EFFECTIVE EDUCATIONAL PRACTICE: A CRUCIAL FIRST STEP IN ADDRESSING THE NEEDS OF TRADITIONALLY OVERLOOKED STUDENTS

A Capstone Project

Presented to

The Faculty of the Curry School of Education

University of Virginia

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

Jennifer Kumpost Dimeo, B.S., M.Ed.

August 2013

EXECUTIVE SUMMARY

Dr. Carol A. Tomlinson, Advisor

Students who are traditionally overlooked in academic settings (e.g. poor, Black, Hispanic American, Latino/Latina) are not likely to have educational experiences that reflect equity in access to excellence in education (Fram, Miller-Cribbs, & Van Horn, 2007; Giroux & Schmidt, 2004; Kozol, 1991; Rubin, 2008; Worthy, 2010). These students regularly encounter challenges that reflect a poor educational fit and their key needs are often overlooked in traditional school settings. These challenges include background factors such as poverty (Arnold & Doctoroff, 2003; Case, Fertigl, & Paxson, 2006; Rouse & Fantuzzo, 2009) and cultural differences (Bourdieu, 2008; Delpit, 2006; Garcia & Guerra, 2004; Jaeger, 2011; Lareau, 2003; Morrison, Robbins, & Rose, 2008; Rothstein-Fisch & Greenfield, 2000; Sternberg, 2004 & 2007), as well as greater systemic inequalities such as funding (Biddle & Berliner, 2002; Condron & Roscigno, 2003), inequitable schooling experiences (Fram, Miller-Cribbs, & Van Horn, 2007; Giroux & Schmidt, 2004; Kozol, 1991), low teacher perspectives and expectations (Armstrong, 2010; Delpit, 2006; Garcia & Guerra, 2004), and low-quality curriculum (Baker, 2005; Freire, 2009; Garcia & Guerra, 2004) that lacks cultural relevance & responsiveness (Banks, 2006; Ladson-Billings, 1995).

Despite these challenges, classrooms can support equity in access to excellence in education for traditionally overlooked students by (1) holding high expectations of all students while simultaneously providing high levels of support (e.g. Delpit, 2006;

Howard, 2001; Ladson-Billings, 1992; Morrison, Robbins, & Rose, 2008; Swartz, 2009), (2) affirming and capitalizing on student culture and strengths, and (3) developing student efficacy and sense of empowerment (e.g. Banks, 2006; Benson, 2003; Ladson-Billings, 1992; Martinez, 2009; Matczynski, Rogus, Lasley, & Joseph, 2000; Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007; Rothstein-Fisch & Greenfield, 2000; Seidl, 2007; Sternberg, 2010; Sternberg, Gringorenko, & Bundy, 2001; Swartz, 2009). Such efforts require a foundation of best educational practices (Hattie, 2009), and Tomlinson's model of Differentiation (Sousa & Tomlinson, 2011) is a highly useful frame for considering both best educational practice and the needs of traditionally overlooked students. This is because it is a model that is grounded in research-based approaches in all areas of classroom practice; rather than being a formula or collection of strategies, it is an approach to thinking about teaching and learning where teachers "proactively modify curricula, teaching methods, resources, learning activities, and student products to address the diverse needs of individual students and small groups of students to maximize the learning opportunity for each student in a classroom" (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003, p 121).

The school site I partnered with for this capstone project had a significant population of traditionally overlooked students (i.e. 40% or more of students were considered to be from backgrounds of poverty) and desired support in addressing the needs of both this group of students as well for all students. This capstone project was

conducted with a practical action research design overall and an ethnographic approach to data collection and analysis. After spending significant time observing teachers, it was clear that the site lacked a crucial foundation of overall best practices that should serve as a foundation from which the more specialized needs of traditionally overlooked students could be met. The purpose of the project was therefore the increase of building-level capacity of faculty to identify and implement best educational practices as a foundation from which the needs of students from backgrounds of poverty could be met. Data were collected through extensive observations, voluntary follow-up interviews, and informal meetings with the leadership over a period of six weeks. A Guide to Thinking and Analysis to Educational Practice was developed to focus observations and guide data analysis. This guide represented a synthesis of research and literature on best educational practice for all students as well as research and literature support in addressing the key needs of traditionally overlooked students. It was organized around the framework of Tomlinson's model of Differentiation. Data was analyzed for patterns and regularities in school-wide practices relative to the research and literature synthesized in this guide. School-wide needs emerged during the process of data analysis according in six areas of classroom practice: curriculum, learning objectives, and content; use of assessment; learning tasks; use of grouping; overall response to student needs; and the learning environment. These needs were synthesized into a system of best practices that included the following chief recommendations: (1) lay a foundation of substantive and meaningful

learning goals; (2) design and use effective assessments; (3) proactively and intentionally plan for student learning; and (4) create safe and supportive learning environments.

Three products were designed to address school-wide needs and fulfill the purpose of the project: a school profile, a handbook, and series of staff development workshop protocols. The school profile provided site leadership and faculty with a clear and concise report of school-wide practice relative to best educational practice and described key needs for growth toward a system of best practices. The handbook served as a teacher-friendly guide for understanding and implementing a system of best practices with content, support tools, and recommended resources. It also served to provide leadership with tools and resources that could be used to sustain continued growth toward best educational practice. The staff development protocol contained a series of six workshops that served as a springboard for "first steps" toward best educational practice and focused on how to develop key areas of best educational practice. Both the handbook and the staff development protocol lay a foundation of overall best practices from which the more specialized needs of traditionally overlooked students can be met.

Department of Leadership, Foundations, and Policy

Curry School of Education

University of Virginia

Charlottesville, Virginia

APPROVAL OF THE CAPSTONE PROJECT

This capstone project, "Effective Educational Practice: A Crucial First Step in Addressing the Needs of Traditionally Overlooked Students," has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

Carol A. Tomlinson, Advisor

Catherine M. Brighton, Committee Member

Stephanie D. van Hover, Committee Member

July 26, 2013
Date

DEDICATION

To God alone belong all glory, honor, and praise.

ACKNOWLEDGEMENTS

First and foremost I praise my Lord and Savior, Jesus Christ, who alone has brought about more than I could ever ask or imagine and is the source of all that is good and worthy in my life. This journey has proved long and wonderful and difficult; not one of the steps I have taken along the way – either small or great – would have happened without His faithfulness, love, and provision.

I am beyond grateful for the large and small ways so many people have invested in who I have become as a person and professional. My husband, John, took on not just the challenges of a first year of marriage, but our first year of marriage with all the insanity of completing my capstone project and paper. He has encouraged, supported, and loved me in ways that I most needed. During the last leg of this journey, when I often felt mentally expired, he was there to spur me on, bring me treats, proof-read my writing, and encourage me to complete this work I began years before I had the privilege of knowing him.

I thank my family for their love and encouragement. From a young age my parents, Jim and Laura, encouraged me to pursue education and work toward excellence. My sister, Noelle, was one of my biggest encouragers, and modeled steady, constant, hard-work towards her law degree in such a way that I felt like I had a partner during this "nose-to-the-grind" time. So much of who I am today comes from being a part of such a family.

I cannot begin to thank my academic adviser, Carol Tomlinson, enough. She has generously poured out wisdom, encouragement, and her very valuable time during the course of these six years. She has been a source of guidance, insight, and support when I needed it most. Likewise, I am so very thankful to my other committee members for their generosity of time and insight. My faculty mentor, Catherine Brighton, has provided rich and meaningful learning experiences through my work at the Institutes on Academic Diversity and has been a voice of reason and practicality during key moments. Stephanie van Hover so willingly joined my committee after just meeting me, providing fresh and useful insights from which I was so grateful to benefit. My capstone project is stronger and better because of the insights of these dedicated professors.

I could not have maintained a sense of sanity without my two communities in Charlottesville. My fellow Curry doctoral students were sources of friendship, encouragement, and thousands of learning experiences that happened outside of coursework or classroom. My church community has been an unfailing source of encouragement, provision, deep and lasting friendships, and the balance I so desperately needed in my life.

Finally, I want to thank the school who was so willing to partner with me for this project. So many teachers and leaders willingly opened their doors and allowed me to sit in a corner and scribble notes. Without your support and flexibility, for which I am truly grateful, I could not have completed this project.

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CHAPTER 1

PROBLEM OF PRACTICE

Addressing a Need for Effective Educational Practice

Standardized tests have become the instrument by which we measure student achievement, and concern has grown regarding the disparity of scores between poor and racially diverse students and White students and students from middle and higher socioeconomic classes (Braun, Chapman, & Vezzu, 2010; Braun, Wang, Jenkins, & Weinbaum, 2006). While research suggests that interpretation of achievement gap data has been faulty (Murphy, 2009), it is true that these students often encounter challenges that impede achievement in school. Challenges can stem from student backgrounds, such as poverty (Arnold & Doctoroff, 2003; Case, Fertigl, & Paxson, 2006; Rouse & Fantuzzo, 2009) and differing cultures (e.g. Bourdieu, 2008; Delpit, 2006; Garcia & Guerra, 2004; Jaeger, 2011; Lareau, 2003; Morrison, Robbins, & Rose, 2008; Rothstein-Fisch & Greenfield, 2000), in addition to inequities in schooling experiences (e.g. Biddle & Berliner, 2002; Condron & Roscigno, 2003; Fram, Miller-Cribbs, & Van Horn, 2007; Kozol, 1991).

Theory and research suggest there are educational approaches that can support the academic achievement of poor and racially diverse students. These include: providing students with high levels of support in reaching high academic expectations (Howard, 2001; Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007; Swartz, 2009) capitalizing on student strengths (Sternberg & Grigorenko, 2004; Sternberg, Grigorenko,

& Jarvin, 2001; Sternberg, Torff, & Grigorenko, 1998; Sternberg & Zhang, 2005), culturally relevant content and pedagogy (Banks, 2006; Delpit, 2006; Matczynski, Rogus, Lasley, & Joseph, 2000), promoting student self-efficacy and sense of empowerment by positioning them as co-contributors in the class learning (Freire, 2009; Morrison, Robbins, & Rose, 2008; Patchen & Cox-Petersen, 2008), and helping students recognize and work toward social change (e.g. Banks, 2006; Benson, 2003; Ladson-Billings, 1992; Martinez, 2009; Morrison, Robbins, & Rose, 2008; Swartz, 2009).

These approaches are not entirely specialized, but are reflective of greater principles of best educational practice. Best practices that support student achievement include: clear and meaningful learning goals, sound assessment practices, understanding student needs and how to address them effectively, meaningful systems of support (e.g. feedback and scaffolding), and learning environments that promote growth (Hattie, 2009). Therefore, the first step in addressing the key needs of poor and racially diverse students is to begin with best educational practices. Carol Tomlinson's model of Differentiation is based on best educational practices related to all areas of classroom practice: curriculum, instruction, assessment, learner strengths and needs, student grouping, and the learning environment (Sousa & Tomlinson, 2011). Tomlinson's model is the theoretical frame through which the key needs of poor and racially diverse students are addressed in this capstone project.

Finding a Suitable Site

Given the problem of practice, for the purposes of this capstone project I sought a site that (1) desired support in addressing the needs of its students through classroom practice and (2) had a significant population of poor or racially diverse students it was

interested in better serving. My goal was to support improved overall practice and provide additional insights into how these practices can be used to address key needs of poor or racially diverse students.

In the current 2012-2013 school year, Rural Virginia Elementary School (RVES, school and district names have be given pseudonyms) began its third consecutive year under a district- and state-mandated school improvement plan. This plan was enacted because the school had not reached the state's annual measurable objectives (AMO) in reading and mathematics on end-of-year standardized tests. In the last four years, the school has experienced significant change in leadership and subsequent reform initiatives, including three changes in principals. Initially, I met with the superintendent of Rural County School Disrict (RCSD); he suggested that RVES's principal would likely be interested in partnering with me on this project. Both the superintendent and the principal requested that I support the faculty of RVES in learning to address the academic needs of students from low-income backgrounds, as a part of supporting effective educational practice for all students. Prior to this initiation of contact, I had no connection or relationship to the principal, school, or school district. My interest was purely to provide support to a school, organization, or district in use of effective educational practice to address the academic needs of poor and racially diverse students.

Meetings with both the district's Director of Student Achievement and Accountability and RVES's principal provided useful background information on the district and school. Covering over 150 square miles, Rural County has a population of approximately 18,400, and serves close to 3,000 K-12 students. The six schools in the Rural County School District (RCSD) include three elementary schools, one middle school, one high school,

and one technical education center. Rural Virginia Elementary School and the primary school that feeds it are the district's two Title 1 schools. While the official count of families receiving free and reduced lunch at RVES is between 41% and 45%, the principal has stressed that this number may not be accurate due to families' discomfort with receiving "handouts." RCSD has long served families who have lived in rural poverty, and the current state of the economy has exacerbated the economic disadvantages for a number of the county's residents. Many of these families include former RCSD students who have had less than positive schooling experiences; often, such experiences caused them to drop out of school and negatively impacted their perspectives on schooling for their own children. In addition to these broader concerns, RVES has experienced frequent and recent change in school leadership and subsequent change initiatives.

A History of Recent Changes

The school leadership has turned over twice in the last four years. With each new principal, there has been a different style of approach to school change and a variety of different school initiatives. I began meeting with the 2011-2012 principal in the spring of 2012. This principal shared his desire to improve educational practice to meet the needs of students, yet suggested that teachers had struggled with the change this required. This principal suggested that his predecessor was highly encouraging to teachers, yet lacking in high standards and support in necessary changes that promote student achievement. In his two years as principal, he implemented common planning time, structures for teacher collaboration, and a partnership with a Virginia Tech's T/TAC program (Training and Technical Assistance Center, a program focused on improving educational opportunities

for students with disabilities). He reported that the faculty reacted positively to the benefits of collaborative planning, yet were still resistant to change in many ways. Teachers' expectations towards economically disadvantaged students concern the superintendent and school principal. Increasingly high demands from the State of Virginia regarding student test performance are particular concerns for some teachers, and likely contribute to their resistance to change.

The summer before I began working in the school, I was informed that the principal was leaving the school and district for another placement. The district's Director of Student Achievement and Accountability would be stepping in as interim principal for the year. After meeting with the new interim principal, he assured me that he desired the previously agreed upon support. I began to conduct observations and meet with the principal on an ongoing basis to further refine the goals for how the capstone project might serve the school's plans for improvement. Over the course of these meetings, the principal shared with me that the former principal's approach to change had created a school environment that potentially hindered professional growth. His desire was to create a team mentality among faculty and a similar team mentality among teachers and students in classrooms. During this current school year, the teachers were working on adopting Co-Teaching practices (inclusion approach to special education where classroom teachers and special education teachers collaborate to address the needs of students with IEPs in the regular classroom), the Central Virginia Writing Project through the University of Virginia (a program that supports teachers in writing practices, most notably writer's workshop), and the Daily Five (a literacy approach that promotes

immersion in reading through five different routes). In addition, teachers were continuing weekly collaborative planning with fellow grade- and discipline-based teachers.

The Process of Establishing a Concrete Plan

The former principal and I had established a primary goal of addressing educational practices within the school, particularly for students from economically disadvantaged backgrounds. Those long-term goals were as follows:

- Effective use of assessment to collect student data to inform curricular and instructional decisions
- Use of student data to inform curricular and instructional decisions
- Increased use of student-centered approaches
- Building supportive classroom environments to promote student growth and achievement (i.e. teacher expectations and student-teacher relationships)
- Improving initial classroom instruction as a means of decreasing overuse of remedial approaches and excessive referrals for special education services

During this meeting, the former principal also shared required school improvements established in the district- and state-mandated school improvement plan. These goals broadly relate to sound educational practice, which aligns with the capstone project's support in addressing the goals outlined in the school improvement plan. Therefore, as the school participated in the capstone project, they were simultaneously demonstrating progress in their improvement plan. The overlapping goals of the plan included:

- Develop standards-aligned units of instruction.

- Units of instruction will include pre- and post-assessments to assess student mastery.
- Use student learning data to assess strengths and weaknesses of the curriculum and instructional strategies.
- Review assessment results to make decisions about the curriculum and instructional plans and determine student needs.
- Differentiate assignments in response to student needs.
- Promote student engagement.
- Professional development for teachers will include observations related to indicators of effective teaching and classroom management.

After several meetings with the current principal, he assured me that he desired to maintain the partnership forges with the original principal. He also reiterated his concerns regarding teacher instruction and expressed his desire of working to improve teacher instruction as well as to continue to address the school improvement plan.

Following several weeks observing at the school site, I also perceived the need to help teachers see all the separate initiatives they were working towards as part of a greater system of best practices. Teachers should understand that learning occurs not as a result of the use of specific strategies or approaches, but when teachers understand how and when to use different strategies to effectively address student needs (Hattie, 2009). In other words, effective educational practice is built on best practices that support student learning and achievement. This was also reinforced by my belief that, given the many changes RVES teachers had experienced, it seemed unwise to simply leave the faculty or leadership with a list of recommendations for how to improve practice. Instead, I would

provide tools that would help them (1) understand where school-wide practice is relative to best practices, (2) insight into how to begin and sustain growth toward best practices, and (3) direction for how to take those first steps toward best practices.

For the purposes of this project, Carol Tomlinson's model of Differentiation provided a strong framework for assessing and supporting teachers' use of effective educational practices for three reasons. First, Tomlinson's model is rooted in best educational practices that support learning for all students in diverse classrooms, and is therefore an effective way of assessing and supporting teacher practice. Second, research and literature on best practices that support achievement of poor and racially diverse students parallels the framework of this model. Finally, the model provided a basis for framing recommendations and selecting support tools for the school leadership and faculty within a cohesive system of best practices. By assessing teacher and school needs relative to effective classroom practices, and providing support tools aligned to those needs, this project responded to the school leadership's goals for improving classroom practices in ways that support student achievement.

CHAPTER 2

REVIEW OF LITERATURE

Poor Educational Fit for Poor and Racially Diverse Students

Students from poor and racially diverse populations are not likely to have educational experiences that reflect equity in access to excellence in education (Fram, Miller-Cribbs, & Van Horn, 2007; Giroux & Schmidt, 2004; Kozol, 1991; Rubin, 2008; Worthy, 2010). These students regularly encounter a poor educational fit and their key needs are often overlooked in traditional school settings. In 2001, Congress enacted the No Child Left Behind act in an effort to "ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments" (US Department of Education, 2002, page 15). The Act assumes that students who perform well on standardized tests have gained essential knowledge and skills, and that students who perform poorly are lacking basic skills and knowledge necessary for academic success. Despite comprehensive school reform initiatives, research indicates that poor and racially diverse students consistently score lower on standardized tests than do White students and students from middle and higher socioeconomic classes (Braun, Chapman, & Vezzu, 2010; Braun, Wang, Jenkins, & Weinbaum, 2006; US Department of Education, 2008). Students who are traditionally overlooked in academic settings (e.g. poor, Black, Hispanic American, Latino/Latina) often encounter challenges that impede achievement in school. Background factors such

as poverty and cultural differences can create challenges in school settings, yet greater systemic inequalities contribute to an overall poor classroom fit for poor and racially diverse students.

Student Background Factors that Create Educational Challenges

Poverty holds a significant influence over poor students' educational experiences (Arnold & Doctoroff, 2003; Case, Fertigl, & Paxson, 2006; Rouse & Fantuzzo, 2009). These influences include indirect factors such as healthcare (Haas, 2006), home, and community resources (Alexander, Entwisle, & Olson, 2001; Downey, Hippel, & Broh, 2004; Leventhal & Brooks-Gunn, 2000), as well as direct factors such as parental involvement (Bemak & Cornely, 2002), prior "school readiness" (Haris & Robinson, 2007), likelihood of retention and suspension (Rouse & Fantuzzo, 2009), and higher rates of mobility (Mehana & Reynolds, 2004; Temple & Reynolds, 1999). In addition to poverty, cultural differences between traditional, mainstream school culture and poor and racially diverse students can contribute to challenges in school settings (Bourdieu, 2008; Delpit, 2006; Garcia & Guerra, 2004; Jaeger, 2011; Lareau, 2003; Morrison, Robbins, & Rose, 2008; Rothstein-Fisch & Greenfield, 2000; Sternberg, 2004 & 2007).

The impact of poverty on school experiences. Various factors tied to socioeconomic status both directly and indirectly impact students' academic achievement. Educational attainment and achievement are strongly inhibited by poverty (Arnold & Doctoroff, 2003; Case, Fertigl, & Paxson, 2006; Rouse & Fantuzzo, 2009). This effect compounds as students progress into later school years or continue to live in poverty (Brooks-Gunn & Duncan, 1997; Sirin, 2005). Moreover, poverty can increase the likelihood of retention and school suspension (Rouse & Fantuzzo, 2009). Poverty

disproportionately affects ethnically or racially diverse populations, further contributing to academic risk among minority children (Arnold & Doctoroff, 2003), and achievement in schools is negatively correlated with a higher proportion of minority and impoverished students (Valadez, 2010). Indirect factors detrimental to academic achievement of poor and racially diverse students include neighborhood socioeconomic status (Leventhal & Brooks-Gunn, 2000), high rates of school mobility (Mehana & Reynolds, 2004; Temple & Reynolds, 1999), and poor childhood healthcare (Haas, 2006). While some current research indicates school-year gains that are relatively equal across SES levels, non-school factors can cause achievement "gaps" to persist for students from marginalized populations (Alexander, Entwisle, & Olson, 2001; Downey, Hippel, & Broh, 2004).

The role of culture in schooling experiences. Culture plays an important role in schooling experiences. Culture shapes the value relevance of certain types of knowledge, understandings, and skills, as well as expectations for behavior and interactions with others (Sternberg, 2004; Sternberg, 2007). In a school setting, cultural exchanges can take place in the classroom environment, between the school, family, and community, between teachers and students, and even among students (Garcia & Guerra, 2004). Culture also shapes expectations regarding the role of teachers, parents, and students in academic contexts (Garcia & Guerra, 2004), and perspectives on the ways in which learning and community ought to function (Morrison, Robbins, & Rose, 2008; Rothstein-Fisch & Greenfield, 2000).

Culture is especially influential in regard to "cultural capital." Cultural capital refers to the knowledge, skills, and attitudes transmitted through a cultural group that provides a social advantage to those who possess it (Bourdieu, 2008). Possession of

cultural capital provides students and their families with understandings of norms of school culture and strongly influences academic achievement (Bourdieu, 2008; Delpit, 2006; Jaeger, 2011; Lareau, 2003). Culturally and racially diverse students often possess cultural capital that is drastically different from mainstream norms (Howards, 2003; Sternberg 2007) and school systems tend to privilege children who have been acculturated to the mainstream culture in respects to interaction with authority, use of language, and other cultural norms (Lareau, 2003).

Past literature has indicated that poor and racially diverse students lack necessary prior academic skills (Haris & Robinson, 2007) and parental involvement in school related situations (e.g. Bemak & Cornely, 2002); however, such views assume parents have the resources (e.g. time and money) and parenting beliefs that fit with the socio-cultural norms of the institution (Lareau, 2003). Further, for students whose differences in language usage are not valued, or are even pathologized, school culture can be detrimental (Armstrong, 2010; Dudley-Marling & Lucas, 2009). Finally, for many poor or racially diverse children regularly confronted with societal inequalities, working hard and succeeding in school may seem futile (Okagaki, 2001).

Systemic Factors that Contribute to Poor Fit

When families and students are confronted on a regular basis with systemic inequalities, it's understandable that a sense of futility regarding school achievement results (Okagaki, 2001). Funding in public school districts often reflects social and racial stratification (Biddle & Berliner, 2002; Condron & Roscigno, 2003), and poor and racially diverse students encounter inequities in the schooling experiences themselves (Fram, Miller-Cribbs, & Van Horn, 2007; Giroux & Schmidt, 2004; Kozol, 1991). In

addition, the standardized tests that are common measures of student learning are often ineffective measures of culturally or racially diverse students' capabilities (Baker, 2005; Garcia & Guerra, 2004; Sternberg, 2007) and subsequently promote misguided responses, especially heavy remediation (Armstrong, 2010; Bomer, Dworin, May, & Semingson, 2008; Boykin, 1985; Gorski, 2007 & 2008; Lundy, 2003; Rogalsky, 2009). Further, despite a school system that has been "detracked," the effects of tracking and ability grouping are still present today as poor and racially diverse students are often in low-level classes that are lacking in quality learning experiences and high expectations for achievement (Rubin, 2008; Worthy, 2010). Finally, these students encounter an overall lack of cultural equity in school settings as they are expected to adopt to traditional, mainstream school cultures that often don't possess the same values or norms as their own homes and communities (Lareau, 2003) and can mistakenly create a sense of "otherness" of diversity (Swartz, 2009).

Funding inequities in public education. While economic and cultural characteristics disadvantage poor and racially diverse students, systemic inequalities ensure that these students remain educationally at risk. Unequal educational funding is common in the United States; there are fewer well-funded schools than poorly funded schools (Biddle & Berliner, 2002). Well-funded schools are largely found in affluent, suburban communities, and poorly-funded schools are likely to be found in places where poverty is considerable (Biddle & Berliner, 2002). Within district spending may exhibit patterns of racial and class stratification as high-poverty schools receive less local funding than do schools with students from high socioeconomic backgrounds (Condron & Roscigno, 2003). Thus, federal financial support does not make up for local

inequalities in the distribution of resources (Condron & Roscigno, 2003). Further, students from poor and racially diverse populations are more likely to be in schools that lack adequate funding for basic materials, facilities, and even adequately trained or certified teachers (Kozol, 1991). Children in schools with ethnic minority populations are more likely to encounter teachers with less experience or certification, lack adequate materials, and have classmates with lower reading skills (Fram, Miller-Cribbs, & Van Horn, 2007).

The impact of standardized testing on educational experiences. Ironically, while the goal of reform initiatives that rely heavily on standardized tests was intended to reduc inequalities, emphasis on high stakes testing may instead exacerbate them. These initiatives fail to account for teacher inexperience, lack of school and community resources, and poor learning environments of many impoverished urban and rural students (Giroux & Schmidt, 2004). Standardized tests often fail to provide opportunities for poor and racially diverse students to demonstrate their advanced potential (Sternberg, 2007), may be culturally biased, often lack in quality, and do not accurately measure how or what minority or disadvantaged students have learned (Baker, 2005; Garcia & Guerra, 2004). Addressing pervasive systemic inequalities, classism, and racism that are perpetuated or reinforced in schools is ultimately more equitable than continuing to respond to test score discrepancies with increased test preparation and focus on basic skills (Armstrong, 2010; Bomer, Dworin, May, & Semingson, 2008; Boykin, 1985; Gorski, 2007 & 2008; Lundy, 2003; Rogalsky, 2009).

The long-reaching effects of tracking. Tracking has a long history of publicly sorting students into groups according to perceived abilities, often along lines of racial or

economic stratification, limiting access to quality curriculum for students placed in lower tracks (LaPrade, 2011). Perhaps most pernicious, this practice often prevents these students from changing tracks despite growth or need (LaPrade, 2011). Regrettably, forms of tracking still exist in supposedly "detracked" schools or with ability grouping. Teachers' conceptions of student characteristics and needs, often result in curriculum, pedagogy, expectations, and goals that are different for students from urban communities than more affluent schools (Rubin, 2008; Worthy, 2010). In some cases, these detracked classrooms provide limited opportunities for urban students to gain access to higher level learning experiences (Rubin, 2008). Inclusion and true detracking requires that teachers understand broader structural inequalities faced by certain groups of students, otherwise they'll resort to ingrained societal understandings that focus on values and competencies of students' families' and communities' rather than on factors that can be changed in an appropriately supported academic setting (El-Haj & Rubin, 2009).

Lack of cultural equity. Furthermore, social inequalities are reinforced when individuals from backgrounds of poverty are expected to be acculturated to the norms of the dominant culture (Lareau, 2003). While efforts to promote diversity and cultural acceptance in schools exist, they can perpetuate social inequality by positioning "diversity" *outside* the mainstream white, middle-class culture (Swartz, 2009). This position maintains a hierarchy of human worth, with mainstream white culture at the top (Swartz, 2009). Even adopting a "color-blind" approach can maintain a subtle form of racism, because it supports the view that, regardless of race or social status, an individual's circumstances are only a result of his or her choices (Martinez, 2009). This

view fails to address the structural and systemic issues that are an ingrained part of society in general (Martinez, 2009).

School Personnel Factors

In the classroom there are challenges that make schooling experiences a poor fit for poor and racially diverse students. These challenges include low teacher expectations and poor quality educational experiences. Teachers often fail to recognize or comprehend non-traditional strengths of poor or racially diverse students (Sternberg, 2004, 2006, & 2007), and instead adopt deficit perspectives of student characteristics (Armstrong, 2010; Garcia & Guerra, 2004) rather than gaining an understanding of student needs and capitalizing on their strengths (Delpit, 2006). Curriculum experienced by these students often fails to reflect best practices, is low-quality (Baker, 2005; Freire, 2009; Garcia & Guerra, 2004), and lacks cultural relevance & responsiveness (Banks, 2006; Ladson-Billings, 1995).

Inaccurate assessment of student strengths and needs leads to low expectations. School personnel often fail to recognize nontraditional forms of intelligence due to socially- and culturally-developed perspectives of intelligence and its manifestations (Sternberg, 2006, 2007). Teachers working with students from cultures that differ from the mainstream school culture may not fully comprehend the strengths and needs of these students (Sternberg, 2004, 2007). Failure to recognize student strengths prevents teachers from understanding student needs and capitalizing on their strengths as a means of responding to those needs (Delpit, 2006). Teachers and educational leaders may hold pervasive deficit perspectives concerning student characteristics and capabilities (Armstrong, 2010; Garcia & Guerra, 2004).

Characteristics that are traditionally perceived as deficits include: school readiness of students from impoverished backgrounds, limited English proficiency, and minority status (Garcia & Guerra, 2004).

Educational responses based on deficit perspectives of student characteristics often include heavy reliance on remedial approaches in curriculum and instruction and a failure to recognize and capitalize on the resources and knowledge of all children and their families (Garcia & Guerra, 2004). With the best of intentions, many educators unconsciously communicate lower expectations for poor and racially diverse students' achievement, when emotional support is emphasized as the chief response to student needs rather than provision of culturally responsive quality curriculum and instruction (Garcia & Guerra, 2004).

Poor curriculum and lack of relevant learning experiences. Teachers working with poor and racially diverse students often unintentionally adopt a "Banking Model of Education" (Freire, 2009). Within this model, teachers are the source of authority and knowledge, and students are passive recipients. Students are required to integrate into the dominant culture through a passive process of receiving and storing knowledge deposited by teachers, a process that ultimately disempowers students, preventing them from learning how to become social change agents (Freire, 2009). When poor and racially diverse students who score poorly on standardized tests are provided with remediation that replaces rich, high-quality curriculum and instruction, and critical thinking and problem-solving (Baker, 2005), it positions them in disempowered, passive roles as learners (Freire, 2009). Finally, academic settings frequently fail to affirm the life contexts, learning styles, and cultures of poor and racially diverse students, often leading

to learning experiences that are devoid of meaning and relevance (Banks, 2006; Ladson-Billings, 1995).

Addressing Traditionally Overlooked Students' Needs

The implications of this literature may seem daunting at first, considering the implicit need for large-scale changes to systemic inequalities; however, much can be done within classrooms to support equity in access to excellence in education for poor and racially diverse students. Teachers can support academic achievement of poor and racially diverse students by (1) holding high expectations of all students while simultaneously providing high levels of support (e.g. Delpit, 2006; Howard, 2001; Ladson-Billings, 1992; Morrison, Robbins, & Rose, 2008; Swartz, 2009), (2) affirming and capitalizing on student culture and strengths, and (3) developing student efficacy and sense of empowerment (e.g. Banks, 2006; Benson, 2003; Ladson-Billings, 1992; Martinez, 2009; Matczynski, Rogus, Lasley, & Joseph, 2000; Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007; Rothstein-Fisch & Greenfield, 2000; Seidl, 2007; Sternberg, 2010; Sternberg, Gringorenko, & Bundy, 2001; Swartz, 2009).

High expectations and high levels of support. Poor and racially diverse students face many disadvantages that necessitate high levels of support; nevertheless, it is vital high expectations accompany that support. Care for poor and racially diverse students, both academically and personally, must not translate to lower academic expectations (Garcia & Guerra, 2004) but to strong support in reaching academic excellence and achievement (Howard, 2001; Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007; Swartz, 2009). Teacher belief that all students can and must succeed is, along with efforts to guarantee success of each student, imperative (Ladson-Billings,

1995). Learning experiences should respond to students' individual needs for support (Ladson-Billings, 1995), be academically demanding (Osborne, 1996), and provide explicit instruction for meeting expectations (Delpit, 2006). Curriculum needs to be rigorous (Morrison, Robbins, & Rose, 2008), rich, and supportive of student work toward meaning and transferable understandings and skills (e.g. Ladson-Billings, 1992; Leiding, 2007; Patchen & Cox-Petersen, 2008).

The learning environment should be both supportive and demanding. **S**tudents should be consistently presented with intellectual challenges, required to hard work, provided with a safe place to fail, constructive feedback, and growth-focused support (Dweck, 2006). Students should be challenged to become intellectual leaders and encouraged to use the funds of knowledge they possess to support new learning (Ladson-Billings, 1992). Ultimately, the goal is to maintain a classroom expectation of individual and cultural excellence (Swartz, 2009).

Affirmation and capitalization of student culture and strengths. Teaching students in ways that best fit their strengths and reflect their cultures is crucial in helping them to reach their full potential (Sternberg, 2002; 2004; 2007). Using a balance of teaching and assessment approaches provides a more accurate perspective of students' strengths and needs, and helps students learn to think flexibly and compensate for weaknesses by capitalizing on strengths (Sternberg & Grigorenko, 2004; Sternberg, Grigorenko, & Jarvin, 2001; Sternberg, Torff, & Grigorenko, 1998; Sternberg & Zhang, 2005). Rather than relying on a specific set of strategies, style, or approach, effective learning experiences: connect to students' cultural, political, and emotional worlds (Seidl, 2007); use content and learning processes that are culturally relevant (Banks, 2006;

Delpit, 2006; Matczynski, Rogus, Lasley, & Joseph, 2000); and reflect an understanding of how students best learn (Sternberg, 2010). Curriculum and instruction are potentially powerful means to connect to students' cultural backgrounds, help students understand themselves and others, support students in viewing their own cultures as valuable resources in learning (Benson, 2003), and foster positive interrelationships among students, their families, the community, and school (Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007). In addition to curriculum, the classroom climate should promote equity and mutual respect for student differences (Richards, Brown, & Forde, 2007), positive intercultural interactions (Jackson, 1994), and a sense of community that celebrates students' cultural differences (Ladson-Billings, 1992).

Development of student self-efficacy and sense of empowerment. Finally, developing a student's efficacy and sense of empowerment in the classroom is a powerful means of supporting academic achievement and addressing systemic inequalities. Fostering self-efficacy and sense of empowerment requires teachers to (1) position students as co-contributors in the class community and (2) cultivate a critical consciousness for recognizing inequalities and effecting meaningful social change. Students are given the opportunity to act as teachers and leaders, positioned to share authority of knowledge, (Morrison, Robbins, & Rose, 2008; Patchen & Cox-Petersen, 2008). The teacher is no longer the sole authority of knowledge, but also a learner in the classroom community (Freire, 2009; Sternberg, 2010). Curriculum and instruction should create an opportunity for educators and students co-construct knowledge through problem-solving (Freire, 2009; Swartz, 2009). Students should be active participants in their own learning (Freed and Pena, 2002; Richards, Brown, & Forde, 2007) and

expected to excel at something and share their expertise (Ladson-Billings, 1995). Ongoing collaboration between students and the teacher should occur, and students should beencouraged to take responsibility for their own growth and the well-being of others (Ladson-Billings, 1995; Tomlinson, 2001). Such approaches promote student self-efficacy – the belief in one's capacity to exercise control over one's environment – which in turn impacts students' success in learning (Sternberg, 2010; Sternberg, Gringorenko, & Bundy, 2001). Finally, curriculum should support students in addressing social inequalities in ways that promote a sense of empowerment over their own life circumstances (e.g. Banks, 2006; Benson, 2003; Ladson-Billings, 1992; Martinez, 2009; Morrison, Robbins, & Rose, 2008; Swartz, 2009).

Overall Best Practices as a First Step and Differentiation as a Framework

Sustaining high expectations and providing high levels of support for students, affirming and capitalizing on student culture and strengths, and promoting student efficacy and sense of empowerment are specific ways that traditionally overlooked student needs can be addressed to support academic achievement. The aforementioned research on these approaches indicate a need for qualities in curriculum, instruction, assessment, and the learning environment that are reflective of best educational practice, qualities that are often lacking in educational experiences of poor and racially diverse students. Such best practices include (Hattie, 2009):

- Clear learning goals
- Awareness of individual student characteristics and needs that influence learning
- Use of this understanding to inform planning of meaningful learning experiences
- Provision of appropriate and meaningful feedback

- Sound assessment approaches aligned to learning goals
- Evidenced-based assessment of student learning
- Scaffolding and intentional forms of support
- Meaning-focused learning and teaching for understanding and transfer
- Safe learning environments that support and promote growth
- Use of strategies and approaches to effectively address individual student needs

Thus, first establishing research-based best practices in all areas of classroom practice is necessary foundation for addressing the key needs of economically and racially diverse students.

Carol Tomlinson's model of Differentiation is based on best educational practices. The elements in this model are affirmed by researchers in multiple fields of education, including the recent work of John Hattie who has synthesized over 800 meta-analyses of evidence-based research regarding factors that impact student achievement (2008). Differentiation is an approach in which teachers "proactively modify curricula, teaching methods, resources, learning activities, and student products to address the diverse needs of individual students and small groups of students to maximize the learning opportunity for each student in a classroom" (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003, p 121). Therefore, it is a highly useful framework for best practices and, within this model, the key needs of poor and racially diverse students can be effectively addressed.

This model contains five key principles representing best educational practice which collectively and interdependently work to promote student learning. These principles include: (1) quality curriculum, (2) assessment to inform teaching and learning,

(3) instruction in response to learner needs, (4) effective classroom leadership and management, and (5) a supportive learning environment (Tomlinson, personal communication, August 7, 2012).

Five key principles of Tomlinson's model of differentiation. Tomlinson's key principles represent best practices across all facets of classroom practice and are therefore a useful frame for addressing the needs of poor and racially diverse students (see Figure 1 for an illustration of the model components, Tomlinson, personal communication, August 7, 2012). Each of these principles is explored, below, followed by an examination of how recommended practices for supporting academic achievement of poor and racially diverse students parallel those principles.

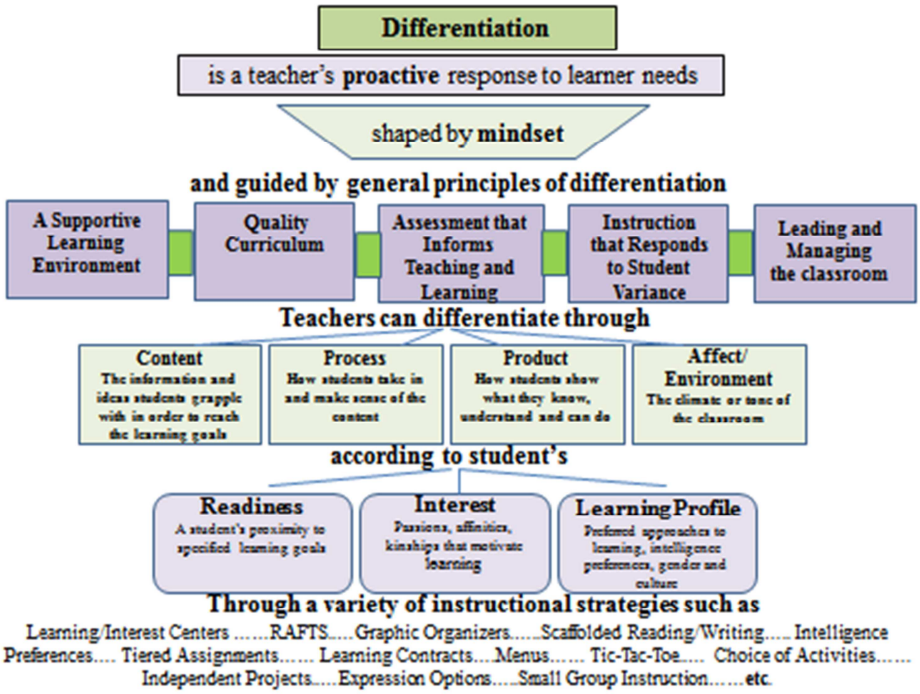

Figure 1. Tomlinson's differentiation model. This figure illustrates the five key principles and various components of Tomlinson's model of differentiation.

Quality curriculum. Quality curriculum has five important characteristics (Sousa & Tomlinson, 2011). First, it is organized around essential content goals that include understandings, skills, and knowledge. Learning goals should clearly articulate what students should understand, know, and be able to do at the end of a unit or lesson of study. Second, learning goals, assessments, and learning experiences should be aligned. Third, it is meaning-focused and propels students toward developing deep and transferable understanding. Fourth, quality curriculum is engaging, highly relevant, pertinent, purposeful, interesting, and useful to students. Finally, quality curriculum is authentic. It is grounded in the essential understandings, methodologies, skills, and content of a discipline or field of study. It requires students to step into the roles of problem-solvers and constructors of knowledge, rather than to merely consume or regurgitate knowledge. In short, quality curriculum promotes "teaching up," requiring all students to work as thinkers and problem solvers, while supporting them individually in ways that best achieve that end.

Ongoing use of assessment to inform decisions. Ongoing use of sound assessment is vital to ensure teachers have the information they need to make strong decisions that best support student learning (Sousa & Tomlinson, 2011). Sound assessment is aligned to the essential knowledge, understanding, and skills stated in the curricular goals. Such assessments state – in clear language – expected targets and goals, expectations for quality performance, and information for students on what was or was not demonstrated in learning. Effective assessments are appropriate for their intended use and are tailored to the learning goals they are meant to measure. Effective assessment practices include a variety of formal and informal approaches and include pre-

assessments, formative, and summative measures of student needs and learning relative to learning goals. Such assessments maximize the likelihood that students can demonstrate their learning and are useful to teachers and students for sustaining growth.

Responding to student needs and "teaching up." Effective instruction is based on student needs. Such instruction is determined by using assessment information to inform instructional and curricular decisions and ensures students arrive at the same worthwhile learning goals through varied, but respectful, learning tasks that utilize flexible instructional grouping (Sousa & Tomlinson, 2011). Respectful learning tasks take into account that students are individuals and connect content to students through the most effective and engaging means possible. These tasks are equally engaging and interesting to all students and support students as thinkers and problem-solvers.

Respectful learning tasks attend to student differences in the areas of readiness, interest, and learner profiles. Readiness refers to a student's proximity to curricular goals, as measured by the degree of match between the goals and the student's current level of understanding, knowledge, and skills. Interest-informed tasks connect curricular goals to student interest to promote engagement and motivation. Learner profiles describe how various aspects of student learning are impacted by students' learning styles, intelligence preferences, culture, and gender. Educators can respond to student characteristics by modifying the ways in which students (1) make sense of content (process), (2) access information (content), and (3) demonstrate their learning (product). That all students work to develop and attain the same understandings, skills, and base content knowledge, regardless of the task, is implicit in this principle.

In order to effectively address the myriad needs of students, instructional grouping should be dynamic, changing in response to learner needs and interest as informed by assessment data. Students should be flexibly grouped to address particular needs within a learning sequence. Flexible instructional grouping is dynamic and stands in stark contrast to static forms of tracking or ability grouping. Flexible instructional grouping changes continually to support students' growth and needs related to content, interests, and learner characteristics are taken into consideration. The purpose of grouping is to support effective learning and enable students to see themselves and their classmates in varied contexts, allowing them to become aware of their own and others' strengths.

Leading and managing safe and supportive learning environments. Effective classroom leadership is an essential component of the differentiation model. Teachers are leaders who work to maximize the capacity of the individual learners of their classrooms. These teachers "motivate, lead, and direct students to understand, contribute to, and participate in a classroom that is designed to take into account the individuals and group" (Tomlinson & Imbeau, 2010). Management aspects of this model encompass the use of physical space, routines, and procedures to promote learning and community-building.

A safe and supportive classroom environment is essential for supporting optimal student growth and learning (Sousa & Tomlinson, 2011). Teacher expectations for students are high, yet students are provided with strong support. In such environments there is a pervasive expectation of growth. Teachers believe that students can learn most things if they exert effort, and that their role is to elicit such effort and promote student self-efficacy. Growth in learning as a result of effort and hard work is valued and

celebrated. Each learner is valued, accepted, respected, challenged and supported. Students feel a sense of affiliation and are encouraged to take risks and contribute to the learning community.

Addressing key needs of traditionally overlooked students within the frame of differentiation. Collectively, the principles of differentiation provide a strong basis for holding high expectations and providing high levels of support, for affording opportunities for affirming and capitalizing on culture and strengths, and for developing efficacy and sense of empowerment for traditionally overlooked students.

Best practices as a means for holding high expectations and providing high levels of support. High standards for student academics are conveyed through meaning-focused, rigorous, authentic curriculum that requires higher-order thinking skills. This requires high levels of support for students such as explicit communication of expectations, scaffolding, and building on students' fund of knowledge. In order to do this effectively, intentional and proactive collection and use of assessment data to provide students with needs-based support is crucial.

Curriculum that reflects best practices in education and addresses the needs of poor and racially diverse students is authentic, emphasizes and develops meaning and understanding, and develops higher order thinking skills, critical consciousness, and social action. Authentic curriculum mirrors real-world thinking: students have the opportunity to develop and apply technical knowledge in realistic ways (Sternberg, 2003), utilize the latest technology (Haberman, 1991), and begin to work like a practitioner in the field (Tomlinson, et. al., 2008). Students engage in multi- and interdisciplinary explorations, interact with global issues, and work to solve problems

that are future-oriented to develop transfer of knowledge and understanding (Borland, Ed., 2003; Shore, Cornell, Robinson, & Ward, 1991). Learning is driven by real-life problems that require students to learn to think, feel, and do what is common for practitioners (Haberman, 1991; Renzulli, 2000). Knowledge and skills are not learned in isolation, but subsumed under deeper, transferable understandings, to support meaning-focused learning (Erikson, 2002, & 2006; Wiggins & McTighe, 2005) that reflects the understandings, concepts, methodologies, and content knowledge of a given discipline (Tomlinson, et. al., 2008).

Such curriculum provides ongoing opportunities for developing critical and creative thinking skills such as: inquiry and communication skills, current technology skills, planning and goal-setting, communication skills, problem solving, meta-cognitive skills, scholarly habits, and leadership skills (Baker, 2005; Borland, 2003; Davis & Rimm, 2004; Neihart, Reis, Robinson, & Sidney, 2002; Patchen & Cox-Petersen, 2008; Richards, Brown, & Forde, 2007; Shore, Cornell, Robinson, & Ward, 1991). Students are asked to solve open-ended, inquiry-based problems, enumerate assumptions, define their own problems (Sternberg, 2010), ask their own questions, search for their own answers (Ladson-Billings, 1992) and engage in substantive classroom discourse (Patchen & Cox-Petersen, 2008).

Rigorous curriculum should be paired with “intensive modeling, scaffolding, and clarification” to ensure student success (Morrison, Robbins, & Rose, 2008, p 435). Gaps in basic skills and knowledge indicate the need for more scaffolding or bridges to ensure student success (Ladson-Billings, 1995). Scaffolding, instead of watered down curriculum, provide support in the development of “knowledge and skills each student

already possesses, while at the same time adding new knowledge and skills to that base" (Delpit, 2006, pp 67-68) by utilizing students' strengths as instructional starting points before moving on to more challenging areas (Morrison, Robbins, & Rose, 2008). This approach to scaffolding should build on students' funds of knowledge (Morrison, Robbins, & Rose, 2008) and encourage them to see the value in the funds they possess and use outside of school that can enable them to learn current content successfully (Hefflin, 2000). Explicit communication of expectations, in conjunction with structured routines, supports students in meeting those expectations (Morrison, Robbins, & Rose, 2008).

Providing effective levels of support to help students reach high expectations is contingent upon intentional, proactive collection and use of data to inform decisions related to learning. This information should provide insights into how children best learn, their strengths, characteristics influenced by their culture, families, and communities, learning needs, and interests. Support should be needs-specific, avoid positioning some students above others, support multiple ways of knowing (Swartz, 2009), and include multiple instructional strategies (Patchen & Cox-Petersen, 2008).

Best practices afford opportunity for affirming and capitalizing on student culture and strengths. Best educational practices provide a substantive and flexible foundation for affirming and capitalizing on student culture and strengths. When learning is conceptually-focused, it enables educators to incorporate balanced perspectives of various racial and ethnic groups, which help students develop understanding of generalizations through specific cultural contexts (Erikson, 2002, Haberman, 1991; Leiding, 2007). Flexible use of a varied balance of teaching and assessment approaches

(Sternberg & Grigorenko, 2004; Sternberg, Grigorenko, & Jarvin, 2001; Sternberg, Torff, & Grigorenko, 1998; Sternberg & Zhang, 2005) in conjunction with culturally relevant content and learning processes (Banks, 2006; Delpit, 2006; Matczynski, Rogus, Lasley, & Joseph, 2000) that reflect an understanding of how students best learn (Sternberg, 2010) ensures that students will be successful in learning situations. Finally, by searching for and utilizing insights from a student's home and community cultures (Jackson, 1994; Ladson-Billings, 1992; Rothstein-Fisch & Greenfield, 2000; Seidl, 2007), and by engaging their communities and families in learning experiences (Swartz, 2009), teachers can discover useful information on approaches to learning that powerfully connect to students' lives.

Providing students with materials that present varied perspectives promotes cultural relevance within quality curriculum. This includes materials that document historical and societal contributions by persons of diversity, represent perspectives of all people groups or cultures involved in historical phenomena, and contain rich and accurate representations of various racial, ethnic, and cultural groups (Banks, 2006; Ladson-Billings, 1995). Utilizing texts that "relate to students' lived lives," and use of literacy activities that enable students to "visualize themselves as a part of a larger discourse community" (Patterson & Speed, 2007, pp35-36) may also make learning experiences more valuable for other students.

Approaches that are informed by an understanding of students' culture and unique strengths is essential in learning experiences, since student achievement is more likely when key skills relate to real-life situations (Sternberg, 2006), and teaching and assessment that matches students' strengths and real-life experiences increases

achievement (Sternberg & Grigorenko, 2004; Sternberg, Grigorenko, & Jarvin, 2001; Sternberg, Torff, & Grigorenko, 1998; Sternberg & Zhang, 2005). Incorporating culturally relevant approaches is also important. Materials and methods that reflect the norms and practices of students' lives (Hefflin, 2002) and use of instructional styles that mirror interaction styles of students' communities (Morrison, Robbins, & Rose, 2008) can make learning more relevant and effective for students.

Active learning, peer collaboration, and direct skills instruction may be more effective for traditionally overlooked students than traditional instructional styles (Delpit, 2006). Active participation in making meaning and public response to questions may be more effective for students from communities where collectivism is strongly valued (Rothstein-Fisch & Greenfield, 2000). On the other hand, some students may need opportunities to demonstrate knowledge without public performance (Osborne, 1996). Other strategies include: using students' native languages to secure subject comprehension, (Patchen & Cox-Petersen, 2008), fluid use of instructional time at an unhurried pace (Osborne, 1996; Patchen & Cox-Petersen, 2008), and explicit instruction to linguistically diverse students for translating or code switching (Seidl, 2007).

Students' social, cultural, and personal lives (Hefflin, 2002), prior experiences (Benson, 2003; Patchen & Cox-Petersen, 2008), culture, and language are assets and tools for imparting knowledge, skills, and attitudes in learning and instruction (Ladson-Billings, 1992; Richards, Brown, & Forde, 2007). Anchoring learning experiences to knowledge of culture, frames of reference, styles of performance, and images and practices familiar to students make learning more relevant and encourages student pride in ethnic or cultural identity (Benson, 2003; Richards, Brown, & Forde, 2007). When

students' real life experiences are a part of the official curriculum (Ladson-Billings, 1992), learning is more likely to be germane and affirm student identities (Morrison, Robbins, & Rose, 2008).

Best practices as a basis for developing student efficacy and fostering a sense of empowerment. Ultimately, educators can then use these types of learning experiences to promote social action and foster a sense of empowerment for poor and racially diverse students. Educators can connect student learning to broader social contexts (Patchen & Cox-Petersen, 2008) and ask them to examine social differences that go beyond physical appearance, customs and celebrations of various cultures (Leiding, 2007). Students should be taught to critically examine content, (Swartz, 2009) and recognize systemic power within and outside of school contexts (Patchen & Cox-Petersen, 2008).

Curriculum and instruction that develops a student's critical consciousness asks him or her to critically reflect on social injustices, question inequalities in the world (Benson, 2003), critique human behavior, the environment, cultural norms, values, mores, and institutions, to become aware of social inequities and how they are produced and maintained (Ladson-Billings, 1992; Malloy & Malloy, 1998). It promotes examination of contradictions and inequities that exist in students' local community and the larger world (Ladson-Billings, 1992), supports analysis of perspectives presented in texts and resources, and encourages evaluation of materials that reflect principles of cultural equity (Morrison, Robbins, & Rose, 2008). It can be a means of making explicit the rules of the culture of power (Delpit, 2006; Morrison, Robbins, & Rose, 2008), and help students address the unique struggles and realities of poverty or discrimination they encounter (Ginwright, 2000).

CHAPTER 3

METHODOLOGY

Understanding & Addressing the Needs of All Students for Effective Educational Practice

School-wide best practices that address the learning needs of all students are crucial for addressing the key needs of poor and racially or culturally diverse students. Ultimately, the purpose of this capstone project was to support growth in educational practices that address the needs of traditionally overlooked students. After spending time at the site, it was clear that the school needed a crucial foundation of overall best practices from which these needs could be addressed. Therefore, the purpose established for the project widened to include the increase of building-level capacity of faculty to identify and implement best educational practices in order to more effectively address the needs of students from backgrounds of poverty.

A capstone project of this nature and approach presents several benefits to those working to improve classroom practice in order to more effectively address the needs of traditionally overlooked students. First, it presents the opportunity to study a school-wide culture of educational practice that either promotes or inhibits student achievement in general, but also highlights the specific ways it can promote or inhibit achievement for poor and racially or culturally diverse students. Second, it provides the opportunity to explore the “first steps” that can be taken toward increased best practices that promote all students’ academic achievement. Finally, it provides a baseline consideration for how to

continue to support ongoing professional growth in a school community committed to working toward an overall system of best practices. Such insights have the potential to be useful in similar school settings (i.e. rural elementary schools with significant populations of students from low-income backgrounds). Therefore, the benefits of this capstone project are: (1) to increase building-level capacity of faculty to identify and implement best educational practices that effectively address the needs of all students and the base-line needs of students from backgrounds of poverty; and (2) to add to literature related to the emphasis of best educational practices as a foundation for promoting the academic achievement of students from backgrounds of poverty.

Site and Participants

The school, faculty, and leadership. Rural Virginia Elementary School (RVES) was one of three total elementary schools in the district, one of the district's two Title 1 schools, and was deemed a "focus school" by the state. With approximately 400 students, grades three through five, the school was arranged into three grade-level pods. In total, there were 33 educators and educational leaders at RVES (19 classroom teachers, one math-only teacher, three special education teachers, one instructional coach, three reading specialists, five specials teachers, an assistant principal who also served as the school's intervention specialist, and one principal) who ranged from 23 to 65 years of age. Five were male and 27 were female.

General structure of the school day. With the exception of two teachers, all teachers taught a homeroom class and either (A) reading, writing, and spelling, or (B) math, and science and social studies "units." Students began each day with their homeroom teachers and stayed in their classes for the subjects taught by that teacher.

Around mid-day, students changed classes to attend the subjects not taught by their homeroom teachers before returning to their homerooms for dismissal. The two exceptions include a third grade teacher who taught all subjects due to an odd number of third grade classes and a math-only teacher who taught remedial math classes for all three grades.

Remediation and enrichment decisions. The school had been working to implement co-teaching and inclusion, so special education teachers spent most of their time in several classrooms in which their students received instruction. A school-wide remediation program was also in place where teachers sent students to various teachers for a period of 45 minutes to receive remedial instruction in reading or math. Some students received enrichment classes during this time. Remedial groups were determined by the students' Qualitative Reading Inventory (QRI) and Stars (a standardized computer-based test that aligns with SOLs in some degree) scores. Teachers were provided with these scores, assigned a group of students, determined general group needs based on these scores and provided support for those general needs during the 45 minute block. Special education teachers worked with the students on their case-loads during this time, and reading specialists worked with the Title 1 students. I was told that these assignments could be reevaluated based on district-wide benchmark tests given throughout the year.

Expectations of the principal. The principal at the time of this project worked on creating a team mentality among the faculty. He asked teachers to write and submit weekly lesson plans that follow the Madeline Hunter model (SOLs, hook, direct-instruction, guided practice, and independent practice) and include goals or lessons for

the week on their teacher pages online. Teachers were instructed to adhere to district-wide pacing guides that outline which SOL the teacher needs to teach for a given period of time, sometimes a matter of a few days, sometimes within a given quarter, primarily for a period of about one to two weeks. The principal shared with me that the teachers could "rearrange" the order of the content presented on the pacing guide with his approval. The intent of these measures was to promote transparency and accountability between the school faculty, leadership, and parents on what was happening in classrooms.

Current initiatives for improving student learning. The school adopted a number of initiatives related to student learning over the course of the last three years. I was able to observe two presentations on co-teaching by Lisa Norris and Kandy Grant of James Madison University's T-TAC program, the Inclusive Practices focus area. This was the second year they had been working with RVES to support teachers in developing co-teaching practices that support inclusion. In addition, the school had just begun working with Jane Hansen, from the University of Virginia, to adopt the Central Virginia Writing Project. Dr. Hansen visited the school regularly to provide feedback on language arts teachers' work with implementing writers' workshop in their classrooms. Furthermore, teachers incorporated the Daily 5 framework (Boushey & Moser, 2006) for structuring the development of students' daily habits of reading, writing, and working independently. As a part of this framework, language arts teachers were expected to incorporate three structures into their literacy routines: students read to themselves, students read to others, and students learn spelling through Daily 5 word work program.

Finally, the current principal maintained the practice of weekly grade-level, content-area collaborative planning meetings.

Data: Instruments, Collection, & Procedures

Instruments used for data analysis. Two instruments were used to support useful data collection for this capstone project: (1) a Guide to Thinking and Analysis of Educational Practice and (2) an interview protocol (see Appendix A for guide and Appendix B for interview protocol).

The guide was developed as a tool to promote ongoing professional growth. It served as a tool to help me focus on crucial aspects of classroom practice and provide a frame for my own data analysis. It will further serve as a tool I will give to the school leadership to provide them with a common language, facilitate discussion, provide a cohesive way to target various aspects of educational practice in professional development efforts, and to guide teacher work towards best educational practice.

The guide is based on the key principles of Carol Tomlinson's Differentiation Model (i.e. curriculum, instruction, assessment, grouping, and factors related to the learning environment). The guide briefly describes each principle provides a sample list of indicators or "look fors" that can be used to interpret classroom practice relative to best educational practice. Tomlinson's model is used as frame under which the needs of all students can be addressed, but also builds on this frame to consider the ways in which the key needs of marginalized student can be addressed. Therefore, parallel to the key principles of Tomlinson's Differentiation Model are columns that address three key needs of certain groups of students often overlooked in traditional classroom settings (i.e. providing students with a balance of high expectations and high levels of support;

affirming and capitalizing on student culture and strengths; and fostering student self-efficacy and sense of empowerment). Each of these areas contain a set of "look fors" with more indicators that specifically consider the needs of students who are often overlooked in traditional school settings (e.g. culturally, economically, and racially diverse students). Collectively, the components of this guide are grounded in research and theory literature of (1) best educational practices in working specifically with overlooked student populations and (2) best educational practices that effectively address the needs of all students, including the key needs of traditionally overlooked students. They are intended to assist educators and leaders in determining the presence of various qualities related to best educational practice and in making useful recommendations.

The interview protocol was based loosely on both the guide and on emerging categories in observation data. It contained a selection of questions (as well as sample follow-up questions) that were designed to prompt teachers thinking on the following areas of classroom practice: curriculum, learning tasks, use of assessment, grouping arrangements, response to student needs, and learning environment. The purpose of the interview was to gain clarification from teachers into various aspects of classroom practice observed school-wide.

Sources of data and approaches to collection. Data sources included observations, formal voluntary interviews with teachers, informal meetings with the leadership, and feedback given by leadership and faculty following presentations to both leadership and faculty regarding school-wide strengths and needs. Observations were conducted over a period of approximately five weeks, from August 29 to October 1, 2012, totaling approximately 92 hours of in-classroom observation time. Teacher

interviews were conducted with 15 teacher volunteers, each approximately 20 minutes in duration, for a total of 5 hours. Informal meetings with the principal or other leadership occurred when a need arose for clarification on school procedures or other information. Finally, notes were taken following preliminary presentations to leadership and faculty of school-wide strengths and needs. This allowed me to gather feedback regarding the development of the handbook to ensure it was useful to the school leadership and teachers.

My observations were 20-60 minutes in length, and I observed every regular classroom approximately five hours each, during a variety of times throughout the days and a range of days in the week to facilitate a representative perspective of each classroom's practices. I was able to observe specials classes (i.e. music, art, PE, and library) at least once each. During observations, I sought to absorb as much information as I could about various aspects of classroom practice, taking detailed notes. Because I refrained from any analysis or evaluative perspectives during observation times, my usage of the Guide to Thinking and Analysis of Educational Practice (see explanation of guide in the previous "Instruments used for data analysis" subsection, also see Appendix A for guide) was used only to focus my note-taking on interactions and content that were directly related to classroom practices. My notes included diagrams of each room with furniture arrangement and supply locations, content on the walls and on the boards, any changes of these things throughout the six weeks of observations, and observed teacher and student interactions, including instruction and assistance, as well as student-to-student interactions. I noted what tasks students were asked to participate in, assignments they were asked to complete, and any forms of assessment used. When I needed to

process my thoughts about a teacher's practice, I found an empty space in the school and wrote any emerging ideas or thoughts; however, I used classroom observation time solely for data collection. Approximately 400 pages of hand-written notes and diagrams were collected during the time of the project. I used pseudonyms for any teacher and student names in my notes, and assigned a code to distinguish between observations and interviews.

It was necessary to occasionally meet with the principal for clarification or other information. During one meeting I inquired about the possibility of gaining information about student demographics (e.g. free and reduced lunch or Title 1 status). He could not provide this information for me due to privacy issues and further clarified that the teachers themselves did not have this information about their students. At another meeting regarding the school-wide remedial time and the district pacing guides (both mentioned in the previous section, "Site and Participants"), he provided contact information for the two T-TAC inclusion specialists that were working with the school so that I might obtain permission to sit in on their meetings with the teachers. Other informal meetings focused on how the project was going and answering any of his questions.

I conducted 20 minute interviews with any teachers who volunteered to participate. The purpose of these interviews was to clarify particular aspects of observed classroom practices. For each interview, I followed a general interview protocol (described in the previous "Instruments used for data analysis" sub-section) and recorded each interview with Audacity, free audio recording software on my password protected laptop computer. No teacher names were recorded on these files, and each file was saved under a separate code.

On January 6, 2013, I met with the principal and school leadership to present preliminary conclusions and recommendations about school-wide strengths and needs relative to best educational practice. The leadership was receptive to the recommendations and provided feedback as to what they would like me to include in the handbook and professional development workshops components of the capstone project. My notes from this meeting informed the creation of those projects. As a result of this presentation, the principal requested that I meet with the school faculty and share the same material with them. After obtaining permission to do so from my academic advisor, I did so on February 6. As before, I took notes on any requests the teachers had regarding the handbook or the proposed professional development.

Data analysis. Holistically, this capstone project reflected the approach of both practical action research (Crewell, 2008) ethnographic research (Leedy & Ormrod, 2005). Practical action research takes a systemic look at a local problem with the intent to improve educational practice (Creswell, 2008). My capstone project takes a school-wide look at educational practice with the intent to move teachers towards best educational practice. Additionally, this project contains cyclical elements attributed to practical action research in two main ways. First, my observations informed the interview protocol. Second, the findings and feedback from leadership and faculty informed the emphasis of the final products.

My data collection and analysis followed an ethnographic approach. I performed prolonged observations of day-to-day lives of each classroom and I conducted one-on-one interviews with individual teachers (Creswell, 2008). During the observation, I sought to identify and understand emerging patterns of behavior, regularities, and

perspectives (Creswell, 2008; Leedy & Ormrod, 2005) relating to educational practice, which then informed my data analysis categories. During the data analysis process I looked for patterns and regularities in classroom practice (Leedy & Ormrod, 2005) relative to the research on best educational practice summarized in the Guide to Thinking and Analysis (Appendix A). The entire data set came from the classroom observations. During the observation process, six main categories relating to classroom practice emerged. The 400 pages of handwritten notes were color coded to indicate which of the six areas of classroom practice were represented by the evidence in the data (see samples from each category in Appendix C). Below, I've included the six categories and briefly described them:

- ***Curriculum, learning objectives, and content*** – This category included the building blocks of curriculum such as the standards, learning objectives, and content that was taught.
- ***Use of assessment*** – This category contained all forms of assessments that were used, from informal discussions to traditional tests, as well as how those assessments were used.
- ***Learning tasks*** – This category related to what students were asked to do and included anything from whole-class discussions and worksheets to playing math games and working with globes.
- ***Use of grouping*** – This category contained all forms of groupings used in the classroom as well as how those groupings were determined.
- ***Response to student needs*** - All components of best educational practice (i.e. learning tasks, grouping, assessment, learning environment, curriculum)

should work to address student needs; however, throughout the course of observations and analysis of data, it became apparent that teachers didn't understand this principle or how to apply it. In other words, this category emerged as a result of a pattern of school-wide need, relating specifically to the ways in which teachers responded to student needs, emerged from the data.

- ***Classroom learning environment*** – This category was by far the broadest category and included the use of space, furniture, routines, procedures, content on walls, and materials to create an environment that contained safety and supportiveness, student-centeredness, growth mindedness, and a sense of community.

I created a separate spreadsheet for each category and entered color-coded data into electronic spreadsheets, at times in an abbreviated form. For each category, I sub-categorized and further sub-categorized (with the exception of the "use of assessment" category which did not need a second sub-category) based on the Guide to Thinking and Analysis of Educational Practice (see sample data sets from each category in Appendix C). As I sorted spreadsheets, clear patterns and regularities emerged regarding school-wide strengths and needs relative to best practices. These patterns were the basis for the school profile I developed reporting school-wide practices in the six areas mentioned above. In this document, I described (1) analysis of evidence that indicated overall practice in each area, (2) specific commendations, (3) specific recommendations, and (4) any other considerations that might be present. I concluded the document with a summary

of commendations and recommendations. This summary has been included in Chapter 5, "Recommendations, Decisions, and Final Projects."

Emerging patterns and regularities were used to inform the interview protocol, and the interviews themselves were used to clarify data from the classroom observations. Central to this project was observable practice within each classroom in order to develop a comprehensive profile of school-wide practices. As a result, the interviews were neither transcribed nor coded; rather they were used to clarify any questions I had as I was entering data into spreadsheets and selecting categories and sub-categories.

CHAPTER 4

SUMMARY OF FINDINGS

School-Wide Needs

As I mentioned in the previous section, I analyzed the data based on practical action research (Crewell, 2008) with an ethnographic approach (Leedy & Ormrod, 2005). I sought to identify and understand school-wide patterns of behavior, regularities, and perspectives (Creswell, 2008; Leedy & Ormrod, 2005) relating to research on educational practice to systemically understand and improve educational practice (Creswell, 2008). In order to analyze data and identify of patterns and regularities (Leedy & Ormrod, 2005) relative to the research on best educational practice, I used the Guide to Thinking and Analysis (Appendix A) developed during the proposal stage of this project. This document served to outline "targets" of best educational practice grounded in theory and research. The "targets" or goals enabled me to make sense of what I was seeing in the classroom and determine recommendations that would most effectively move teachers closer to the goals.

Rather than to generate qualitative research, the purpose of this phase was to look for significant patterns in data and synthesize those patterns to make useful recommendations. The key findings generated and synthesized from the patterns and regularities that emerged during the data analysis were used to inform the school profile described in the next section. I present the key findings with corresponding representative examples from data below. I have divided the findings into the categories

that emerged during the data analysis process described in the preceding section: (1) curriculum, learning objectives, and content; (2) use of assessment; (3) learning tasks; (4) use of grouping; (5) overall response to student needs; and (5) learning environment.

Curriculum, Learning Objectives, and Content.

Quality curriculum is rooted in the essential understandings, transferable skills, and content knowledge of a discipline. These understandings, skills, and content knowledge should serve as the learning objectives that frame all tasks and assessments. Curriculum should be designed to support students in working towards meaning, understanding, and transfer, and in developing critical and creative thinking and problem solving skills.

Throughout the course of my observations, I saw teachers work independently and collaboratively to plan curriculum that is framed by Virginia Standards of Learning (SOLs). Learning objectives, or goals, were predominately based on SOLs. As a result, there was an overall emphasis on discrete knowledge and skills, and little to no emphasis on conceptual learning, making meaning, developing deep and transferable understandings, or on the understandings, methodologies, and content of the discipline itself.

While most teachers post learning objectives somewhere in the classroom, these objectives reflect the SOLs from which they were developed. Rather than helping students develop conceptual understanding and learn transferable skills that reflect those of a discipline, students were most often presented with content or skills in the form discrete “steps” of a strategy and then asked to practice the steps in these skills. The

following excerpt from my observations illustrates this pattern that emerged during the data analysis process:

> [The teacher] stresses that students should "underline the place [the SOL test writers] tell you. If they don't underline it for you, underline it your own dog gone self." Next, she takes students through a problem, sharing with them the Cinderella strategy. She explains that the number in the place to which students are to round is Cinderella. The number to the right of this digit is her fairy god mother who has the power to change her gown. She explains that students need to remember to be extra careful about the "fireball decimal." She then has students practice a few problems on their mini white boards. Finally, she tells students that "I'm gonna give you an extra challenging problem. Round to the nearest tenths place," writing the number 6.97, saying, "And I even underlined it for you." "Remember," she warns, "Sometimes Cinderella has to change someone sitting to her left occasionally. This is one of those times." (Observation #919-1040-2-90)

During one occasion only did I observe teaching that emphasized conceptual understanding. In this instance, it was the special education co-teacher, and she was merely providing an unplanned "filler" activity for students who had completed their math test and were waiting on classmates to finish. Because the students would be working on rounding the following week, this teacher introduced the skill by asking a small group of about four or five students to think about place value and positioning of a number on a number line when considering rounding. When students became "stuck" during the discussion, she would have them "count with me" to help them see what might come next on a number line and where the number was relative to the place the number was to be rounded.

When the students had been dismissed from class, the special education co-teacher met briefly with the regular teacher to discuss the content for the following week. The regular teacher explained that she'd like to use a specific strategy for rounding using the Cinderella story. The special education teacher expressed concerns with teaching the students a strategy before first helping them to understand the concept. Because this was

the first time I had heard a teacher express a desire to help students develop conceptual understanding, I followed up on this teacher's thoughts regarding teaching concepts during an interview. The following excerpt is from my interview with this teacher, after I had mentioned the earlier discussion and asked her to clarify her thinking:

> I just wonder if maybe […] the required pace is such that sometimes […] it's easier just to teach them a strategy as to how to do something as opposed to teaching them the concept behind it. […] I just disagree with that. I think it's important for a kid to understand, 'What does rounding mean?' 'What is it?' and […] and 'What are we actually doing?' Not that Cinderella did something with her magic wand and […] some number has the power to do something." It's important to start with the concepts first. Now, it's funny that you mention that, because there were some children in that math class where I started conceptually, you know, teaching them what rounding really means and what the tens are, and what the hundreds are, [etc.], and there were […] a couple of kids that even with a number line didn't get it. […] They just weren't developmentally ready for it, but they're gonna see it on the benchmark, they're gonna see it on the SOL test. So, after they didn't get it conceptually, then we did teach them a different strategy to use that they could just memorize the strategy and apply it to that number and get the correct answer even though they don't necessarily understand exactly what they're doing. But, you gotta start with the concept first, that's my theory. (Interviewee #5255)

This teacher's response illustrates two important patterns I have noticed. The first is that teachers don't see understanding as a non-negotiable component of curriculum. Transfer to SOL testing situations seems to be more important than transfer of skills or understandings to novel contexts as a way to measure student understanding. The second is that teachers view certain types of thinking and understanding as being inaccessible to certain students. These patterns are not surprising as teacher planning is guided by district curriculum pacing guides that provide a breakdown of what SOLs should be taught in a given time frame (e.g. days, week, quarter) and most response to student needs tends to be reactive or remedial, emphasizing only SOLs. While an informal meeting with the principal brought to light that teachers are asked to adhere to the guides,

but may “rearrange” them with the principal’s approval, it would seem that teachers aren’t fully aware that this option is available to them.

Key needs for this area include developing learning goals that clearly state what students should understand (transferable understandings), be able to do (transferable skills), and know (content knowledge that provides a context for deeper understandings) as a result of a unit or lesson. Standards should be subsumed under more meaningful and substantive learning goals, and these learning goals should frame curriculum planning and assessment development. Curriculum should be grounded in the understandings, methodologies, and content of a discipline, reflect real world problems and situations, and require students to think critically, creatively, and problem solve. School leadership and the teachers need to understand that curriculum planning tools (e.g. pacing guides) are *guides* or *tools* that may be *flexibly* used to gain insight in how organization of standards might occur. Teachers will likely need support for how to address state standards while framing curriculum with meaningful and substantive goals as they seek to meet benchmark and state testing requirements.

Use of Assessment.

Sound assessment practice provides insight into student strengths and needs relative to substantive learning goals described in the curriculum section. They include formative and summative approaches and are clear measures of student learning or needs. Information gained through assessments should be used to inform curricular or instructional decisions to support effective student progress toward learning goals.

During my observations, I noticed instances of teachers using of a variety of ways to check or measure student learning, both formal and informal, unit tests, quizzes, and

spot checks are used most often. There was little to no indication that pre-assessments are used to determine student needs relative to learning objectives, and no subsequent use of such information to make curricular or instructional decisions other than through standardized tests that place students in their respective remedial classes. Formative assessments were used, primarily in the form of exit cards, spot checks, and homework or worksheets; however, these often seem to be unclear measures of student learning and result in remediation rather than for use in proactively driving planning decisions.

It was not uncommon to see teachers ask students to complete "exit cards" or "exit tickets" that would be unlikely to yield any useful information regarding student needs. In one such situation, the teacher has just finished directing a whole-class discussion on homophones for the spelling lesson. While she is using a potentially useful formative assessment tool, she is using it in a way that prevents her from gaining any insight into student needs:

> The teacher hands out an index card to each student and tells them it is an "exit slip" on which they must write and illustrate one pair of homophones on the index card. She tells them, "it could be one you thought of and didn't get to share or one that we came up with that's on the board." A few minutes later some students ask the teacher what they are supposed to be doing. The teacher explains again, giving the example "see" and "sea" before telling them, "You can't use see and sea, but you can use any of them that's [sic] on the board." (Observation #918-11-1-69)

This occurs in another classroom where the students have just completed an economics lesson as a class. The teacher, in similar fashion, obscures any useful insight into student learning, strengths, or needs:

> The teacher instructs students to write "opportunity cost" on an index card, write the definition, and draw a picture. She tells them "this is going to help me see if you really understanding what opportunity cost means." When a student asks, "How will we draw a picture of opportunity cost?" the teacher prompts, "What did we do today? You could draw a picture of ice cream and candy. You could

> write ‘c’ for choice and ‘oc’ for opportunity cost.” She asks again, “What did we learn today?” calling on students to share a set of words. Finally, the teacher points to the definition of opportunity cost that hangs on the board saying to the class, “You should try to make [the definition] your own, but it’s on the board if you want to copy it.” (Observation #918-1145-75)

These examples illustrate that, while teachers are aware that there are different ways to assess student learning, they may not have an understanding of sound assessment practices and how to apply those practices to identify student needs in order to inform curricular and instructional decisions. The key needs for the area of assessment is for the design of assessments, both formal and informal, that are closely aligned to substantive and meaningful learning goals (what students should understand, be able to do, and know). Teachers should understand how to use formative assessments to (1) determine student needs relative to these goals, and (2) inform decisions related to curriculum planning, grouping, and use of instructional strategies, models, approaches, and materials, in order to insure that student needs are most effectively addressed. Finally, there is a strong need for assessments that provide an accurate and unambiguous measure of student understanding, skill, content knowledge, and dispositions in ways that are most effective for students to communicate.

Learning Tasks.

If the curriculum, learning objectives, and content are the “what?” of learning, the learning tasks are the “how?” student learning should be designed for maximum effectiveness. Tasks should support all students in reaching the same worthwhile learning goals, yet attend to various aspects of student strengths or needs in order to most effectively support student growth toward these goals. Modifications of curricular and

instructional approaches evident in the learning tasks should be informed by assessments described in the previous section.

While I observed teachers asking students to do a variety of tasks, there was an overall reliance on whole-class direct instruction and discussion, worksheets, and activities. Use of application, hands-on, interactive, sorting, and scientific investigation tasks were present; however, these were primarily whole-class and teacher-directed. A majority of the work done by students was either whole-class or independent work. There was evidence that teachers were trying a variety of instructional strategies and learning tasks, yet a heavy reliance on whole-class direct instruction and discussion was prevalent. Many tasks were teacher-directed and asked students to practice skills or work with content knowledge, rather than encouraging students to develop understanding, think critically and creatively, and problem solve. Finally, in most cases, students were all required to do the same tasks.

The following scenario illustrates the reliance on whole-class direct instruction, lack of development of conceptual understanding, and absence of meaningful use of skills that reflect the methodologies of the discipline. What might have proved a powerful opportunity for students to think critically as scientists was instead a lecture and note-taking:

> The teacher begins the science lesson by reminding students, “Yesterday we studied how scientists divide living things into categories. How many?” Several students call out, “Five.” “What do they call these five categories?” prompts the teacher?” Again, several students call out, “Kingdoms.” The teacher replies, “Good,” and asks students to volunteer the acronyms they came up with during yesterday’s science lesson to remember the five kingdoms. A few students share examples (e.g. “Parrots Also Fly Many Places,” “Parents Always Follow Me Places”). The teacher then spends 2 minutes having students take turns quickly going around the classroom several times repeating the five animal kingdoms in order. Each student has to say the next kingdom when he points to them.

> After circling around the room several times, the teacher says, "We are going to do a scientific investigation." The teacher holds up two small plastic cups, both half filled with water and containing a cut stalk of celery. "What kingdom is this?" he asks. As students call out that the celery is from the plant kingdom, the teacher has students open their science notebooks. "We're not gonna just set it in water, we're gonna add food coloring." On the Smart Board the teacher has pulled up a Word document with the steps of the scientific process. He instructs students to open their science notebooks to a specific page. "Down the left side of your paper, write the six steps of the scientific process." Leave some room so you can do some writing. Like I've done, go ahead and underline the words [indicating each part of the scientific process]. Go ahead and fill in the first two."
>
> He reminds them that a hypothesis is an educated guess and asks students, "What do you think will happen? When do you think it will happen?" Students write while the teacher holds the cups and circulates around the room to let students take a look. The teacher then prompts, "What our one word synonym for variable?" A few students call out, "Change." The teacher nods and tells students to fill in the experiment section of their notes. "What are we doing? And do at least one variable. What are we changing?" Then, in a stage whisper, the teacher hints, "I'm adding blue food coloring."
>
> The students write in their notebooks silently as the teacher circulates. The teacher stops at one point and gives a hint to a student who is missing a section. After a few minutes, the teacher instructs the class to "share with at least one person what your hypothesis is." The teacher circulates and listens during this share time. He stops after a moment, saying, "I'm not hearing too many specifics in your hypothesis. Let me hear some of you share your hypotheses." As one or two students share, the teacher asks prompting questions of them to get them to think about more specific aspects of what they hypothesize will happen. Finally, the teacher puts five drops of blue food coloring into the water of one cup and stirs. He then has students take a good look at it, walking around the room to show each student, before putting the cups up. (Observation #911-1015-147)

Overall, the data indicates that there is a heavy reliance on whole-class direct instruction and discussion. Many tasks were teacher-directed, and ask students to practice skills or work with content knowledge, rather than encouraging students to develop understanding, think critically and creatively, and problem solve. Finally, in most cases, students were all required to do the same tasks. Therefore, the chief needs for growth in this area include: (1) a balanced use of a variety of instructional models,

strategies, and approaches (2) in ways that respond to individual student needs, (3) in order to support varied routes to the same worthwhile destination (i.e. substantive and meaningful learning goals that state understandings, skills, and content knowledge). The emphasis should be on meaning and understanding and should promote critical and creative thinking and problem solving for all students.

Use of Grouping.

Grouping, as with all other curricular and instructional modifications, should be used to address student needs relative to learning goals and brought to light by assessments. Grouping arrangements should be used flexibly, that is student need should be evaluated on an ongoing basis and groups formed and reformed to most effectively address those needs.

I observed a variety of grouping arrangements during instruction and student work times. Partner and group formations were determined in a variety of ways including teacher assignment, both intentional and random, student selection, and where students were seated (e.g. table or grouped desks). There was an emphasis on whole class and independent grouping, and most small groups or partnerships seemed to only be grouped intentionally by teachers to meet specific student needs during spelling or occasional literacy groups. There was very little evidence that indicates that any teacher used flexible grouping arrangements that were informed by assessment data to address student needs.

While one teacher did indicate in her interview that she used a pre-assessment for grouping students, most grouping seemed to be based on factors other than student needs. For example, one teacher divides students into their specials groups (classes are split up

and combined with other classes for their special classes because of scheduling constraints) because their specials groups are named after Native American tribes and the content they were exploring related to Native American tribes. Another teacher explained how the center rotations will work in his class. All students will visit all five stations throughout the week, receiving a point for each center they complete. It is Monday and the teacher spins a wheel to choose students who get to select the center they want to complete first. A second spin allows the next students to choose a center, and so forth. Such use of centers and grouping was common.

The primary needs in the area of grouping is for the use of assessment data from pre-and formative assessments to determine grouping needs, and intentionally grouped students to most effectively address student needs. Additionally, there is a need for ***flexibility*** of these instructional groups; that is, these groups should continually change to reflect the evolving and multi-dimensional needs of students. While allowing students to choose groups or partnerships is one of many potentially useful grouping options, it is important that teachers understand how to use this option intentionally, as a means to meet student needs.

Overall Response to Student Needs.

Within a system of best practices, all components should work together to determine and respond to student needs. In other words, things like assessment, grouping, varied strategies, models, and approaches, and quality curriculum are the means, and response to student needs is the end. Yet, throughout the course of my observations and analysis of data, it seemed useful to create a separate category that

looked specifically at the ways in which teachers responded to indications of student needs.

Teachers responded to indications of student needs in a variety of ways. Some of these were verbal and included answering student questions, providing clarification or examples, giving directives, verbally prompting students in discussions. Other forms included encouraging students to find classmate support, forming small groups, modeling, and providing anchor activities for students to do while waiting on classmates to finish. Predominately, teachers used the following methods to respond to student needs: circulating and assisting, providing individual teacher assistance, and verbally prompting students. These were followed by special education support from a special education teacher or aid, providing opportunities for students to choose tasks or places to sit around the room, anchor activities, and providing behavioral and emotional support. There was little use of scaffolding and intentional grouping or modification of materials or tasks to address learner variance.

Most responses to student needs were reactive. That is, as needs arose, teachers addressed them through circulating and assisting, individual teacher assistance, and verbal prompting, rather than proactive and intentional plans to address student needs. There were several instances where students were observed waiting on others or their needs remained unmet. For example, in the following illustration one teacher guesses, based on the previous class' encounter with a particular worksheet, that her second block will struggle as well.

> Students are seated at their tables with their science text books opened in front of them. Students are called on by the teacher to read aloud from the book. The teacher stops to guide students in filling in the blanks on a worksheet that corresponds to the passage they are reading. "I'm showing you how to go about

> finding information in your text books *as you're reading*, so you don't have to go back and reread," she tells them. They continue to do this as a class, the teacher calls on students to read a portion of the text, then she helps students fill in the blanks on the worksheet. An instructional aide says to a student who has not filled an answer in on his sheet, "Why aren't you writing? Do you want to lose recess?" He writes the answer she indicates in the correct spot.
>
> "When you find the answer [in the text]," continues the teacher, "put your finger on it and raise your hand." The teacher and aid circulate and check each student's paper to make all have found the answer. The students who have already found the answer sit and wait. To the whole class, the teacher asks, "If you have [the answer written] down, put a thumbs up.
>
> While students are filling the answer into the blank on their worksheets, the teacher comes up to me to explain that students have never done and activity like this before [in her class], and that she tried in the last class block to have students work with partners to filling the worksheet after they had read together as a class, but "they were lost." So with this group, she shares, she is working to take students step-by-step through the process of completing the worksheet while they read the passage. (Observation #925-12-3-154)

The chief needs for this are a stronger and more effective use of pre- and formative assessments to determine student needs and strengths relative to meaningful and substantive learning goals before planning lessons or activities. In addition, lesson and unit planning should be proactive; that is, grouping, materials, varied strategies and tools, should be utilized in ways that insure that all students are simultaneously challenged and supported. This includes insuring that students who either generally struggle or excel at tasks are provided with appropriate scaffolding and challenge within the task itself, rather than providing all students with the same tasks and reactively responding to student needs during periods of work.

Learning Environment.

Along a spectrum of safe and supportive learning environments, my observations indicated a wide range of a practice. This aspect of classroom practice is broad and

complex, and was therefore considered in the four sub-areas: safety and support, space, routines and procedures, and student-centeredness.

Presence of safety and support. This sub-area considers the extent to which students' need for acceptance, affiliation, contribution, respect, and support are addressed. This includes whether there are proactive opportunities for building community, a pervasive emphasis on growth and effort (rather than performance), and the extent to which students are encouraged to take risks.

My observations indicated that many teachers have worked to create an environment that addresses students' needs for safety and support. These teachers have developed behavior management plans that encourage students to "change their day around" when they make a mistake or earn a consequence, allowing them to move their clips or magnets up, etc. They tend to address undesirable student behavior by speaking privately to students, correcting behavior with empathy and care as well as firmness and high expectations. In these classrooms, students are encouraged to "give your best" attempts at challenging tasks or problems, or tell each other "you can do it," and there is regular, ongoing verbal encouragement and affirmation. There are often posters or sayings on the wall that emphasize effort, learning from mistakes, and growth. In these classrooms, students are expected to (and most often do) interact respectfully with one another. Other evidence observed includes regular class meetings where students share their thoughts or feeling or experiences with one another, class jobs that invite students to be contributing members of their communities, and classroom expectations that have been developed collaboratively with the teacher and agreed upon by all students.

Conversely, there were times where the level of safety and supportiveness were lacking. In these classrooms, students often had little to no opportunities for "turning their day around," teachers spent frequent time managing behavior, which often included negative reinforcement and the threat of consequences. In many cases, these consequences or ways of addressing behavior could be considered humiliating or embarrassing for students. Work was often performance-oriented, emphasizing a good grade or score rather than growth or effort.

Use of space. This sub-area considers how space is used in the classroom, including what is on the walls, furniture arrangement, accessibility to materials, and spaces that invite student use.

Many teachers have used space in a way that is student-centered and conveys a sense of community and collaboration. Students had access to community supplies, sit grouped together in tables, pods, or desk groupings, and were encouraged to use the materials and spaces in ways that promote independence. There were designated areas for gathering or other activities (e.g. classroom library) with which students were familiar. Schedules, learning goals, and classroom expectations were posted, and often there was space devoted to sharing student work.

In other cases, classroom space seemed to be more teacher-directed. For example, the teacher seemed to be the gateway to materials and supplies, students primarily sat at desks, facing the teacher, and there were no designated areas for gathering or other activities for groups or individuals.

Use of routines and procedures. This sub-area considers the use of routines and procedures that support flexible, need-based, student-centered communities, including

signals to gain students' attention and signals or routines and procedures that help students transition between classes or work independently at an acceptable noise level.

Most teachers have worked to help students learn signals for gaining attention or silence from them, routines that help students transition smoothly and relatively independently between classes and activities, and procedures for taking care of bathroom or drink needs. In many cases, teachers have worked diligently to help students meet expectations for how they are to be working during independent writing or reading periods, as well as how to listen and respond to students who share their writing with their classmates.

In other cases, there doesn't seem to be scaffolding or routines in place to help students know how to work during independent or collaborative work times. Subsequently, teachers often respond by warning, threatening consequences, or giving students consequences.

Overall student-centeredness. Much the same as the "Response to Student Needs" chart, this sub-area is an end where the use of space and routines and procedures are the means, but bears considering independently. This area considers questions such as: Do the routines and procedures promote student independence? Is the class a community where the teachers and students collaborate to make important decisions?

As indicated in the previous sub-areas, there were observed instances where teachers promote student-centeredness in the classroom through use of materials and spaces that are accessible to students, procedures that help students know what to do during given moments of the day, or when and how to take care of bathroom or drink needs. In several other cases, the classrooms are primarily teacher-directed or controlled.

Identifying concrete needs for all teachers was particularly complex for the area of the learning environment. Teachers and leaders need to understand that helping students to feel heard, respected, and a contributing part of a community is critical to academic success. Behavior management should be used as a tool to help student learn to function as a part of a respectful community. Use of space and routines should maximize student learning and emphasize that the space belongs to the students as much as the teacher, to be used responsibly for learning and functioning as a community. Building in regular opportunities for collaboration and community building (e.g. regular class meetings, creating a shared vision, student input on classroom decisions) would be a positive step towards building a stronger sense of community within the classroom. This area of classroom practice presents the widest degree of variance among teachers and, subsequently, a wide range of growth needs. Therefore, one aspect of the chief needs in this area should include a way to address this variance by providing teachers with needs-based support. In other words, teacher differences in need should be considered when developing ways to support teacher growth in this area. Variance of teacher needs in different facets of this area notwithstanding, overall needs include: identification of and proactive steps in addressing classroom needs for (1) safety and supportiveness and (2) emphasis on growth and effort.

A System of Best Practices.

These findings indicate chief needs for school-wide growth towards best educational practice in six key areas. The chief needs for each of the six areas were synthesized into four key needs that were presented in the school profile and were used to develop both the handbook and staff development workshop protocols. The four key

needs indicate an emphasis on a system of best practices and are described, along with the individual components of the project, in the following section.

CHAPTER 5

RECOMMENDATIONS, DECISIONS, FINAL PROJECTS

A Need for Support in "First Steps" and Tools for Ongoing Growth

I began this project with the intent to specifically support the key needs of traditionally overlooked students; however, I quickly realized that the most significant need was for school-wide growth toward best practices in general. Best practices in all areas of classroom practice are vital in addressing the needs of all students, and addressing the specific needs of poor and racially or culturally diverse students cannot happen without a foundation of best practices in place. Therefore, the project emphasis or scope widened to one of addressing the needs of poor and racially diverse students *through* a system of best practices. The school profile describes these needs for growth towards a system of best practices, and both the handbook and the staff development protocol focuses on how to develop these areas of best practices, while providing basic support in meeting specific needs of students from poor and racially or culturally diverse backgrounds.

School Profile Recommendations.

Based on the data collected and analyzed of the classroom observations, interviews, and meetings with school leadership, I developed a school profile. The purpose of the school profile was to report to the leadership where school-wide practices are in relation to the six areas mentioned above (curriculum goals and content, learning tasks, use of assessment, use of grouping response to student needs, and classroom learning

environment). The profile briefly shares the process with which this school profile was developed, provides the Guide to Thinking and Analysis of Educational Practice as reference, and then reports specifically on each of the six areas of classroom practices with a chart delineating: (1) analysis of evidence indicating overall practice in each area, (2) specific commendations, (3) specific recommendations, and (4) any other considerations that might be present. The school profile concludes with a summary of commendations and recommendations. The chief recommendations highlight a need to focus on a system of best practices with four inextricably connected components. They are as follows:

- ***Lay a foundation of meaningful & substantive learning goals*** – It is essential that all lesson and units plans contain clear learning goals that articulate what students should know, understand, and be able to do as a result. While current plans and objectives all appear to address Virginia Standards of Learning (SOLs), these goals do not support the movement of students towards more substantive and meaningful goals that emphasize understanding and transfer. All learning plans and assessments should align with those learning goals. SOLs addressed within a lesson or unit should be subsumed under these goals.
- ***Design & use effective assessments*** – Well-designed assessments, used in an ongoing manner and aligned to the aforementioned learning goals, are crucial for accurately diagnosing student needs and making proactive, intentional learning plans designed to move students towards substantive learning goals. These assessments should:

- Be closely aligned to the learning goals. That is, they should measure student understanding, skills, and content knowledge articulated in the learning goals.
- Have strong degrees of validity and reliability. That is, they should accurately measure student understanding and knowledge relative to the learning goals, regardless of student characteristics that are tangential to these goals (e.g. family resources, reading levels or comprehension, writing strengths).
- Provide information on both students' needs as well as strengths.
- Be Ongoing. It is important to collect information on student strengths, needs, and growth with a variety of formats, both formal and informal, in both formative and summative ways. This information should then be used proactively and intentionally to plan for effective student growth toward substantive learning goals.

- ***Proactively & intentionally plan for student learning*** – When a clear destination has been determined (i.e. learning goals that articulate what students should understand, be able to do, and know), and student needs have been diagnosed relative to these goals through effective assessments, then it is time to proactively address student needs. Through intentional use of grouping, materials, strategies, models, approaches, and scaffolding, learning plans should map out the most effective and appropriate routes for students to arrive at the same worthwhile destination. These plans should:
    - Be aligned to substantive learning goals.

- Be informed by the information collected through effective assessments.
- Use a variety of "tools" in ways that most effectively address student needs in helping them arrive at the same worthwhile learning goals. These tools include flexible grouping arrangements, scaffolding, curricular or instructional models, strategies, and approaches, and use of varied materials.
- Find ways to address student needs but also capitalize on student strengths.
- Incorporate activities, tasks, and products that require students to (1) use critical content and skills to arrive at or extend important understandings, (2) develop and use critical and creative thinking, and (3) problem solve.

- ***Create safe & supportive learning environments –*** When students feel safe and supported in a learning environment, it enables them to switch into learning mode (Sousa & Tomlinson, 2011). This component of a system of best practices is essential to ensure the other three recommendations are successful. Safe and supportive classrooms use space, routines and procedures, and deliberate community building measures to create an environment that is student-centered, growth focused, collaborative, and meets students' needs for acceptance, affiliation, contribution, respect, and support.

A Handbook to Support Growth Towards a System of Best Practices.

The design of the handbook was based on the needs that emerged during the data analysis, as indicated by the school profile. It was tailored to the "season" in which this school finds itself. Many teachers are working diligently to incorporate the various

initiatives that are happening at the school and have had to adapt to frequent changes in leadership. Rather than to add to a list of directives, it seemed most effective and beneficial overall to support the teachers and leaders of the school in understanding how all efforts to support student growth should fit together within a system of best practices. Considering the finite duration of this project, the product should not only provide useful "first steps" for growth towards best practices but also serve as a tool for ongoing support after the conclusion of the project. During the development process I considered how to make this handbook practical, useful, and responsive to the expressed requests from the leadership and faculty (i.e. self-assessment tools, examples of these areas in practice, inclusion of recommendations for special education students, and tools and resources). Thus, the emphasis for the handbook is threefold: (1) to focus on the four components of the aforementioned system of best practices, with built-in recommendations for addressing the needs of poor and racially diverse students, (2) to provide practical support for beginning professional growth in the system's four areas through recommended resources, tools for self-assessing and reflection, and ideas for application ideas to their own classrooms, and (3) to serve as a guide to leadership for ongoing support of teacher and school-wide growth toward best practices.

The handbook is meant to be a guide and resource; therefore, it is not comprehensive. It provides enough teacher-friendly background and useful tools to increase the likelihood that it will be useful to teachers and leaders. It reflects requests from faculty and leadership (self-assessment tools and resources) and references the other initiatives the school is undertaking so teachers can see these as a part of a system of best practices. The handbook begins with a brief introduction that introduces the system of

best practices, provides a rationale for why such a system is important, and describes recommended uses for the handbook. The charts (see Tables 1 through 5) on the following pages describe the various components included in each chapter of the handbook.

Chapter 1: Building a Strong Foundation This chapter emphasizes the importance of developing clear learning goals that articulate understandings, skills, and content knowledge that students should develop as a result of a unit or lesson. It stresses that addressing standards is necessary, but should be subsumed under more meaningful and substantive learning goals.	
Understanding Goals	This section explains what an understanding learning goal is and provides a rationale for the importance of developing these and using them to design quality curriculum. It briefly mentions how they might be used in a classroom setting.
Skill Goals	This section explains what a clear skill learning goal is and provides a rationale for the importance of developing these and using them to design quality curriculum. It distinguishes between activities or context-bound skills and "pure" skills, and describes the importance of making sure skills are "pure."
Content Goals & State Standards	This section explains where content goals and state standards fit into designing learning goals, emphasizing the necessity of addressing standards that are subsumed under substantive learning goals.
Getting Started Writing Understand Goals	This section provides teachers with suggestions for getting started writing their own understanding learning goals. Because writing understanding learning goals is often challenging for teachers, these directions provide structured approaches to support teachers' initial efforts in crafting them.
Learning Goals in Action	This section provides two sets of sample learning goals that address SOLs based on those teachers in this school would be responsible for addressing. These particular sets of learning goals are revisited in both the assessment and the planning chapters.
Support Tools for Building a Strong Foundation	This section provides a clear learning goals self-checker and a list of concepts that can be used when writing their own understanding learning goals.

Table 1. Descriptive chart on chapter 1 of the handbook. This table describes components unique to the first chapter in the handbook.

Chapter 2: Assessment Practices that Maximize Student Learning This chapter emphasizes the need for sound assessment practices and the use of a variety of assessment data to inform decisions pertaining to student learning.	
Various Types & Functions of Assessments	This section includes an explanation of how various forms of assessments can be used to gain a clearer picture of student needs. It includes a chart that provides several suggestions for assessment opportunities, describes them, and suggests whether they are most useful for pre-, formative, or summative assessment.
Assessments in Action	This section revisits the previously developed learning goals and shares, from two fictional teachers' perspectives, how various pre-, formative, and summative assessments are selected and used to inform decisions.
Assessment Inspection	This tool helps teachers check for various qualities in their design and use of assessments to help ensure the assessments are valid and reliable, aligned to learning goals, assess understanding, and used to inform decisions about student learning.

Table 2. Descriptive chart on chapter 2 of the handbook. This table describes components unique to the second chapter in the handbook.

Chapter 3: Proactive & Intentional Planning This chapter describes how teachers should use assessment data to plan for the most effective routes to the same worthwhile learning goals for all students. It asks them to consider teaching to meaning, scaffolding, and making sure all students are supported and challenged, and describes key elements of quality curriculum.	
Teaching for Meaning & Understanding	This section helps illustrate the difference between how teachers teach to the SOLs and how it might look if they were to teach for meaning. It provides examples for core and specials subjects, all from SOLs that the teachers in this particular school would be responsible for teaching.
Scaffolding & Support	This section describes the importance of scaffolding in order to "teach up," or building in supports and helping all students work towards the same worthwhile, substantive goals. It provides Carol Tomlinson's Equalizer tool and step-by-step instructions for how teachers might go about using it as a means for thinking through scaffolds for student support and learning.
Proactive & Intentional Planning in Action	This section revisits the previous chapters' learning goals and assessment plans, through the two fictional teachers' process of planning for student learning. It uses Grant Wiggin's and Jay McTighe's (2005) WHERTO approach to help guide teachers' thinking through the process of planning proactively and intentionally to address learner needs relative to the learning goals.
Support Tools for Proactive & Intentional Planning	This section contains two tools. The first is a "unit/lesson plans double-check" tool that helps teachers self-check their plans for alignment to learning goals, teaching to meaning, and attending to student needs diagnosed through assessments. The second is a "sources of inspiration" chart that provides recommended resources, descriptions of the resource, and sample lists of tools in these resources that can help teachers discover strategies and approaches that can be used to address learner needs and plan proactively.

Table 3. Descriptive chart on chapter 3 of the handbook. This table describes components unique to the third chapter in the handbook.

Chapter 4: Safe & Supportive Learning Environments The last chapter emphasizes the need for a safe and supportive learning environment that (1) provides students with safety in the form of acceptance, affiliation, contribution, respect, and confidence to take risks, (2) promotes a strong sense of community, (3) is student-centered, and (4) is guided by a growth mindset. It provides a rationale for why these elements are vital for student achievement.	
Make Sure Your Safety & Support "Codes" are Up to Snuff	This section provides a description and rationale for the component of safety and support in a learning environment. It includes a check-list for teacher self-assessment, reflection, and growth.
Focus on Growth	This section provides a description and rationale for the component of growth mindsets in a learning environment. It includes a check-list for teacher self-assessment, reflection, and growth.
Build a Thriving Community & Strengthen Student-Centeredness	This section provides a description and rationale for the components of (1) building community and (2) use of routines, procedures, space, and materials to promote student-centeredness in a learning environment. It includes a check-list for teacher self-assessment, reflection, and growth.
Sneak a Peek into Two Different Learning Environments	This section provides narrative scenarios of two different class learning environments, one that is safe and supportive and another that inhibits student success. It addresses some of the subtle, potentially detrimental practices that were apparent through my observations, without calling attention to particular teachers.

Table 4. Descriptive chart on chapter 4 of the handbook. This table describes components unique to the fourth chapter in the handbook.

Components Included in All Chapters: These sections were included in each chapter.	
Considerations for Traditionally Overlooked Students	These sections look at three key "challenges" that traditionally overlooked students might present to teachers: (1) failure to meet expectations, (2) missing background information or knowledge, (3) lack of motivation. Charts included in this section explore the difference between a traditional teacher response to these challenges and an effective teacher response. Each time the section is revisited, it considers these needs and responses in light of the each of the four areas in a system of best practices.
[…] as a Part of a System of Best Practices	These sections describe how each of the components (i.e. learning goals, assessments, planning, and learning environment) within the system of best practices is interdependent with the other three.
Chapter Resources	These sections serve two purposes. First, it's a way of recognizing the sources that informed my thinking of the content in each chapter. Second, it provides further recommendations of literature for leadership and faculty to explore on these areas of best practice.

Table 5. Descriptive chart on components present in all chapters of the handbook. This table describes components that were present in all four chapters of the handbook.

For more information about the handbook, contact Jennifer Kumpost Dimeo at jnk7r@virginia.edu.

Staff Development Protocols.

In addition to the school profile outlining school-wide needs and the handbook that serves as a tool for longer-term support of growth towards best practices, I've outlined a series of staff development protocols (Appendix D) that emphasize the four components of a system of best practices. The protocols are meant to be further recommendations of the types of professional development workshops that would be useful to teachers at this stage. They include protocols for (1) experiencing responsive and respectful learning with an emphasis on growth mindsets, (2) recognizing responsive and respectful teaching and learning, (3) understanding and writing clear learning goals, (4) crafting strong assessments aligned to learning goals, (5) using assessment data to

address learner needs through proactive and intentionally planning, and (6) managing a responsive classroom.

The professional development workshop protocols are designed to provide appropriate support needed for the school's first steps towards growth in best practices, and are reflective of many elements of research-based professional development. Professional development encompasses a variety of formats from district workshops or conferences, college courses, and conferences or workshops outside of the district to other traditional forms of professional development (Desimone et. al., 2002). These are perhaps the most common, yet the structure and nature of these types of professional development are not conducive to active learning, collaboration and longevity.

Research indicates that high-quality professional development includes a content focus to increase teacher content-knowledge, more contact time for longer durations, multiple and ongoing activities that reinforce and follow-up content (e.g. mentoring, coaching, study groups, observing other teachers), hands-on learning, practice-based opportunities, provision of specific learning goals for improving student learning through curriculum and instruction, opportunities for collaboration with colleagues, and collective involvement of teachers (Blank, 2013; Briscoll, 2008; Desimone et. al., 2002; Ingvarson, Meiers, & Beavis, 2005). Also crucial for effective professional growth is the development of pedagogical content knowledge, or the understanding and know-how for teaching content to students (Blank & de las Alas, 2009; Van Driel & Berry, 2012). Finally, while it is important for teachers to be supported in developing deep understandings of the philosophy and theory behind an educational approach, it is just as vital that the skills with which to translate these approaches to practice are provided or

teachers are liable to return to familiar practices when confronted with situations that are beyond their expertise (Theriot & Tice, 2009).

Given the duration of this capstone project, the workshop format used in the staff development protocols lacks elements of effective, research-based professional development described above (e.g. longevity and follow-up); however, protocols are designed to support teachers and leaders as they begin this journey and demonstrate the following elements of research-based professional development:

- ***Specific learning goals for improving student learning*** – Each workshop is aligned to clearly articulated learning goals for understanding, skills, and content knowledge. These goals are designed to support teacher growth toward best practices, in order to improve student learning.
- ***Hands-on teacher learning*** – The workshops are designed to provide teachers with the opportunity to experience, try out, apply, and reflect on elements of best practices, strategies, and key understandings.
- ***Practice-based opportunities*** – Various workshops include time for teachers to work independently or with colleagues to apply workshop understandings, skills, and knowledge to design their own products for use in their classrooms.
- ***Opportunities for collaboration with colleagues*** – Workshops provide regular opportunities for teachers to work in various collaborative grouping arrangements.
- ***Collective involvement of teacher****s* – The protocol is designed for a school-wide series of workshops.

- ***Building pedagogical content knowledge*** – The protocol is based on key school-wide needs relative to best educational practice, and workshops are designed to support teachers in the pedagogical understandings, skills, and knowledge necessary to move toward increased best educational practice.
- ***Provision of philosophy and theory as well as skills with which to translate these approaches to practice*** – The handbook provides a summary of the theory and research behind each component of the system of best practices, while providing examples and tools for understanding how these approaches translate into practices. The staff development protocols further emphasize the need for these components and support hands-on, experiential, transfer-focused activities designed to support teachers in translating these understandings to the contexts of their own classrooms.

Planning for Successful Translation to Practice

Ultimately, I intended this project to be relevant and useful to the leadership and educators at this school. With the uncertain leadership situation and what seemed to be a tremendous number of changes the faculty faced on a regular basis, I was unsure how - or even if - this project would be used. However, after meeting with the leadership and faculty to share preliminary thoughts and suggestions based on my observations, I was encouraged in a number of ways. First, the leadership felt that this project was timely, that it provided them with a "big picture" of where they wanted to go as a school. Second, the principal, who had agreed to a one-year interim placement at the school, has agreed to stay on as principal of the school. Finally, the leadership indicated that they would like for me to return to the school to provide staff development in the areas of need

I shared during the January 6 and February 6 presentations. This would suggest that the leadership buy-in and momentum of growth will be present in the foreseeable future.

Nevertheless, the recommendations and components described within the system of best practices are complex and will take time for both leadership and faculty to come to understand and apply. There are several ways I will work to ensure that these steps toward best practices translate accurately and effectively into school-wide practices. Rather than simply handing the project over to the school, I will take the time to meet with the leadership once more to (1) discuss the school profile report and provide clarification, (2) encourage them to develop a vision for school-wide growth toward recommended best practices, including a practical three to five year plan for taking meaningful steps towards that vision, and (3) discuss various recommendations for building leadership capacity and supporting teacher leadership development in these areas. Additionally, I will offer to provide the staff development workshops described in the protocols and suggest qualified consultants who would be capable of provided further staff development in the future. I am also willing to work with teachers in understanding and using the handbook as an ongoing support and professional growth tool for self-assessing and reflecting on needs in their own practices. And finally, the handbook itself is meant to help teachers and leaders to see the "big picture" of a system of best practices as a cohesive system under which all other the other initiatives they have worked to implement can fit. Should the school decide to accept my offer of providing staff development, I will further emphasize and clarify this perspective.

CHAPTER 6

DISCUSSION: CONTRIBUTIONS, LIMITATIONS, & RECOMMENDATIONS

Introduction

The fundamental purpose of this capstone project was to support growth in educational practices that address the needs of traditionally overlooked students. It was clear to me that the site was lacking in a crucial foundation of overall best practices that should serve as a foundation from which other, more specialized needs can be met. Therefore, the purpose established for the project widened to include the increase of building-level capacity of faculty to identify and implement best educational practices in order to more effectively address the needs of students from backgrounds of poverty.

Data analysis provided information on precisely what the school needed for the increase of this capacity. What resulted was a school profile that provided a clear need for the provision of an understanding of best practices as a system of meeting student needs under which all other endeavors were subsumed. Moreover, there was a strong need for support in how to move toward that system of best practices, at a school-wide level. Thus, the handbook and the staff development protocols became the ways in which I might address that need. The handbook is a tool that can provide both immediate and ongoing support for school-wide movement towards best practices. It is a tool for both teacher work and leadership guidance in providing ongoing support, and provides a more in-depth look at the components of a system of best practices. The workshops I created for the staff development protocol are designed to provide hands-on, experiential,

transfer-focused support in key areas within the system of best practices. The objective of the protocol is to provide the necessary first steps toward school-wide best practices. While I believe that ongoing support and continued professional development are vital in sustaining the movement towards school-wide best educational practices, I believe this capstone project will equip this site with the necessary tools to successfully begin this journey.

Although limited in application, this capstone project provides several contributions to the field of education. The suggested contributions, recommendations for use, and the perceived limitations of this project are described in the following paragraphs.

Contributions of This Project.

This capstone project presents insights for those who undertake a similar approach (i.e. those purporting to conduct action research with an ethnographic approach to data collection and analysis) to identifying and addressing school-wide needs for practices that support achievement of all students, in particular, students who are poor and racially or culturally diverse. The contributions to the field of education are perceived to be threefold. First, it reinforces a need for school-wide movement toward educational best practices. While many reform initiatives have suggested specific ways for addressing issues in equity and access to excellence in education, the struggle for equity in these areas is ongoing. Supporting the academic needs of traditionally overlooked students must first begin with a foundation of research-based practices that support the needs of all students before looking at specific ways these practices can be modified to address specific cultural or academic needs of students from these populations. Second,

the project provides support for school leadership who wish to move teachers toward best educational practice. With myriad options for reform approaches and models, it can be overwhelming to know where to begin improving practice in ways that address educational needs of students, both for leaders and educators. This project emphasizes a system of best practices that are research- and literature-based in order to help leaders begin taking "first steps" toward best educational practice. It also provides direction and resources for ongoing growth in these key areas, both an effective way to evaluate staff need and ideas for addressing those needs through ongoing professional development. Finally, this project provides a concrete model for leaders or consultants interested getting started in large-scale change of practices at an educational site by utilizing an overall action research approach with an ethnographic approach to data collection and analysis. This approach is especially useful for leaders who wish to move away from evaluative approaches that place high levels of demand on teachers to change practice with minimal or ineffective support, and emphasizes diagnostic approaches that support teacher growth toward improved educational practice.

Limitations of This Project.

This project presents both limitations regarding transfer of the project to the wider system of education as well as site-based limitations. I've identified two prominent limitations. First, the nature of this project is inherently site-based; it was developed to identify and address the particular needs of a school. While the emphasis was on working toward improved best educational practice, and while such a focus has the potential to benefit most schools, the school profile, handbook, and professional development protocol were designed with the particular needs of this school - relative to

the overall goals of best educational practice - in mind. As such, the components of this project should never be used as a "module" that is transferable to all groups of educators or educational sites. If used, the particular needs of the group for which they are intended must be taken into consideration and appropriate, need-based modifications made in response to those needs. Second, this project has a finite timeline. While I have worked to provide support for ongoing and sustained growth toward best educational practice for both the leadership and educators at this site, ultimately, I will not be able to provide measures to ensure fidelity to the recommendations or approaches presented in the individual project components. Similarly, I will be unable to provide extensive "trouble-shooting" support to teachers and leaders in an ongoing fashion, an element highlighted as important in professional development literature (Theriot & Tice, 2009).

Recommendations for This Project.

Site based recommendations are anchored on supporting momentum and sustained work towards best educational practice. Along with presenting the site with my recommendations in the school profile, the handbook for use in supporting growth, and offering to provide the workshops designed to target the site's particular needs in the staff development protocols, I presented a series of suggestions for the school leadership for how to achieve these goals. This included suggestions for how to build internal capacity and support, discuss potential opportunities for providing the workshops, and recommend uses for the handbook. As the school, or any school attempting such an endeavor, moves towards implementing suggestions in order to promote growth toward best educational practices, I recommend a "lather, rinse, repeat" approach. That is, teachers should be provided with the support and hands-on opportunities necessary to make sense of these

practices and approaches in meaningful ways, a scrubbing in or application of these principles and practices. Then, when teachers have had adequate opportunity to try and reevaluate and try again, teachers and leaders should take a fresh look at gains and needs relative to goals of best educational practice. In other words, rinsing away all but what is useful to provide an honest assessment of strengths and needs relative to goals for continued growth. Once these needs are diagnosed, appropriate support and development are provided and the process begins anew.

Conclusion

A capstone project of this nature seems to possess the potential for bridging the ideal, "ivory tower" research to the realty of the school or classroom "trenches." As such, this project required me to ask questions such as:

- What are our ideal aims?
- How can we best gain a clear and thorough understanding of teacher needs relative to those aims?
- What makes the most sense, given those needs, for helping the site see the "road map" towards those aims?
- How can I most effectively support the site and teachers in beginning a journey toward those aims in ways that respect and address the identified needs?

Literature and research served as the source for establishing the ideal aims. Research design provided a structure for gaining an understanding of my site's needs relative to the aims. And literature and research further guided the development of project components that would be most appropriate and useful.

Throughout the duration of my capstone work, the components of the project (i.e. school profile, handbook, and proposed staff development protocol) and the conversations I've had with leaders and teachers have served as a catalyst for leader reflection on teacher needs and how to address those needs. Site leadership have shared that this project has provided a "big picture" idea of where they want to go as a school. Ultimately, however, the momentum and capacity of the leadership in supporting teacher growth toward these aims – which requires leaders to create a shared vision, guide faculty through the cycles of change and introspection, support the development of new understandings and strategies, and assist in the transfer of those ideas into classroom practice – will determine the usefulness of the work reflected in the capstone project.

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Appendix A
Guide to Thinking & Analysis of Educational Practice

Guide to Thinking & Analysis of Educational Practice

Developed by Jennifer Kumpost Dimeo

The content contained in the following pages is meant to guide the thinking of teachers and educational leaders in identifying key strengths and needs related to best educational practices. It emphasizes best practices in education for all students, and specifically directs educators' attention to particular needs of student populations that are often overlooked in traditional classroom settings (e.g. poor and racially or culturally diverse students). The guide is framed by the five key principles of Carol Tomlinson's Differentiation Model. The elements in this model are affirmed by researchers in multiple fields of education, including the recent work of John Hattie who has synthesized over 800 meta-analyses of evidence-based research regarding factors that impact student achievement (2008). Therefore, the model provides an effective frame under which the needs of all students can be addressed, but also builds on this frame to consider the ways in which the key needs of traditionally overlooked students can be addressed.

The five key principles of Tomlinson's model are described in the left-most columns under "Key Principles of Differentiation," and reflect best practices in education related to curriculum, instruction, assessment, grouping, and factors related to the learning environment. Each key principle contains a set of "look fors" in reviewing classroom practice that can assist educators and leaders in determining the presence of this quality and in making useful recommendations. These "look fors" are designed to guide classroom practices for all students. To the right of these key principles and "look fors" are columns that address three key needs of certain groups of students often overlooked in traditional classroom settings. These key needs are: (1) providing students with a balance of high expectations and high levels of support, (2) affirming and capitalizing on student culture and strengths, and (3) fostering student self-efficacy and sense of empowerment. These contain a set of more targeted indicators, or "look fors," that specifically consider the needs of traditionally overlooked students. These key needs are embedded within the framework of Tomlinson's Differentiation Model, and are grounded in research and theory literature of (1) best educational practices in working specifically with overlooked student populations and (2) best practices in education that effectively address key needs of marginalized students in general. They are intended to further clarify how best educational practice can specifically address the needs of the aforementioned subgroups of students.

It is important to note that this is a *guide* for thinking and analysis of classroom practice. It is *not an evaluation rubric* for classroom practice, but a *tool to promote ongoing professional growth*. It provides a common language, facilitates discussion, provides a cohesive way to target various aspects of educational practice in professional development efforts, and guides teacher work towards best educational practice.

Key Principles of Differentiation (Sousa & Tomlinson, 2011)		High Expectations & High Support	Affirm & Capitalize on Culture & Strengths	Foster Efficacy & Empowerment
Quality Curriculum Rooted in essential understandings, knowledge, and skills in a content area, unit, and lesson; designed to support student understanding; and includes clear learning goals for what students should understand, know, and be able to do as a result of the period of study.	➲ Articulate clear learning goals on what students should Know, Understand, and be able to Do as a result of the curriculum plan. ➲ Establish the deeper meaning and significance of a topic and state/district standards. ➲ Represent core principles, concepts and skills/methodologies of the discipline. ➲ Understanding statements connect concepts and help students discover the essential meaning. ➲ Skills (do goals) represent transferable and authentic skills of the discipline. ➲ Students are	⇨ Explicit direction and instructions are given to student about how to meet expectations and produce quality work (Delpit, 2006; Morrison, Robbins, & Rose, 2008). ⇨ Scaffolding is provided for engaging in and using higher order thinking skills (Delpit, 2006; Morrison, Robbins, & Rose, 2008). ⇨ Supports and scaffolds used to make content relevant and accessible to students (Delpit, 2006; Morrison, Robbins, & Rose, 2008). ⇨ Basic skills instruction embedded within meaning-focused, rigorous learning that requires problem solving and higher order thinking (Morrison, Robbins, & Rose, 2008). ⇨ Gaps in student learning are treated as a need for more or different forms of scaffolding (Ladson-Billings, 1995).	⇨ Learning tasks build on students' funds of knowledge and experiences (Benson, 2003; Ladson-Billings, 1995; Morrison, Robbins, & Rose, 2008; Patchen & Cox-Petersen, 2008). ⇨ Incorporates a balance of perspectives of various racial & ethnic groups (Haberman, 1991; Leiding, 2007). ⇨ Supports students in developing understanding of generalizations through specific cultural contexts (Erikson, 2002, Haberman, 1991; Leiding, 2007). ⇨ Provides students with opportunities to explore historical and societal contributions by persons of diversity (Banks, 2006; Ladson-Billings, 1995). ⇨ Rich, accurate, and varied materials of a variety of racial, ethnic, and cultural groups are provided (Banks, 2006; Ladson-Billings, 1995).	⇨ Supports students in analyzing perspectives presented in texts, resources, media, etc., and discuss degree of cultural equity (Morrison, Robbins, & Rose, 2008). ⇨ Helps students identify cultural "rules" and the "power" dynamic of individuals who possess them in various cultural contexts (Delpit, 2006; Morrison, Robbins, & Rose, 2008). ⇨ Supports students in to recognizing and capitalizing on their funds of knowledge and strengths (Hefflin, 2000; Sternberg, 2002; 2004; 2007).
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Key Principles of Differentiation (Sousa & Tomlinson, 2011)		High Expectations & High Support	Affirm & Capitalize on Culture & Strengths	Foster Efficacy & Empowerment
Respectful Learning Tasks + Teaching Up Multiple routes to the same worthwhile learning goals are provided to ensure effective student learning. While tasks may be attend to different aspects of student interests, needs, and strengths, all students are asked to use essential content in ways that require complex thought and problem solving.	➲ Tasks require all students to work toward the same understandings and skills, and acquire the requisite content knowledge. ➲ All tasks and products promote maximum challenge and growth and provide intentional support necessary for all students to reach those high expectations. ➲ Assessment data is used to modify curriculum, instruction, or materials in order to meet student readiness needs, attend to learner profile differences, and address student interest in order to create meaningful and effective learning experiences that maximize individual student growth. ➲ Scaffolding strategies and tools are used to support struggling students in reaching worthy learning goals.	⇨ Provision of strong support for reaching academic excellence and achievement (Howard, 2001; Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007; Swartz, 2009). ⇨ Tasks should provide opportunities for students to practice a variety of applications in order to promote understanding and transfer of knowledge to new situations (Shepard, 2000). ⇨ Students are provided with feedback that promotes learning and supports progress (i.e. scaffolded responses/feedback) (Hattie, 2009; William, 2011). ⇨ Useful feedback is provided about: (1) the task or product, (2) the process of creating the product or completing the task, and (3) student self-regulation in learning (Hattie, 2009). ⇨	⇨ Use of materials and methods that reflect the norms and practices of students' lives (e.g. texts, social interactions, cultural values (Hefflin, 2002). ⇨ Use of instructional styles that mirror interaction styles of students' communities (Morrison, Robbins, & Rose, 2008). ⇨ Use of students' culture and language as tools for imparting knowledge, skills, and attitudes in learning and instruction (Ladson-Billings, 1992; Richards, Brown, & Forde, 2007). Learning experiences connect to students' culture, frames of reference, styles of performance, and images and practices familiar to students (Benson, 2003; Richards, Brown, & Forde, 2007)	⇨ Tasks and assessments reflect an understanding of how students best learn (Sternberg, 2010). ⇨ Balanced use of a variety of assessments and teaching approaches that capitalize on student strengths and develop student weaknesses (e.g. Sternberg & Grigorenko, 2004; Sternberg, 2006). ⇨ Emphasis of learning placed on what students can do, then on what they are aiming to do (Hattie, 2009). ⇨ Students are taught study skills, strategies of learning, and how to recognize when they have reached learning goals (Hattie, 2009)

Key Principles of Differentiation (Sousa & Tomlinson, 2011)		High Expectations & High Support	Affirm & Capitalize on Culture & Strengths	Foster Efficacy & Empowerment
Continual Assessment Ongoing use of formal and informal assessment to inform curricular and instructional decisions in relation to learning goals. Nature of assessment includes pre-, formative or summative. Assessments are clear, valid, and reliable.	➲ Assessments are aligned to learning goals, and used to inform curricular and instructional decisions relating to student readiness, interest, and learner profiles. ➲ Post and formative assessments are differentiated to allow for students to exhibit understandings, skills, and knowledge without being hindered by the assessment format. ➲ Provides an effective measure of student progress towards learning goals. ➲ Provides clear directions to students for producing quality work ➲ Effective for informing instructional decisions throughout the course of the unit. ➲ Practical in ease of use and ability provide insight on student strengths and weaknesses. ➲ Strong degree of validity and reliability	⇨ Assessment is used to explore student thinking in relation to the learning goals and should avoid assumptions of student understanding, skill level, or level of content knowledge (William, 2011). ⇨ Formative assessment should yield insight into students' thinking rather than only information on "correctness" of answers (William, 2011). ⇨ Assessment should provide insight into what students are able to do independently as well as with adult guidance in order to extend understanding and provide targeted scaffolding (Shepard, 2000).	⇨ Assessments avoid false positives or false negatives (i.e. are valid and reliable measures of students learning in relation to learning goals) (Wiggins & McTighe, 2005). --- ❍ *The teacher is willing to* candidly and critically examine class data for equity in the classroom (e.g. evaluate racial or socioeconomic breakdown of students who are referred for special needs services or gifted education) (Howards, 2003). ❍ *The teacher is willing to* evaluate dependence on scoring and assessment for certain ways of knowing and expression, (Howards, 2003) ❍ *The teacher is willing to* seek to know cultural backgrounds, histories, community, interests and concerns of students	⇨ Balanced use of various assessments and teaching approaches that capitalize on student strengths and develop student weaknesses (e.g. Sternberg & Grigorenko, 2004; Sternberg, 2006). ⇨ Teachers use an understanding of the anatomy of quality work to break down the notion of quality (Williams, 2011) in a way that enables students to develop an understanding of quality (Arter & McTighe, 2001; William, 2011). ⇨
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Key Principles of Differentiation (Sousa & Tomlinson, 2011)		High Expectations & High Support	Affirm & Capitalize on Culture & Strengths	Foster Efficacy & Empowerment
Flexible Instructional Grouping Use of a variety of students groups to address various components of a sequence of learning in order to effectively address student learning needs pertaining to readiness, interest, and learner profile.	➲ Varied grouping configurations used to promote maximum effectiveness for each stage in the learning process. ➲ Informed by assessments, in response to student needs, and in relation to learning goals. ➲ May be based on student readiness, interest, or learner profile. May be teacher- or student-selected ➲ FLEXIBLE – Groups change on a regular basis to reflect evidence of evolving student needs and growth ➲ Allows students to see themselves and others in varied contexts, and become	⇨ Students are provided with unambiguous ground rules for group learning, discussion, and the nature and purpose of the task (Corden, 2001). ⇨ A variety of grouping arrangements are used to address student strengths, needs, and interests (Tomlinson & Imbeau, 2010). ⇨ Readiness groups should change often based on pre-assessment and formative assessment data (Tomlinson & Imbeau, 2010). ⇨	⇨ Use of varied grouping arrangements or instructional strategies (Patchen & Cox-Petersen, 2008) to promote multiple ways of knowing (Swartz, 2009), of interacting, and for practice (Hattie, 2012). ⇨ Grouping promotes community-centered learning where students share and learn from one another (Hattie, 2012). ⇨ Grouping strategies support instruction that reflects students' cultural and community interaction styles (Hefflin, 2002; Morrison, Robbins, & Rose, 2008).	⇨ Students are encouraged to recognize, respect, and value classmates' differences (Richards, Brown, & Forde, 2007) through use of grouping configurations that allow students to see themselves and their classmates in various contexts (Sousa & Tomlinson, 2011). ⇨ Students are involved in discussion of strategies and techniques pertaining to group dynamics, logistics, and management (Chapman & van Auken, 2001).
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Key Principles of Differentiation (Sousa & Tomlinson, 2011)		High Expectations & High Support	Affirm & Capitalize on Culture & Strengths	Foster Efficacy & Empowerment
Leadership + Building Community Safe, challenging, supportive learning environment that invites learning, supports risk-taking, and attends to students' needs for acceptance, respect, affiliation, contribution, challenge, and support.	➲ An emphasis on growth, and a belief that all students are worthy and capable of working with high-quality curriculum ➲ Teacher holds a "whatever it takes" mindset in supporting student success. ➲ Collaboration between learners and teacher ➲ Opportunities for students to recognize and capitalize on strengths, and be respected and valued as individuals ➲ Use of routines and strategies to promote student independence ➲ High expectations for all students and high levels of support to help all students meet those expectations, etc.	⇨ Students are consistently: ▫ provided with academic challenges, ▫ supported in the rigorous work that is required of them, ▫ encouraged to perceive failures and mistakes as opportunities for growth ▫ and provided with constructive feedback, and growth-focused support (Dweck, 2006). ⇨ Students are challenged and supported in becoming intellectual leaders (Ladson-Billings, 1992). ⇨ Students are expected to develop individual and cultural excellence (Swartz, 2009). ⇨ Teachers believe that all students can and must succeed, and work persistently to ensure success of each student (Ladson-Billings, 1995).	⇨ Students are taught how to view their own cultures as valuable resources in learning (Benson, 2003). ⇨ Positive interrelationships among students, their families, the community, and school are actively pursued (Morrison, Robbins, & Rose, 2008; Richards, Brown, & Forde, 2007).	⇨ Students are supported in self-reflective processes to identify their own strengths and needs (Benson, 2003; Hefflin, 2000; Sternberg, 2006). ⇨ Students are invited to participate in decisions-making regarding learning (Freire, 2009; Swartz, 2009). ⇨ Students are encouraged to recognize, respect, and value classmates' differences (Richards, Brown, & Forde, 2007).
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Appendix B
Interview Protocol

The purpose of the teacher interviews is to gain clarity and insight into how teachers are thinking about key areas of classroom practice. The questions provided, below, represent the following key areas explored in the interview:

- Curriculum (plan for learning, resources and materials used to create these plans, the content, goals, and objectives)
- Learning Tasks (what students are asked to accomplish, includes activities, centers, worksheets, note taking, discussions, etc.)
- Use of Assessments (informal and formal, standardized and performance, formative and summative, etc)
- Grouping Arrangements (how they are determined and used)
- Response to Student Need (how student needs are identified and addressed)
- Learning Environment (routines and procedures, use of space, mindset fostered and communicated, community building)

These key areas reflect the principles used in the Best Educational Practice Guide to Thinking & Analysis, and are have been informed by the classroom observations conducted. The following questions represent the kinds of questions I will be asking to gain clarity and insight into teacher thinking regarding areas of classroom practice. Sample follow up questions are provided as well. The list of interview questions is not comprehensive, nor will the interview be formulaic. The purpose of the interview is to probe to gain insight and clarity into teacher understanding and approaches to key areas of classroom practice.

Curriculum	• Describe your typical planning process. That is, how do you typically plan for what happens in your classroom? • How do you determine what to teach each day or week? • How do you develop or determine your learning goals or objectives?
Learning Tasks	• How do you determine which tasks students will do during the instructional blocks? Outside of the instructional blocks? (e.g. during remediation block, homework, etc) • What factors do you consider in selecting a given task (e.g. worksheet, center activity)

Use of Assessment	• What types of assessment do you use? • How do you develop these assessments? Or where do they come from? • How do you determine whether or not students understand: what to do? the content? • How do you determine whether students have learned? • What do you do if you think a student hasn't understood? Hasn't learned the lesson/content/objective?
Grouping Arrangements	• In what ways do you group students? That is, describe ways you have grouped students for learning. • What do you see as the benefits of this/these approaches? • How do you determine which students will go to which groups? That is, what factors do you consider when grouping students?
Response to Student Needs + Learning Environment	• Describe the strengths and weaknesses your students have that you believe impact whether or not they are successful with learning or a learning task. • What do you think is the best way to deal with undesirable student behavior? Why? • Describe the "transition" strategies you use (e.g. to get students to quiet, to stop an activity to listen, to move from one lesson to another, etc). • What routines/procedures do you use that you consider your "must haves" for your classroom?
Sample follow-up questions:	• Can you clarify _____ for me? • Explain your thinking on _____ for me? • How do you see benefits from something like this? • How did you determine _____? • What influenced your selection/decision? • What are classroom practices you would like more information, examples, support, etc. in exploring?

Appendix C
Sample Data Sets

Class Learning Environment Data Sample		
Category	**Values**	**Details**
management	negative reinforcement	doesn't get ticket for forgetting to bring in homework
routines/procedures	transition routines	kids walk in and put bags in cubbies and folders in basket on t's desk
routines/procedures	work directions posted	message on board with directions for what to do when ss come in
relationships	taking personal interest	t talks with stu about birthday
space	content on walls	posters w/various content, birthday poster, calendar, and rules page
relationships	engagement	encourages ss to enjoy and sing song about math content
relationships	verbal encouragement/affirmation	verbal affirmation to students regarding work
growth	performance-oriented	encourages ss to take time and not rush, especially when graded
space	not student centered	tables all oriented toward front board, all in rows, t's desk in back
growth		t has student work on making writing bigger, doesn't check work b/c she says she can't read it
transitions		tells ss what to do to transition to next subject, desks and chairs in tidy rows
routines/procedures	community expectations	"proper student position" ss sit up, face forward, feet on floor
routines/procedures	bathroom/water breaks	dismisses ss to get bathroom/water break by row
space	not student centered	tables all oriented toward front board, all in rows, t's desk in back
routines/procedures	transition routines	five rows, ea row "goes first" for certain things on their day of the week
transitions		find someone who has something in common with you
relationships	humor/teasing	playfully smacks/taps stu on back of the head "your mama said I can do that to you - uses other forms of humor
social/cultural	sensitive	mentions "code switch thing"
relationships	humor/teasing	uses silly voices/humor
relationships	humor/teasing	calls ss "bubba" and "doll baby"
management	negative reinforcement	sharp reminders for behavior - e.g. "you're on the wall" [for recess]
expectations	extraneous	paper w/out a name - five points off

Curriculum & Learning Objectives Data Sample		
Category	**Sub-Category**	**Details**
Strategy	Discrete Knowledge	place value rap song
Objectives	Discrete Knowledge	place value and rounding
Skill		subtraction with four and six-digit numbers
Games		Splash Math on iPads
Games		Reject math game (place value)
Strategy	Discrete Knowledge	Mnemonic device for remembering states bordering VA
Discrete Knowledge		Regions in VA, descriptions
Skill		Using maps and globes
Skill		Venn Diagram to show things that are the same and different
Objectives	Discrete Knowledge	numbers and patterns
Skill		Input/output or "number machines"
Discrete Knowledge	Review	Prime or composite numbers
Skill		Who, what when, where, why
Skill		giving enough details, saying things "slowly" (writing)
Games		playing a math game on the smart board about place value
Discrete Knowledge	Review	Compass rose
Discrete Knowledge	Review	Virginia border states
Strategy	Discrete Knowledge	Mnemonic device for remembering states bordering VA
Discrete Knowledge	How to	finish the video about how to use symbols, etc, to read maps
Skill	Discrete Knowledge	learn new ways to show a number
Strategy	Discrete Knowledge	place value rap song
Objectives	Discrete Knowledge	place value and rounding

Student Tasks (i.e. what students are asked to do) Data Sample			
Category	**Sub-Category**	**Student Grouping**	**Details**
worksheet		independent	math worksheet on rounding
problem/s	teacher-directed	independent	math problems posted on board
discussion	teacher-directed	partners	review mnemonic device to remember the states bordering VA
discussion	teacher-directed	whole-class	venn diagram comparing and contrasting maps and globes
hands-on	worksheet	groups	work with table groups to do an activity involving a worksheet and globes
discussion	teacher-directed	whole-class	Q&A discussion, ss glue down corresponding definition of each part of the scientific method once it has been properly guessed/answered by stu volunteers
hands-on	teacher-directed	whole-class	ss given bundles of q-tips, ss work to form shapes according to teacher's directions (on square, two squares, etc), t writes on board how many q-tips used - numbers and patterns
discussion	teacher-directed	whl clss + grps	discussing numbers and patters, trying to come up with a pattern (w/table groups)
discussion		whl clss + grps	solving problems in table groiups, whole class discussion
application task		independent	t tells ss to each come up with a pattern, later they will giving it to someone else to see if they can crack your pattern
discussion	review		Q&A review discussion on what they went over yesterday about prime and composit numbers
read-aloud		whole-class	t reads to ss during a daily read-aloud time
writer's workshop		independent	ss are asked to work on a piece of writing they already started or start on a new topic from their list of ideas, 20 mins of independent writing during writer's workshop
direct instruction		whole-class	teacher demonstrates writing with lots of details, "say it slowly"
Reading		independent	ss read silently
Share		partners	t has ss find a partner to share what they have written
Game	discussion	whole-class	review compass rose and states bordering VA via the Smart Board - t calls on ss volunteers to come up to the smart board and answer questions
Video		whole-class	ss finish watching the Virginia Trekers movie about maps and how to use symbols, t stands up front and points out things on the map, encouraging student participation

Use of Assessment Data Sample		
Category	**Values**	**Details**
Quiz		middle of unit
FOG		paper w/out a name - five points off right away
review		teacher asks ss questions that will be on the upcoming test
standardized		QRI administered to one student
spot check		complete puzzle and show teacher, "you know where everything goes" on map, t circulates and checks puzzle pieces when the are done, offering praise to ss who have completed it correctly
quiz		on your quiz tomorrow, there will be the states with the letters and you have to tell me what states the letteres are, grade quiz tomrrow
quiz		timed math test
quiz	review	class transitions to review of border states and regions of VA, then they will take "our very first quiz"
standardized		QRI administered to one student
writing prompt		50 min, best personal narrative, small moment story of a particular time in your life, true story, "Write in a way that shows me all that you know about how to do this kind of writing."
assignment		reading logs
whole-class question		"Please stand if you think 'hiding' is the subject"
spot check		ss writing sentences on white board, teacher has ss hold them up
test		spelling test - you have 24 words and you're only getting tested on 10 of them and you don't know which ones
spot check		see if you can put these in order by place, when you finish, raise your hand and "SPED t" will come around to see if you got it right
standardized		QRI administered to one student
quiz	FOG	during timed multiplication quiz t says to ss "If you guys talk, you automatically get a zero"
spot check		raise your hand if you've finished playing the round up round down game
discussion/question		you guys understand what we're doing for the reject game?
test		units social studies test
quiz		middle of unit
FOG		paper w/out a name - five points off right away

Response to Student Need Data Sample			
Category	**Sub-Category**	**Value**	**Details**
Verbal Prompting	Encouragement	Reactive	t and aid encourages a H/LL boy to participate in singing math song about place value
Teacher Assistance		Reactive	inst aid calls t over to give support to student on worksheet
Anchor Activity	Filler	Reactive	when five ss turn in completed worksheet, t announces that ss may read or draw quietly when they are finished
Circulates & Assists		Reactive	circulates and assists
Whole-Class Support		Reactive	t calls out tips and directions as ss work on problems
Teacher Assistance		Reactive	t works one-on-one w/a student
Directive		Reactive	T has a boy who wrote too small on his problems page to work on writing larger
Directive		Reactive	boy who wrote too small presents paper, t tells him his writing started out okay, then got smaller and smaller and that he needed to "go back and do it the right way"
Verbal Prompting	Clarification	Reactive	clarification questions during whole-class discussion
Circulates & Assists		Reactive	inst aid walking around and helping individual ss
Behavioral/Affect	Encouragement	Dignifies the Student	to a stu who is starting to emotionally "unravel", the t asks if he wants to go to the calming caddy and use the tools to self-calm there
Teacher Assistance		Reactive	inst asst calls the t over to help a boy at the back table
Teacher Assistance		Reactive	back table have continual assistance from primarily the inst asst, and sometimes the t
Physical Needs		N/A	t allows ss to have a snack on occasion, when needed, although he doesn't want it to be an everyday thing
Examples		Reactive	t provides sample patterns and explains directions
Circulates & Assists		Reactive	circulates and assists
Teacher Assistance		Reactive	inst aid helping the back table
Verbal Prompting	Encouragement	Reactive	t and aid encourages a H/LL boy to participate in singing math song about place value

Use of Grouping Arrangements Data Sample			
Category	**Sub-Category**	**Group Assignment**	**Details**
independent			worksheet
small groups		Student Selected	playing games in small groups, based on choice and which ss finish original assignment first
whole class			discussion
small groups		Grouped by Tables	table/team
whole class			working on an assignment together, Q&A style
whole class			discussion
small groups		Grouped by Tables	table groups
whole class			discussion
whole class			discussion - mini lesson type format
independent	teacher group	Teacher Assigned	t is working with a small group, the rest of the class is working independently
small groups		Teacher Assigned	ss working gin groiups of 3-4 per group, one group near the front has six ss - "pods"
partners		Student Selected	turn to someone at your table (e.g. turn to your partners, turn and talk)
partners		Student Selected	ss choose partners
whole class			sharing time, one-at-a-time
small groups		Random Teacher Assignment	ss go to an assigned an assigned teacher to practice writing #s in standard form, three groups, random grouping, all doing the same task
whole class			discussion, Q&A format
small groups		Teacher Assigned	t groups ss in spelling groups according to spelling level
independent			Worksheet
partners		Student Selected	turn and talk, random selection, whoever is sitting near you
partners		Student Selected	turn and talk, random selection, whoever is sitting near you
small groups		Random Teacher Assignment	ss go to "rotations" (i.e. centers), all ss do the same rotation, just in a different order, t hands out laminated cards in a random fashion to ss to determine which group they will be in
partners		Student Selected	turn to your partners (random, someone sitting near you) during whole-class discussion
small groups		Grouped by Tables	table groups

Appendix D
Staff Development Protocols

Staff Development Protocol Workshops:

1. Mindset & Using Sternberg's Triarchic Theory to Experience Responsive & Respectful Learning
2. Recognizing Responsive Teaching & Learning
3. Building a Strong Foundation: Understanding and Writing Clear Learning Goals
4. Crafting Strong Assessments Aligned to Learning Goals
5. Using Assessment Data to Plan Proactively & Intentionally
6. Leading & Managing a Student-Centered Learning Environment

Mindset & Using Sternberg's Triarchic Theory to Experience Responsive & Respectful Learning

Total Estimated Time for Workshop: 2 ½ hours

Learning Goals:

The learner will understand that:

- Mindsets often determine a person's response to and outcomes in a learning situation.
- A teacher's mindset can calibrate students' perspectives and responses to classroom learning situations.
- Affirming and capitalizing on student differences is a powerful means of helping students see their important role in the community.

The learner will be able to:

- Identify fixed mindset responses to a given situation and formulate new growth mindset responses.
- Reflect on what it means to be a respected learner.

The learner will know:

- Characteristics of individuals with growth mindsets
- Characteristics of individuals with fixed mindsets

Workshop Component (Estimated Time)
Introduction (10 minutes) I. Briefly introduce the agenda for this workshop. A. Explore how mindsets impact teaching and learning in the classrooms. B. Experience learning that responds to our needs as learners C. Ask teachers to jot down notes regarding these things as they go along. There will be a time for reflection and discussion at the end of the workshop. II. Briefly introduce Sternberg's Theory of Triarchic Intelligence, this will be explored in greater depth later.
Determining our Triarchic Preferences/Differences (20 minutes) I. Have teachers take the "quiz" and determine their preferences. II. Graphing our strengths and differences: A. Give teachers three standard address label stickers and have them write their names on each sticker. B. Then have them color each sticker to show the strength of their preference (i.e. more or less color on a sticker). Use red for the analytic sticker, blue for the practical sticker, and green for the creative sticker. C. Then have teachers place their stickers on the corresponding anchor chart "graphs." D. Let teachers look at these graphs. Do a "table talk" answering the following two questions: (1) What do these results say about the needs of individuals in this group? (2) If, as the instructor, I was committed to making sure what we do in this workshop addresses those needs, what might that mean? E. Have a few volunteers share their thoughts with the whole group.
Mindset Triarchic Task (50 minutes) I. Tell teachers that we are going to switch gears for a little bit. We are going to delve into growth and fixed mindsets and consider the ways these things can impact teaching, learning, and the learning environment overall. A. Explain that teachers will be reading an excerpt from Carol Dweck's Mindset book. They will have approximately 15 minutes to read and 15 to do the task. B. Share the task options for each Sternberg preference/strength area (i.e. practical, analytic, and creative). C. Give teachers permission to work alone, with a partner, or with a group of no more than five, *as long as they are working in their strongest preference area.* II. Give teachers about 15 minutes to read the excerpt and jot down their

thoughts.

III. Provide teachers time to work on their tasks, approximate 15 minutes.

IV. Ask for volunteer groups or individuals that are comfortable sharing their project with the whole group. Try to get at least one share per Sternberg preference.

V. Post the rubric and learning goals and discuss the use of *only one tool* to assess teacher learning because all teachers were asked to arrive at the same goals.

Reflection Time (20 minutes)

I. Ask teachers to reflect/journal on the following questions:
   A. Discuss your experience as a learner. Some questions that might be helpful to consider are: What did you think when you saw all of the task options? What was your reaction to those that were in your preference area/s? What about your reaction to those that were not in your preference area/a? How might this have impacted your engagement and participation? How might this have influenced the way you processed the information about mindsets?
   B. Discuss your experience as a part of a community of learners. Some questions that might be helpful to consider are: What was it like to hear some of your colleagues share their tasks with the group? How did this impact your overall learning? Why might it be helpful to know your strengths/preferences as a learner? As a teacher?
   C. Discuss your thoughts on growth and fixed mindsets. What are some ways your thinking has changed about students? About your own work as a teacher? What are some reasons a teacher's mindset is an important aspect of the learning environment?

II. Briefly allow teachers to share their thoughts, if they wish.

Suggestions for How to Use this Approach in Your Classroom (45 minutes)

I. Share with teachers a bit more background information on the Triarchic approach, including:
   A. Needs of learners with certain preferences
   B. Suggestions for use in the classroom
   C. Prompt for creating a task

II. Task evaluation
   A. Have teachers form teams with groups of at least three teachers (1-2 teachers from each strength/preference represented)
   B. Give each group a set of prompts. Have them evaluate the prompts:
      1.Do all the tasks ask students to work with the same learning goals?
      2.Do all the tasks adequately reflect the learner preferences as

described by Sternberg?

C. Discuss.

Share & Final Questions (5 minutes)

- Allow teachers to share final thoughts or ask any last questions.

Recognizing Responsive Teaching & Learning

Total Estimated Time for Workshop: 2 ½ hours

Learning Goals:

The learner will understanding that:

- Responsive teaching is the purposeful and proactive planning and use of tools (e.g. grouping, materials, strategies) to address learner needs in a way that promotes maximum growth.
- Responsive teaching must begin with quality curriculum grounded in meaning and understanding.

The learner will be able to:

- Identify what differentiation is and is not.
- Identify evidence of responsive teaching (i.e. teaching to meaning, use of assessment to inform curricular or instructional decisions, flexible instructional grouping, and respectful learning tasks).
- Explore the appropriate and effective use of strategies to teach responsively

The learner will know:

- "Must haves" of responsive teaching (i.e. teaching to meaning, use of assessment to inform curricular or instructional decisions, flexible instructional grouping, respectful learning tasks)
- Vocabulary related to differentiation (e.g. readiness, interest, learner profile, formative, summative, and pre-assessment, content, process, product)
- Procedural knowledge of strategies (Graffiti, Frayer diagram, Discussion-Tac-Toe, Sort)

Workshop Component (Estimated Time)

Introduction (10 minutes)

I. Warm-up activity: In groups, have teachers take 1-2 minutes to do a "stream of consciousness" list of words, situations, qualities that either they associate with

differentiation, or are commonly associated with differentiation.

II. Share. Have teachers share what their groups identified.

III. Segue into understanding what differentiation is and is not. We are a part of a profession that has lots of new things coming down the pike, and it's important to know what constitutes substantive, defensible differentiation so that we can be wise consumers of the materials, strategies, and approaches that cross our paths.

Considering the Approaches of Three Teachers (e.g. Mapping a Route to Differentiated Instruction) (30 minutes)

I. Group teachers into groups of four or five. Have teachers read the article *Mapping a Route to Differentiated Instruction,* by Carol Tomlinson, keeping in mind the things they shared in the warm up activity.

II. Teachers will then discuss the article choosing three of the questions listed on the Discussion Think Tac Toe (choose three questions in a row to discuss, everyone in the group must contribute)

III. Ask for folks to share any big "aha" insights they gained.

IV. Emphasize that the first two teachers weren't "bad" teachers, they were doing what they thought was best for kids. There were some positive elements in the curricular/instructional approaches they took (e.g. alignment to goals and selection of tasks meant to engage students). There's ways to go about meeting students' needs that are more purposeful and effective. Share Kristina Fulton's "aha" insight when learning about differentiation: "I thought differentiation was just using best practices, but it's more than that. It's more proactive."

Lesson Plan Sort Activity (60 minutes)

I. Many different things out there with the label "differentiation" attached. We read in the last article that substantive, defensible differentiation efforts are complex. We want to explore what defensible differentiation looks like compared to approaches or strategies that may, at first glance, look like differentiation or are labeled differentiation.

II. Divide teachers into groups of mixed discipline areas (group by those who are newer to differentiation and those who understand the principles and application of those principles of differentiation according to the pre-assessment). Teachers will complete the "All that Glitters is Not Gold" activity:

   A. Explain that differentiation is not a set of strategies.
   B. Display slide with group names listed.
   C. Hand out activity envelope with directions listed. Participants will sort activities into categories according to level of quality differentiation present in each lesson. Those who are newer to differentiation will sort into two categories; those who are a bit more familiar with the concept will sort into three categories (this is only for my information; the variations in the two activities will look virtually identical).

D. Tell teachers they will need to talk about their sorting decisions, making sure they can defend their choices.
E. When they have finished sorting the lessons, they will complete a Frayer Diagram to "make sense of" the key characteristics of differentiation (or responsive, need-based teaching).

III. Whole group share time about their conclusions. Questions that teachers may have at this point will also be addressed.

Graffiti Activity (30 minutes)

I. Discuss with teachers the common misconceptions about research-based classroom practices (using lots of strategies, students in groups all the time, etc). Share key ideas of what responsive teaching is and what it is not (i.e chart about what differentiation is and what it is not from Tomlinson's book).
II. Graffiti Activity:
   A. Hang for anchor chart with one of four categories listed at the top (ongoing assessment to inform instructional and curricular decisions; flexible instructional grouping; attention to student needs, strengths and interests; and teaching to meaning).
   B. Have teachers select one of the four good differentiation lessons from the previous activity and form a group of their choosing.
   C. Explain that they will walk around the room to document the various ways teachers used strategies, tools, approaches, etc., to accomplish these kinds (indicated on the anchor chart) of things in the lesson.
III. Briefly discuss each poster. Ask questions that require teachers to emphasize that there is no set of strategies or formula. It's about proactively, intentionally, deliberately responding to student needs.

Final Thoughts & Questions (15 minutes)

I. Share with teachers the strategies you have used throughout the session and provide a set of ideas for how they can use these in various ways in their classrooms to meet student needs. These strategies include:
   A. Discussion/Think-Tac-Toe
   B. Sort
   C. Frayer Diagram
   D. Graffitti
II. Give teachers time to share final thoughts and questions.
III. Ask teachers to complete the following "exit card": If you were to spend a week in three classrooms where the teachers were responsive teachers, what things would you expect to see in all classrooms regardless of the teachers' personalities or teaching styles?

Building a Strong Foundation: Understanding and Writing Clear Learning Goals

Total Estimated Time for Workshop: 2 ½ hours

Learning Goals:

The learner will understand:

- Understanding goals are vital in developing relevant curriculum that supports student sense-making.
- Effectively planned curriculum is anchored on deliberately planned results.
- "Unless we begin our design work with a clear insight into larger purposes[,]" it is not likely that understanding will occur (Wiggins & McTighe, 2005, p 15).

The learner will be able to:

- Construct clear learning goals that articulate goals for understanding, skill development, and content acquisition.
- Differentiate between understanding, skills, and content learning goals.
- Generate "understand statements" based on a set of standards-related content.

The participant will know:

- Distinguishing characteristics of understanding, skill , and content knowledge learning goals

Workshop Component (Estimated Time)

Hook (10 minutes)

I. Show the chocolate factory I Love Lucy clip
II. Briefly discussion with teachers how this might relate to the ways we approach content learning in the classroom.

Introduce Structure of Knowledge (10 minutes)

I. Go through the structure of knowledge (H. Lynn Erickson) to understand why teaching to concepts and understanding are more effective for the ways the brain stores information.
II. Briefly explaining what generalizations are (e.g. definition and alternate names – i.e. essential understanding, big ideas, understands, generalizations). These will be explored in greater depth later.
III. Post an example of the generalization. Ask teachers to think about other contexts to which this generalization might. What types of content knowledge would be subsumed under this understanding goal?

Understanding the Distinctions Between Goals (25 minutes)

I. Describe the differences between K, U, & D's
   A. Understand statements
   B. Skills (emphasize skills versus activities)
   C. Knowledge (emphasize that these primarily come from standards)

II. Learning Goals Sort Activity:
   A. Explain that teachers are going to sort a selection of learning goals into either understanding goals, skill goals, or content goals. Have teachers turn to the Learning Goals Clarity Self-Checker in their handbook and let them know that they may use this as a support tool if they wish.
   B. Provide participants with the following options for the sorting activity:
      1. Option #1: PK-5 Sort, 6-12 Math/Science Sort, 6-12 Social Studies Sort, or 6-12 Language Arts Sort
      2. Option #2: Work with by yourself, with a partner, or with a small group of 3-4 teachers
   C. Let teachers know there is a "key" available if they want to check on a specific goal they have sorted.
   D. Circulate & assist
   E. When most of the teachers have finished sorting most of the goals from their envelope, facilitate a whole group discussion:
      1. What was challenging? Confusing? What made sense?
      2. Were there any language clues that helped you identify a particular goal? What were they?
      3. What questions did you ask yourselves as you were trying to figure out which was a goal for understanding, skill, or content knowledge?

Developing Understandings While Addressing SOLs (20 minutes)

I. Share examples of how to "Dig for Meaning" in the standards to ensure that you are both addressing the SOLs but teaching to meaning and for understanding.

II. THINK ALOUD: Demonstrate how to link two or more concepts together to form a generalization. Ask if the generalization has answered the questions "How?" "Why?" or "So what?" Tweak the generalization as needed (in the think aloud time).

III. Have teachers practice writing generalizations in discipline specific areas.
   A. Teachers can work independently, with a partner, or with a group of no more than four teachers.
   B. Teachers select from a set of pre-selected learning goals. Have them turn to the concepts lists in their handbook and use those to complete the activity. They may also use the two-step guide contained in their handbook to prompt their thinking.
   C. After teachers have had a chance to come up with a generalization or two, have volunteers from each discipline area share a few with the whole group.
   D. Discuss the challenges of the process and what helped them most during this process.

Hunting for & Distilling "Pure Skills" (45 minutes)

I. Describe the difference between activities or context-bound skills and pure skills. Explain that one of the best sources for writing effective skill goals is to begin with the skills and methodologies of a practitioner in the field or discipline (e.g. ecologist, botanist, journalist, editor, art historian, physical trainer, mueseologist, cartographer).
III. Have teachers go on a quick "scavenger hunt" with a content-area partner. Their task is to research the methodologies and skills of a practitioner whose work is reflected in the content and skills of the standards they will address. They will then write down as skills or methodologies as they can find on the internet or come up with on their own.
II. Teachers then reconvene with their content area groups, across grade level. The idea is to create a "bank" of ideas from which to developed quality skills learning goals.
III. Finally, share with teachers examples of how to distill "pure skills" from the content standards, making sure to think about process and thinking skills.

Practice Workshop Time (30 minutes)

I. Provide participants with time to begin crafting learning goals for a unit they can use in their own classrooms that addresses the standards for which they are responsible.
II. Teachers may choose to work independently or collaboratively in grade level teams.
III. Direct teachers' attention to the support tools in their handbook.
IV. Circulate and assist

Share & Final Questions (10 minutes)

I. Provide teachers with time to share final thoughts or ask lingering questions.
II. Ask teachers to complete the following exit card: What questions do you still have about writing clear learning goals?

Crafting Strong Assessments Aligned to Learning Goals

Total Estimated Time for Workshop: *about* 3 hours

Learning Goals:

The learner will understand:

- Accurate insight into student understanding requires a careful assessment of key indicators of understanding (e.g. students' thought process of why they did what they did, support for the approach or response, and reflection on the result).
- Use of multiple measures is crucial for assessing student understanding.
- Pre- and formative assessments should leverage an interpretive rather than evaluative approach.
- Alignment to learning goals is crucial for effective assessment design and use.

The learner will be able to:

- Assess understanding through multiple measures or formats
- Differentiate between assessing interpretively versus evaluatively.
- Modify assessments to attend to learner needs and gain a more accurate picture of student strength and needs

The participant will know:

- Ways of assessing understanding
- Ways to modify assessments for student needs

Workshop Component (Estimated Time)

Hook (10 minutes)

I. Show Video Clip: Woman's adrenal problems misdiagnosed as psychiatric problem.

II. Discussion: Lead a brief discussion on how this video might connect to assessment in schools (e.g. importance of knowing what you're looking for and what you're seeing as an assessor, result of misdiagnoses is lack of understanding about real needs and poor/incorrect treatment).

   A. What was the best that could have happened in this woman's case, given the misdiagnosis? What is the worst that might have happened?
   B. How might this relate to the role of assessment in schools?
   C. What's the best that can happen if we misdiagnose students' needs? What's the worst?
   D. What are some guiding insights that we might draw from this video regarding assessment?

Assessing Understanding Using the 6 Facets of Understanding (60 minutes)

I. Jot it down.
   A. Ask teachers to think through & jot down what it means to understand something.
   B. Discuss with a partner and share thoughts.

II. Introduce the six facets of understanding briefly with the group. Let them know that they are going to explore these six facets through an activity.

III. Discussion Activity:
   A. Facilitate a "Wagon Wheels" discussion with the teachers. Have teachers form an inner and outer circle. The outer circle will rotate. Prompt teachers with discussion questions at each rotation. Each question addresses the same "understanding" statement yet prompts a different facet of understanding.
   B. Discuss this activity:
      1. How did this discussion prompt you to think about your understanding of this topic?
      2. How might you use this activity to support developing student understanding in your classroom?

IV. Assessing Facets of Understanding Task Activity:
   A. Group teachers together into six groups. Provide each group with a task that corresponds to a different facet of understanding. Send each group to complete the task and return to the workshop room in 15 minutes.
   B. Have each group share their task prompt and completed tasks. Discuss this task.
      1. Post the understand goal for the task.
      2. Ask teachers to discuss the alignment of the task to the understand goal.
      3. In what ways might these approaches provide a more useful measure of student understandings than a traditional test or quiz?
      4. In what ways might these approaches support students in more effectively showing what they understand and know?
      5. How else might you use these approaches in your class?
   C. Provide teachers with a handout containing sample ideas about tasks that develop or assess the six facets of understanding.

Student Needs & Misconceptions, the Importance of Pre- & Formative Assessments, Interpretive versus Evaluative Approaches (45 minutes)

I. Give teachers a scenario that mirrors the "The Private Universe" clip about the phases of the moon and the distance between the sun, moon, and the earth. Ask them to ask them how this student might be graded in the traditional way? What might be a traditional teacher's response if the student was not able to answer the question properly? (e.g. grade, see that students didn't do so well,

teach them the correct answer)

II. Show "The Private Universe" video clip that looks at student misconceptions.

III. Discuss the situation and student's misconception.
   1. What happens when we teach students and fail to address misconceptions?
   2. What role would strong assessment play in this situation?

IV. Share with teachers the difference between interpretive versus evaluative approaches in assessment – especially in pre- and formative assessment.

V. Turn-to-Your-Partner: Show two or three scenarios of a teacher's question/prompt/exit card and the students' incorrect responses. Ask teachers to consider the difference between an interpretive versus an evaluative assessment approach in those instances.

VI. Discuss: What kinds of needs are brought to light with either of these approaches? Which approach provides information that can lead to stronger instructional responses?

Yes, You're Allowed to Do That! (25 minutes)

I. Share with teachers the misconception that, in trying to be fair to students, we tend to embrace the idea that fair is everyone getting the exact same things rather than getting their needs met. This happens when we assess students and can prevent us from gaining an accurate picture of what students need. Share with teachers about modifying assessments so that students can accurately express their ideas. This is great for all students, because there are no such things as homogenous classes, but is especially true for students with special learning challenges and or those from traditionally overlooked populations.

II. Share a few examples of taking an assessment and modifying it to address student needs while still being aligned to the learning goals.

III. Group teachers into small groups. Give teachers an assessment prompt and the learning goals, then assign them a student need and have them modify the test so it still assesses the goals, but also provides the best/most information possible about student needs.

IV. Share a few examples. Discuss.

Practice Workshop Time (25 minutes)

I. Have teachers choose to work independently or collaboratively in grade level teams.

II. Ask them to begin sketching out pre-, formative, and summative assessments for the learning goals they drafted in the Learning Goals workshop.

III. SUPPORT TOOLS: Handbook chart in Assessments chapter with suggested assessments, descriptions of various types of assessments that are not obvious (e.g. GRASPS, double-journal entries, etc)

Share & Final Questions (5 minutes)

- Allow teachers to share final thoughts or ask any last questions.

Using Assessment Data to Plan Proactively & Intentionally

Total Estimated Time for Workshop: 3 ½ hours

Learning Goals:

The learner will understand:

- Effective instruction employs the use of grouping, materials, and strategies as means to address learner needs relative to learning goals.

The learner will be able to:

- Use grouping, materials, strategies, and scaffolding to address learner needs.
- Modify strategies to address to learner needs, as indicated by assessment data, while supporting all learners in working toward the same goals.

The participant will know:

- How to use the Equalizer to modify a task or strategy to address learner needs relative to goals
- Varies strategies that can be modified to attend to learner needs

Workshop Component (Estimated Time)

Hook: Line Up (10 minutes)

I. Hang up the anchor charts from the "Recognizing Responsive Teaching and Learning" graffiti activity. Ask teachers to draw a concept map showing the relationship between the following concepts: strategies, proactive, needs, assessment, grouping, use of materials, goals.
II. Discuss the "take away" from that activity done during that workshop.

Discovering & Addressing Needs (80 minutes)

I. LINE UP ACTIVITY:
   A. Give each teacher a different profile of needs, one of eight. Let them know that they will hang on to them and use them for the three next activities. Give them enough time to read through their profile/needs on their own.

B. Have teachers line up. Have them share their needs (some will be "repeats") as they get into the line.
C. Read from a traditional lesson plan outline that has been summarized into parts. Stop after reading each part in the lesson and have teachers representing students with certain needs take a step back or a step forward according to the degree to which the lesson addresses their needs. Do this until you have reached the end of the lesson. Have teachers look around at which of them are ahead and which are behind.
D. Have teachers return to their seats and facilitate a discussion: Why is it important to identify and address needs through proactive planning ahead of time, rather than teaching all students the same things and providing "on-the-spot" support.

II. Describe the needs that students have that often remain unmet in the classroom or to which teachers primarily responded in a reactive manner. Share with teachers some proactive ways in which these needs can be addressed.

III. STUDENT NEEDS JIGSAW:
A. Give teachers the pre-assessment information that corresponds to the student profile they were given in the last activity. Also distribute a lesson plan with KUD goals (on teaching students about growth mindsets). Have them work independently to look back at their student profiles and read through the pre-assessment information and lesson plan. Ask that they jot down notes on what they think their student would need to be successful with the lesson and work towards the learning goals.
B. Have teachers join their colleagues who have the same student profile, about four or five teachers. Provide a task card with instructions for discussing their student's need in their groups:
    1. Looking at the lesson plan, what areas might be challenging or frustrating for this student based on what you know from his/her pre-assessment?
    2. What needs might this student to be able to complete the task?
    3. How could you address those needs? What ways could you modify the original assignment? Or what supports could you build in? What materials would be useful?
C. Divide teachers into groups of 4-6, all with different student profiles. Ask teachers to come up with a plan to ensure all students' needs were met in ways that enabled them to work towards the same worthwhile learning goals. Discuss:
    1. How does this change what you would do?
    2. How would you group these students?
    3. How would you modify materials?
    4. How would you use varied materials to address the students' needs?
    5. What scaffolding or supports can you build in so that all students can work towards the same learning goals.
D. Debrief and discuss as a whole group:

1. How does this approach to planning reflect the responsive teaching concept maps we did at the beginning of the workshop?
2. What was the role of pre-assessment in this approach?
3. What does this suggest for how we go about planning lessons or units?

Selecting Useful Strategies & Modifying to Address Learner Needs (40 minutes)

I. A common misconception is that using a variety of strategies is good educational practice. Discuss this and share with teachers that it's not about the strategies themselves, but *how strategies are used* to address learner needs. Explain that the last activity asked them to think about how to address learner needs through grouping, materials, and building in supports. This activity asks teachers to think about how strategies can be used to address learner needs.

II. Share with teachers some things to consider (plus illustrations of yes/no examples) when selecting a strategy for the learning plan:
   A. Is it appropriate to the content and purpose?
   B. Will it support the right thinking and process skills development and move students toward understanding?
   C. Will it promote an authentic learning experience?

III. TOOLBOX ACTIVITY:
   A. Provide teachers with a "tool box" of strategies (i.e. a variety of strategies or models with detailed description). Each of these strategies contains an example (with accompanying set of learning goals that addresses SOLs from various 3-5 grade levels and discipline areas). Though the tasks are aligned to learning goals, it may not be effective in addressing student needs.
   B. Direct teachers' attention to the tutorial in their handbook on modifying tasks using Carol Tomlinson's equalizer. Walk them through an example using the goals and task from the lesson used in the last activity.
   C. Ask teachers to find a partner with a different student profile than their own. Each partnership should select one of the "tools" and modify the example so that there are two other variations that support students in working towards the same goals yet attends to the needs of the students whose profile they have.

IV. Ask several teachers to share their example, if they are willing.

Practice Workshop Time (15 minutes)

I. Have teachers choose to work independently or collaboratively in grade level teams.

II. Ask them to begin sketching out learning plans for the learning goals and assessments they drafted in the earlier workshops.

III. Direction their attention to the support tools in their handbooks (e.g. scaffolding tutorial and checklists).

Share & Final Questions (5 minutes)

- Allow teachers to share final thoughts or ask any last questions.

Leading & Managing a Student-Centered Learning Environment

Total Estimated Time for Workshop: 2 hours & 15 minutes

Learning Goals:

The learner will understand:

- The social and emotional needs of students fundamentally impact the ways they engage in learning.
- Effective classroom leadership endeavors to support students in becoming respectful, responsible, contributing members of the community rather than controlling behavior.
- All classroom decisions should point back to student needs and what it takes to make them successful in all aspects of learning and community.

The learner will be able to:

- Describe the connection between strong leadership and strong classroom management.
- Use classroom management techniques to plan for classroom needs.
- Explore & discuss methods for creating a safe and supportive classroom community.

The participant will know:

- Tools for managing responsive classrooms
- Tools to ensure all students remain actively engaged in learning during class time
- Ways to modify assessments for student needs

Workshop Component (Estimated Time)

Hook: Effective Leadership (15 minutes)

I. Draw a picture or write a description of an ideal leader. Think about: What does strong leadership look like? What are the characteristics of a strong leader? What is the role of the leader? What would it be like for those working with the leader? Write about it, or draw and label a diagram or

picture.

II. Have teachers share their pictures in small groups of three to five. Circulate and jot down notes. Synthesize the thoughts you saw/heard, and allow teachers to add any further insights.

Leadership, Community, and Creating a Shared Vision (50 minutes)

I. Share principles for effective classroom leadership, steps to take in leading a classroom, and tools for doing this. Areas to address include:
   A. Teacher-student relationships & getting to know students
   B. Collaboration: rules, functioning of the classroom, trouble-shooting challenges in the way the class operates together
   C. Community building
   D. Creating a shared vision

II. Ask teachers to share ways they've seen these things done really well in their colleagues' classrooms, either in this school or in other schools.

III. Creating a Shared Vision Jigsaw Activity:
   A. Explain that we will be doing a Jigsaw activity, which means teachers will be grouped twice for each of the two stages of the activity. First, they will be grouped according to their learner preferences. They will complete a task and a discussion. Then, they will be put into teaching groups, where they will share their tasks and engage in another time of discussion and reflection. They will have a discussion matrix for this task to help them organize their thinking and remember essential points.
   B. Give each expertise group their task assignment (one of three: Me Graph, Trip to the Doctor's Office, & One-Size-Fits-All) and materials. Instruct them to take notes so that they can be reliable teachers when they get to their teaching groups next. Have them read through their task cards and complete the task and discussion. It might be useful to start a timer for completing this task.
   C. Teaching Groups: Post the teaching group assignments on the PPT slide. Hand out the teaching groups task cards & discussion matrix. Have each expertise share their task, while the others fill out their discussion matrix, then complete the discussion.
   D. Bring everyone together for a whole-group discussion on ways that you can create a shared vision in the classroom or school community and considerations for using any of the approaches from the task cards used in this activity.

Tools for Managing Groups (45 minutes)

I. Share with teachers several different ways of managing groups in responsive classrooms.

II. Managing Groups Activity:

A. Provide teachers with directions for the tasks, a form of a Jigsaw grouping arrangement. Explain that they will be in their Expert Groups (interdisciplinary) to learn about management techniques and then discuss with their groups various ways this can be used in each of the types of classrooms represented in that group. When the buzzer is up, they must transition to their Teaching Groups (discipline-based) where they will share their technique and their ideas with the group.
B. Group teachers into mixed-discipline and mixed-grade level groups. Assign each group to one of the following categories of group management techniques:
    1. using a variety of grouping arrangements,
    2. managing centers,
    3. calling on students,
    4. giving directions for multiple tasks,
    5. starting the day/class,
    6. ending the day/class
    7. ensuring all students remain meaningfully engaged during class time
C. Have teachers read the explanation for that technique, and *together* brainstorm ways this technique could be used/modified for the classrooms represented in the group (e.g. science, social studies, reading, writing, art, music, PE).
D. Have teachers get into larger discipline-level teams and share the technique and their ideas with each other.

III. Discuss the activity:
A. What ideas did you come up with that address a need you have wanted to address in your classroom?
B. Why might these tools be useful in managing a responsive classroom?

** Tell teachers you will post all descriptions of the technique on your website. Suggest that someone from each group volunteer to type up the ideas for all of them to share with one another.*

Practice Workshop Time (30 minutes)

I. Allow teachers to work individually or with their grade/discipline teams.
II. Ask them to continue working on their lesson plans from the previous workshops, incorporating strategies learned in this workshop. Or they can map out management plans that will parallel the units they have been designing throughout the course of these workshops.
III. Circulate and assist.

Share & Final Questions (5 minutes)

- Allow teachers to share final thoughts or ask any last questions.