up entirely of different worksheets with different tasks on the topic of spiders, including reading comprehension and vocabulary questions, along with a drawing activity (Jane, lesson 1 revised, November, 2006). Jane attempted to give the students work they could accomplish, but she didn’t realize that the font was difficult to read, and that what she had given them was really just a packet of worksheets. Students struggled during the time at this center, but Jane did not make any changes to the task, nor did she describe these difficulties in her reflection, instead discussing the creativity her students displayed, “I was pleased with the hidden talents of my group 3 students. Some were extremely creative and utilized the difficult words and phrases presented to them. I think these talents were displayed because the subject and possibly the
photos in the display inspired them” (Jane, lesson 1 reflection, November, 2006). It is clear that Jane’s interpretation of the activity focused on a positive result; however, this focus also shows that she was not fully aware of the needs of her students during this particular activity.

Later in the year, however, Jane showed some improvement in creating activities that met students’ needs in both interest and readiness as a class, but she still was not attending to specific needs students had as individual learners which is a key to differentiation:

The co-teaching model utilized was team teaching. We were teaching a science lesson to her 2nd grade class. The purpose of the lesson was to assess the student’s background knowledge of wind and how to measure wind. She also introduced new vocabulary words of instruments that measure wind. She started with a whole group introduction with the students seated on the carpet. We talked about our experiences with wind. What do you think creates wind? What does wind feel like? How can you tell when it is windy out? Jane introduced the words: anemometer, wind sock, and Beaufort scale. We also discussed using your senses (touch, sight, etc.) as tools. The word meteorologist was also reviewed from a previous lesson. After the mini lesson on the floor the students lined up and we went outside to observe the wind and how it affects the flag on the top of the school. It was a very windy day and we saw a variety of affects that wind has on the flag. (coach, supervisor notes, January, 2007)

Like Jane’s improvement in Planning for a Standard, it is difficult to determine whether Jane’s improvement occurred due to conscious thought and action on her part. Self-regulation is, in part, possible due to a pro-active effort to identify a goal and work towards meeting it. Jane’s lesson reflection and thoughts found in her portfolio do not illustrate an intentional action towards a specified goal.

Openness to Consider Feedback in Planning

Jane struggled throughout the school year with taking others’ feedback into consideration when planning her lessons. She had a particularly difficult time finding room for improvement in any of her lessons. Jane was able to be complimentary of her own practice, but didn’t see that, in many cases, the classroom management and planning problems got in the way of a truly successful class period. Jane did take many opportunities to read literature and attend trainings
related to topics of interest to her, like the science training she attended in the spring, but she
tended to stay away from those topics that would have made an impact on the skills that needed
the most help. Similarly, she did not appear to put into practice any of the information she read
about. For example, she was given reading materials about writing workshops, but, according to
notes made on this topic,

One thing that bothered me about Jane was that I had sent her materials about writer's
workshop and she didn't seem to have even looked at them…We should just keep our eye
on this. Each time I have been there she has blamed the lack of curriculum in the classroom
on her inability to navigate. (University Supervisor, personal communication, September,
2006)

Jane shows a considerable lack of foresight in terms of accepting feedback on other matters as
well, including her own school work for her university coursework. She was given an assignment
and was asked to revise it, but decided against the revisions, stating in part that she did not feel
that the instructions were specific. Also, other work had been accepted without the revisions, so
she would not be revising her work (Jane, personal communication, October, 2006). What Jane
didn’t consider was that the request for her to make changes on her assignment was in her best
interest, and that she may have missed an opportunity for learning. Although she showed an
awareness of what others were doing, she did not demonstrate an awareness of her own needs,
again showing a lack of ability to self-regulate in a school context.

Two months later, in December, Jane again had a discussion with her coach about her
need to accept feedback and take it seriously, “I had a very honest meeting with Jane right before
Christmas. We discussed what she needs to do in order to be successful in this program. She is a
very strong planner but…she also does not know how to effectively implement the lessons she
creates” (coach, personal communication, January, 2007). Jane really struggled with awareness
of her own needs, and seemed repeatedly unable to perceive the felt difficulties and make efforts
to choose strategies that would have a positive affect on her work (Pintrich, 2000).
Table 7 illustrates instances where Jane showed self-regulation skills. Jane does not demonstrate an ability to fully self-regulate within any of the themes which designate developmental stages of an apprentice teacher. Although she begins by making some goals, she does not demonstrate an ability to follow those goals to completion. She does make small changes in her practice, but these changes do not seem to stem from any conscious action on her part, but instead appear to be last ditch efforts where Jane is just randomly trying one things or another without first thinking through a plan of action.

**Conclusion**

Perhaps the most interesting thing about Jane was her reluctance to see her students as real students. By this I mean that she took very specific and organized notes about each student's progress, but she did not use that information to plan her lessons to meet their needs. Her use of differentiated instruction was very limited, and I think this has a lot to do with her lack of classroom management. Because she had very little authority in the room, she had little chance to implement worthwhile lessons. By the time the class got settled, time for the lesson was almost over.
E=Emerging behavior  D= Developing behavior  A= Accomplished behavior

Start of school year (September)  End of school year (May)

Collegial relationships:

Classroom management:

Planning for standard:

Planning for student needs:

Openness to consider feedback in planning:

Figure 7-1. Jane’s Developmental Themes Continuum

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<tr>
<th>Jane’s Examples of Regulation</th>
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<td>4 Phases:</td>
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<tr>
<td>1. Forethought, Planning, Activation</td>
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<td>2. Monitoring</td>
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<td>3. Control</td>
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<td>4. Reaction &amp; Reflection</td>
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CHAPTER 8
DISCUSSION

The research questions driving this qualitative study were, “How do apprentice teachers in the Alternative Certification Program in an urban school district develop in their planning and implementation of differentiated instruction?” and “What are the key elements that facilitate or inhibit alternatively certified teacher planning for differentiated instruction?” Throughout this study, I focused on how each individual apprentice developed in her ability to plan and implement differentiated instruction in her classrooms. To these ends, Chapters 5, 6, and 7 illustrated how Rose, Mary, and Jane, each of whom arrived to their apprenticeships with their own background experiences, abilities, and needs, grew in their ability to plan for differentiated instruction.

Assertions

In this chapter, I look across these cases to cull some assertions that can inform those interested in understanding how to facilitate a novice, alternatively certified teacher’s ability to plan for differentiated instruction. These assertions, presented in Table 8.1, emerged as I examined the activities shared across the narratives, the critical events that set occurred, and the themes describing the work of each apprentice.

Assertion one: Five conditions, including positive collegial relationships, effective classroom management, ability to plan for a standard, focus on student need, and openness to feedback in planning, facilitate the apprentices’ ability to plan for differentiated instruction. After looking at lesson plans, reflections, portfolio entries, and various personal communications between the apprentices and their teachers, five main conditions emerged that either facilitated or inhibited an apprentice’s ability to plan for Differentiated Instruction. These five conditions were positive collegial relationships, effective classroom management, ability to
plan for a standard, focus on student need, and incorporating feedback into plan. Without a positive relationship with others at school, collaboration in formal and informal planning is difficult and as a result apprentice growth was inhibited. Establishing positive, respectful collegial relationships is imperative in a social environment such as a school. There are many times when a teacher needs to interact with other adults within the building walls, including administration, other members of faculty, and parents. A teacher must be able to maintain positive collegial relationships in order to plan collaboratively or discuss a lesson with colleagues before or after a lesson is taught. Apprentices demonstrated their ability to have positive collegial relationships by interacting with other adults at school in such instances as co-teaching, collaborative planning, and informally connecting with others. When the apprentices had developed strong collegial relationships, learning about differentiated instruction was strengthened because they were able to gain new perspectives and ideas regarding their students and lessons from their colleagues.

Additionally, a lack of a consistent classroom management program inhibited growth in the area of differentiated instruction. Classroom management refers to the ability of the apprentice to manage student behavior and activity and includes creating a professional rapport with the students, using a system of reinforcement or consequences, setting guidelines for movement around and outside of the classroom, establishing or following existing class rules, and maintaining consistency throughout. When the apprentice could not maintain discipline within her classroom it was difficult, if not impossible, for her to truly know her students. By putting so much attention on discipline, the apprentice could not monitor the learning that was occurring or not occurring within the classroom. Each apprentice had to come to terms with the new responsibility of managing the classroom and enforcing classroom rules. Even the best
lesson plan was ineffective if it was implemented in a classroom where the teacher was unable to manage the activity of students within. Thus, the ability to plan for and implement a well differentiated lesson, and monitor the student learning that occurred during the lesson was highly influenced by the apprentice’s ability to manage a classroom.

Being able to plan for a standard demonstrates an apprentice’s knowledge of state learning goals and how to help students learn those goals in ways that are suitable for each student as an individual learner. Since each apprentice was new to the field of education, lesson planning was an unfamiliar task. In order to properly incorporate state standards, created to provide consistency from one school to the next, into a lesson plan, apprentices needed to learn to correlate their lesson objective, activity, and assessment to the selected standard. The objective is a crucial part of the lesson plan, as it guides not only the remainder of the activity, but also the assessment which determines whether a student has met the desired standard. The objective must be clearly stated and include a measurable student behavior. Differentiating a lesson requires giving careful attention to the lesson objective, identifying different activities that meet that objective, and carefully considering alternatives for assessing the learning that has occurred. Given the complexity of this task, it is not surprising that each apprentice varied in her ability to plan lessons that not only connected to the standard provided to guide each lesson, but also addressed the individual needs of all students.

In addition to learning to plan for the state standard, apprentices also learned how to plan based on the differentiated needs of their students. Planning for differentiation requires the apprentice to create a lesson plan geared toward a student need, including interest, readiness, or learning style. This theme also includes using group, paired, or individual assignments as needed to best address the specific need at hand. The apprentice based readiness levels on prior student
work or assessments, and grouping is flexible based on need during each lesson. Knowing one’s students is central to the ability of a teacher to differentiate instruction.

Finally, openness to consider feedback is important because others can sometimes see things that remain invisible to the apprentice. Feedback requires taking ideas into consideration, and apprentices who accepted feedback showed that they were looking for ways to improve and had thought about how those suggestions would impact her classroom. Throughout the year, apprentices were given feedback regarding their lessons from their mentor teachers, coaches, and other observers. This feedback was given in order to improve the lesson plan and an observed lesson. Apprentices varied in their ability and willingness to consider this feedback in future lessons or experiences. Consideration of feedback was an integral part of learning about teaching and strengthening lesson planning, as seen in both Rose and Mary’s cases where they showed evidence of change after engaging in dialogue about the lesson plan and the observation. In Jane’s case, growth was inhibited due to her inability to consider or integrate the feedback that she received.

Assertion two: Apprentices’ movement towards mastery of these five conditions varies and, as a result, teacher educators need to differentiate their supervision to support apprentice learning. Although the apprentices each participated in the same workshops, read the same materials, watched the same videos, and had the same coach, they evidenced different degrees of mastery in their ability to differentiate instruction. Since the three apprentices demonstrated varying degrees of mastery within each of these themes, a scale was created to capture that variation and illustrate how each apprentice developed over the course of the year in each area. Apprentices showed emerging behavior when the ability was just beginning to surface and come into awareness. An emerging behavior was something that an apprentice was
conscious of, but had not yet acted upon. A behavior that was considered developing was one which was gradually unfolding over time. The apprentice was clearly aware of the need for the behavior, but had not yet mastered the skill. In demonstrating accomplishment, the apprentice demonstrated that she was highly skilled in a specific area, or had successfully shown her ability to fulfill a certain theme.

Although Rose, Mary, and Jane demonstrated very different skill levels in the area of planning for differentiation throughout their apprenticeship year, several commonalities were found between them. Using a Venn diagram, Figure 8-1 illustrates the strengths of each apprentice and highlights the commonalities when apprentices showed overlapping areas of strength in their ability to differentiate instruction. For example, both Rose and Jane used their mentor teacher or coach as a co-teacher during lessons to support differentiation, making full use of both adults in the classroom. Additionally, Mary and Jane made an effort to encourage differentiation based on student interest and learning by creating hands-on lessons across subject areas. Rose and Mary, the two stronger apprentices, also planned lessons with the academic needs of their students in mind, using curriculum-based assessments, and they both regularly used CHAMPS for their classroom management plan, which promoted consistency in discipline.

These two apprentices also accepted and applied feedback from their coach and mentor. Rose struggled with writing detailed lesson plans, but she worked with her coach and her mentor teacher to make these plans more clear and thorough. Mary consistently reflected on her practice, looking for ways to improve a lesson for the future, whether the future was the next day or the next year. Additionally, she was very self-critical and did not shy away from constructive criticism. Finally, Jane kept detailed notes about her students and collected resources to incorporate science into reading and math lessons, as she believed in linking subjects together to
help students make curricular connections. However, her work remained independent from others as she was hesitant to collaborate and accept feedback from others.

Although every apprentice was able to differentiate at different levels and speeds, some of them caught on right away and were able to create sophisticated lessons for their experience level. Others needed a lot of step-by-step support and scaffolding. In an analysis of the apprentices’ work over the course of the year, Rose demonstrates the most growth in the five themes that underpin the ability to learn differentiation and Mary continues her accelerated trajectory of growth. Jane, on the other hand, continues to show less progress in her planning development, as evidenced by the amount of detail in their lessons as well as the kinds of information missing from their plans. Generally, the more specific they were in their lessons, the less scaffolding they needed.

Because the apprentices’ movement towards mastery of these five conditions varies, school-based coaches need to differentiate their supervision to support apprentice learning. This type of supervision requires frequent, timely, and intense contextually sensitive interaction that often requires more time than typically dedicated to traditional supervision. Given the variation in the apprentices’ movement towards mastery, coaches need to attend to the individual apprentices’ needs, creating a context that encourages collaboration as well as critical friendship.

**Assertion three: Growth and lack of growth on one theme or condition influences an apprentice’s ability to differentiate instruction.** The five themes that became conditions for facilitating differentiated instruction each played a role in the apprentices’ growth. For example, by mastering certain skills early in the year, such as classroom management and developing collegial relationships, Rose and Mary were then able to focus on planning appropriate lessons and learning from their own reflection and from reflection with others. It became clear that when
classroom management was not developed, as in Jane’s case, learning about Differentiated Instruction often suffered as well.

Each apprentice had experiences that contributed to their development within each theme, but each also processed those experiences differently. Rose and Mary both showed characteristic of self-regulation, as each pro-actively worked to make change and reflect on their practice. However, in developing their skills in self-regulation, each moved through the five established themes. Mary and Rose did not have difficulty getting along with their colleagues, and both quickly determined that they needed to have a consistent behavior management plan. Having these skills early in the year freed them to think more critically about their skills in creating strong learning experiences for their students.

Because Jane spent so much time working on the dynamic between herself and other staff at her school, including her principal, she had less time and energy to put towards her teaching and lesson planning. Additionally, the classroom environment she maintained, lacking a consistent classroom management plan, led to a chaotic situation where she could not really know if her students were learning.

**Assertion four: Learning how to differentiate instruction requires an apprentice’s willingness to consider and accept feedback.** Although I can’t claim that the feedback inherent in the coaching and mentoring process caused the growth in Rose and Mary’s ability to differentiate instruction, this study does indicate that an apprentices’ ability to plan for differentiated instruction strengthened after coaching and mentoring. Mary and Rose believed that collaboration was a help rather than an inconvenience. Both worked regularly with coaches and mentors, discussing challenges they faced and ways to correct problems, as evidenced in the appearance of collegial relationships as a developmental theme. Randi (2004) agrees with their
In this assertion, the study also documented less development in the apprentice’s ability to differentiate instruction when collegial relationships and feedback were not highly valued by the apprentice. Without a positive relationship with others at school, collaboration in formal and informal planning is difficult and, as a result, the apprentice has fewer opportunities to create the conditions and cognition necessary to strengthen her planning. Finally, accepting feedback is important because others can sometimes see things that remain invisible to the apprentice. This is particularly important for the novice teacher who may not be able to notice or monitor her own teaching process fully without the help of a peer or coach. By attending to feedback, an apprentice indicates that a teacher is looking for ways to improve, and has thought about how those suggestions would impact her classroom.

This assertion highlights the importance of the novices’ willingness to be open to critique and collaboration if they are to strengthen their planning and teaching process. This assertion also highlights the importance of making the need for this disposition clear to the apprentice and making frequent and substantive feedback from coaches, mentors, and peers a part of the culture of learning to teach.

**Assertion five: Apprentices with strong self-regulatory capabilities demonstrate a stronger ability to plan and implement differentiated instruction.** As indicated, five themes or conditions facilitated growth in the apprentices’ ability to plan for differentiation. While looking through the data, I realized that there was something about Mary that separated her ability to plan for differentiated instruction from Rose and Jane, and something similar between them that separated both Mary and Rose from Jane. Pintrich’s (2000) model of self-regulation
served as a basis for understanding this difference. Table 8-2 builds on Pintrich’s work and illustrates the self-regulation skills of all three apprentices using different colored text to illustrate the self-regulatory activities of each apprentice. Rose, Mary, and Jane are represented in the table using the colors green, red, and blue, respectively. As illustrated in the Table, Rose and Mary are more adept at self-regulating their teaching.

Rose uses forethought and planning in all categories of Pintrich’s self-regulation model (2000). Both Rose and Mary show an ability to monitor situations and take action, as they deemed necessary. They also show a greater ability to self-regulate their thinking, behavior, and context. Jane, on the other hand, shows a lesser degree of self-regulatory ability. Although she made progress in planning for, monitoring, and controlling her context during the year, she did not take the next step to reflect on her actions. Additionally, she was not able to self-regulate within any other aspect of her teaching. Rose, Mary, and Jane, as individual learners, show different degrees of self-regulation in their work. By placing examples of their work together on the same chart, the difference in their orientation toward self-regulatory behavior became clear.

Self-regulation (Manning & Payne, 1993), in part, concerns a teacher’s conscious goal-setting and pro-active stance towards making a change in the classroom. See Figure 8.3 for the model I developed using Pintrich’s (2002) framework. Here, Pintrich’s framework (2000) is considered a beginning organizer for the idea of self-regulation. I thought about Pintrich’s model, as well as a model proposed by Winne and Hadwin, which was reviewed by Greene & Azevedo (2007), and decided that there is a simpler way to illustrate self-regulation.

Similar to the inquiry process (Dana & Yendol-Silva, 2003), self-regulation begins with a question: What is my goal? What is wrong with this classroom picture? From here, a self-regulating teacher will make a cognitive effort to monitor the conditions in question, consciously
thinking about the situation, and then work to control the situation by making an attempt to reach the set goal or change the context in question. Making another parallel to the inquiry process, this step in self-regulation is similar to creating a plan of action to study. Next, the teacher evaluates the situation, comparing the results with the goals set. The teacher also reacts to the results, reflecting on the consequences and deciding what to do next. Again, this model parallels inquiry, where, in the final stages before repeating the cycle, the teacher analyzes collected data and moves forward from that point.

The self-regulation condition or theme is considered to be over-arching because the development of each of the other themes was greatly influenced by the apprentice’s ability to self-regulate. Apprentices with strong self-regulatory capabilities demonstrated a stronger ability to plan and implement Differentiated Instruction. This stronger ability is possibly due to the fact that teachers who engage in self-regulatory behaviors are more likely to know what is going on with students, lessons, and the general goings-on in the room because they consciously think about these things throughout the day. When something happens, they are aware, and they make a decision to act, or not act, as they see fit (Manning & Payne, 1993).

Assertion six: given the importance of monitoring one’s own teaching in learning to differentiate instruction, apprentices must have both coursework dedicated to understanding the principles of differentiated instruction and field placements that provide regular opportunities to teach, generate deep knowledge of the children, context, and curriculum, and have frequent access to coaching. In order to create this blend of coursework and field experience that may best support novice teachers, there are several components that must be included. First, the use of modeling and providing clear examples of strong differentiated lesson plans is crucial. In the case of this study, it was very helpful to give the
apprentices an example of a lesson plan that differentiated so they could see exactly what I was talking about, and that differentiating didn't require restructuring the entire class. During the second workshop, we spent time as an entire group discussing one person’s differentiated lesson, going over each part of the lesson in depth to look at instances where the lesson showed differentiation, as well as places where the lesson seemed incomplete or unclear. This lesson deconstruction helped the apprentices understand the importance of clarity and description in their plans, as well as see a peer’s work in differentiating an activity for her class. This assertion agrees with research stating that modeling is a key component of coursework (Brimijoin & Alouf, 2003, Davenport & Smetana, 2004).

In addition to modeling and showing real life examples, video was a highly effective way to see an effective teacher at work differentiating. One particular video showed a teacher move through the planning process, leading up to implementation and lesson reflection. Prior to the video, apprentices seemed to have the opinion that they had to differentiate every lesson all the time, and the video helped them see first hand that teachers don't really do that right away. Differentiating instruction takes times, and it's ok to start small. I don't think I was able to get that idea across as well as the teacher in the video. I was surprised at the comments the apprentices made after watching the video, because it seemed like many of their ah-ha's were things I had already mentioned to them, but for some reason the video hit home.

However, simply seeing examples and watching videos during their classes are not enough. If the apprentices did not have the daily field experience, paired with an on-site coach and other nearby resources, either in person or via email, the coursework would not have been as effective. It is imperative that the apprentices have the opportunity to practice their new skills so they can learn from the experience, and then deconstruct that learning with a more experienced
coach who can talk through the experience with them. Also, these conversations with their coach allowed the coach to understand the specific needs of each apprentice, thus giving them the opportunity to differentiate their own instruction for each apprentice’s needs during coursework and informal conferences. This is in alignment with Brimijoin & Alouf’s work (2003), which argues that professional development should be differentiated.

Concluding Thoughts

The findings from this study directly affect teacher education practices. Knowing that novice teachers develop in several specific areas while on their way to becoming independent teachers will help teacher educators focus their instruction and support in these areas. If we, as teacher educators, share those areas with novice teachers, we will be encouraging their self-regulatory skills as they will have specific areas to set goals. If the apprentices are aware of these developmental milestones, teaching will become less of a mystery; they will be aware of which areas they need to accomplish before they can focus on the more teaching specific areas, like planning for a standard or planning for student needs. If we can help novice teachers develop positive relationships with their colleagues and implement and enforce a consistent behavior management plan early in their apprenticeship or internship, they will be more quickly on their way to developing the other necessary teaching skills.

This being said, this study could potentially be improved with a larger sample size. The limited size of three participants made it difficult to generalize the findings to all novice teachers within a similar context. However, since the apprentices came to the program with significantly different backgrounds and experiences, some degree of generalization is warranted and permissible, as they are somewhat representative of the population entering teaching apprenticeships from different careers.
Although the findings from this study, paired with my belief that a simpler model for self-regulation was needed, led me to create a new model for self-regulation, I have not tested that model in contexts outside of the three apprentices studied for this research. The model needs to be examined, and perhaps modified, to determine whether novice teachers experience these stages in the manner I have articulated. Similarly, further work needs to be done to create a deeper parallel between the stages of self-regulation and the phases of the inquiry cycle.

Further, the idea of self-regulation as it applies to teachers needs more attention. There appears to be some degree of dissonance when a novice teacher uses a strategy she is told is effective, but upon reflection, she finds it didn’t work. This is evident when Rose was deciding whether to use a rubric in the future. She considered the solution one of either-or: Either she used the rubric, or she didn’t. What requires further study is how that either-or decision can be shifted to find other solutions: If not now, when? If this idea is supposed to be great, but it didn’t work now, when can I try it again?

In the field of teacher education, further work needs to be done to determine whether the five themes found in this analysis are common to teachers outside of this context. Since these apprentices all received their bachelor’s degrees in fields outside of education, the question remains as to whether those beginning teachers moving through a typical university program face similar developmental hurdles in their journeys to become independent teachers. Similarly, does the high-poverty context matter? Would the development of apprentices or preservice teachers change if they were placed in a more affluent school? These are all areas that beg further study.
Table 8-1. Study Assertions

<table>
<thead>
<tr>
<th>Assertion One:</th>
<th>Five conditions, including positive collegial relationships, effective classroom management, ability to plan for a standard, focus on student need, and incorporating feedback into plans, facilitate the apprentices’ ability to plan for Differentiated Instruction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertion Two:</td>
<td>Apprentices’ movement towards mastery of these five conditions varies and, as a result, coaches need to differentiate their supervision to support apprentice learning.</td>
</tr>
<tr>
<td>Assertion Three:</td>
<td>Growth and lack of growth on one condition influences an apprentice’s ability to differentiate instruction.</td>
</tr>
<tr>
<td>Assertion Four:</td>
<td>Learning how to differentiate instruction requires an apprentice’s willingness to accept and integrate feedback.</td>
</tr>
<tr>
<td>Assertion Five:</td>
<td>Apprentices with strong self-regulatory capabilities demonstrate a stronger ability to plan and implement Differentiated Instruction.</td>
</tr>
<tr>
<td>Assertion Six:</td>
<td>Given the importance of monitoring one’s own teaching in learning to differentiate instruction, apprentices must have coursework dedicated to understanding the principles of DI and field placements that provide regular opportunities to teach, generate deep knowledge of the children, context, and curriculum, and have frequent access to coaching.</td>
</tr>
</tbody>
</table>


Figure 8-1. Comparison of apprentices’ strengths in their ability to plan for differentiated instruction

Mary
- self-critical
- reflected thoroughly for ways to improve next lesson
- accepted and applied feedback
- planned using assessment
- CHAMPS allowed for more attention on lesson
- consistently related lessons to students

Rose
- struggled with writing plans with enough detail/information to be understood
- worked with mentor to plan lessons

Jane
- incorporated science into reading and math lessons
- creative, hand-on lessons, encouraged active learning
- used DI in at least 3 lessons
- got feedback on lessons before observations
- learned from experience
- planned for group work
- used mentor or supervisor as co-teacher during some lessons
- planned using assessment

<table>
<thead>
<tr>
<th>4 Phases:</th>
<th>Cognition</th>
<th>Rose, Mary, and Jane: Combined Examples of Regulation</th>
<th>Behavior</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Forethought, Planning, Activation</td>
<td>R: goal: positive work environment &lt;br&gt; R: goal: collaborate with peers &lt;br&gt; R: goal: all students will learn &lt;br&gt; M: Goal 1: How to use 2 adults in the room? &lt;br&gt; M: Goal 2: teach students so they know author’s purpose &lt;br&gt; J: Goal: Students will learn &lt;br&gt; J: Goal: create plans that address students’ needs</td>
<td>R: determining her weaknesses in lesson planning</td>
<td>R: collaboration with peers &lt;br&gt; R: rubric review &lt;br&gt; R: lesson plan difficulty</td>
<td>R: classroom noise level was stressful &lt;br&gt; R: negative work environment &lt;br&gt; M: Students not listening &lt;br&gt; J: Children’s needs were not being met</td>
</tr>
<tr>
<td>2. Monitoring</td>
<td>R: This classroom is a negative work environment &lt;br&gt; R: collaboration with peers &lt;br&gt; R: differentiating instruction is important to reach all students &lt;br&gt; M: There are 2 adults in the room.</td>
<td>R: realizing her lesson plan was not complete in time for her meeting with coach</td>
<td>R: collaboration with peers is worth the time &lt;br&gt; R: rubric review took too much time &lt;br&gt; R: awareness that help with planning is needed &lt;br&gt; M: Awareness of the need to learn how to manage classroom &lt;br&gt; M: Awareness of the need to learn how to plan lessons</td>
<td>R: classroom noise level was discussed with mentor &lt;br&gt; R: conditions are not what would be preferred &lt;br&gt; M: CHAMPS training &lt;br&gt; J: Environment was not conducive to student learning</td>
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<tr>
<td>4 Phases:</td>
<td>Cognition</td>
<td>Motivation/ Affect</td>
<td>Behavior</td>
<td>Context</td>
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</table>
| 3. Control | - R: Need to address negative work environment  
- R: collaboration with peers allows more ideas to be shared  
- R: differentiating instruction done during certain lessons  
- M: Need to utilize both adults through use of co-teaching.  
- M: Borrow others’ lesson ideas | - R: deciding to redo lesson after coming to help session with coach without a finished plan | - R: collaboration with peers about math  
- R: rubric review would be done a different day next time  
- R: request of help from coach  
- M: Didn’t see enough examples of lesson planning, so asked to meet with mentor.  
- M: Took CHAMPS training | - R: classroom noise level was adjusted in some situations  
- R: considered own feelings on this matter  
- M: More consistent use of classroom management  
- J: Email sent to principal requesting meeting |
| 4. Reaction & Reflection | - R: A negative work environment can be adjusted with a positive attitude  
- R: collaboration with peers is beneficial  
- R: differentiating instruction allowed students to be successful learners  
- M: Upon reflection, students improved ability to identify author’s purpose. | - R: collaboration with peers helps with writing strong plans  
- R: rubric review is important, but not at that time  
- R: lesson plans improved  
- M: Student behavior improved | - R: classroom noise level is improved and tolerable  
- R: reflection upon own attitude and how this will be addressed  
- M: Students better behaved. |
Figure 8-2. Modified self-regulation model as a cycle.
### APPENDIX A

**DEMOGRAPHIC AND FCAT DATA, ELEMENTARY SCHOOL A AND ELEMENTARY SCHOOL B**

#### Table A-1. Elementary School A demographic and FCAT data

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<th>3rd</th>
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<th>5th</th>
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Lunch percentage was calculated 2/9/07

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<th>Number of Students</th>
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07/11/07
Table A-2. Elementary School B demographic and FCAT data

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07/11/07
Teacher:

Grade:

Co-Teaching Method:

Subject:

1. Learning Objectives
What are your objectives for student learning in this lesson? That is, what do you intend students to learn?

Why have you chosen these objectives?

What Standards (National or State) relate to this lesson?

2. Content Knowledge

3. Student Grouping
How will you group students for instruction?

Why have you chosen this grouping?

4. Methods
What teaching method(s) will you use for this lesson?

What students need specific accommodations in this lesson?

What specific accommodations have you made for these student needs?

Why have you chosen this method or these methods?

5. Activities
What activities have you planned?

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<tr>
<th>Activities</th>
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Opening:

Main activity/activities:
Closing:

Important questions to ask:

6. Materials
What instructional materials will you use, if any?

Why have you chosen these materials?

7. Evaluation
How and when do you plan to evaluate student learning on the content of this lesson?

Why have you chosen this approach to evaluation?

8. Accomplished Practices
Which of the Accomplished Practices does this lesson meet?

Adapted for University Pathwise Instruction and Reflection Form by Vicki Wilson for Salt Fork (Region 10) RPDC and Muskingum Valley Educational Service Center/Muskingum College Goals 2000
APPENDIX C
REFLECTION AFTER TEACHING
1. Did you depart from anything you planned for today? If so, why?

2. Has anything that happened during this lesson influenced your evaluation plan? If so, how and why?

3. To what extent did the students learn what was intended? How do you know?
   As part of your answer indicate:
   - In what ways were your teaching methods effective? How do you know?
   - In what ways were your activities effective? How do you know?
   - In what ways were the instructional materials effective? How do you know?
   - How did any special considerations of accommodations affect the lesson?

4. Identify an individual or group of students who had difficulty in today’s lesson. How do you account for this performance? How will you help this (these) student(s) achieve the learning objectives?

5. Identify an individual or group of students who did especially well in this lesson today. How do you account
for this performance?

6. If you were going to teach this lesson again to the same group of students, what would you do differently? (Consider: grouping, methods, materials, evaluation, activities) Why? What would you do the same? Why?

7. Based on what happened in this lesson, what do you plan to teach next to this class? Be sure to explain how you will use information from this evaluation in future lesson planning.

8. How has your thinking about planning changed based on this experience with Differentiated Instruction?
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Katie Marie Tricarico was born on May 25, 1978. She spent elementary school in Flushing, NY and junior and senior high school in Roanoke, VA, graduating from Cave Spring High School in 1996. She earned her B.S. in elementary education from the University of South Florida in 2000.

Upon graduating, Katie taught 5th grade in Brandon, Florida for one semester before moving to Richmond, Virginia. During the two years spent in Richmond, she taught math, science, and history to 6th graders. She also began working towards gifted certification and taught the school’s first class of self-contained gifted students. After two years, she moved back to Tampa, Florida, and taught 4th grade math and science for one year before moving to a new magnet school, where we began working towards International Baccalaureate Primary Years Programme certification. At this time, she completed the gifted education endorsement. After two years teaching 5th grade language arts and social studies, she returned to college, attending the University of Florida, majoring in Curriculum and Instruction, with emphasis on teacher education, for her Master of Arts degree.

After completion of this degree, Katie plans to continue her studies and earn a doctoral degree in education.