



## **Chapter I**

### **Introduction**

The purpose of this introductory chapter is to provide a brief introduction of the research project. The following sections are included in the chapter: (1) a short background and history of inclusion; (2) differentiated instruction; (3) purpose of the study; (4) statement of the problem; (5) research questions; and (6) operational definitions.

#### **Background and History**

Today's classrooms are filled with students from a variety of backgrounds that represent both genders, have a wide range of abilities and often include children who have learning differences, gifted characteristics, or do not speak English as their first language. Meeting the needs of these diverse learners in today's era of accountability is a challenge to teachers. The No Child Left Behind Act of 2001 (NCLB) has raised expectations that all children will meet or exceed state standards including students with disabilities who in the past have been exempted from traditional standards based testing (Fitch & Hulgín, 2008).

School divisions in the United States are experiencing less than desirable results on state tests for students with disabilities. In one study researchers found that schools considered "low performing" and "in need of improvement" all had one common problem; their students with disabilities were failing to meet the annual measurable objective goals on state assessments (Hawkins, 2007). Nationally, this subgroup is scoring significantly lower than their nondisabled

peers in reading and math. Educators are searching for ways to reduce this gap and increase the achievement of those students who receive special education services.

NCLB (2001) stresses that students with disabilities receive their educational services in the general education classroom to the greatest extent possible. The Individuals with Disabilities Improvement Act of 2004 (IDEIA) emphasizes the need to provide access to the general curriculum for those students identified as having a disability (Bowen & Rude, 2006). Based upon the federal mandates of NCLB (2001) and IDEIA (2004), school systems across the country are placing students in general education classrooms and providing special education services within those classrooms (Hardman & Dawson, 2008). Serving students with disabilities within the general education classroom assists in providing that required access, but also adds to the challenge of increased diversity in general education classrooms (Tomlinson, 2003).

One of the greatest struggles for today's educators is the growing numbers of students with disabilities served within general education classrooms. In the 1984-1985 school year, 26% of the students with disabilities received all of their special education services within general education classrooms. By the 1997-98 school year, 48.3% of the students with disabilities received all of their services within general education (Whorton, Siders, Fowler, & Naylor, 2001). Driving this increase in numbers is a combination of several forces including the legislative acts of NCLB (2001) and the IDEIA (2004) as well as parents and educators who desire more inclusive settings for their students with special needs.

The integration of students with disabilities into general education classrooms has changed both the role of the special and general educator as well as the classroom environment. General educators are implementing learning strategies that were at one time used predominately with students with disabilities. Special educators have become more content driven in order to

better help all students to access the general curriculum and master state standards. Special education has evolved from being placement oriented with less regard to the curriculum into the provision of services needed in order to allow students to take part in curriculum that is challenging and focused on the state standards. In addition special education services include an examination of how students with disabilities participate in the measures of accountability required under NCLB (Bowen & Rude, 2006).

### **Differentiated Instruction**

Classrooms that meet the students' diverse needs lead to environments that allow for students to work at their varied readiness levels (Teele, 2004; Tomlinson & Eidson, 2003; Tomlinson, 2003; Tomlinson, 2001; Tomlinson, 2000). In order for students, including those with disabilities, to learn effectively, teachers must provide and allow for learning to occur at different levels and in a variety of models.

Differentiated instruction is one approach that educators utilize for teachers to meet their students' distinct readiness levels as well as their unique interests. This model of teaching is intended to present a curriculum appropriate for all students by focusing on their diverse learning characteristics (Norlund, 2003; Tomlinson, 2003). These diverse learning characteristics include students' aptitudes, prior knowledge, and skill level. Differentiated instruction allows teachers to plan instruction in a way that allows students to work at their individual academic level, at their own pace, and offers students options in the way they demonstrate their knowledge (Nordlund, 2003; Tomlinson, 1999).

Special education is defined as specially designed instruction (IDEIA, 2004). Differentiation is used by special education teachers when providing instruction to their students with disabilities. Teachers incorporate data from both formal and informal evaluations when

planning instruction for their students. This instruction is differentiated based upon their students' unique needs (Tomlinson & Allan, 2000). When planning for reading instruction using a differentiated approach, the teacher would base instruction on data obtained from a formal reading assessment such as the Gates-McGinty Standardized Reading Assessment as well as informal observations along with student learning and interest surveys (Tomlinson, 1999).

The growth in the numbers of students receiving specially designed instruction in the general classroom has led to a change in the model of delivery services to students with disabilities. Many school divisions have incorporated a model of collaborative teaching where general and special educators are planning and implementing instruction together to meet the needs of all of their students (Price, Mayfield, McFadden, & Marsh, 2000). Together, special educators need to continue to provide special education services which meet the unique needs of their students with disabilities while general educators need to create learning opportunities in which all students can thrive.

Educators are faced with the dilemma that exists in the achievement gap between students with disabilities and their non-disabled peers. A longitudinal study focused on this achievement gap. At one high school in Rhode Island with a student population of 800 in which 114 were identified with disabilities, the achievement gap was reduced between those students with disabilities and their non-disabled peers (Hawkins, 2007). In language arts the passing rate was narrowed from 8.1 percentage points to 5.4 percentage points on state-wide reading assessments. The researchers provided eleven practices that worked on narrowing this gap and improving achievement for all students. Two suggested practices are meeting students' needs by using differentiated instruction and serving students with disabilities in the general education classroom using inclusive strategies (Hawkins, 2007). Brimijoin (2002) found that when using

assessment strategies to differentiate instruction during the school year, the pass rate of all students increased by 27 percentage points on the end of year reading test.

### **Statement of the Problem**

School divisions are searching for ways to narrow the achievement gap between students with disabilities and their non-disabled classmates. State achievement scores indicate that students who are receiving services under IDEIA are performing significantly lower than their general education peers (VDOE, 2008). IDEIA requires that students with disabilities have access to the general education curriculum (IDEIA, 2004). Students with disabilities are being served in general education classrooms in order to provide that access to the curriculum. General education teachers and special education teachers' roles have changed. Educators are required to work together to meet the unique needs of all students including those identified with disabilities. Special education teachers have implemented concepts of differentiated instruction as a way to provide specialized instruction to their students with special needs. These strategies are being implemented by general and special educators in order to have all students make progress in the general curriculum.

### **Purpose of the Study**

The purpose of this study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the scores of students with disabilities increased on the statewide reading standards of learning test. This increase in scores assisted in narrowing the achievement gap between the pass rates for the subgroup of students with disabilities and the pass rates for all students tested on this mandated reading assessment.

The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study investigated how teachers use data to meet the

differentiated reading needs of students with disabilities in response to student readiness, interests, and learning profiles. It also searched for how high school English teachers differentiate the content, process, and product for their students with disabilities.

### **Research Questions**

This study was designed to answer the following questions:

1. What data do high school English teachers have access to in order to determine appropriate specialized instruction needed to meet the individualized needs of students with disabilities in reading?
2. How do high school English teachers use data to individualize instruction to meet the readiness levels, learning profiles, and interest levels of students with disabilities during reading instruction?
3. How do high school English teachers individualize the content, process, and product of a lesson to meet the needs of students with disabilities during reading instruction?

### **Operational Definitions**

Content- The "input" of teaching and learning, content is differentiated when teachers clearly identify specific targets of what students are to master (Tomlinson, 2001).

Differentiated Instruction- the process to providing instruction to students of varying abilities within the same class by meeting each student where they are and capitalizing on each individual student's growth and success while assisting in the learning process (Hall, 2002).

Interests- Topics or activities that students are involved in or enjoy and tap the motivation of students such as, but not limited to, sports, music, dance, and community service (Tomlinson, et al., 2003).

Learning Profile- One's preference of learning that is influenced by learning style, gender, culture, and intelligence preference (Tomlinson, et al., 2003).

Process- The "sense-making" of teaching and learning, the methods of instruction used to present the topic (Tomlinson, 2001).

Product: The "evaluation" of teaching and learning, results of the choice students make about how they demonstrate their learning (Tomlinson, 2001).

Readiness- The point where a student can not learn new information alone but instead needs the teacher support of scaffolding to mastery the new learning (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003).

Standards of Learning in Reading- Virginia's English/Reading curricular requirements for all students in grades K-12 (VDOE Website, 2008).

Students With Disabilities- Those students who have been evaluated and been found eligible for special education services under IDEIA in one or more of fourteen area categories: Autism, Deaf-Blind, Deafness, Developmental Delay, Emotional Disability, Hearing Impairment, Intellectual Disability, Multiple Disabilities, Orthopedic Impairment, Other Health Impairment, Specific Learning Disabilities, Speech or Language Impairment, Traumatic Brain Injury, Visual Impairment (IDEIA, 2004).

## **Chapter II**

### **Review of Literature**

#### **Introduction**

In an age of accountability, educators continue to search for ways to ensure academic success for all students, including those students identified with disabilities. The diversity in classrooms provides additional challenges for teachers to create learning environments where all students succeed in their learning. Research has been conducted to assist educators when making crucial decisions concerning the instruction of students with disabilities.

The literature cited in this study was gathered by conducting electronic searches of the following key terms: students with disabilities, NCLB, IDEIA, reading instruction, inclusion, co-teaching, and differentiation. The studies obtained through these electronic searches provided additional studies in their lists of references.

The focus of this literature review is to present information on the federal legislation concerning education for students with disabilities and the accountability law for all students. The review also includes research about the achievement gap that exists between students with disabilities and their non-disabled peers, and how differentiated instruction is a way of providing specialized instruction that can close this achievement gap. The empirical and theoretical basis for differentiated instruction, along with how prior knowledge, pacing, and learning profiles influence differentiation of instruction are also provided in this review. Finally, impact studies

and implementation studies on differentiated instruction in high school English are also included in this literature review.

### **Legislation: Individuals with Disabilities Improvement Education Act**

Education for students with disabilities was first codified into federal law as stand-alone legislation in 1975 with the passage of the Education for All Handicapped Children Education Act. In 1990 the law was renamed the Individuals with Disabilities Education Act (IDEA). It is now known as the Individuals with Disabilities Improvement Act of 2004 (IDEIA, 2004). The focus of both acts was to ensure a free and appropriate public education (FAPE) for students identified with disabilities. Throughout that period the courts clarified the definition of FAPE and stressed the importance of individualized and specially designed instruction and related services to meet students with disabilities' unique needs, provide benefit, and allow the student to make measurable progress (Hardman & Dawson, 2008).

When the IDEA was reauthorized by congress in 1997, the focus of the law changed from one of granting students with disabilities access to education, to one which expected schools to expand the skills of students with disabilities within the general education curriculum, and called for IEP teams to discuss how each student will participate in the state-wide assessment process (IDEA, 1997). The change in the law from one granting access to education for students with disabilities to one that requires students with disabilities access to the general education curriculum and participation in standards based testing was a result of research done in the 1990s (Hardman & Dawson, 2008). These findings indicated when the IDEA's focus was the provision of FAPE; students with disabilities were barred from participation in state and national tests (Hardman & Dawson, 2008). The 105th Congress declared that the IDEIA's implementation has

been hindered by low expectations and little emphasis on using research to determine best teaching and learning practices (Hardman & Dawson, 2008).

The 2004 reauthorization of the IDEIA highlights further the need for instruction for students with disabilities within the general education curriculum and adds that the instruction for students with disabilities should occur in the least restrictive environment (LRE) (IDEIA, 2004). According to the Virginia Department of Special Education State Regulations LRE means, "That to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (VDOE, 2010 p.15).

Another significant change in the law that is seen in the IDEIA (2004) is that educators are accountable for their students' learning.

The laws governing students with disabilities have evolved throughout the last three decades. The Education for all Handicapped Children Act (1975) passed by congress provided access to education to students with disabilities. Further reauthorizations, as well as court decisions, moved the focus from access only, to education for students with disabilities, to the provision of individualized and specially designed instruction (Hardman & Dawson, 2008). IDEIA (2004) states that students with disabilities are to receive benefit from services. The latest reauthorization also includes the provision of serving students with disabilities in the LRE.

## **Legislation: No Child Left Behind**

The latest IDEIA reauthorization parallels another significant federal law known as the No Child Left Behind Act of 2001 (NCLB, 2001). It is seen by some as the most significant piece of federal education legislation in history (Yell, Katsiyannis, & Shiner, 2006, p. 32). Turnbull (2005) noted that NCLB has six primary principles. These principles include accountability, highly qualified teachers, scientifically based instruction, local flexibility, safe schools, parent participation, and school choice. Several of these principles specifically address students with disabilities.

NCLB requires that all students achieve to a high standard. School divisions are obligated to ensure that all of their students will perform on grade level in reading, math, and eventually science, not later than the year 2014 by implementing high state standards which endorse a rigorous curriculum along with scientifically based research methods. If all students do not reach this high standard, the school system will be held accountable by the federal government (NCLB, 2001).

The United States Department of Education (2008) requires that progress is demonstrated on the English/reading and math pass rates at the state, division, and school level on state-wide testing programs that are required by the No Child Left Behind legislation. States, divisions, and local schools are to reach the goal of 95% of all students achieving a passing score on state assessments as determined through the measure of Adequate Yearly Progress (AYP). AYP is the minimum level of proficiency that must be achieved each year on annual tests and related academic indicators (United States Department of Education, 2008). Schools make AYP by meeting the following requirements: at least 95% of all enrolled students must participate in testing; all students including all subgroups must meet state expectations; and graduation and

attendance goals must be met by all students including all subgroups (Yell, Katsiyannis, & Shriner, 2006).

According to NCLB (2001) the term "all students" includes at least four subgroups including: students with disabilities; economically disadvantaged students; second language learners; and students in major racial/ethnic groups as defined by each state. NCLB requires that students with disabilities participate in state testing programs and that their scores be included on district and state testing reports (Hardman & Dawson, 2008). NCLB also requires the annual reporting of the number of students with disabilities participating in regular assessments, accommodated assessments, and alternate assessments (Katsiyannis, Zhang, Bryan, & Jones, 2007).

In addition, NCLB also mandates the closing of the achievement gap that exists between all students and every subgroup of students including students with disabilities. According to Bowen and Rude (2006), the expectations for students with disabilities have traditionally been lower than non-disabled students. Educators have not insisted that students with disabilities meet the same grade level requirements as their peers. Lower expectations and reduced requirements for the students with special needs have resulted in lower scores on state assessments creating a gap between their scores and the scores of all students tested (Ysseldyke, Nelson, Christenson, Johnson, Dennison, Triezenberg, Sharpe, & Hawes, 2004).

A third tenet of NCLB is that instructional methods for all students must be scientifically research-based. It is mentioned in the law over one hundred times (NCLB, 2001). Teachers have used teaching strategies that are known as best practice. Best practice is considered a range of practices some which have been used by particular teachers for years based on their own personal opinion that may or may not be based upon scientific research (Peters & Heron, 1993).

Evidence-based practices are practices that have been proven to be effective based upon reliable research (Odom, Brantlinger, Gersten, Homer, Thompson & Harris, 2005). Cook, Tankersley, Cook, and Landrum (2006) found that there is a gap between research evidence and classroom practice in both general and special education even though NCLB (2001) and the IDEIA (2004) address the concept. This gap is evident when comparing the strategies that teachers use on a daily basis and the strategies that teachers implement with their students (Cook & Schirmer, 2006). The adoption of evidence-based practices by teachers will increase the likelihood for improvement in overall student achievement.

When examining the two laws that affect students with disabilities NCLB (2001) and the IDEIA (2004), Hope (2009) writes that the two laws share the common ideas that all students with disabilities make educational progress and become productive members of society. The IDEIA (2004) focuses on students with disabilities participating and making progress in the general curriculum including standards based testing and receiving their instruction in the general education classroom to the greatest extent possible. NCLB (2001) requires that students with disabilities successfully participate in state standards testing which most likely requires special needs students receive instruction within the general education curriculum.

### **Inclusion**

The role of both special and general educators has changed due to the requirements of both NCLB (2001) and the IDEIA (2004). The IDEIA (2004) stresses that students with disabilities will participate in the general education curriculum to the greatest extent possible. NCLB (2001) expects that all students including those with disabilities participate in standards based assessments and by 2014 all students perform on grade level. This act also requires that students receive instruction from highly qualified teachers.

Two criticisms of special education arose from the traditional approach to providing services for students with special needs. The first criticism is the pullout model of providing services where the students with disabilities spend all or part of their day in special education classrooms away from general education. Will (1986) found that the pullout model was not effective, in fact these services created barriers for students. These barriers include lack of instruction in the entire general curriculum, less opportunity to be educated with age appropriate peers, and less successful integration back into inclusive environments. Criticism to the pullout model was also supported by Lipsky and Gartner (1987) who found that there was no evidence to support that there was benefit in providing services in separate special classes for students with disabilities.

The second criticism focuses on the general education classroom. Wang, Reynolds, and Walberg (1986) found that the environment of the general education classroom needed to be changed so that diverse needs of all learners could be met more effectively. Part of this change to the general education classroom included having special educators teach in the general education classrooms working together with general educators using individualized, cooperative, and adaptive strategies with all students (Stainback, Stainback, Courtnege, & Jaben, 1985).

Providing services for students with disabilities within the general education classroom allows for direct access to the general education curriculum which is required by the IDEIA (2004) and NCLB (2001). Inclusion also allows students with disabilities to be educated with age appropriate peers and assists in integration to inclusive environments both in school settings as well as community and vocational settings (Salend, 1999).

Research is mixed on the results of educating students with disabilities in the general education classroom (Walker & Ovington, 1998). Those in favor of inclusion programs say that

these data make the practice effective (Waldron & McLeskey, 1998). A study conducted with over 11,000 students with disabilities found that compared to students who spend more time in special education classes, students who spend more of their school day included in general education missed less days of school, were closer to grade level, and attained higher scores on standardized achievement tests (Blackorby, Wagner, Cameto, Davies, Levine & Newman, 2005).

### **Co-Teaching**

Willø (1986) recommendation for sharing the responsibility of educating students with disabilities has led the reform movement of shifting students receiving special education into the general education classroom and united special educators with general educators in providing instruction for all students in the classroom. This model is known as co-teaching or collaborative teaching where both teachers are responsible for planning, implementing, and evaluating all of the students in the classroom (Bauwens, Hourcade, and Friend, 1989).

Rice and Zigmond (2000) studied co-teaching in a high school setting. They found three criteria that are important to maintain the professional co-teaching relationship. The criteria consists of (1) a general education and special education teacher share the same classroom and the same students; (2) both teachers share the responsibility on planning and implementing instruction for a diverse class made up of students with and without disabilities; and (3) both teachers provide instruction with substance. Another study found that co-teaching was moderately effective for impacting outcomes for students and the most effective use of co-teaching was in the area of reading and English (Muraski & Swanson, 2001).

Volonino and Zigmond (2007) reviewed the research on co-teaching and found that the practice may be of benefit to some students, that it is not often implemented correctly because the special education teacher often acts as an assistant not a teacher, and that because there are

numerous models of co-teaching, it is difficult to study them as a whole. Their recommendations include further research to determine if the process is effective for a particular group of students (Volonino & Zigmond, 2007).

### **The Achievement Gap**

Classrooms have become more diverse due to the federal mandates of NCLB (2001) and the IDEIA (2004). The number of students with disabilities included in general education classrooms continues to grow. In the 1984-85 school year, 26% of the students with disabilities were educated all day in general education classrooms. By the 1997-98 school year, 48.3% of the students with disabilities received all of their services within general education (Whorton, Siders, Fowler, & Naylor, 2001). All students are required to perform on or above grade level on state standards assessments by the year 2014. Currently students with disabilities score below their non-disabled peers on state standards based assessments (Stodden, Galloway, & Stodden, 2003).

During the 2005-2006, 2006-2007, and 2007-2008 school years in the State of Virginia, the pass rate between students with disabilities and all students has fluctuated between 31 and 18 percentage points on the grade 11 English: Reading Standards of Learning (SOL) Assessment. There was a 13 point drop in the pass rates between the 2005-2006 and 2006-2007 school years. At the elementary level during the same three years the pass rates for students with disabilities and all students varied between 19 and 13 percentage points on the English: Reading SOL assessment. For the same three years the middle school pass rates between students with disabilities and all students were between 30 and 21 percentage points (VDOE, 2008).

As the 2014 school year approaches educators continue to seek ways to address the diversity in their classrooms, serve all students so they can meet or exceed the federal mandate, and reduce the achievement gap that exists between those students with and without disabilities.

### **Differentiated Instruction**

One way to tackle the achievement gap between special needs students and their non-disabled peers is through differentiated instruction. Although not limited to instruction for students with disabilities, differentiation is one method used to deliver special education services defined as specialized instruction (Hawkins, 2007). According to Edwards, Carr, and Siegel (2006) differentiated instruction is acknowledged as "a viable approach for meeting the needs of diverse learners in PK-12 classrooms" (pg. 584). According to Tomlinson, (2003) differentiation can best be defined as, "An approach to teaching 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 the classroom" (p. 120).

Differentiated instruction has its foundation in Vygotsky's Sociocultural Theory of Learning. Vygotsky was a Russian theorist who conceptualized the social constructivist learning theory. The zone of proximal development (ZPD), which is central to Vygotsky's learning philosophy, is related to the learner's readiness to learn new knowledge. The distance between the actual development level and the potential level of development is considered the ZPD (Riddle & Dabbagh, 1999). Therefore this distance is considered a link between what the child knows to what is unknown. The ZPD varies in location and breadth depending on the learner and the required task. According to Dahms, Gionnotti, Passalacqua, Schilk, Wetzel, and Zulkowsky (2007) Vygotsky defines the role of the teacher as this link to support students in their

ZPD. In order for the student to master new learning, the teacher makes adjustments to the curriculum and provides the student scaffolding or support. Teachers create tasks that are slightly more difficult than a student can perform independently and scaffold the learner until the new skill is mastered (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003).

Heacox (2002) writes that differentiation is the bridge from what students already know to new learning that needs to be attained. Modifying teaching and learning practices to address students' unique readiness, interests, and profiles of learning is one way to envision the differentiation process (Tomlinson, 1999, 2001). According to Hall (2002) differentiation provides teachers opportunities to provide learning experiences that consider students' background knowledge, readiness, language, learning, and interest preferences.

Tomlinson (2001) notes that there are three areas of variance that needs to be considered when instructing in a classroom with diverse student needs. These three areas of variance consist of readiness for learning, student interest, and student profiles of learning. Student readiness relates to Vgotsky's ZPD. The ZPD is the point where a student can not learn material alone but instead needs the teacher support of scaffolding to mastery the new learning (Tomlinson, et al., 2003).

Differences in student aptitude can be addressed through curriculum variance based upon student readiness. Csikszentmihalyi, Rathunde, & Whalen, (1993) conducted a study with over 200 talented adolescents over a five year period collected data through the use of the experience sampling method (ESM). Participants were given electronic pagers to wear for one week and self report booklets. When the pager sounded at random times throughout the week the participants were to fill out a one page self report summaries describing their behavior in great detail. Over

7000 self reports were collected and provided information on student motivation and changing moods. Researchers found that when assignments were not matched with student's level of readiness the impact on learning was negative. They learned that student's achievement levels as well as self esteem diminished. Also noted was that students disconnected when the learning tasks were too easy. This study indicated that one element in keeping students productively engaged is level of difficulty of the task. (Csikszentmihalyi, Rathunde, & Whalen, 1993).

Andrews and Slate (2002) studied the readiness levels of 675 kindergarten students who attended either public or private pre-kindergarten using the Iowa Test of Basic Skills (ITBS). Of the 675 participants 471 attended public preschool and 224 attended private programs. Results indicated that there was no difference on school readiness based upon what type of pre-kindergarten experience the children attended. There was a significant difference in readiness based upon ethnicity in all three tested areas. These areas included reading, language, and mathematics. The researchers indicated that though there was a significance difference in the three sets of scores, the magnitude of the difference was small (Andrews & Slate, 2002).

Student interests create variance in the classroom. There was a positive impact on student achievement when teachers addressed student interests in academic tasks (Tomlinson, et al, 2003). Hebert (1993) found that student interest has positive impacts on learning for the short and long term. A qualitative, longitudinal study was conducted with high school students ten years after they attended a pilot program in Connecticut for elementary talented and gifted students. Students were interviewed extensively about their experiences in the program. The results suggested two major findings that relate to differentiation for student interest when educating students with high ability. The results included differentiation of student interest has a long term effect on post secondary plans and differentiation of student interest also influences

student productivity at the elementary level which transfers to other completion of tasks over time.

Interest was examined as it related to literacy texts in high school students. Ainley, Hillman, and Hidi (2002) studied eighty-six tenth grade males and females' interest in a literature text. The participants attended a parochial high school in Australia. There were three goals of the quantitative study. The first goal was to determine how individual and situational factors contributed to the topic selection of the literary text. The second goal was to investigate the effects of topic interest on the variables noted when student read the given texts. The final purpose was to examine how gender affects these relationships. Excerpts from four senior novels were presented to the participants using an interactive computer program. Students' interest in the topic of the text was measured. Results indicated that gender influenced topic interest, and higher topic interest text resulted in greater persistence and more effective responses than lower topic interest text (Ainley, Hillman, & Hidi, 2002).

In their five year qualitative study with talented adolescents Csikszentmihaly, Rathunde, and Whalen (1993) found that student self determination, persistence, and eagerness to try challenging tasks also increased when student interests were considered in planning assignments.

Positive outcomes have been found when curriculum and instruction are differentiated based upon variance in student learning profiles (Tomlinson, et al., 2003). Tomlinson (2003) considers learning profiles as a way of attending to the "efficiency of learning." A learning profile is one's preference of learning that is influenced by learning style, gender, culture, and intelligence preference (Tomlinson, et al., 2003).

Sternberg (1997) found that when learning preferences were matched to instruction for all levels of students, grades kindergarten through twelve, students showed increased academic

achievement. Sternberg (1997) discussed three areas of intelligence namely; analytical, creative and practical that was researched in a Yale University study. The participants in the study consisted of 199 high school students from the United States and abroad that attended the Yale Summer Psychology Program. The researcher hypothesized that students perform and learn better when teaching methods at least somewhat complement their individual assets.

The participants were selected to attend the summer program by their respective schools and were assessed on a multiple choice and essay test. Questions were from one of three categories based upon Sternberg's areas of intelligence and were classified as verbal, quantitative, and figural. Students were divided into five categories: high analytical, high creative, high balanced, high in all three areas, or low in all three areas based upon their test results. Participants were divided into four learning groups and similar instruction on introduction to psychology was given to all four groups in the morning. In the afternoon each group was given a different instructional approach based on memory, analysis, creativity, and practical learning. Students were matched or mismatched to the treatment based on their category of learning determined on the pretest. Student achievement was assessed by performance on assignments, tests, and essays. There were numerous findings that were reported by the researchers including students who received instruction that matched or partially matched their learning pattern performed significantly higher (Sternberg, 1997).

Sternberg, Torff, and Grigorenko (1998) conducted two studies that examined the value of the triarchic theory of human intelligence when it was implemented in the classroom. This theory's basic tenet was that intelligence is made up of three elements: analytical, creative, and practical. Participants in the first study were third graders who were instructed in a social studies unit in one of three ways: traditional (memory-based), critical thinking (analytically-creativity-

based), and triarchically-based (a combination of analytical, creative, and practical). The second study implemented the same instructional methods with eighth graders learning psychology. Both studies used multiple choice tests to measure memory and performance-based items to measure the analytic, creative, and practical elements of the third graders' achievement in social studies and the eighth graders' achievement in psychology. The results suggest that the triarchical method of instruction was superior to the other implemented methods (Sternberg, Torff & Grigorenko, 1998).

Some of the differentiation studies examined how teachers implement the model based upon three areas: content, process, and product. When content was differentiated the curriculum was changed based upon student need. Also known as the "input" of teaching and learning, content was differentiated when teachers clearly identified specific targets of what students were to master (Tomlinson, 2001). This was done when teachers provided reading materials at different levels based on students' reading level. Students were presented reading materials at their individual level and used to teach the grade level skills required of the curriculum. Berger (2000) discussed content differentiation as a way for students to work at their own pace. However, he noted deadlines should be set and students should be required to meet the deadlines.

Differentiating the process is defined by the methods of instruction used to present the topic. Tomlinson (2001) called process differentiation as "sense-making." Some examples of differentiated process according to Tomlinson (2001) included lecture for auditory learners, center activities for hands on learners, and graphic organizers for visual learners.

Products are differentiated when students make choices about how they demonstrate their learning. Tomlinson (2001) calls this kind of differentiation "evaluation." There are numerous

types of differentiated products such as oral reports, traditional tests, posters, poems, and panel discussions.

Teachers often question how they can grade in the differentiated classroom. Students are producing different products which are intended to display their learning. According to Tomlinson (2005) the aim of high-quality differentiation and high-quality grading is one in the same. The process of grading students is communicating in an accurate manner information that is valid. Differentiated instruction allows individual students to experience personal growth which enhances their motivation to learn. Grades should then communicate distinct criteria and the students' growth on that criteria including the effort students put forth on completed tasks (Tomlinson, 2005).

Research studies that support the use of differentiation continue to emerge in the literature. Gamoran and Weinstein (1998) studied 24 restructured schools over a period of one year. The study examined eight high schools, eight middle schools, and eight elementary schools by conducting observations and interviews at each school. The schools were considered restructured because they had attempted to eliminate tracking their content area classes. The findings indicated that student outcomes will be unsatisfactory, unless curriculum and instruction are changed to be a good fit for learners in academically diverse classrooms.

In a mixed-method study researchers surveyed 24 teachers and found that three explained differentiation in a manner that matched the literature on differentiation. Those three teachers were interviewed by researchers and answered questions about how they differentiated by content, process, and product. Of the three teachers, two differentiated the content while all three differentiated the process. None of the teachers differentiated the product because they did not

allow the students to choose the way they presented their learning (Bailey & Williams-Black, 2008).

### **Reading Instruction for Students with Disabilities**

NCLB (2001) mandates that all students will perform on grade level in reading by 2014. Currently students with disabilities are performing lower than their non-disabled peers in reading (Hawkins, 2007). Studies have been conducted that examine the effects of teaching reading to students with disabilities in segregated settings. Bentum and Aaron (2003) found that when students were taught reading in a special education resource room for three to six years, there were negative effects that include, no progress in recognition of sight words and comprehension skills: and a drop in verbal intelligence scores.

Results were mixed when students with disabilities received their reading instruction within the general education classroom. Shinn, Powell-Smith, Good and Baker (1997) found that when students with disabilities received their reading instruction in the general education setting, the students with learning disabilities grew at the same rate as their non-disabled weaker readers in the area of fluency. Waldron and McLeskey (1998) found that some students with disabilities made less growth when instructed in reading in the general education classroom. This discrepancy called much attention to the quality of reading instruction for students with disabilities. Several studies examined the best instructional practices for struggling readers and found the following essential skills are needed: instruction in phonics and phonemic awareness; explicit direct instruction; development of fluency; instruction in vocabulary development; instruction in comprehension skills; and small group instruction (Swanson, 2008; Swanson, Hoskyn and Lee, 1999; Snow, Burnes, & Griffin, 1998).

Swanson (2008) supported the use of small group instruction for students with disabilities based on specific student needs. This was a result of 25 years of research on reading instruction for students with learning disabilities. The results indicated that whole class instruction limited direct instruction and limited time spent on student oral or silent reading. This issue was noted in both general and special education settings.

Bailey and Williams-Black (2008) interviewed teachers on the use of differentiated instruction in reading. Teachers reported using differentiation while teaching fluency, providing instruction in vocabulary development and comprehension skills, and providing direct instruction in reading strategies. They found favorable results for all learners including those with identified disabilities.

In summary, research on reading instruction for students with disabilities has shown mixed results. Some of the studies looked at where the services occurred either within the general education classroom or in the pullout setting (Shinn, Powell-Smith, Good & Baker, 1997). Other studies reported on what areas of reading need to be addressed. There is some consensus that reading instruction for students with disabilities should include instruction in phonics and phonemic awareness, explicit direct instruction, development of fluency, vocabulary and comprehension, and small group instruction (Swanson, 2008; Swanson, Hoskyn and Lee, 1999; Snow, Burnes, & Griffin, 1998). Additionally one researcher found that the use of small group instruction increased the instructional time spent on fluency and direct instruction (Swanson, 2008). Finally, one study was reviewed that suggested positive effects from the use of differentiated reading instruction for students with disabilities (Bailey & Williams-Black, 2008). As a result of this study the researchers suggested further research on the use of differentiation when teaching reading for all students.

## **Differentiated Instruction at the High School Level**

An article written in 1919 discussed the use of differentiation in ninth grade English (Differenziating, 1919). Differentiation was described as placing students in reading and language classrooms based upon their scores on an examination. Students were divided into sections for reading and language (grammar) and grouped together by high, medium, and low test scores. Data were collected during the year on reading rate, comprehension, and language skills. Students were instructed at their respective level in reading and language (Differenziating, 1919). Although this study was really about grouping or tracking students, it is essential to this review because it provides the beginnings of what is now known as differentiation.

Today's differentiated instruction is used in mixed-ability diverse classrooms. At times differentiation involves the use of small group instruction. However, these groups are flexible and can vary based upon readiness level, varied content, student interest, or student learning profile (Tomlinson, 2001).

Van Garderen and Whittaker (2006) discussed implementing differentiated instruction in a co-taught class in a high school in New York. The class consisted of general education students, special education students, and English language learners. The teachers reported success in meeting the diverse needs of their group and indicated that differentiation allowed their students to meet all of their state standards in content areas.

## **Chapter III**

### **Methodology**

The purpose of this study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the scores of students with disabilities increased on the statewide reading standards of learning test. This increase in scores assisted in narrowing the achievement gap between the pass rates for the subgroup of students with disabilities and the pass rates for all students tested on this mandated reading assessment.

The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study investigated how teachers use data to meet the differentiated reading needs of students with disabilities in response to readiness, interests, and learning profile. It also searched for how high school English teachers differentiate the content, process, and product for their students with disabilities. The goal of the study was to answer the following questions:

1. What data do high school English teachers have access to in order to determine appropriate specialized instruction needed to meet the individualized needs of students with disabilities in reading?
2. How do high school English teachers use data to individualize instruction to meet the readiness levels, learning profiles, and interest levels of students with disabilities during reading instruction?
3. How do high school English teachers individualize the content, process, and product of a lesson to meet the needs of students with disabilities during reading instruction?

The Methodology chapter includes information concerning the research design, site, population and sample, research procedures, potential limitations of the study along with the researcher's perspective.

### **Research Design**

The design of this research was a case study which provides an analysis of a single entity. The case study focused upon a high school where students with disabilities are included in high school English classes. The design used a qualitative approach to data collection, analysis, and interpretation (Rudestam & Newton, 2007). Qualitative research is defined as "a broad approach to the study of social phenomena with genres that are naturalistic, interpretive, and increasingly critical, and they draw on multiple methods of inquiry" (Marshall & Rossman, 2006, p. 2). Qualitative research requires the researcher to obtain, interpret, and draw conclusions from the data throughout the process of collecting the data.

According to Creswell (1998) a case study is a process of studying a "bounded system" by collecting multiple sources of data within the context of the setting that the behaviors typically occur. The researcher can observe, interview, and collect data in the school setting by directly interacting with the teachers to collect the data. I used a case study model because it provided me an opportunity to collect rich data in the environment where instruction takes place on a routine basis.

The qualitative case study design provided an analysis of the instructional practices in the high classrooms that include students with disabilities. This design best met my needs to answer the research questions.

## Site

The participants were chosen from a large, comprehensive high school (Site High School) in a suburban public school division centrally located on the east coast of the United States. The school division had more than 58,000 students with more than 1800 students attending Site High School. Site High School was one of ten comprehensive high schools the school division.

This school division was selected for the following reasons: 1) its overall student population is representative of the student populations of large school systems in the southeast region of the United States; 2) the administrative and instructional structure of the schools in this division are fairly typical for a school system of this size in the region; and 3) it was convenient for the researcher.

This particular site (Site High School) was selected because the students' pass rates for Grade 11 on the End Of Course English/Reading Standards of Learning (SOL) assessment met the state Annual Measureable Objective (AMO) for students with disabilities, its percentage of students with disabilities, and its location in central region of the east coast of the United States. Site High School was accessible, instructed students with disabilities within the general education classroom, and met my needs in the most ways as compared to other schools in the region.

This school was also selected because the gap in pass rates between students with disabilities and all students tested narrowed over the last three school years on the high school level state reading assessment. The achievement gap between all students participating in the End of Course Reading Assessment and students with disabilities was the narrowest in the school division during the 2007-2009 school year. The Reading SOL pass rates at Site High School for

2005-2006 were 91 percent (all students) and 69 percent (students with disabilities), for 2006-2007 were 96 percent (all students) and 81 percent (students with disabilities), and for 2007-2008 94 percent (all students) and 83 percent (students with disabilities) (VDOE, 2008). The data in Table 1 indicate Site High School has narrowed the achievement gap between the pass rates of students with disabilities and the pass rates of all students participating in the SOL Reading test at the high school level.

Table 1.

*The decrease of the Achievement Gap on the End of Course Reading/English SOL Pass Rates for Site High School From 2005 Through 2008*

	2005-2006	2006-2007	2007-2008
All Students	91%	96%	94%
Students with Disabilities	69%	81%	83%
Achievement Gap	25%	15%	11%

During the 2007-2008 school year Site High School had the narrowest gap between all students tested and those tested with disabilities of all ten of the comprehensive high schools in the school division. For the school year 2007-2008 this high school's pass rate on the English reading test for all students was 94 percent. The pass rate for students with disabilities was 83 percent. The division's pass rate for all students was 90 percent and the division's pass rate for students with disabilities was 70 percent. The state's pass rate for all students was 87 percent while the state's pass rate for students with disabilities was 67 percent. The percentage of special education students attending this school was 13 percent (VDOE, 2008).

Table 2 shows the achievement gap in the pass rates during the 2007-2008 school year between all students tested and students with disabilities at Site High School, the division level, and the state level.

Table 2.

*Pass rates for 2007-2008 End of Course Reading/English SOL*

	Site HS	School Division	State
All Students	94%	90%	87%
Students with Disabilities	83%	70%	67%
Achievement Gap	11%	20%	20%

### **Population and Sample**

The population of the study consisted of the general education English teachers and the special education teachers at Site High School. The participants for this study were chosen using purposive sampling. Bogdan and Biklen (2007) consider the use of purposive sampling because they believe that the participants have knowledge of the research topic.

Five general education and five special education teachers that co-teach high school English in general education classrooms at Site High School were observed and interviewed for this study. These teachers were selected because they are the teachers who teach English to the students with disabilities at Site High School in a general education class setting. These students participate in the state standards in English at their assigned grade level.

Participants were required to sign a letter of informed consent (Appendix A). A Teacher Information Letter was also given to each participant that discussed the study and

ensured that information provided by them will be kept confidential, there was no due harm, and thanked them for their participation (Appendix B).

Participants were selected who met the following criteria: (1) teaching of reading Standards of Learning (SOL) at the high school level; (2) teach in a high school with passing scores on the grade 11 End of Course Reading SOL; (3) are willing to take part in the study; (4) because of their knowledge of differentiated instruction; and (5) because they co-teach students with disabilities and general education students within a general education classroom.

I did not provide direct supervision of any of the participants however; they knew me as a professional colleague. In the past I provided special education procedural support to the administration of the school. One benefit of the participants having had knowledge of me included that they have been used to having me in their school which increased their comfort level. A second benefit was that I knew that the participants had knowledge of the subject. A disadvantage of the participants having had knowledge of me was that they may have answered interview questions in a manner that they believed I wanted them to, instead of what they truly believed.

### **Research Procedures**

This proposal was presented to the Institutional Review Board (IRB) as part of the university's research requirements. Appendix A provides information concerning Informed Consent that was submitted as part of the IRB process. Approval was received from the university IRB. I also submitted a copy of the proposal to the school division's Office of School Improvement in order to obtain permission. Once permission was granted from the IRB and the school division I met with the targeted participants. The participants were asked to sign the

Informed Consent document and the teacher letter prior to collecting any data. (Appendices A and B)

Participants were observed in co-teaching teams during two separate ninety minute blocks of instructional time. A total of 10 observations were conducted. One trained observer and I conducted the observations. Conducting the observations in pairs assisted in increasing the reliability of the findings. Observations were recorded using a modified version of Carol Ann Tomlinson's Classroom Observation Guide for Summative Assessment of Differentiated Instruction (Appendix C). Permission was obtained to modify and use the document. The focus of the observations was to examine how the teachers differentiated the content, process, and products for their students with disabilities.

The observation form consisted of three sections: (1) Preparation For and Response to Learner Needs; (2) Instructional Practices and Classroom Routines; and (3) Evidence of Differentiation. During the classroom observations each observer filled out a form and ranked several categories in each section. The rankings consisted of "Strong," "Some," or "None."

All participants' names were replaced by initials to maintain a high level of confidentiality. Each participant was assigned to one of five teams. They were paired on teams with their co-teaching partners. After each observation I wrote down field notes depicting personal thoughts and observations. I also typed a summary of each observation.

The observation form was field tested prior to data collection on this study. It was used during observations of three collaborative English classrooms in a different high school in the division. The field test assisted in solving logistical issues that included instructions to the participants and refinement of the researcher's skills in order to check the reliability and validity of the pilot's results. The results of the field test indicated that training is needed for both

observers to have an understanding of the observation process. Training for both observers focused on the definitions of the differentiation process including: readiness, interest, learning preference, content, process, and product.

After the observations were conducted each team was interviewed. Teachers were interviewed in teams. The questions focused on how they differentiate instruction for their students with disabilities. An Interview Protocol (Appendix D) was developed based upon intensive research and was used to gather data on teacher perspectives and understanding. The interviews were recorded using a digital recorder to insure accuracy in the transcriptions. The interview guide was piloted with collaborative teaching teams at another high school. Each team was interviewed together and both teachers were given opportunities to answer each question. I was able to practice using the digital recorder during the pilot. I also learned which interview questions may have required additional prompting.

The interview questions provided information about what data the teachers have access to when providing reading instruction to high school students with disabilities and how the teachers used the data to provide specialized reading instruction to their students with disabilities based upon their students' learning readiness, interests, and learning profiles. Questions also provided teachers an opportunity to discuss the ways they change the content, process, and product in high school English to meet the unique needs of their students with disabilities.

The interviews were digitally recorded, transcribed, and coded. After the transcription process was complete the transcriptions were given to the participants for their review of accuracy. Providing the participants a typed copy of their interview allowed them to add or revise any information that was unclear and increased the reliability of the study (McMillan, 2004). The second observer listened to the recorded interview while reading the transcriptions to

increase and verify the accuracy of the transcript. Expanded field notes were used to record reflections immediately after the observations and interviews. These along with the transcribed interviews and the observation instrument were used to support the findings of the study. All written documentation was kept in a confidential file with access protection for further reference.

### **Data Analysis**

Marshall and Rossman (2006) proposed that there are seven phases of data analysis when conducting qualitative research: data organization, data immersion, creating themes, data codification, using analytic notes to present explanations, investigation of other interpretations, and reporting the study.

A daily log was kept with a running account of what I was thinking and feeling during the interviews and observations process. I spent numerous hours reading and rereading the data to become extremely familiar with the information. This assisted in creating categories or themes that arose from the collected information in patterns. Common ideas, beliefs, and concerns developed into themes by inductive analysis.

Once the themes emerged, the data were coded. According to Marshall and Rossman (2006) codification of the data is the formal representation of analytic thinking (pg. 160). The codes were loaded into a word document and then copied into the Atlas online database. This is a software program that helped to organize the data and allowed me to make inferences based upon themes. Some of the themes that arose from the interview data collected during observations and interviews along with field notes and the running journal included content, process, and product as well as student readiness, interests, and learning profiles.

The completed Differentiated Classroom Observation Guides (Appendix C) were also analyzed to determine how the teachers differentiated content, process and products during the

lessons that we observed. For each of the observations the rankings of the observers were calculated for content, process, and product. If there were more than five examples of an area of differentiation, the category was rated as "strong." For five examples or fewer the ranking was "some." It was ranked "none" if there were no examples of a category.

### **Limitations**

The four criteria that Lincoln and Guba (1985) endorsed to determine the accuracy of qualitative research consist of credibility, transferability, dependability, and confirmability. Credibility is Lincoln and Guba's (1985) term for internal validity in qualitative research. Credibility helps to establish that the results of the study are believable. Member checking is one way that Lincoln and Guba (1985) recommends to improve the likelihood that a study is credible. Member checking is making sure the participants can verify the data that is collected. In this study I provided a copy of the transcripts of the interviews as well as written notes of the classroom observations to the participants for review, clarification, and suggestions. The participants reviewed the data and verified that the information was accurate. Any participant that suggested changes to the documents was acknowledged and the changes were made.

According to Lincoln and Guba (1985) transferability is the ability for the research to be generalized to other situations. Also known as external validity McMillan (2004) writes that due to the nature of qualitative research this type of research is to investigate a phenomenon in a specific setting that is unique to that particular study with little emphasis on study replication. If other researchers want to apply the findings to their own work there needs to be clear descriptions of the data, analyses, and patterns so they can be used in other settings. This study has been reviewed by the secondary observer and a researcher who has done a similar study at the elementary level to ensure clear explanations of the entire study.

Lincoln and Guba (1985) indicated that dependability and confirmability can be verified through audit procedures. An auditor examines how the entire study process was conducted to determine dependability. Confirmability is authorized by the auditor by a review of the inquiry process. In this study all taped interviews and written records have been maintained and are available upon request.

### **Researcher's Perspective**

As an educator who has worked in public schools for over 25 years, I bring a long and diverse history to this study. I have taught both general and special education in pullout and collaborative settings. I have taught at the elementary, middle, and high school levels. I have served in leadership roles at both the building and central office level. I believe that both IDEIA (2004) and NCLB (2001) have benefitted all students especially those with disabilities because the laws have forced educators to examine educational strategies, provided greater access to the general education curriculum, and raised the bar for students with disabilities. I believe that we as educators must examine what is and is not working for these students so that we continue to narrow the achievement gap between students with disabilities and their non-disabled peers.

## **Chapter IV**

### **Findings**

#### **Introduction**

The purpose of this study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the achievement scores of students with disabilities increased on the statewide reading standards of learning tests. This increase in scores assisted in narrowing the achievement gap between the pass rates for the subgroup of students with disabilities and the pass rates for all students tested on this mandated reading assessment.

The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study investigated how teachers use data to meet the differentiated reading needs of students with disabilities in response to readiness, interests, and learning profiles. It also studied how high school English teachers differentiate the content, process, and product for their students with disabilities. The goal of the study was to answer the following questions:

1. What data do high school English teachers have access to in order to determine appropriate specialized instruction needed to meet the individualized needs of students with disabilities in reading?
2. How do high school English teachers use data to individualize instruction to meet the readiness levels, learning profiles, and interest levels of students with disabilities during reading instruction?
3. How do high school English teachers individualize the content, process, and product of a lesson to meet the needs of students with disabilities during reading instruction?

## **Description of Participants**

The participants were selected by purposive sampling. I chose the participants who taught on the collaborative English teams in grades 9, 10, and 11. The participants taught on collaborative teams made up of a general education English teacher and a special education teacher. The general education English teacher on Team 5 was a reading specialist. That particular team taught strategic reading as an elective to general education and special education struggling readers. These students were also taking an English class at their assigned grade level. Four of the students enrolled in strategic reading were in classes taught by other teams in this study. The collaborative teams had students with disabilities and general education students.

Most students with disabilities needing specialized instruction in English at Site High School participated in SOL based instruction. These students were typically working toward a Modified Standard or Standard diploma and received their instruction in a collaborative setting. There were some students with disabilities that attended general education English classes; however, they did not require specialized instruction in English according to their IEPs. Other students with significant cognitive disabilities participated in English in a special education classroom. They did not participate in the English End of Course SOL assessment. Instead they took part in the alternative standards of learning and were assessed using the Virginia Alternate Assessment Program during their eleventh grade year.

During the interviews and observations, information was gathered about each of the participants. This section includes information about the relationship of each collaborative team as well as information concerning the overall impression of each team's differentiation style. Later in this chapter more detailed descriptions of how each team worked together will be provided.

### **Team 1**

Team 1 consisted of a collaborative teaching team made up of a general education English teacher and a special education teacher who had been teaching together for four years. They taught two collaborative sections of ninth grade English. Their English class consisted of nine students with disabilities and 17 general education students. The students with disabilities were identified with either a learning disability, an emotional disability, or an other health impairment. The English teacher had taught for sixteen years and had a teaching license in secondary English and a master's degree in educational leadership. The special education teacher had a master's degree in special education with endorsements in learning disabilities and emotional disabilities.

During the ninety minute class period both teachers taught together and worked with all of the students. They shared equally in the instructional role during both observations. During the interview they said they were very comfortable working with one another and hoped to teach together again next year. The general educator said, "We have been a team for the last four years and it has been terrific. We get better every year and hope to work together again next year."

### **Team 2**

Team 2 consisted of a general education English teacher and a special education teacher who taught ninth grade English together in a collaborative team. They had a total of 27 students in their class. This team taught two collaborative sections of ninth grade English. Eleven of their students had a primary disability identified as a learning disability, emotional disability, autism, or other health impairment. Both teachers had teaching licenses in secondary English. The general educator had a master's in counseling and the special educator had a master's in

special education with endorsements in learning disabilities, emotional disabilities, and intellectual disabilities.

During both observations the teachers shared equally in the instructional process and worked with all of the students for the entire ninety minute period. The two alternated between providing primarily direct instruction and supporting the students by circulating around the students keeping them focused and on task for their class session. The teachers have taught collaboratively for three years and planned to teach together again next year. The two teachers were very comfortable during the joint interview session often finishing one another's sentences.

### **Team 3**

The third team consisted of a general education English teacher and a special educator who had been teaching together for the last three years. The general education teacher had been teaching for twenty-five years and had a Bachelor's degree in English education and held endorsements in secondary English and journalism. The special educator had a Bachelor's degree in special education with endorsements in learning disabilities and intellectual disabilities. She had been teaching for twenty years. Their class had 25 students of which eight had either primary identification of learning disabilities or other health impairments.

The team taught all of the students together and alternated back and forth between instruction and supporting the students by prompting individual students and provided close proximity to students with problem behaviors. During the interview the teachers were very comfortable with each other and stated that they plan to teach together again next year.

### **Team 4**

A general education English teacher and a special education teacher made up Team 4. They have taught together for four years and had a total of forty years of teaching experience

between the two of them. Team 4 taught 28 eleventh grade students. They taught two other sections of grade eleven English together. Twelve of their students had primary disabilities identified in the areas of learning disabilities, emotional disabilities, intellectual disabilities, and other health impairments. The general education teacher had a bachelor's degree in English and a Master's degree in school administration. He was completing his thirtieth year at the school. The special education teacher also had a degree in English and a Master's degree in special education with endorsements in learning disabilities, emotional disabilities, and intellectual disabilities. She had been teaching special education for ten years.

This team shared in the responsibility of planning, teaching, and assessing all of the students and was very at ease with one another during the interview process. They both expressed an interest in teaching together next year, however the general educator stated that he was retiring at the end of this school year. The special education teacher expressed reluctance about being paired with a new partner next year. She indicated that she wanted to continue to collaborate in English but was apprehensive about teaching with a new colleague.

### **Team 5**

Team 5 consisted of a collaborative team made up of a general education reading specialist and a special educator. The reading specialist had an undergraduate degree in English and a Master's of Education in reading. She had been teaching for 28 years and had a teaching license with endorsements in English and Reading. The special education teacher had a bachelor's degree in psychology and a Master's in special education. She held a teaching license in special education with endorsements in learning disabilities, emotional disabilities, and intellectual disabilities.

They taught two sections of collaborative strategic reading classes to students in grades nine through twelve. Of the 12 students that were in the class that we observed eight had disabilities. Their primary disabilities ranged from learning disabilities, emotional disabilities, mild intellectual disabilities, and autism. This class was an elective and students were encouraged to enroll based upon their reading test scores. All of the students were at least two grade levels below their assigned grade level in reading comprehension and/or vocabulary skills.

The students that were in the class also were taking English 9, 10, 11, or 12 depending upon their grade level. Two of the students with disabilities in the strategic reading class were also in the classrooms of Team 2. One other student with disabilities in the strategic reading class was in the classroom of Team 3 and one general education student in the reading class was in the classroom of Team 4.

Both teachers were responsible for providing instruction to all of the students. They have taught together for the last three years and had an excellent working relationship. Team 5 enjoyed teaching together and said they really would not have it any other way. They stated they plan to continue to teach together again next year.

### **Summary of each team's profile**

Table 3 provides a summary of each team's profile. All of the teams taught at least two sections of collaborative English at their assigned grade level in a general education setting. The number of students with disabilities in each class that we observed ranged from eight to twelve. All of the students with disabilities on each team received instruction within the general education classroom. All of the teachers on every team shared in the planning, instruction, and assessment of all of the students in their classes. Four of the five teams planned to teach together again next year. The general education teacher on team four was retiring at the end of the school

year so they did not plan to teach together during the next school year. Their total class size was between twelve and twenty-eight students. Both teachers on Team 3 had bachelor's degrees. All of the teachers on the other four of teams also had master's degrees. All of the general education teachers held a teaching license in Secondary English. All of the special education teachers were fully licensed in special education and held endorsements in the primary areas of disabilities that their students had been identified in. These included endorsements for teaching students with learning disabilities, emotional disabilities, and intellectual disabilities. Some of the special educators also had specialized training in teaching students with autism as well as various health impairments including Attention Deficit Hyperactivity Disorder. A summary of each team's profile is included in Table 3.

Table 3.

*Summary of Team Profiles*

	Team 1	Team 2	Team 3	Team 4	Team 5
Number of Students With Disabilities	9	11	8	12	8
Where Served	General Education				
Responsibility for Planning	Both	Both	Both	Both	Both
Plan to Teach Together Next Year	Yes	Yes	Yes	No	Yes

## The Observation Process

A trained observer and I conducted two observations of each of five collaborative teaching teams made up of one English teacher and one special education teacher. We took extensive notes on each observation using The Differentiated Instruction Classroom Observation Guide (Appendix C) to focus our examination of each team's teaching process. Data were collected and analyzed about how often the teachers differentiated the content, process, and product. Based upon the observation process we ranked the amount of differentiated content, process, and product that was witnessed during both classroom visits. These rankings included the "strong" category (more than five examples), the "some" category (five or fewer examples), or the "none" category (no examples) of differentiated content, process, and product.

During the first set of observations we agreed on three of the five rankings for each team. Both observers agreed on the rankings of all five teams during the second observation. We reviewed the data of the two observations where we disagreed and came to consensus on those two rankings. Table 4 shows the rankings of each team during the two observations.

Table 4.

*The Rankings of Each Team in Content, Process, and Product on the Classroom Observation Guide*

	Team 1	Team 2	Team 3	Team 4	Team 5
Content	Some	Some	Strong	Some	Strong
Process	Strong	Some	Some	Strong	Strong
Product	Some	Some	Strong	Strong	Strong

## **Participant's Definition of Differentiated Instruction**

The first interview question that was asked of all the participants was, "What is your definition of differentiated instruction?" The answers provided each teacher's basic knowledge of differentiation. Their responses were similar although some went into greater detail than others.

The general education teacher from Team 1 discussed readiness by saying, "Teaching students at their own functioning level, knowing where they are beginning and where we are required to get them to." She then mentioned student interest and learning profiles by adding, "I try to incorporate what they are interested in into their reading and writing assignments. I also make sure they are getting things visually and orally so that everybody's learning style is covered." The special education teacher on that team commented on process and learning profile by stating,

"In special education we have been differentiating for a long time. I try to bring these strategies into the classroom and talk about them during our planning time. The IEP provides information on the student's learning pattern. Some kids need to hear new information, other kids need to see the information, and some kids need to act it out. We try to incorporate this into our classroom."

On Team 3 the general education teacher provided a somewhat textbook definition by discussing readiness, interests, and learning profile. She said differentiation is "A process of planning, teaching, and assessment that meets students' instructional levels, interests, and or learning styles." She covered content, process, and product when she added, "We provide the students books at their own level, graphic organizers, and a variety of ways to assess their learning." Her special education partner included comments on process, product, and interests

by answering, "I believe that when planning, teaching, and testing we need to consider how students learn, their current levels of reading, and, when possible, allow them to read and write about things that they are interested in."

We heard examples of readiness, interests, learning profiles, as well as process and product when Team 5 described what they do everyday in their classroom. The general education teacher said, "teaching to kids needs such as their own levels, their interests, and their best way of learning" and the special educator added, "It is using information about their learning styles, instructional levels, and what kids are interested in to develop lessons and assessments that are guided by this information."

Team 2 discussed differentiation in terms content, readiness, interests, and learning profiles. The general educator stated that differentiation is "meeting the needs of each student while still covering the required curriculum of the SOLs." The special education teacher on Team 2 shared her ideas by saying, "Using the curriculum as the foundation for instruction while considering the student's learning style, level of reading, and interests."

Team 4 defined differentiation by including readiness, interests, products, content, process, and learning profiles and said, "Teaching to students' needs such as at their own reading levels, allowing them to show their learning in different ways, working in pairs or small groups, and letting them choose topics that they are interested in." In addition the special educator on Team 4 said, "It is using information about their learning styles, instructional levels, and what kids are interested in to develop lessons and assessments that are guided by this information."

Overall the teams had similar responses Teams 1 and 2 included four of the six elements of differentiation. Team 5 mentioned five of the six elements while Teams 3 and 4 discussed all six elements of differentiation. Table 5 provides the components of the participants' definitions

of differentiated instruction based on the six elements of content, process, product, readiness, interests, and learning profiles.

Table 5.

*Components of Differentiated Instruction Incorporated in Teacher Definitions*

	Team 1	Team 2	Team 3	Team 4	Team 5
Content		x	x	x	x
Process	x		x	x	x
Product			x	x	x
Readiness	x	x	x	x	x
Interests	x	x	x	x	x
Learning Profiles	x	x	x	x	x

### **Information Participants Need to Know for Lesson Planning**

The participants were also asked what they needed to know in order to plan instruction for their students with disabilities. The general educator on Team 2 talked about needing information about their students' educational background when she said, "We need to know their educational background, where they have attended school, and their history of success." She then added readiness by discussing the need to know, "their reading level, writing ability, and SOL history." In addition she said, "their motivation for learning." Her collaborative partner also discussed the need to know IEP information, their students' interests, and their learning profiles when she said, "whether they received special education services, if so, what is in their IEPs; what their reading level is, what they are interested in, how they learn best, and what's their goal for learning."

Team 3 also covered the need know educational background and readiness. The general education teacher on Team 3 gave a detailed description by saying, "I really need to know their backgrounds like past grades in English, SOL scores, and where they went to school. It really helps because our reading teacher tests all the kids when they come in and it tells us a lot about their comprehension skills and vocabulary skills. Weak vocabulary is a real problem with our low readers. They often can word call but they don't get the big meaning because they struggle with word meaning. I think that is why they struggle on their SOLs, their vocabulary is poor."

Her special education teaching partner added the need to know IEP information, learning profiles, interests, and student motivation for the students with disabilities by stating, "I like to read all of the special education kids' IEPs. If they are written well there is lots of information in their present levels. Testing scores, learning styles, even what they are interested in doing after high school. If we can relate our teaching to what they want to do next we often can get them motivated."

The general educator on Team 1 emphasized the need for assessing student readiness by responding, "We need to know where they are currently functioning. Our reading teacher tests each student coming into the school using the Gates-McGinty Reading assessment. It provides us data on each student's reading level in vocabulary development and comprehension. We also do a writing prompt during the first two weeks of school to get an idea of each student's writing abilities." Her partner added, "We also want to know their interests and learning styles which are often in their IEP."

Team 4 discussed the impact on planning lessons based upon data about their students' learning by implying the need for information about each student's learning profile. The general educator answered, "I need to know what I need to do to make them as successful as possible. I

will try to do whatever it takes to get the kids to learn. I think that is my job as the teacher. To change them I need to change.ö The special educator went on to discuss the importance of knowing studentsø interests and studentsø motivation when she answered, öYou canø just stand up and lecture on what interests us. You need to present the information in ways that the kids can grasp it. Teaching things that interest them will really motivate them.ö

The general educator on Team 5 discussed the need for information about their reading readiness level, past experiences in reading, and about how student interest affects their motivation. She said, öWe can not stress it moreö they have to have an interest in the book to get them to read. Then we model, read with them, and have them read to us. We conference with them and try to listen to what they say about their reading and what they donø say.ö

Table 6 is a summary of what information the participants need to know when planning lessons for their students. Teams 2 and 3 discussed all six items listed in the table, Team 1 discussed four of the items, and Teams 4 and 5 talked about three items.

Table 6.

*Information Participants Need to Know to Plan Lessons*

	Team 1	Team 2	Team 3	Team 4	Team 5
Readiness	x	x	x		x
Interests	x	x	x	x	x
Learning Profiles	x	x	x	x	
Educational Background		x	x		
IEP Information	x	x	x		
Student Motivation		x	x	x	x

**Teacher Training for Differentiation**

Participants were asked about the training they have attended on differentiated instruction. All participants had attended training either given at the school or district level. Some attended training at Site High School where the chairperson of the English Department had presented several sessions about differentiation. Several participants discussed receiving differentiated instruction training as a part of their collaborative training provided by the school division. One teacher had also attended a conference at the University of Virginia conducted by Carol Ann Tomlinson. Another teacher had taken a course from Dr. Tomlinson as a part of her Master’s degree program.

When asked how their instruction had been influenced by the training the general education teacher on Team 1 noted, “It helped remind me to consider more than just the SOLs. I

used to assess all kids using multiple choice tests because that was supposed to help them with passing the SOL, but now I use multiple ways to assess because the students need lots of ways to show their learning.ö The expectations of the school administration in regards to differentiated instruction were clear in the answer of the general education teacher on Team 2. She discussed the school level training by saying, öThe training I have participated in is vital. Differentiation instruction is the basis of our planning. It is an expectation of the school administration but I also believe that it works for kids. You have to consider studentsø learning styles, interest, and readiness for learning if you want them to make progress. Our kids come from different backgrounds. Some are very bright and do extremely well while others are struggling learners. We also have lots of transfer students coming in from local inner city school divisions.ö

The General Education teacher on Team 5 discussed how Tomlinsonø course influenced her teaching by stating, öThe most important thing that changed my teaching was that I donøt have to test the kids in the same way. Sure we have to do multiple choice benchmarks but some kids do better presenting their information orally, in art, in writing or by acting it out. The kids love it. They seem more motivated to learn.ö

The overall response from the participants indicated that they had attended training. They stated that a single training opportunity is not very effective. They said they were highly influenced by the teachers in the building that had attended longer trainings including one teacher that had attended a conference about differentiation and the other that took a semester long course. The special education teacher from Team 3 said, öI have attended the division level training which was helpful but most of what I have learned is from her (the general education teacher) We have been working together for three years and I have learned so much and it really fits for the special education kids.ö

## **Planning and Assessment**

Educators are required to use data to plan for, implement, and assess students' learning (Young, 2006). Data can be collected from a variety of sources. Before I carried out the interviews with the participants I met with the Special Education Instructional Specialists in the school division to create a list of possible sources of data that teachers may use in planning for, implementation of, or assessing instruction for their students with disabilities. Their input assisted me in creating a list of possible sources that included: benchmark tests, psychological evaluations, previous Standards of Learning (SOL) assessment scores, educational evaluations, information in an IEP, information from parents, and information from the students themselves. Part of the participant interview process included questions that assisted in determining what information teachers use when planning, implementing, and assessing instruction. The questions were organized based on information restricted to the differentiation processes of readiness, student interests, and learning profiles.

### **Readiness**

The participants were asked about which data they had access to that provided information about student readiness skills. According to Tomlinson and others (2003), student readiness is the point where a student can not learn new information alone but instead needs the teacher support of scaffolding to master the new learning. Readiness is impacted by a student's cognitive ability, prior learning experiences, social know-how, and previous feelings about school.

When asked about their access to data sources the participants reported that they had access to the standardized reading assessment administered by the reading specialist to all incoming students, benchmark tests, past SOL scores, and past report cards for all students. The

general educator on Team 2 reported, "We can get anything we want: Past grades, SOL scores, report cards. Our assistant principal gathers this information out of the county data system and provides us the data by class."

All of the participants noted the importance of the reading assessment which provides reading comprehension scores and knowledge of vocabulary. The special education teacher on Team 2 stated, "Our reading teacher also tests all of the incoming freshmen in reading. This gives us an estimate of their levels of reading comprehension and vocabulary. This information is also considered as we create plans." In addition participants reported that for all students with disabilities, data were also available in student's IEPs, educational evaluations, and psychological evaluations. The special educator on Team 1 indicated, "For the students with disabilities, I review each of their files including their IEPs and assessment data. The psychological and educational reports in the files are really helpful."

All of the teams discussed the importance of finding data in the students' with disabilities files. The special educator on Team 5 replied, "We also get information from the kids' files. The students with disabilities' files have tons of data in them. Past evaluations, IEPs, especially the PLOPS (present level of performance) give lots of information about readiness as well as interest and learning styles." The special educator on Team 4 stated, "The first thing I do is go through the files and take notes. The IEPs of the students with disabilities really help with this information. I also look at report cards and SOL scores for all kids. If they have other testing data I look at that." Finally, the general education teacher on Team 3 shared, "For students with disabilities we have everything in the files: SOL scores, stuff in the IEP, past grades, and the reading assessment that the reading teacher does. We also use the data that comes from the quarterly benchmarks that we give every nine weeks."

It is important to note, readiness data were found in psychological and educational evaluations of those students who had been evaluated for special education. Readiness data found in IEPs were only available for the students with disabilities. There were general education students in all of the teamsø classes who did not have psychological or educational evaluations. None of the general education students had IEPs. Table 7 shows which data each of the five team used to determine student readiness.

Table 7.

Data Used by Teachers to Determine Readiness Levels of Students

	Team 1	Team 2	Team 3	Team 4	Team 5
Standardized reading tests	x	x	x	x	x
Individual education plans	x	x	x	x	x
Benchmark tests			x		
Psychological evaluations	x	x	x	x	x
Educational evaluations	x	x	x	x	x
Past SOL scores	x	x	x	x	x
Past report cards	x	x	x	x	

In regards to student readiness, I asked the teams how they use this data in planning to meet the needs of their students with disabilities. Most of the teams indicted that the special education teacher summarized the data from the student cumulative files that was particular to the students with disabilities. The special education teacher on Team 3 responded, òWhat I do is summarize the information for us and we keep it in our files in the classroom. We use the data

when we plan, teach, and assess. We also meet with our other teachers in the English department and discuss kids' progress. Having it in one place really helps and we both use it.

Two of the teams discussed examining the data in Professional Learning Communities (PLC) with other English teachers at the school. The school administration requires all teachers to work with their professional colleagues in PLC to review data on students. The assistant principal assigned to the English department works with the PLC and provides information from the county wide data warehouse for each of their students. Team one's general education teacher stated, "We work in our PLC weekly with all of the other English teachers to analyze data which is gained from a report our assistant principal provides us on each of our students by class. This data includes past SOL scores, past benchmark tests, previous report cards and grades."

When planning instruction for the students with disabilities the teams put emphasis on the reading assessment the reading specialist used to evaluate the reading levels of all incoming students. The general education teacher on Team 4 conveyed, "Once we have their reading levels we allow the kids to choose books at their level. If a story has to be read as a part of the curriculum and it is above their levels we allow them to read in pairs or listen to the story on a CD on the computer with text input. They also need to see the text paired with the auditory so that they can begin to recognize the vocabulary."

Team 2 indicated that they did not plan for the students with disabilities differently than their general education students. They try to plan for each of their students. The general education teacher on Team 2 said, "We do not treat the kids with disabilities differently from the others. All of our kids are needy and we really look at the needs of each student. We have kids that read from a second grade level up to ninth grade. We provide reading activities at their grade level and try to move the students forward. We try to find as much data as we can on each

one whether or not they have an identified disability. Then we analyze that information to form small groups that have similar needs.ö When asked for an example she replied, öWe form groups based on reading levels so that four students who read at a fifth grade level are grouped together to read a fifth grade leveled reader, or three boys that like to read about sports are grouped together to read a book about football. We find commonalities in the studentø data and form groups.ö

Teams 1 and 5 also discussed how they use readiness data to differentiate for their students. The general educator on Team 5 said,

We gather together the studentø reading levels from standardized reading assessments and educational reports in their files and that tells us where we need to begin. We assist them in book selection so that they are reading at their level and we teach specific strategies based upon their needs as indicated from the data. If they are weak in comprehension we use comprehension strategies through shared reading and guided reading activities. If they are weak decoders we use multisensory techniques to help them decode. If they have limited vocabulary we use word study skills such as word sorts to strengthen their vocabulary and if they have slow fluency we do daily, timed, cold reads.

The special educator on Team 1 discussed the use of benchmark test data, öWe use the benchmark tests which are administered every nine weeks to determine the mastery level of each student on the concepts that have been covered during that grading period. It tells how we are doing as teachers so that we can provide re-teaching opportunities for those students who missed concepts and extension activities for those who have mastered the material. That data can then help us group the students based on their needs.ö

Table 8 shows that all teams plan together and that both teachers' roles are recorded in their lesson plans. Team 3 created a student data sheet that is used in planning. All teams indicated that they observe students and use those data to determine student readiness. Finally, all teams revealed that they participate in the English department PLC to assist in determining student readiness.

Table 8.

*How Teachers Designed Lessons to Meet the Readiness Levels of Students*

	Team 1	Team 2	Team 3	Team 4	Team 5
General Education and Special Education Teachers Plan Together	x	x	x	x	x
Individual Teacher Roles Noted in Plans	x	x	x	x	x
Student Data Sheet Used in Planning			x		
Observations	x	x	x	x	x
Participates in English department PLC	x	x	x	x	

**Student Interests**

I also asked the participants about how they gather data to determine student interest in order to assist them in their planning of instruction for their students. Student interests are the topics or activities that students are involved in or enjoy which tap the motivation of students such as but not limited to sports, music, dance, and community service (Tomlinson, et al., 2003). The teachers of the high school students stressed that incorporating student interest into their teaching is highly motivating to their students. Tomlinson and others (2003) believe that creating learning opportunities that incorporate the motivation of particular students is at the center of interest-based differentiation. The general education teacher on Team 2 pointed out, "I

feel that gearing instruction to each student's interest level is a great motivational factor. Many of the students in our collaborative class have not had a lot of academic success. When they can work on activities that interest them they are willing to put more effort into the assignments and usually experience more success. The special education teacher also discussed motivation. She said, "When kids hold an interest in an activity they do a lot better job, are more accurate, and are more thorough than when it (the assignment) is boring to them." She added, "We have the kids write in their journals at least three days per week. One day we assign a specific prompt. The other two days they are allowed to write a topic that interests them. When they select their own topic they write longer passages, use more interesting vocabulary, and develop their ideas better than when we assign a specific topic." While she was talking the general educator brought out some of the student's journals and shared several examples with me.

Three of the teams stated that they used a student survey or questionnaire to determine student interests. The general educator on Team 1 told me,

"To learn about the student's interest we asked them to fill out a questionnaire during the first week of class. That way when we plan we try to incorporate stuff that they are interested in. We keep that information in our student files here in the classroom. Sometimes we pull it out to spark their thinking. When they work on their poetry unit we encourage them to write about what they are interested in." Team 5 said that they used a survey but it was not always accurate because the kids did not answer honestly. The general educator revealed, "We give them an information sheet to fill out in the beginning of the year that they are often reluctant to fill out. They see it as a chore and we don't always get information about their real interests." Team 5 preferred to observe and talk to students. The special educator for Team 5 added, "We try to observe them and listen to them. They wear jerseys of their favorite players, rock star t-shirts,

and designer clothes. They talk about sports, music, fashion, and their favorite stars. They talk about what they want to do and places that they have been or want to go.ö

Team 3 gathers information from studentsø parents. The general education teacher explained their process, öWe send a postcard out to all of our kidsø parents during teacher week and asked them to write back by email about their kids. What they like to do, how they learn, and their kidsø past experience in school. We learn a ton and we get their email addresses and they have ours.ö

Two of the teams rely on interviews with students to collect interest data. The general education teacher on Team 2 discussed their method by responding, öDuring the first week of school the kidsø first assignment is to interview each other using an interview guide which we created. They have a chance to introduce their classmate to the class in any way they choose. We have had commercials, posters, raps, songs, and a TV show. This gives them a real example of working together by having some choice in their culminating activity. Plus we get to know the kids.ö Finally, all teams shared that they use classroom observations as a way of collecting data on student interests. Team 4 stated, öWe also learn of student interests from observing and listening to students in class. Students often wear clothes depicting their favorite athlete or musician. They also bring up interests into class discussions or during informal conversations with us.ö Table 9 is a display of the ways teachers gather data to determine student interests for planning purposes.

Table 9.

*Data Used to Determine the Interest Levels of Students*

	Team 1	Team 2	Team 3	Team 4	Team 5
Student survey	x			x	x
Parent letter			x		
Student interviews		x			x
Classroom observations	x	x	x	x	x

When asked how the teams used student interest data when planning lessons for their students with disabilities they noted that they use it for all of their students in their collaborative classes. The general education teacher on Team 1 said, “We really treat all of the kids the same and all kids fill out the questionnaire during the first week of school. Interest is not treated any different between the students with disabilities or the general education kids.”

As to how the team uses interest data, the special education teacher on Team 4 responded, “We use the interest data to drive instruction. And also assess instruction. Students get choices of activities based upon their interests. If they like music they can write a song or a rap to summarize a reading passage. If they are artistic they can do a poster. If they are interested in technology they can design a web page or power point presentation.” The special education teacher on Team 3 had a similar response. She answered, “We try incorporating that into instruction with novel selection, writing assignments, as well as assessments. Our artists usually pick an art project like a poster or picture, to show their learning. Our actors usually do commercials, videos, or skits.”

## **Student Learning Profiles**

Student learning profiles are defined as one's preference of learning that is influenced by learning style, gender, culture, and intelligence preference (Tomlinson, et al., 2003). Tomlinson's (2000) term intelligence preference is based upon the work of Gardner's (1983) and Sternberg's (1985) theories of multiple intelligences. People learn in different ways so it is important to design instruction to meet the needs of all types of learners (Sternberg, Torff, and Grigorenko, 1998).

When questioned about what data are used to determine students' learning styles, all teams reported they find data in the IEPs of the students with disabilities. The special education teacher on Team 1 said, "The kids' PLOP (Present Level of Performance) in their IEP often gives some information about their learning profiles." The special education teacher on Team 5 had a similar response. She said, "The present level of performance (in the IEP) usually discusses how they learn. We try to incorporate this in all of our planning. For example, one of our students' PLOP states that she has weak auditory processing skills. When we plan lessons that require lecture of information we provide the material in both a visual and auditory manner."

Teams 1, 2, 4, and 5 indicated that information on student learning profiles was also found in the psychological evaluations of students who had participated in eligibility testing for special education. Psychological evaluations were available in the files of all students with disabilities and also in the files of general education students who had been evaluated for special education services but were not found eligible as a student with a disability. Some of the general students in each of the collaborative classrooms had not been evaluated so they did not have learning data found in psychological evaluations.

The special education teacher on Team 4 indicated when discussing their students with disabilities learning profile data, "Sometimes you can also get this information from the psychological reports or from their IEPs in the file especially if there was recent testing." These same four teams reported that they also use observations of students to determine their learning profiles. The general education teacher on Team 2 stated,

"For the others (those who do not have psychological evaluations in their cumulative files) it takes a little time of working with them and observing them in their learning and the choices they make. That often tells you how they learn. If they choose a rap, they are probably auditory learners. If they choose an art project, they are more hands on and visual."

Team 4 also discussed using classroom observations to assist in determining their students' learning profiles. The general education teacher responded by saying, "We can also get this information by observing kids in class. Our kinesthetic learners often stand out because they really need to move as they learn. Allowing movement in the classroom really helps with this. Sometimes it looks like they are not paying attention but moving actually helps them learn. They really have to get up and move."

Team 5 had all of their students participate in interviews to gather the data they need to determine student learning profiles. When asked this question the general education teacher answered, "We also talk about it with the kids. I ask them if they need directions to go somewhere new would they rather have the directions told to them, written down, or be given a map. Then we talk about how that can help them figure out how they learn."

All of the teams discussed finding student learning preference data in the IEPs of the students with disabilities. The special educator on Team 3 told me, "Our students are tenth graders so their IEPs have been done here during the spring before. We have asked all of the

case managers to make sure student learning preference data are addressed in the PLOP (present level of performance). At the start of the school year, when I read each student's IEP I record their learning preference data onto our individual student data sheets. We keep the data sheets in the front of our planning notebook for easy reference. That way we can easily access the information during our planning sessions. General education students do not have IEPs so learning profile data from this source would not be available for the general education students. Table 10 shows how the teams access data to determine student learning profiles to plan for instruction.

Table 10.

*Data Used to Determine the Learning Profiles of Students*

	Team 1	Team 2	Team 3	Team 4	Team 5
Psychological evaluations	x	x		x	x
Individual education plans	x	x	x	x	x
Teacher observations	x	x		x	x
Student interviews					x

The five teams were also asked how they use the learning profile data to meet the needs of their students with disabilities in their classes. Their responses indicated that they consider all of their students' learning profiles when planning for instruction. The general education teacher on Team 5 provided this answer. She said, "We really do not distinguish between what we do for the kids with disabilities and our other students. They are all weak readers. They would not be in our class if they were good readers." The special education teacher on that team went on to say, "Typically the files of the students with disabilities have more information about them

because of all of the testing and IEPs. But we really meet the readiness levels, interests, and learning profiles of all the kids in the same way.ö

One team indicated that student learning profile data were used to determine how to present information to their classes. The special educator on Team 2 stated, öMost of the information on learning profiles that we have access to is found in the students with disabilitiesø IEPs or psychological reports. Teaching to the strengths of the students helps them experience success. If they are visual learners we make sure that instruction is not just auditory. We provide visuals to assist in understanding.ö The general education teacher on Team 1 also said, öSome kids need visuals, others need visual information presented orally just like some need to use the computer to complete writing assignments, or dictate information orally and then get it down on paper.ö

### **Implementation of Instruction**

After teachers gain access to data on student readiness, interests, and learning profiles they need to implement this information into daily lessons. This study incorporated two forms of data collection. The interview process helped to determine how teachers access data on their students in order to plan a differentiated lesson. Two observations were carried out in with each team to establish how the teachers implemented their plans. All of the observations were conducted in the general education English class by a team of two observers. Each observation lasted for the entire ninety minute block period. Each team taught at least two sections of the same grade level of collaborative English. Teams were observed teaching the same group of students during each observation. The themes that arose from the observation data included information about content, process, and product and will be discussed in the upcoming paragraphs.

## **Content**

According to Tomlinson (2001) content is the “input” of teaching and learning, content is differentiated when teachers clearly identify specific targets of what students are to master. It is what students need to learn and what proficiency level they are required to meet. Content also includes how the students will gain access to the material. A lesson with a common goal for all students with the allowance for mastering the subject matter in various ways is the essence of a differentiated content (Heacox, 2002; Tomlinson, 1999, 2001, 2003). Tomlinson (2000) provides examples of differentiating the content that include the following: (1) giving students reading materials at their instructional levels; (2) providing reading materials on tape; (3) pairing auditory information and visual materials; (4) partner reading; and (5) small group re-teaching or extension activities.

In order to gain a fuller understanding of the content expectations of this school division, I investigated their website to find a detailed description of the English content. The division provides a curricular framework for all of their teachers in all subjects. The secondary English portal site (Smith, 2009) describes this framework for their teachers by stating, “Students will develop their literacy knowledge, skills, and competencies through meaningful, strategy-based experiences and instruction that recognize purpose, form, and content” English instruction is presented within a Balanced Literacy Framework that allows all students “to access a broad range of texts, the understanding and application of critical processes, and strategies for reading and writing, as well as understanding and practice with systems and structures of language in written communication.”

During the interview process, the teams shared examples of ways that they differentiate the content for their students. Several teams discussed providing books at student's instructional level. Team 5 discussed differentiated content. The general education teacher said,

“In our class the content is very differentiated. The emphasis of the reading instruction changes based upon student need. We do what kids need. If vocabulary is the weakness, we work on vocabulary for that particular student or small group of students. If others need comprehension strategies, we provide them.”

The special education teacher added, “When you come into the class you see different content for all or almost all of our kids. They work on different skills, read different books, complete different assignments, all based on their individual needs.”

The general education teacher for Team 4 discussed ways they differentiate content. He stated, “Once we have their reading levels, we allow the kids to choose books at their level. If a story has to be read (as a part of the curriculum) and it is above their levels we allow them to read in pairs or listen to the story on a CD or on the computer with text input. They also need to see the text paired with the auditory so that they can begin to recognize the vocabulary.”

Team 1 shared how they differentiate the content by considering student interests which provides motivation for one of their students. The General Education teacher began by saying, “We try to pick out books that are interesting to all of the kids because they will more likely want to read them.” The special education teacher then added, “We have one student with autism who loves to read anything about the Titanic. We can get him to do anything if the content has something to do with the Titanic. We have a leveled reader that was actually above his comprehension level but he did not have trouble reading it. We kept the leveled reader

assessment and we used it as his motivator. It has been framed. When we ask him to read other books and he is reluctant we bring out his framed assessment and remind him that he can do it!

When I examined the notes from the observations, I ranked the content data of each class we had observed. Teams that had five or more instances of differentiated content were ranked "strong." Teams that had fewer than five of differentiated content were ranked "some" and if there were no instances of differentiated content teams were ranked "none." Table 3 shows teams 3 and 5 had rankings of "strong" for differentiating content during our observations. Teams 1, 2, and 4 had rankings of "some" while no teams had a ranking of "none" for content differentiation.

During the two observations of each team we saw content differentiation in a variety of ways. All teams incorporated the following examples of content differentiation into at least one of the lessons that we observed: leveled reading materials, recorded reading materials, a variety of reading materials, re-teaching and extension activities, and small group or paired reading. In one classroom we observed the use of leveled readers. During the first observation of Team 1 the students were participating in a novel study. The students were reading one of four books. The books were leveled readers and three or four students had been assigned to the specific text at their instructional level. The special education teacher indicated that the books were at reading levels of grade four, grade six, grade eight, and grade nine. The students were alternating reading aloud with partners by taking turns reading a page at a time. One pair had completed their novel and was working on a graphic organizer that assisted them in sequencing the story from start to finish.

During the first observation of Team 3, the students were reading Steinbeck's novel, *Of Mice and Men*. The students had several options of reading the story. They could read

independently, in pairs, at a listening station, or use a CD on the computer with the text appearing on the screen. The audio provided a voice over that read the text to the students listening on headphones. These were all examples of providing content differentiation for students. Everybody was responsible for the same materials but they accessed the materials in different ways. During their second observation the students were reading leveled readings on a variety of topics.

During the second observation of Team 2 the use of re-teaching and extension was observed. The class was divided into three groups. One group was working with the special education teacher on a remediation activity that reviewed vocabulary from a poem the class had read during the previous class session. A second group was working on writing their own poem while the general education teacher was conferencing with them and a third group was working on independent projects to visualize their poems that they had already finished.

During the first observation of Team 4 the students were reading the epic poem "Beowulf." Both teachers indicated during the observation that the students had read the poem previously. They told us that the students had a choice of reading the poem silently or listening to the poem on CD while they followed along reading the text. The special education teacher told us that many of the students talked about the need to hear the story aloud because of the poem's old English language pattern.

During both observations of Team 5 students worked on different content based upon their specific learning needs. Several students participated in twenty minutes of sustained silent reading of leveled readers matched to their instructional level. Other students were working on vocabulary word sorts in a small group with the special education teacher. Six students were working on computers completing reading SOL released items to practice for their upcoming

expedited SOL test. Table 11 shows the variety of differentiated content that we observed during the classroom observations.

Table 11.

*Differentiated Content Observed by Researchers*

	Team 1	Team 2	Team 3	Team 4	Team 5
Leveled reading materials	x	x	x	x	x
Reading materials on CD or tape	x	x	x	x	x
Reading materials on a variety of topics	x	x	x	x	x
Provision of re-teaching or extension activities		x			x
Use of paired or small group reading	x	x	x	x	x

**Process**

Differentiated process is defined as the sense-making of teaching and learning, the methods of instruction used to present the topic (Tomlinson, 2001). It is when the students take hold of the new information and apply the learned skills to problem solving situations (Tomlinson, 2000). According to Tomlinson (2003) process includes providing students tiered assignments where all students learn the same content but receive different levels of support. The activities are presented at various levels of difficulty based upon the students needs. Process also includes providing graphic organizers to students, implementing the use of computerized instruction, providing manipulatives, and supporting students through task lists that include

common assignments for all students and specific tasks for individual students based upon their learning needs (Tomlinson et al, 2003).

After the observations were completed the data from the observation guide were analyzed and ranked either "strong" (more than five examples), "some" (five or fewer examples), or "none" (no examples) of differentiated process. As shown in Table 4 teams 1, 4, and 5 received rankings of "strong" while teams 2 and 3 received rankings of "some". No team received a ranking of "none".

In four of the five classrooms an overhead with the day's agenda was projected onto the screen in front of each classroom. The agenda included an activity that all students began working on as soon as they settled into their seats. A task list of the common activities for all of the students in that particular class was also listed on the agenda. It listed homework assignments and other announcements for future class sections such as midterm exam information. The last item on the daily agenda included a reminder for students to get their individual folders. These folders included tiered assignments for each student based on their individual needs. The overhead agenda was present during both observations of teams 1, 2, 3, and 4.

In the classroom of Team 5, the students had folders with their task list of activities inside. All of the students picked them up on the way into the classroom, went to their seats, and began reviewing their individual assignments. Once the students learned of their first task, they moved to that area of the classroom and got to work immediately. They all appeared highly motivated to get to work. During the interview I learned from the Team 5 teachers that as the students progress on their reading they are able to take expedited reading SOL tests. The general educator on Team 5 said, "When they pass their eighth grade reading SOL retake and their high

school reading SOL they no longer have to attend class. Once they pass both tests they can have a study hall or no longer attend class. The class is the first block of odd days so if they no longer have to attend they can come to school after first block. This is extremely motivating to high school students.ö

During the second observation of Team 3 process differentiation was observed. A bell ringer was listed on the classroom daily agenda that was projected on the overhead. The directions were clearly written so that the students can begin working as soon as they are seated in class prior to the bell ringing signifying the start of the period.

I wrote the following in my field notes after completing the observation, öThis class began with a bell ringer activity requiring students to write a letter in today's language pretending to be Romeo or Juliet. Both the general education and special education teacher held conferences with individual students about their writing and provided tiered support based upon student need. Students had a choice of using the computers in the classroom or completing the assignment in pen and paper. One of the students was dictating his letter on a tape recorder in the back of the room.ö

When asked about how they differentiated the process during a lesson the general education teacher on Team 3 said, öWe try to incorporate technology into the lessons. Students can chose to use the computer on wheels, other computers, or compact disc players. We also let them work on their own, in pairs, or in a group of three or four.ö The general educator on Team 2 had a similar response. She answered, öWe allow students to work in a variety of settings including independently, in pairs or small groups. We also incorporate technology as a way for students to access their learning.ö

The special education teacher on Team 5 provided several ways that they differentiate the process. She also hinted that providing what the students need builds confidence in their learning and motivates them. She stated,

Some kids work on the computer they like to read off the screen and highlight text that they can not read. The computer will read that particular word to them and provide the definition if they need it. Other kids really like to read books with us. We take turns reading aloud. We also set up a listening station as an interest station because some of our books are on tape. The kids can wear headsets, listen to the books, and follow along. This really helps build up confidence of our weakest readers. Once they listen they then come and reread with us.

During the observation we noticed that there were other interest stations. These included a magazine and newspaper corner, a nonfiction area where there was high interest nonfiction books, and a pleasure reading pace with two bean bags chairs and books about sports, music, hunting, movies, and automobiles. When I questioned the general educator about how she determine the themes for each of the stations she said, "We use the interest data that we collected earlier in the year through the survey and from our observations of the students. As the year goes on some of their interests change so then we change the themes."

Teams 1, 2, 3, and 4 had graphic organizers available for the students. In three of these classrooms graphic organizers were used a part of a reading comprehension activity. The general education teacher on Team 4 provided a graphic organizer for the culminating writing activity the students were to complete when they had finished with their "Beowulf" unit. Table 12 shows how the teams differentiated by process during the observation.

Table 12.

*Differentiated Process Observed by Researchers*

	Team 1	Team 2	Team 3	Team 4	Team 5
Graphic organizers	x	x	x	x	
Student task list	x	x	x	x	x
Computerized instruction			x		x
Interest centers					x
Tiered Support			x		

**Product**

Product differentiation is the evaluation of teaching and learning. It is the results of the choices students make about how they demonstrate their learning (Tomlinson, 2001). Products are the culminating activity to a unit whereby students display their newly gained knowledge. Tomlinson provides the following as examples of products: (1) presenting students options of how to show their learning; (2) providing student choice in working on their own, in pairs, or in small groups; (3) making use of rubrics that meet each student's readiness levels; (4) promoting student designed products that meet assignment requirements.

During the observations we saw several examples of product differentiation. Towards the end of the first observation of Team 4 the general education teacher informed the students that during the following two class sessions they would have an opportunity to design a culminating product to their unit on "Beowulf." In order for the students to understand the expectations of their student designed product the general education teacher handed out a rubric

which focused on the required criteria that needed to be included in their product. The criteria also provided some choices of activities that the students could choose from but did not limit the learners to the given choices. They also could come up with their own ideas for their product. During the interview process the general educator said they came up with the choices for products based upon student interest and learning profile data.

Team 3 also provided an opportunity for the students to design their own products. During the second observation of this team the special education teacher provided a contract sheet to all of the students that explained the culminating product for the first two chapters of their novel, *Of Mice and Men*. The students were given choices of doing a skit, making a poster, making a commercial, or writing a rap about the first two chapters. They were told they could work by themselves, in pairs, or small groups of no more than four students. During the observation some students were told to work in pairs or by themselves. Afterwards, during the interview I asked the team why some of the students were told how they needed to complete their product. The general educator answered,

“Sometimes we provide guidance because based on the information we have gathered about their readiness level, or interests, or learning profiles, they may need to work with another student with similar characteristics or they may need to work with a student that is at a different level of readiness such as a stronger reader.” A rubric was provided explaining all of the elements that were required or optional. It also included the grading requirements for each product.

The interview process also provided information about how the teams differentiated products to show their students’ learning. The general education teacher on Team 1 explained, “Kids have a choice of ways to show their learning. We have allowed them to act out their

answers or do commercials to tell about their learning. Some of our kids are good in Art. They like to draw, make posters, or make models showing their learning. We have allowed poems, raps, song writing and musical performances. Giving the students choices and time during class helps to motivate them.ö

The teachers on Team 2 discussed the effect of allowing students choices in their culminating activities. The special educator said, öWe allow students to choose from a variety of ways to display their new knowledge. I believe that choice provides all students the greatest opportunity to experience success. It is highly motivating and allows students to pick their best mode to learn.ö When I questioned her further about how they came up with the choice she replied, öWe use our data that we have collected on readiness, interest, and learning profiles to guide our choices. If a student's learning profile and interests include a talent in music we include a choice of writing or performing a song.ö The general education teacher added, öWhat I have found is kids increase their scores on the benchmarks after completing project based assignments of their own choice.ö The special education teacher discussed that when they allow the student to design their own products they often choose their preferred method of receiving instruction. She noted, öThey (her students) often give it back like they receive it. If we do a power point on the information, they may choose to do one for their final project. Again they can write a song or rap, make a poster, or act it out.ö

Table 13 shows the different ways that the teams allowed their students to create differentiated products in order to show their learning.

Table 13.

*Differentiated Products Observed by Researchers*

	Team 1	Team 2	Team 3	Team 4	Team 5
Use of rubrics			x	x	x
Menu choice of products	x	x	x	x	x
Products created by individuals, pairs or small groups	x	x	x	x	
Student designed projects				x	x

**An Analysis of the Data Across Teams**

In order to determine if there are significant differences in the teachers' definitions and classroom observations I have compared the five teams' data with one another in the following section. Data based upon the teachers' definition of differentiation will be compared across the five teams. The definition data will also be compared to the content, process, and product differentiation rankings from the classroom observations and analyzed across the five teams. Finally, a holistic view of each team's teaching approach to their students with disabilities will be addressed.

**Analysis of the teams' definition of differentiation**

When comparing each team's definition of differentiated instruction with the other teams' definitions the following trends in the data were evident. Teams 3, 4, and 5 discussed all six elements of differentiation. They did not all use the same labels developed by Tomlinson of readiness, interests, learning profiles, content, process, and product. However, I was able to code their responses based upon Tomlinson's definition of each element. The definitions provided by

the teachers on Team 1 and Team 2 included readiness, interests, and learning profiles but they only included comments that were coded with one other element of differentiation. Team 1 also mentioned process and Team 2 also discussed content. In addition to including readiness, interests, and learning styles in their definitions Teams 3, 4, and 5 were able to also articulate the remaining three elements of content, process, and product in their definitions. The similarities in their responses regarding readiness, interests, and learning styles allowed me to infer that all of the teams had those elements as a basic knowledge of differentiation.

### **A comparison of teams' definitions and observation rankings**

An analysis between the teams' ability to define differentiation and their rankings of "strong," "some," and "none" from the classroom observations depicts a different comparison. These rankings included the "strong" category (more than five examples), the "some" category (five or fewer examples), or the "none" category (no examples) of differentiated content, process, and product.

During the observation process Team 5 was ranked "strong" in content, process, and product and also had all six elements included in their definition. Teams 4 and 5 also had all elements in their definitions and had the ranking of "strong" in either content and product (Team 3) or process and product (Team 4). Teams 1 and 2 were missing two of the six elements in their definitions. Team 1 had only one ranking of "strong" in process and Team 2 had only the ranking of "some" in content, process, and product. This comparison suggests that Team 5 was able to fully define differentiation by the six elements. Team 5 also had "strong" evidence of differentiating the content, process, and product during our two observations. Teams 3 and 4 also had all 6 definition elements while having stronger evidence of content, process, and product during our observations than Teams 1 and 2 had during the observations. Teams 1 and 2

also had only four of six elements of differentiation in their definitions. Table 14 shows a comparison of the teams' definitions and observation rankings

Table 14.

*A Comparison of Teams' Definitions and Observation Rankings*

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	Team 1	Team 2	Team 3	Team 4	Team 5
Definition: Content		x	x	x	x
"Some" Content	x	x		x	
"Strong" Content			x		x
Definition: Process	x		x	x	x
"Some" Process		x	x		
"Strong" Process	x			x	x
Definition: Product			x	x	x
"Some" Product	x	x			
"Strong" Product			x	x	x
Definition: Readiness	x	x	x	x	x
Definition: Interests	x	x	x	x	x
Definition: Learning Profile	x	x	x	x	x

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**A holistic view of the teams**

This section examines the five teams in a holistic manner in regards to providing specialized reading instruction to high school students with disabilities included in general education English classes. Team 1 consisted of a general education English teacher and a special education teacher who have taught together for the last four years. They both had master's degrees and taught two sections of collaborative ninth grade English. Based upon the observation data they ranked "some" on content differentiation, "strong" on process

differentiation, and “some” on product differentiation. Their definitions of differentiated instruction included comments that I coded according to Tomlinson’s elements of readiness, interests, and learning profile as well as process. Team 1 stated that they planned together and needed to know information about their students’ readiness, interests, learning profiles and information each of their students’ with disabilities IEPs.

Both teachers on Team 1 attended training on differentiated instruction that was conducted by the English department chairperson at Site High School. They used information from the students’ files as well as data from the nine week benchmark tests to collect information about their students’ readiness. They indicated that they participated in the English department teams’ PLC analyzing their students’ data obtained from student files, as well as classroom assignments, and data from the quarterly benchmark test. They said that they used a questionnaire and classroom observations to determine their students’ interests. Teams used interest data to spark students’ writing and reading. Team 1 pointed out that they collected interest data on all of their students, not just the students with disabilities. They tried to plan lessons that centered on their students’ interests. Team 1 told me they found learning profile data in students’ IEPs, in psychological evaluations, and from classroom observations. They said they used learning profile data to plan lessons that incorporated the learning profile information into instruction.

Content differentiation using readiness data was seen during one observation of Team 1. Students were reading leveled books in small groups assigned based on their reading level. They also provided electronic reading materials to their students. Team 1 also said that they differentiated activities by student interest using the data they collected from the interest questionnaires and from their observations. Team 1 provided a daily student agenda in order for

all students to have knowledge of their specific assignments. Team 1 also said they used graphic organizers for reading and writing activities on a regular basis. Graphic organizers and student agendas were examples of differentiation by process. In addition Team 1 told me they differentiated products by providing choices in culminating activities based on the students' interest, learning profiles, and readiness levels data. They also said they provided opportunities for the students to produce products on their own and in small groups.

The English teacher and special education teacher on Team 2 had been teaching together for three years. They taught two sections of ninth grade English and they planned their lessons together during their joint planning time. The data we collected during the observations of Team 2 indicated that they had "some" elements of differentiated content, process, and product. Their definitions of differentiation included comments that were coded as readiness, interests, learning profiles, and content.

Team 2 stated that they needed to know information about readiness, interests, learning profiles, educational background, and IEP information in order to plan differentiated lessons. Team 2 discussed collecting data on student readiness from the students' files specifically mentioning psychological and educational testing, IEPs, past SOL scores, and past report cards. They also used information from the standardized reading assessment given by the reading specialist to determine student readiness. Team 2 indicated they planned instruction for each of their students based upon the readiness data they gathered from classroom observations. They also added that they noted their classroom roles in their lesson plans and that they participated in the English department PLC. Team 2 gained data on student interests from classroom observations and had the students complete interviews with one another at the beginning of the year. They noted that providing instructional activities based upon student interests is highly

motivating for their students. Team 2 gathered learning profile data from students' IEPs, psychological evaluations, and through classroom observations. They said that they used the learning profile data to plan lessons based upon students' strengths and provided supports for their weaknesses.

Team 2 differentiated the content by providing leveled books and electronic books on a variety of topics, by providing re-teaching and extension opportunities, and by allowing students to work in pairs or small groups. They differentiated the process by providing daily student agendas and using graphic organizers in their classroom. Products were differentiated when Team 2 provided choice in the selection of how they show their learning and offered opportunities to create their products on their own, in pairs, and in small groups.

Team 3 was made up of a special educator and an English teacher who had been teaching together for the last three years. They indicated that they wanted to continue to work together next year. During the observation process we saw strong content differentiation, some process differentiation and strong product differentiation. Both teachers on Team 3 gave detailed definitions of differentiated instruction and included comments that were coded as the six elements of differentiation which are readiness, interests, learning profiles, content, process, and product. Team 3 said they need to know their students' readiness, interests, learning styles data along with information about their educational background, information in their IEPs and what motivates their students in order to differentiate instruction in their classroom. The general educator on Team 3 attended a differentiation training taught by Tomlinson. Her partner attended division level training but said she received ongoing training from her general education partner over the last three years by planning and teaching together.

The teachers on Team 3 said that they used information from standardized reading tests, IEPs, evaluations, past SOL scores, and past report cards in order to differentiate instruction based upon student readiness. They also gained readiness data from the quarterly benchmark tests which assisted them in learning what information each of their students had learned during that nine week period. Team 3 said they both shared in the planning process and indicated each of their daily responsibilities in their lesson plans. They kept student information sheets on each of their students in their plan book in order to assist in providing differentiated lessons. They also participated in the English department's PLC. Team 3 obtained student interest data from parents by having them send in information about their children. They also gathered student interest data from observing their students. Team 3 said they used the interest data when they selected books for their students, assigned writing topics, or planned assessment activities. Team 3 said they obtained learning profile data from the PLOP in the students IEPs.

During the observations Team 3 provided leveled readers, books on a variety of topics, and options for working alone, in small groups, or pairs in order to differentiate the content. Team 3 used graphic organizers, student task lists, computerized instruction, and tiered support in order to differentiate the process during the lessons that we observed. Product differentiation consisting of rubrics and a menu of choices was evident during the observations of Team 3.

The special educator and general educator on Team 4 had worked together for the last four years. They both held Master's of Education degrees and taught two sections of eleventh grade collaborative English. They planned lessons together and both expressed they wanted to continue to teach together again the following year, however, the general education teacher was retiring at the end of this school year. Team 4 ranked "some" in content differentiation, and

ōstrongö in both process and product differentiation. Team 4 discussed the impact of differentiation on their planning process. They said, öWe do not expect to change our students. We have changed the way that we teach. We needed to make this change.ö Team 4 also said that they needed to know their studentsø interests, and learning profiles in order to plan differentiated instruction. They stressed that planning lessons with studentsø interest and learning styles really motivates their students to learn. Team 4 included comments that were coded as the six elements of differentiation in their definitions.

Team 4 said that they collected readiness data by accessing their studentsø files and reading IEPs, psychological evaluations, past report cards, past SOL scores, and educational evaluations including the assessment administered by the reading specialist. The special educator on Team 4 said that the reading assessment really helps determine what leveled readers to choose for their students. They also indicated that they listed both teachersø daily responsibilities in their planning book and they conducted ongoing observations to note the changes in their studentsø readiness levels. Team 4 also said they examine student data with their English department PLC. In order to access student interest data, Team 4 used a student survey at the start of the school year and also said they observed students throughout the year to identify student interests. Team 4 stated that they used interest data to drive instruction and access student learning. They told me that they selected novels based on interest data, and provided options for products based upon studentsø interests. Team 4 gathered learning profile data from psychological evaluations, IEPs, and observations.

In order to differentiate the content, Team 4 used leveled readers on a variety of topics, provided read aloud opportunities through the use of technology, and used reading pairs or small group instruction with students. To differentiate the process, Team 4 used graphic organizers

and student task lists. To differentiate the products they used rubrics, provided choice, provided opportunities to work alone, in pairs, or small groups. They also allowed students to design their own products.

Team 5 was made up of a special education teacher and a reading specialist who had been working together for the last two years. They taught two sections of collaborative strategic reading classes together to general education students and students with disabilities who were reading at least two years below their assigned grade level. These classes were electives for students in grades nine through twelve. The students' enrollment was recommended based upon their reading test scores. All of the students enrolled in strategic reading were also taking an English class. Four of the students were in the classes of Team 2, 3, or 4. This class did not have a state standards based curriculum. The teachers on Team 5 had the freedom to determine the course of study based upon the student readiness levels, interests, learning profiles.

Both teachers shared in the planning process and expressed the desire to teach again during the following school year. Based upon the observation data Team 5 had a ranking of 5 on content, process, and product differentiation. Team 5 said both team members color coded their teaching responsibilities in their lesson plan book. Their definitions of differentiation included readiness, interests, learning profiles, content, process, and product which are the six elements of differentiation.

Team 5 said that they needed to know readiness, interest, background in reading instruction, and what motivated their students with disabilities in order to differentiate instruction. The reading specialist on Team 5 had attended a college course taught by Tomlinson. Her teaching partner had attended district level differentiation training as well as training at Site High School. Team 5 said they accessed readiness data from their students with

disabilitiesø files. They examined IEPs, psychological evaluations, educational evaluations, and past SOL scores for their students with disabilities. They also found the assessment information from the standardized reading test was also helpful in differentiating instruction for their students.

Team 5 went into great detail about how they use the readiness data to select reading materials and specific reading strategies for each of their students. They also discussed using observations to monitor the studentsø readiness levels and how they reviewed student readiness data during the English department PLC. Team 5 said that they have the students fill out an information sheet at the beginning of the year in order to gather interest data. They added they gain more interest data by observing studentsø clothing and talking with their students. Team found data on studentsø learning profiles in psychological reports and in IEPs. They also gained learning profile information from observations and by interviewing students. The reading specialist on Team 5 said they use learning profile data for all of their students regardless of whether or not they receive special education services because all of their students were weak readers.

During the observations Team 5 used leveled readers on a variety of topics while students were reading in small groups. They also provided technology to provide read aloud opportunities for their students. Both teachers also provided time for re-teaching skills to students who required further instruction on a particular topic. In order to provide differentiated process Team 5 incorporated folders with individual student task lists, computerized instruction, and interest centers. Product differentiation was evident through the use of rubrics and a menu of choice including a choice of creating a student designed product during the second observation of Team 5.

### **Summary of cross team analysis**

Based upon the cross team analysis the findings indicate that the reading specialist and special education teacher on Team 5 had the strongest evidence of differentiation as indicated in their high level of participation in professional development on differentiated instruction, definitions, observation rankings, and interview comments. The general education teacher took a three credit class and the special educator attended a three day conference with one of the leading experts in the field of differentiated instruction. They covered all six elements of differentiation in their definitions and they ranked "strong" in the areas of content, process, and product differentiation during the classroom observations. In contrast Teams 1 and 2 participated in professional development at the school level, defined differentiation by discussing four of the six elements, and ranked lower on content, process, and product during the classroom observations. Teams 1 and 2 had less overall evidence of differentiation as compared with Team 5. Teams 3 and 4 level of evidence was stronger than Teams 1 and 2 but was weaker than Team 5. They participated in differentiation training at the division level, covered all six areas of differentiation in their definitions, and ranked "strong" in either content and process or process and product and "some" in either content or product.

### **Emerging Themes**

The purpose of this study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the pass rates of students with disabilities increased on the statewide reading standards of learning test. This increase in scores assisted in narrowing the achievement gap between the pass rates of the students with disabilities and the pass rates of all students tested on this mandated reading assessment. The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study

investigated how teachers use data to meet the differentiated reading needs of students in response to student readiness, interests, and learning profiles. It also searched for how high school English teachers differentiate the content, process, and product for their students.

While conducting this investigation several interesting themes arose based upon the team interviews and our observations in the classrooms. The four major themes that emerged during the study were the importance of the reading specialist, the importance of administrative support, the vitality of the collaborative model and the importance of the teams ownership of all students.

### **The importance of the reading specialist**

As I reviewed the data the first theme that was heard numerous times during the teacher interviews was the vital role that the reading specialist served for the school. She evaluated every student entering the school in the spring before their ninth grade year. She also tests every new student to the building. The reading specialist taught several strategic reading classes for weak readers, and when she was not teaching students she worked with the teachers in the English department providing training on reading instruction. The reading specialist also participated in the English department PLC and assisted teachers with data interpretation. She also provided the teachers strategies that help struggling readers. In addition she conducted teaching reading in the content areas training for the teachers of other subjects at Site High. The reading specialist volunteered to model lessons with their classrooms and observed their classrooms to provide content reading support. During the interviews all of the teams discussed how valuable she was to the entire school teaching staff.

Team two discussed how important it was to have a reading specialist on staff at the school. The general education teacher said, "What helps most in meeting all of the students needs are the data that she (the reading specialist) gives us after her assessments. She also

provides us suggestions on areas that need the most work. Her support is really valuable to me. I only had two reading methodology courses in my undergraduate program in secondary English. I think that when they designed my course of study they assumed all of the secondary students were good readers. She has a master's in reading and has also attended numerous professional developments about reading instruction in the high school.

### **The importance of the administrative support**

The second theme that arose from the data includes the support that comes from the administrative staff in the building. Most teams discussed that the principal had made it a priority to increase the reading levels of all the struggling readers. One team indicated that the division had eliminated the high school reading specialists several years ago due to budgetary issues. The principal of Site High School kept this reading specialist as an English teacher and had created a schedule which allowed her to continue to teach the strategic reading instruction in the elective reading classes. When interviewing Team 4 the general education teacher stated, "Our principal talked with our department to see if the reading specialist was valuable to the students at Site High School. We all agreed that she was a very important part of our staff and her service of both direct reading instruction as well as a mentor to the staff here in providing top notch reading instruction to our students was vital. We actually have slightly larger English classes so that she could continue to teach reading and provide support to all of us."

The teams also discussed how the principal and his staff supported the collaborative process by allowing teachers to have input in their collaborative partner choices. The principal also designed the entire school schedule around the collaborative classes so that all collaborative teaching teams shared a common planning period. He insured that the special education teachers participated in content level staff developments and were a part of the content level teams

including their PLCs. The assistant principal sets a priority to keep well functioning collaborative teams together from year to year. Team 3 discussed the positive support that they receive from their administrative team. The special education teacher said, Our principal really supports our collaborative model here at Site High School. He was a former administrator of special education and works for months each spring trying to refine the schedule so that our collaborative teams have a joint planning period. Our assistant principal consults with us about staying together as a team and if one of the team members leaves or retires he includes their partner in the interview process with new candidates.

The special education teacher on Team 1 discussed how important it was that she only taught English and gave credit to her administration that they tried to hire special educators specialized in one content area. She added, “The fact that I only teach English really helps too. I do not have an English degree but I always work with the English department. That has helped me really learn the curriculum” and her partner added, “Yes, she is so good she could easily be an English teacher. We have also been a team for four years and that is really helpful. We have gotten the kinks out. Our principal always asks us if we want to be together next year. And we always say yes.”

### **The vitality of the collaborative model**

An additional theme that surfaced from the research data pertained to the collaborative model. Teachers emphasized the importance of the general education teacher and special education teacher teaching together to meet the needs of the students with disabilities as well as the general education students needs. The general educator on Team 1 stated, “We use a true team approach. We plan together, share in the teaching process, assess together, and celebrate together.” The special educator added, “We meet with parents together for conferences and IEP

meetings. She (her partner) is great at adding to the PLOPs and helping to evaluate the kids' progress on their goals. We have been together long enough to teach together and end each other's sentences. I love it and hope to never go back to a pull out classroom again.

The special education teacher on team 2 said, "I remember teaching self-contained English by myself and I never want to do that again. Working together is so much more fun and much better for the kids."

During the interview process it was obvious that the teams cooperated well with one another in a professional manner. They also discussed their opinions about how collaboration assisted with student achievement. The special educator on Team 3 stated,

The collaborative approach has really assisted in increasing student achievement for students with disabilities. It lends to higher expectations, higher quality of instruction, and an increase in students' self esteem because they see themselves much like the other students and no longer different.

The general educator on the team joined in by saying, "The collaborative model really helps implement differentiation. I hope the budget cuts don't change this. We know it works because our kids are experiencing success even on their SOL."

One team discussed the benefits of collaboration in regards to their own professional growth. The reading specialist on Team 5 stated, "I used to teach these classes myself and had both kids with disabilities and general education kids. For last three years we have been collaborating together and sharing the responsibilities for all of the kids. I have learned so much from working together. Her knowledge of special education has really made a difference especially with the data collection piece. I have always had the special education kids but when I would look at their files and try and read the reports I did not really understand the psychological

evaluations. She has really helped me with that. Her special education partner added, "I agree that I also have learned a lot from working together. She has a Masters in Reading and I have a degree in Special Education. I think I had one or two reading courses in my certification program so I have learned tons about reading instruction while working with her."

### **The importance of the teams' ownership of all students**

The final theme that emerged from the data was the teachers' shared ownership of all students. All five teams continually referred to the students as "our students." The general education teachers and the special education teachers did not indicate that the general education students "belonged" to the general education teacher while the special education students "belonged" to the special educator. Instead the teams considered all of the students in a particular class as "belonging" to both the general and special education teacher on the team.

This shared ownership was also noted as the teams discussed the ways they accessed data on readiness, interests, and learning profiles as well as how they used the data to differentiate lessons according to content, process, and product. The teams often stated that some of the data were only available to students with disabilities or students that had been evaluated for special education services but not had been found eligible. The data that were only available for the students with disabilities was located in the students' IEPs. Psychological and education data were available for all students who had undergone an evaluation for special education services even if they had not been found eligible for those services.

Several teams discussed the ways that they differentiate instruction for students with disabilities. They said that they also differentiate for the general education students in their class. Team 2 indicated that they did not plan for the students with disabilities differently than their general education students. They try to plan for each of their students. The general

education teachers on Team 2 said, “We do not treat the kids with disabilities differently from the others. All of our kids are needy and we really look at the needs of each student. We have kids that read from a second grade level up to ninth grade. We provide reading activities at their grade level and try to move the students forward. We try to find as much data as we can on each one whether or not they have an identified disability. Then we analyze that information to form small groups that have similar needs.”

The general education teacher on Team 5 also shared that they differentiate instruction for all students in the classroom not just those with disabilities. She said, “We really do not distinguish between what we do for the kids with disabilities and our other students. They are all weak readers. They would not be in our class if they were good readers.” The special education teacher on that team went on to say, “Typically the files of the students with disabilities have more information about them because of all of the testing and IEPs. But we really meet the readiness levels, interests, and learning profiles of all the kids in the same way.”

## **Summary**

The purpose of this study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the scores of students with disabilities increased on the statewide reading standards of learning test. This increase in scores assisted in narrowing the achievement gap between the pass rates for the subgroup of students with disabilities and the pass rates for all students tested on this mandated reading assessment.

The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study investigated how teachers use data to meet the differentiated reading needs of students with disabilities in response to readiness, interests, and learning profiles. It also searched for how high school English teachers differentiate the content,

process, and product for their students with disabilities. The goal of the study was to answer the following questions:

1. What data do high school English teachers have access to in order to determine appropriate specialized instruction needed to meet the individualized needs of students with disabilities in reading?
2. How do high school English teachers use data to individualize instruction to meet the readiness levels, learning profiles, and interest levels of students with disabilities during reading instruction?
3. How do high school English teachers individualize the content, process, and product of a lesson to meet the needs of students with disabilities during reading instruction?

In order to answer these questions, participants were selected because they taught reading in inclusive high school English classes at a high school where the gap between the pass rates of all students tested and the pass rates of the sub group students with disabilities has narrowed over time. The school had four collaborative English teams for grades nine through eleven made up of a general education English teacher and a special educator. Site High School also had one team made up of a reading specialist and a special education teacher. They taught two sections of Strategic Reading for struggling readers in grades nine through twelve.

Observations and interviews were conducted to determine what data teachers use to plan, implement, and evaluate lessons using differentiated instruction for their students with disabilities. All of the teachers have attended professional development opportunities on differentiated instruction at the school or division level. Two teachers attended differentiation training at the University of Virginia with Carol Ann Tomlinson. When asked to define differentiated instruction for students with disabilities, all of the teams mentioned student readiness, interests, and learning profiles. Teams 2, 3, 4, and 5 referred to content in their

definitions. Teams 1, 3, 4, and 5 discussed process and teams 3, 4, and 5 included product in their definitions of differentiated instruction.

The data from observation field notes and interviews were coded based upon the six elements of differentiated instruction: student readiness, interests, learning profiles, content, process, and product. The interview questions focused on accessing data and how the teams use data to plan, implement, and assess their differentiated lessons. Based on information obtained during the interview process I found that the teachers considered data regarding student readiness, interests, and learning profiles however, planning lessons based on student interest was discussed most often. All of the teams discussed that when students were interested in the reading material they were motivated to complete their assignments. Their secondary focus of discussion was student readiness followed by student learning profiles.

Each team was observed by two observers on two different occasions for ninety minutes each to examine the implementation of differentiated instruction. The observations were recorded on the Differentiated Instruction Classroom Observation Guide (Appendix C) and in my field notes. Team five had a rating of "strong" in all areas of implementing differentiation during their observations. Team two had a rating of "Some" in all areas while the other the teachers on the other three teams had ratings of "strong" or "some" during their observations.

When the data were analyzed themes emerged associated with the teachers' perceptions of other important factors that assisted them in the planning, implementation, and assessment of their instruction for their students. These themes included the importance of the reading specialist, the importance of the support from their administration, the vitality of the collaborative model and the importance of team ownership of all of the students. The participants discussed the importance of having their reading specialist assess the students to

identify struggling readers and for her expertise in providing professional development opportunities to the entire staff on reading instruction. They also stressed the importance of support that they received from their administration regarding the overall schedule, joint planning times, and input from teams regarding teaching partners. The third theme that the teachers talked about was the vitality of the collaboration process and how important it was for the partners made up of general and special educators teaching together were vital to student success. The final theme that emerged from the data was that all of the teams shared ownership of all of their students. This theme was evident as the teachers discussed their students. During the interviews teachers, both general educators and special educators, use the term "our students." Two of the teams also talked about how they differentiate instruction for all of their students, not just those with disabilities because each of their students has unique readiness levels, interests, and learning profiles.

## **Chapter V**

### **Conclusions And Recommendations**

#### **Introduction**

The purpose of this single site case study was to examine educational practices of collaborative teaching teams in inclusive high school English classes where the scores of students with disabilities increased on the statewide reading standards of learning test. This increase in scores assisted in narrowing the achievement gap of the pass rates between the subgroup of students with disabilities and all students tested on this mandated reading assessment.

The study examined the ways teachers use data to differentiate instruction for their students with disabilities. The study investigated how teachers use data to meet the differentiated reading needs of students with disabilities in response to readiness, interests, and learning profiles. It also searched for how high school English teachers differentiate the content, process and product for their students with disabilities. The study was guided by the following questions:

1. What data do high school English teachers have access to in order to determine appropriate specialized instruction needed to meet the individualized needs of students with disabilities in reading?
2. How do high school English teachers use data to individualize instruction to meet the readiness levels, learning profiles, and interest levels of students with disabilities during reading instruction?

3. How do high school English teachers individualize the content, process, and product of a lesson to meet the needs of students with disabilities during reading instruction?

In this chapter the findings will be discussed as they related to the research questions. Also included in this chapter are the emerging themes that consisted of the importance of the reading specialist, the importance of the administrative support, the vitality of the collaboration model, and the importance of the teams ownership of all students. In addition suggestions for central office administrators, building level administrators, and teachers are provided. Finally, recommendations for future research are presented.

**Differentiating the content, process, and product**

All of the teams discussed the ways that they differentiate the content, process, and product to meet the needs of all of their students including those with disabilities. Figure 1 shows a graphic about how the teams provided specialized instruction to their students with disabilities.

Figure 1.

*A graphic depicting the teams differentiating the content, process, and product according to students' readiness, interests, and learning profiles*

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Teams Differentiate		
Content	Process	Product
According to Students		
Readiness	Interests	Learning Profiles

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According to Tomlinson (2001) content is the ñinputö of teaching and learning, content is differentiated when teachers clearly identify specific targets of what students are to master. It is what students need to learn and what proficiency level they are required to meet. Content also includes how the students will gain access to the material. Four of the five teams discussed that the overall content was determined by the state standards but they varied the ways that students could access that content. Team 5 taught two Strategic Reading classes that were electives and not bound by state standards. When teaching reading strategies students were exposed to texts at their reading instructional level and, when possible, at their interest level. One team discussed that students were successful on a more difficult level of text when it was material that was of interest to the student. When students were required to read a specific text on grade level auditory methods were paired with the text for the students who were reading below grade level. Books on tape or CD were used by all teams. Computerized reading materials were provided on teams 1 and 5. All teams indicated that they used reading pairs or small groups based on reading levels or student interests as another way to differentiate content in their classrooms.

Differentiated process is defined as the ñsense-makingö of teaching and learning, the methods of instruction used to present the topic (Tomlinson, 2001). It is when the students take hold of the new information and apply the learned skills to problem solving situations (Tomlinson, 2000). All of the teams reported that they used student task lists or folders to inform students of assignments specific to their needs. Teams 1, 2, 3, and 4 incorporated graphic organizers into their instruction. Teams 1 and 5 incorporated computerized instruction with their students and we observed the use of tiered activities in the classroom of Team 3.

Differentiated products are the ñevaluationö of teaching and learning (Tomlinson, 2001). Products are the culminating activity to a unit whereby students display their newly gained

knowledge. During the classroom observations various examples of product differentiation were evident. These included rubrics, menu of choices for students, and student designed products. The use of working individually, in small groups, or pairs was also present during the classroom observations. Teacher said that product choices were based on student interests and learning profile data. Teams 1 and 2 did not assign student designed products during their classes which conducted our observations.

### **Accessing the data**

Before I carried out the interviews with the participants I met with Instructional Specialists in the school division to create a list of possible sources of data that teachers may use in planning for, implementation of, or assessing instruction for students with disabilities. Their input provided me a list of possible sources that included: benchmark tests, psychological evaluations, previous Standards of Learning (SOL) assessment scores, educational evaluations, information in an IEP, information from parents, and information from the students themselves. The participants were not given this list of possible data sources because I wanted the teachers to answer freely and I did not want to prompt their responses.

During the interview process the participants discussed the data that they used to determine their students with disabilities' readiness levels, interests, and learning profiles. The teachers referred to the data related to student interest most frequently. They emphasized that when lessons are based upon student interests students are highly motivated to complete assignments. Student interests are the topics or activities that students are involved in or enjoy and tap the motivation of students such as, but not limited to, sports, music, dance, and community service (Tomlinson, et al., 2003).

All of the teams used classroom observations to determine their students' interests. Student interests included but were not limited to types of music, sports, movies, television, the arts, and technology. Teams indicated that these observations were paired with student surveys, parent letters, or student interviews to provide additional data on their students' interests. During the interviews the teachers discussed their students' higher level of motivation when they created lessons based upon their students' interests.

The participants reported that data on student readiness was secondary to student interest data when planning instruction for their students with disabilities. Student readiness is the point where a student can not learn new information alone, but instead needs the teacher support of scaffolding to master the new learning. Readiness is impacted by a student's cognitive ability, prior learning experiences, social know-how, and previous feelings about school (Tomlinson, et al., 2003). All five teams reported that they used data from standardized reading assessments, IEPs, psychological evaluations, and educational evaluations to determine students with disabilities' readiness levels. Four of the five teams also said they also get readiness data from benchmark tests and past report cards.

Learning profiles are defined as one's preference of learning that is influenced by learning style, gender, culture, and intelligence preference (Tomlinson, et al., 2003). People learn in different ways so it is important to design instruction to meet the needs of all types of learners (Sternberg, Torff, and Grigorenko, 1998). All five teams stated that the students with disabilities' IEPs were a source of learning profile data. Teams 1 and 4 also said that psychological evaluations and teacher observations were also sources for learning profile data. Psychological evaluations were available for the students with disabilities and for the general education students who had been evaluated for special education but were not found eligible for

services. Team 5 said they also collected learning profile data from student observations. Table 14 provides a summary of the data sources that all teams used to provide information about student readiness, interests, and learning profiles.

Table 14

*Summary of Data Used by Each Team*

	Readiness	Interests	Learning Profiles
Standardized reading assessments	all	none	none
Individual education plans	all	none	all
Benchmark tests	Team 3	none	none
Psychological evaluations	all	none	Teams 1,2,4,5
Educational Evaluations	all	none	Teams 1,2,4,5
Past SOL scores	all	none	none
Past report cards	Teams 1,2,3,4	none	none
Student survey	none	Teams 1,4,5	none
Parent letter	none	Team 3	none
Student interviews	none	Teams 2,5	Team 5
Classroom observations	none	all	Teams 1,2,4,5

**Data driven instruction**

Once the teachers gathered data on student readiness, interests and learning profiles they used this data to design instruction for their students. One of the teams used student profile sheets that include each student with disabilities' reading level, interests, and learning profile. The profile sheets also included information on specific reading goals and accommodations to

their instruction that are in their IEPs. They included an area for recording student's progress on their goals related to instruction in English classes. The profile sheets were developed by the special education coordinator of the building. The profile sheet information was used for lesson planning. Readiness data were used to determine leveled reader selections for students and remedial mini lessons to assist in providing additional instruction for students' weaker areas. Groupings for small group instruction based upon needs for specific skill remediation were determined based on student readiness.

Interest data were used to determine text selection and also was incorporated in suggested assessment activities. Activity lists were focused on providing assignments based upon student interests. Teachers also discussed forming small groups based upon student interests to complete classroom activities and projects. They said at times they placed students together based upon their specific interest or mixed the groups by interest so that each student held a specific role in the group such as recorder, artist, tech expert, and musician.

Learning profile data provided teachers information in regards to students working individually, in pairs, or small groups. This data also assisted the teachers in determining if students need visuals paired with auditory information, graphic organizers, books on tape or CD for required reading, or needed the use of read aloud software to read selections on the computer. All teams indicated that they incorporated a variety of strategies into their instruction so that all of the students' learning profile needs were met.

### **Themes**

The objective of this study was to examine the instructional practices of high school teaching teams in inclusive English classes and learn about how the teams meet the needs of the students with disabilities so that they are successful on the statewide high school reading

assessments. Several themes arose from the data as it was analyzed. The first theme that manifested was the importance of the support that the teams received from the reading specialist at Site High School. All of the teams discussed her support during the interview process. They emphasized the importance of the initial reading assessment that she administered to all incoming students with disabilities and general education students. The data were given to each English teacher which provided additional data about each student's comprehension and vocabulary levels. The teams also discussed the training that the reading specialist provided to the English department. They told me that she also provided professional development to the other content area teachers in the building. This training focused on direct reading instruction for the English teachers and reading in the content areas for the other subject area teachers.

A second theme of the importance of the administrative support was also apparent when the data were analyzed. The teams talked about how vital their principal and his administrative team were to meeting the needs of all of their students. They stressed the importance of the team planning time and the fact that the special educators worked with teachers in one content area. The teams discussed how they were asked if they wanted to continue to work together during the following year and how they were a part of the interview process when additional staff was needed to support the collaborative class schedule.

The third theme that arose from the data was the vitality of the collaboration model. The teams spoke of the importance of a general education English teacher and a special educator working together to meet the individual needs of all of their students. The teams emphasized the need for joint planning periods where together they would analyze student data, plan lessons by differentiating the content, process, and product based upon students' readiness levels, interests, and learning profiles. They discussed their own professional growth that naturally occurred from

working together and all of the teams indicated that the students with disabilities had much greater access to the general education curriculum in the collaborative classroom as compared to when they were taught English in a special education setting.

Team five had the strongest evidence of differentiation in the collaborative Strategic Reading Class. The teachers both participated in professional development on differentiated instruction. The reading specialist took a three credit course and the special educator attended a three day conference conducted by Carol Ann Tomlinson at the University of Virginia. They included all six elements of differentiation in their definitions and were ranked strong in content, process, and product during the classroom observations. They indicated that they planned together during their joint planning period and shared in the planning, implementation, and assessment of instruction for their students with disabilities. They also stated that they also differentiated instruction for all of their students because they all had unique needs. During the observations we saw the two teachers share in the instructional process. The class was an elective class which allowed team five to have greater freedom differentiating the content, process, and product based upon student readiness, interests, and learning profiles.

The fourth emerging theme was the importance of the teams' ownership of all students. All five teams continually referred to the students as "our students." The general education teachers and the special education teachers did not indicate that the general education students "belonged" to the general education teacher while the special education students "belonged" to the special educator. Instead the teams considered all of the students in a particular class as "belonging" to both the general and special education teacher on the team. When asked how they differentiate instruction for students with disabilities two of the teams indicated that they differentiate instruction for all of their students, not just those with disabilities.

## **Implications for Educators**

Although this study examined educational practices for students with disabilities in reading, the strategies of differentiation in an inclusive setting can be implemented in other content areas. The IDEIA (2004) calls for students to have access to the general education curriculum in the least restrictive environment. The concepts of differentiation and the collaborative teaching model assisted in meeting these requirements for many students with disabilities. As school leaders and teachers work together to design instruction for students with disabilities, differentiated instruction can be used to meet all students' unique needs. These strategies assist in providing a high quality of education while allowing for the individual differences in all children so that they may rise up to meet or exceed the state standards.

Schools are diverse places of learning made up of students with individual needs and learning profiles. In order to provide for these unique needs, it is vital to embrace a culture of inclusion for all learners. No longer can we teach to the middle and hope that those who function above or below the middle will continue to make progress in their learning. Differentiating instruction in classrooms where general and special educators work together will assist in providing instruction to each student's level of learning.

Tomlinson (2003) writes that the process of differentiation requires that teachers have knowledge of their students' level of readiness, interests, and learning profiles and educators have to fine-tune the curriculum as well as classroom instruction by differentiating to meet each student's unique needs.

## **Implications for central office administrators**

In order for teachers and building level administrators to embrace inclusion and differentiation, the central office administration needs to lead the charge. Tomlinson and Allan

(2000) discussed the need to articulate a vision, gain support from stakeholders, and link differentiation to best practice as a way to initiate and support the process. Based upon the findings of this study the vision needs to support the inclusion of students with disabilities in general education English classrooms through the use of differentiated instruction provided by collaborative teams. The vision needs to include teams differentiating content, process, and products based upon student readiness, interests, and learning profiles. Tomlinson and Allen (2000) go on to say that division leaders should serve in praising the process and establishing policies that support both inclusion and differentiation. Central office administrators need to support the process by providing opportunities for professional development at the building, division and beyond the division level. This training needs to include ongoing training and support to continue to develop individual teacher's skills so that they can refine the process. The teachers on Team 5 provided this ongoing support at Site High School.

Some of the teachers discussed the need for the building level reading specialist to provide ongoing training in the area of reading instruction because their experience was limited in providing explicit direct reading instruction at the high school level. This was reported by both general education English teachers and special education teachers. Central office personnel need to recognize the need for professional development in the area of reading instruction for secondary teachers.

During the interview process Team 5 discussed the support needed to continue the collaborative process and worried that with budget cuts school staffing would change and possibly eliminate the opportunity to have general and special education teachers working together to meet the needs of all learners. Tomlinson and Allan (2000) indicate that central office leaders can not expect teachers to approach instruction differently unless you support the

process with both enthusiasm and resources that include staff development, expert assistance, and time for collaborative team planning. Several of the teams in this study discussed the necessity for their joint planning periods so that time could be focused on meeting the needs of all of their students.

In the light of current budget cuts central office administrators need to consider how to get the highest results at a limited cost. Staff development is one way to stretch dollars with a strong impact. Providing professional development to high school English teachers on differentiation as well as direct reading instruction strategies appears to be highly beneficial to increasing student achievement for students with disabilities.

Providing a reading specialist at the high school level as a part of the English department also had a large impact on achievement for students with disabilities at a relatively inexpensive cost. At Site High school the reading specialist is a part of the English department staff. Class roles are slightly increased so that she can assess students, provide direct reading instruction, conduct ongoing professional development opportunities, and offer support to the English department staff. She assesses readiness levels for all entering students so that all teachers have reading comprehension and vocabulary levels on their students. She also provides direct reading instruction to students struggling in reading as an elective class. This gives the neediest students with a double dose of reading during their two day eight block day. The reading specialist also provides professional development for teachers of all content areas so that they can implement reading strategies within their subject matter. Finally, the reading specialist participates in the English department's PLC. During those weekly sessions she assists in interpreting student data, planning instruction, and evaluating assessments with the English team.

### **Implications for building administrators**

All of the teams in this study discussed the overwhelming support that they received from their building principal and his administrative team. The principal's leadership paved the way for teachers to access data on their students, for teams to have joint planning periods, for special educators to focus on one content area of instruction, for teams to have input in their longevity, and for teacher participation in personnel decisions regarding changes in team membership. For successful co-teaching Friend and Cook (2003) note that building level leaders play an important role in attending to the logistics of implementing co-teaching as a service delivery model. They ensure that partners have coordinated schedules, assist in problem solving, and develop a school culture of collaboration and support towards the success of all learners (Friend & Cook, 2003).

Teachers implementing the differentiation process also need to have support from building level administrators. Team 1 discussed this need for support from their school administration. The general educator said, "We are successful because we have the principal's support. He understands the process and helps to guide us when we need to problem solve." Principals and their administrative teams provide the day to day leadership in the school. Tomlinson and Allan (2000) list six building administrator responsibilities that support the implementation for differentiated instruction including: (1) blocks of time for special and general educators to teach together; (2) providing planning and problem solving time; (3) changing the ownership of certain groups of students to one of shared responsibility for all students; (4) encouraging professionals learning together; (5) allowing effective teams to work with novice teams; and (6) acknowledging the risks, efforts, and accomplishments of collaborative teams.

## **Implications for teachers**

During the interviews a sense of ownership of all students became apparent from all of the teams. They did not distinguish between themselves as the special or general educators. They referred to the students as öour studentsö and often said we don't treat the students with disabilities differently. They looked at all of the students' levels of readiness, interests, and learning profiles as a basis for planning instruction and implied that they see each learner as a unique entity that does not just fit into their instructional model. Instead the teachers design the instructional model based upon the needs of their students. The collaborative English teams at Site High School indicated that they provided differentiated instruction to all of their students. Differentiation is a way of life at site high school. Differentiation is for everyone. The teams differentiated content, process, and product according to their students' readiness, interests, learning profiles.

All of the teams discussed the use of data as the foundation to beginning the planning process. Data was accessed from students' evaluation reports, previous report cards, IEPs, previous SOL scores, student observations, student surveys, and parent information. Teams mentioned working together as teaching teams and as an English department to design instruction based upon this data. They also talked about providing students choices in ways they access their learning and display their learning while tying student interests into instruction wherever possible. Teams agreed that their high school students were highly motivated to participate in and complete assignments when the tasks were tied to their interests. Tomlinson and others (2003) report that student interest differentiation is highly motivating and increases student participation, student completion of assigned activities, and results in higher student achievement.

## **Limitations**

According to Lincoln and Guba (1985) transferability is the ability for the research to be generalized to other situations. Also known as external validity McMillan (2004) writes that due to the nature of qualitative research this type of research is to investigate a phenomenon in a specific setting that is unique to that particular study with little emphasis on study replication. This study was conducted at one site and describes the instructional strategies and practices of five teams of collaborative English teams who have been teaching together for several years. One limitation of the study is that the results are specific to this context and would not be generalized to teachers of other subject matters or for teams who have just begun to work together.

A second limitation of this study is the bias or subjectivity of the researcher. My background and beliefs served as a foundation at the start of the study. My opinions, prejudices, and other biases have had the potential to influence the results however during the process I have had to put my personal theories aside (Bogdan & Biklen, 2007). Although bias or subjectivity is unlikely to be completely eliminated I incorporated the use of a observation team and utilized a peer to review the field notes, observation forms, journals, and data selection to assist in reducing researcher bias. All interview transcripts were reviewed by the participants to insure accuracy of the transcriptions.

Observer effect is a third limitation of this study. Just the presence of a researcher can influence the behaviors and comments of the participants (Bogdan & Biklen, 2007). Although I do not supervise or evaluate the participants I do have a collegial relationship with them. To reduce observer effect I met with each participant prior to the start of the research to obtain their permission and ensure them of their anonymity. I also provided them information about how the

results would be used. During the interview process I tried to create a pleasant and relaxing environment so that each participant was comfortable in the situation and was able to respond in an honest manner.

### **Recommendations for Future Research**

The following section focuses on recommendations for further research that arose from the findings from this study. This research focused on collaborative high school English teachers and the strategies that they incorporated to assist in increasing the reading achievement of their students with disabilities.

#### **Expansion to other division high schools**

During this study the findings were collected at one high school. Additional research is warranted by expanding the study to include participants from other division high schools. Enlarging the study will examine whether teachers in other schools are implementing the same strategies to examine data and implement differentiated instruction for their students teaching reading in the content areas. The enlarged study will also determine if their strategies result in increasing the students with disabilities' pass rates on the state standardized reading assessments. More data will provide additional information and further update the results of this study.

#### **Examination of building level administrative staff**

Additional research is also needed in examining the effects of the building level administrative staff on the student achievement of students with disabilities. A major theme that arose from this data was the importance of the principal and his administrative team. They provided a high level of support to the collaborative teams in their approach to providing differentiated instruction to all of their students. Further research will provide vital information

as educators continue to search for ways to increase the reading achievement of students with disabilities.

### **Expansion to other content areas**

Expanding this study to other content areas or to other grade levels is a third recommendation. Replicating this study with other subject areas teachers or teachers of different grade levels may provide more information about implementing differentiated instruction and possibly increase the ability to generalize the findings. Examining the instructional practices of other content area teachers may have different challenges or results. Studying differentiation at other grade levels may uncover other factors specific to the characteristics of elementary or middle school levels.

### **Expansion to a longitudinal study**

More studies are needed examining differentiation and how it relates to increasing student achievement. Converting this study to a longitudinal study by following a cohort of students from their upper elementary years through their high school experience would allow for an in depth approach to gaining data over time. This would require students to be assessed in reading on an annual basis to measure their overall level in reading achievement. Teachers of the cohort would need to receive the same on-going professional development training on differentiation and they would also need to teach in similar manners. The students would need to be in a feeder pattern that has little transiency and has similar demographics. The school administration would need the same training and provide similar support to teachers. The cohort scores on the annual reading assessment would be compared with scores from students in a similar feeder pattern whose teachers and administration do not participate in on-going training in differentiation.

## Summary

This qualitative case study examined the reading strategies implemented by five high school English teachers and five high school special education teachers used to provide instruction to students with disabilities in inclusive settings. The school was selected because the achievement gap in the pass rates for all students tested and students with disabilities had decreased over a three year period. The teachers made up five collaborative teaching teams consisting of a general and special educator. Two observations of each team were conducted by two researchers focused on how the teachers differentiated the content, process, and products in their lessons. Interviews of each team were also completed that investigated how the teachers gained access to and used student readiness, interest, and learning profile data to plan for, implement, and assess instruction for their students with disabilities.

The literature review discussed the influence of the No Child Left Behind Act of 2001 and the Individuals with Disabilities Improvement Act of 2004 on schools. It revealed that schools are becoming more inclusive for students with disabilities. The first act mandates that 95% of students in public school will meet or exceed state standards by 2014. IDEA (2004) requires that students with disabilities have access to the general education curriculum, make measured progress, and receive their education in the least restrictive environment with non-disabled age appropriate peers. Creating collaborative teams implementing differentiated instruction is one way that inclusive schools are using to try to meet the unique needs of all learners.

Research on differentiated instruction rarely covers all of the components of differentiation. Instead it focuses on individual components such as Andrews and Slate's (2002) study on readiness levels or Hebert's (1993) work examining the impact on learning when

considering student interests. Sternberg (1997) found that when learning preferences are matched to instruction, all levels of students, grades kindergarten through twelve, showed increased achievement. There is limited research investigating student achievement when differentiating the content, process, or product during the instructional process. Furthermore, more research is needed on how teachers implement differentiated lessons.

This study has provided me several opportunities to add to the body of knowledge in regards to instructional strategies that support students with disabilities in inclusive classrooms. First, the participants planned their instruction in their collaborative English classes using student readiness, interest, and learning profile data, but emphasized the beneficial aspects of planning instruction based on students' interest. Student interest based assignments were highly motivating to the high school students. Teachers said that students were more willing to participate in class and complete assignments when activities were based upon student interest.

The study's results also indicate that the role of school administrators was vital in the collaborative process. The participants discussed how the principal's leadership paved the way for teachers to access data on their students and allowed for teams to have joint planning periods, focused special educators on teaching one content area of instruction, provided opportunities for teams to have input in their longevity, and encouraged teacher participation in personnel decisions regarding changes in team membership.

This study suggests that high school general and special educators can work in a collaborative fashion in order to meet the diverse needs in their classroom while incorporating components of differentiated instruction. In this school differentiation is a way of life. Differentiation is for everyone. It does, in fact, make special education kids part of general education. Further research is needed to determine if these strategies contribute to the success

of students with disabilities included in high school English classes beyond the doors of Site High School.

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## **Appendix A**

### **RESEARCH SUBJECT INFORMATION AND CONSENT FORM**

**TITLE: AN ANALYSIS OF SPECIALIZED READING INSTRUCTION IN HIGH SCHOOL ENGLISH CLASSES FOR STUDNETS WITH DISABILITIES INCLUDED IN GENERAL EDUCATION**

**VCU IRB NO.:** HM 12166

This consent form may contain words that you do not understand. Please ask the study staff to explain any words that you do not clearly understand. You may take home an unsigned copy of this consent form to think about or discuss with family or friends before making your decision.

#### **PURPOSE OF THE STUDY**

The purpose of the study is to determine whether schools that have shown improved achievement on standardized tests have in fact implemented specialized instruction designed to meet individual learner needs.

You are being asked to participate in this study because you are a collaborative teacher of English at Site High School.

#### **DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT**

If you decide to be in this research study, you will be asked to sign this consent form after you have had all your questions answered and understand what will happen to you.

In this study you will be asked to participate in two observations that will occur during your collaborative English class, each lasting one ninety minute block. Two observers will conduct the observations using an observation checklist. In addition following the last observation you will be asked to participate in an interview session with your collaborative teaching partner lasting approximately 45 minutes. One interviewer will conduct the session. In the interview you

will be asked to discuss how you plan for student instruction. The interview will be tape recorded to be sure to get everyone's ideas, but no names will be recorded on the tape.

Significant new findings developed during the course of the research which may relate to your willingness to continue participation will be provided to you.

## **RISKS AND DISCOMFORTS**

You do not have to answer any interview questions you do not want to talk about, and you may refuse to do so at any time.

## **BENEFITS TO YOU AND OTHERS**

You may not get any direct benefit from this study, but, the information we learn from people in this study may help us design better staff development and appropriate modes of support for teachers and schools.

## **COSTS**

There are no costs for participating in this study other than the time you will spend in the interview session.

## **CONFIDENTIALITY**

Potentially identifiable information about you will consist of observation checklists and notes, interview notes and recordings and any documents such as lesson plans that you choose to share. Data is being collected only for research purposes. Your data will be identified by ID numbers and records in a locked file cabinet. All personal identifying information will be kept in password protected files and these files will be deleted one year after completion of the research and destroyed at that time. Other records such as observation checklists and interview notes and recordings will be kept in a locked file cabinet for one year after the study ends and will be destroyed at that time. Access to all data will be limited to study personnel. A data and safety monitoring plan is established.

We will not tell anyone the answers you give us; however, information from the study and information and the consent form signed by you may be looked at or copied for research or legal purposes by Virginia Commonwealth University.

What we find from this study may be presented at meetings or published in papers, but your name will not ever be used in these presentations or papers.

The interview sessions will be audio taped, but no names will be recorded. At the beginning of the session, all members will be asked to use initials only so that no names are recorded. The tapes and the notes will be stored in a locked cabinet. After the information from the tapes is typed up, the tapes will be destroyed.

## ***VOLUNTARY PARTICIPATION AND WITHDRAWAL***

You do not have to participate in this study. If you choose to participate, you may stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study.

Your participation in this study may be stopped at any time by the study staff without your consent. The reasons might include:

- the study staff thinks it necessary for your health or safety;
- administrative reasons require your withdrawal.

## **QUESTIONS**

*In the future, you may have questions about your participation in this study. If you have any questions, complaints, or concerns about the research, contact:*

*Dr. Whitney Sherman  
Assistant Professor  
School of Education  
Virginia Commonwealth University  
1015 West Main Street  
P.O. Box 842020  
Richmond, Virginia 23284-2020  
Telephone: 804-828-8724*

If you have any questions about your rights as a participant in this study, you may contact:

Office for Research  
Virginia Commonwealth University  
800 East Leigh Street, Suite 113  
P.O. Box 980568  
Richmond, VA 23298  
Telephone: 804-827-2157

*You may also contact this number for general questions, concerns or complaints about the research. Please call this number if you cannot reach the research team or wish to talk to someone else. Additional information about participation in research studies can be found at <http://www.research.vcu.edu/irb/volunteers.htm>.*

## Appendix B

### Teacher Information Letter

Date

Dear first name, last name:

I am a doctoral candidate at Virginia Commonwealth University in the Educational Leadership Program. My dissertation study is entitled "An Analysis of Specialized Reading Instruction in High School English Classes for Students with Disabilities Included in General Education." In order to collect my data, I need to conduct observations of and interviews with collaborative high school English teachers in your school because on last year's tests your school had the smallest achievement gap on pass rates on the End of Course Reading Standards of Learning Tests between students with disabilities and all students. I would appreciate your assistance in this research.

Within the next two weeks, I will call you to ask for an appointment to meet with you. By inviting you to participate in this study I am asking you to:

1. allow two observations to be conducted in your classroom during English
2. give me permission for me to interview you and your collaborative partner and to audiotape the interview
3. give me permission to use the data collected as a basis for a research dissertation

All information is confidential and any information used will not disclose names, specific schools, or specific school systems.

Your assistance is greatly appreciated and information specific to you will be shared upon completion of this research. Your participation will be strictly voluntary and you will have the right to withdraw from the research at any time during the study. If you would have any questions, please contact me at [Kathy\\_Beasley@ccpsnet.net](mailto:Kathy_Beasley@ccpsnet.net).

Thank you in advance for your participation.

Sincerely,

## Appendix C

### Classroom Observation Guide

#### I. Planning

<b>PREPARATION FOR AND RESPONSE TO LEARNER NEEDS</b>	<b>Strong</b>	<b>Some</b>	<b>None</b>
1. Showed proactive preparation for a variety of student needs.			
2. Attended appropriately to students who struggle with learning (LD, ELL, reading etc.)			
3. Attended appropriately to students with physical/behavioral challenges.			
4. Attended appropriately to advanced students.			
Comments:			

#### II. Implementation

<b>INSTRUCTIONAL PRACTICES AND CLASSROOM ROUTINES</b>	<b>Strong</b>	<b>Some</b>	<b>None</b>
1. Varied student groupings: individual, pairs, small groups.			
2. Used multiple modes of instruction, with emphasis on active learning.			
3. Made flexible use of classroom space, time, materials.			
4. Communicated clear directions for multiple tasks.			
5. Provided effective rules/routines that supported individual needs.			
6. Emphasis on completion against self, not other students.			
Comments:			

### III. Implementation

EVIDENCE OF DIFFERENTIATION	Strong	Some	None
1. Content: e.g. materials of varied readability and/or interest, multiple ways to access Ideas/information; etc.			
2. Process: e.g. tiering; contracts; compacting; readiness-based small group instruction; different homework; choices about how to work (alone, pair, small group); tasks in multiple modes; variety of scaffolding; etc.			
3. Products: e.g. product assignments with multiple modes of expression; with choices about how to work (alone, pairs, small groups); opportunity to connect learning with individual interests; variety of assessment tasks; variety of scaffolding; etc.			
Comments:			

Adapted from 1.15.06 Classroom Observation Form-DI6 Used with permission  
*Acknowledgements:* This instrument was created with Carol Tomlinson by strategic Research L.L.C. as part of a program evaluation contracted by the Richland 2 School District in Columbia, South Carolina. Inquiries should be addressed to Strategic [Rsrch@aol.com](mailto:Rsrch@aol.com)

Strategic  
 Research

## Appendix D

### Interview Protocol

Each interview will be conducted in the school to which the teachers are assigned. The interviews will be tape recorded while the researcher takes limited notes on the participant's responses as well as field notes on the context, apparent attitude of the participant, overall impressions, and miscellaneous details. The researcher will make every attempt not to lead the participant in his or her answers to the questions being asked.

#### A. Briefing

The interview will begin with a briefing for the participant as to the nature and context of the study, the purpose and procedures of the interview, and the use of the tape recorder. The participant will be informed on their right not to answer any questions and to stop the interview at any time.

#### B. Interview Questions

The script of the interview will resemble the following as close as possible:

I would like to learn about how you and your collaborative partner plan reading instruction to meet the needs of students with disabilities. I have a number of specific questions to ask. You may answer them in any way you desire, and speak for as long as you wish.

### Framework Questions

1. What is your definition of differentiated instruction?
2. What do you think is important for you to know about students when planning lessons?
3. Have you attended any trainings on differentiated instruction? If so, which ones? How have they influenced your teaching? Please give an example.

Assessment: What data do teachers have access to when planning differentiated reading lessons?

4. Describe the data you use to assess student readiness levels? How do you gain access to the information? Please give an example of a time you have done this.
5. Describe the data you use to assess student interest? How do you gain access to the information? Please give an example of a time you have done this.
6. Describe the data you use to assess learning profiles? How do you gain access to the information? Please give an example of a time you have done this.
7. Describe data you use that is gained prior to instruction, data gained during instruction, and/or data gained from culminating assessments? Please give examples of each (if applicable).

Planning: How is data used to differentiate reading instruction for students with disabilities?

8. How do you use data to meet the needs of varying readiness levels of students with disabilities during reading instruction? Please give an example of a time you have done this.
9. How do you use data to meet the needs of varying interest levels of students with disabilities during reading instruction? Please give an example of a time you have done this.
10. How do you use data to meet the needs of the varying learning profiles of students with disabilities during reading instruction? Please give an example of a time you have done this.

Implementation: How do teachers differentiate reading instruction for students with disabilities?

11. Carol Ann Tomlinson's definition of **content** as related to differentiated instruction is what the student needs to learn or how the student will get access to the information. Based on this definition, how do you differentiate the content of your

lessons in reading to meet the needs of students with disabilities?

12. Carol Ann Tomlinson's definition of **process** as related to differentiated instruction is the activities in which the student engages in order to make sense of or master the content. Based on this definition, how do you differentiate the process of your lessons in reading to meet the needs of students with disabilities?
13. Carol Ann Tomlinson's definition of **product** a related to differentiated instruction are the culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit. Based on this definition, how do you differentiate the required products of your lessons in reading to meet the needs of students with disabilities?

Summary Question:

14. Do you have anything else you would like to share regarding the instructional practices and routines in reading you use to meet the varying individualized needs of students with disabilities?

C. Debriefing

The interview will end with a debriefing. This will be done to ease any tension or anxiety the participant may have from sharing information and allow him or her to provide feedback on some of the information shared. The interviewer will highlight some of the main points learned from the interview and allow the participant to comment on them. The participants will be asked if there is any additional information they would like to share before the interview ends.

## Appendix E

Table of Specifications for Observation Guide

	Question 1	Question 2	Question 3
	Assessment	Planning	Implementation
Readiness		I-1, 2	
Interest			
Learning Profile		I-3, 4	
Content			III-1
Product			II-6, III-2
Process			II-1, 2, 3, 4, 5
			III-3

## Appendix F

Table of Specifications for Interview Protocol

	Question 1	Question 2	Question 3
	Assessment	Planning	Implementation
Readiness	4	7	
Interest	5	8	
Learning Profile	6	9	
Content			11
Product			12
Process			13

## Vita

Kathy Rosvold Beasley was born in Bucks County, Pennsylvania. She graduated from Cinnaminson High School in Cinnaminson, New Jersey in 1978. Ms. Beasley received her Bachelor of Arts degree in Psychology with licensure in Elementary Education from Western Maryland College (WMC), Westminster, Maryland in 1982. She continued her education at WMC (now known as McDaniel College) and received a Master of Arts in (Special) Education in 1983 with additional licensure in Learning Disabilities, Emotional Disabilities, and Intellectual Disabilities. In 1996 Ms. Beasley completed post Masters level coursework in Supervision and Administration at Virginia Commonwealth University, Richmond, Virginia. Currently she holds a Post Masters teaching license in Virginia with endorsements in Elementary Education, Learning Disabilities, Emotional Disabilities, Mental Retardation, and as an Elementary/Middle School Principal.

Ms. Beasley has been a Special Education Instructional Specialist in the Department of Exceptional Education for Chesterfield County Public Schools since 2004. Prior to coming to Chesterfield she held a similar position in Roanoke County Public Schools. Previously she was team leader and teacher of students with learning disabilities, emotional disabilities, and intellectual disabilities in Henrico County Public Schools. Ms. Beasley also taught students with disabilities in Hanover County Public Schools and for the Department of Correctional Education.

