

2012

# Methodological Modes: Instructional Practice and 21 st Century Engagement in Secondary English Classrooms

Laurel Eury Naughton  
*Gardner-Webb University*

Follow this and additional works at: [https://digitalcommons.gardner-webb.edu/education\\_etd](https://digitalcommons.gardner-webb.edu/education_etd)

 Part of the [Curriculum and Instruction Commons](#), [Educational Methods Commons](#), and the [Secondary Education and Teaching Commons](#)

---

## Recommended Citation

Naughton, Laurel Eury, "Methodological Modes: Instructional Practice and 21 st Century Engagement in Secondary English Classrooms" (2012). *Education Dissertations and Projects*. 66.  
[https://digitalcommons.gardner-webb.edu/education\\_etd/66](https://digitalcommons.gardner-webb.edu/education_etd/66)

This Dissertation is brought to you for free and open access by the School of Education at Digital Commons @ Gardner-Webb University. It has been accepted for inclusion in Education Dissertations and Projects by an authorized administrator of Digital Commons @ Gardner-Webb University. For more information, please see [Copyright and Publishing Info](#).

Methodological Modes: Instructional Practice and 21<sup>st</sup> Century Engagement in  
Secondary English Classrooms

By  
Laurel Eury Naughton

A Dissertation Submitted to the  
Gardner-Webb University School of Education  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Education

Gardner-Webb University  
2012

## Approval Page

This dissertation was submitted by Laurel Eury Naughton under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

---

Barbara Zwadyk, Ed.D.  
Committee Chair

---

Date

---

David Shellman, Ed.D.  
Committee Member

---

Date

---

A. Douglas Eury, Ed.D.  
Committee Member

---

Date

---

Frances B. Burch, Ph.D.  
Dean of Graduate School

---

Date

## Acknowledgements

This dissertation, fondly nicknamed “The Beast,” was written for my father and mother, Max and Patricia Eury, without whose encouragement, love, and devotion I would have quit long ago—together they form the core of our family’s lifelong learning community; for my daughter, Meg, who daily asked, “Have you written anything?”—you are my inspiration and my angel, and your tenacity is peerless; for my husband, Peter, who quotes Winston Churchill whenever I falter; for my friend and colleague, Dr. Barbara Zwadyk, whose advice and gentle nudging got me through; for my mentors and committee members, Dr. Doug Eury and Dr. David Shellman; for my friend, Kay Endriss, who repeatedly and tirelessly explained linear regression—well, maybe she did tire of it, but she never complained; for *mi amiga major*, Tiffany Hamilton, my irreplaceable and innovative sounding board; and for all of my friends and family—“I can no other answer make but thanks, and thanks; and ever thanks....” *Twelfth Night*

## **Abstract**

Methodological Modes: Instructional Practice and 21<sup>st</sup> Century Engagement in Secondary English Classrooms. Naughton, Laurel Eury, 2011: Dissertation, Gardner-Webb University, Twenty-first Century Learners/Secondary Schools/Student Engagement/Instructional Strategies/Methodology

This dissertation was designed to provide insight into the teaching practices of secondary English teachers. Current learners are in classrooms in which the instructional practices or methodologies are employed, but may not be engaging students. Information sought included the degree to which 21<sup>st</sup> century practices were being incorporated into the lessons, and the level with which students were engaging with the material.

The researcher observed classrooms of junior and senior English, and measured the level of engagement triangulating the data from the local school agency's observation tool with that of Van Amburgh et al.'s (2007) active learning inventory tool and teacher perception, all based on student engagement. Teachers were solicited as volunteers and were allowed to add any information about the lesson that they deemed relevant.

## Table of Contents

	Page
Chapter 1: Introduction .....	1
Purpose of the Study .....	1
Statement of the Problem.....	1
Background and Significance of the Problem .....	2
Major Issues Related to the Problem .....	9
The Setting.....	18
Research Questions .....	21
Definitions of Terms .....	21
Chapter 2: Literature Review.....	23
Student Engagement .....	23
Contemporary Learners .....	31
Methodology and Methods of Engagement.....	32
Shifting the Pedagogy .....	40
Chapter 3: Methodology .....	44
Research Questions .....	44
Research Design.....	44
Population and Sample .....	46
Instrumentation .....	47
Methodology Limitations.....	51
Methodology Delimitations .....	52
Chapter 4: The Results.....	53
Introduction.....	53
Statement of the Problem.....	54
Research Questions .....	56
Quantitative Data Analysis .....	56
The Setting and Population.....	57
Overall Data .....	59
Results by Teacher .....	69
Qualitative Analysis.....	78
Teacher 1 .....	78
Teacher 2.....	79
Teacher 3.....	79
Teacher 4.....	80
Teacher Perception Comparison .....	81
Chapter 5: Summary, Conclusions, and Recommendations.....	84
Overview .....	84
Research Questions .....	85
Summary of Major Findings and Conclusions .....	87
Further Research .....	93
A Call to Arms: Recommendations for Further Study .....	95
References.....	97
Appendices	
A 21 <sup>st</sup> Century Learning Survey .....	104

B	Van Amburgh et al.'s (2007) Active Learning Inventory Tool .....	106
C	Modified Walk-through Observation Form .....	108
D	Debriefing Interview Form for Teachers .....	110
E	Permission from Dr. Van Amburgh to Use the Tool .....	112

#### Tables

1	Table of Sex, Ethnicity, Education Level, and Experience of Educators at the Organization Studied.....	19
2	The Student Enrollment and Course Load at the Organization Studied.....	20
3	Absolute and Relative Frequencies of Methodology .....	61
4	The Number of Occurrences and Relative Percentage of Methodology for Teacher 1 .....	69
5	The Number of Occurrences and Relative Percentage of Methodology for Teacher 2.....	71
6	The Number of Occurrences and Relative Percentage of Methodology for Teacher 3.....	73
7	The Number of Occurrences and Relative Percentage of Methodology for Teacher 4.....	76

#### Figures

1	Instructional Practices Observed During the Study's Walk-through Observations .....	60
2	The Percentage of Observed Student Actions Observed During the Study's Walk-through Observations Rounded to the Nearest Whole Number.....	62
3	The Levels of Class Engagement as Disaggregated by the County's Walk-through Observation Tool and Rounded to the Nearest Whole Number.....	63
4	The Percentage Breakdown of Engaged Students Based on the Van Amburgh et al. (2007) Active Learning Inventory Tool .....	64
5	The Bloom's Taxonomy Categorical Breakdown of Task Level Difficulty for the Observed Classroom Activities Rounded to the Nearest Whole Number.....	66
6	The Van Amburgh et al. (2007) Categorical Breakdown of Student Levels of Work Observed During the Study and Rounded to the Nearest Whole Number Percentage .....	68
7	Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 1's Class.....	70
8	Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 2's Class .....	72
9	Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 3's Class .....	75
10	Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 4's Class .....	77
11	Triangulation of Data from the County Observation Tool, the Van Amburgh et al. (2007) Active Learning Inventory Tool, and the Teacher Perception Debriefing Interviews .....	82

## **Chapter 1: Introduction**

### **Purpose of the Study**

This dissertation was designed to provide insight into the teaching practices of secondary English teachers. Current learners are in classrooms in which the instructional practices or methodologies are employed, but may not be engaging students. Information sought included the degree to which 21<sup>st</sup> century practices are being incorporated into the lessons, and the level with which students are engaging with the material. The purpose of this study was to measure and report the relationship among active learning, student engagement, and teacher methodology. In addition, it was the purpose of this study to identify effective methodology for engaging 21<sup>st</sup> century learners.

According to Canton (2007), education has a history of being reactive rather than proactive. Educators know this; however, we labor under the misconception that if you really like those kids, and really want what is best for them, you are doing your job. The truth is that we are not doing our job if we are not looking to the future. We need to be proactive and educate children for a future that we know nothing about. In order to complete this herculean task, we must educate our 21<sup>st</sup> century learners utilizing 21<sup>st</sup> century methodologies for the 21<sup>st</sup> century. Fortunately, businesses have begun to dictate what they want from their 21<sup>st</sup> century workers. Their dictum has begun to force education to become proactive. In response to the shifting needs of contemporary learners, educators shape their pedagogy, as an artist would shape clay form into statuary.

### **Statement of the Problem**

According to walk-through observations, mandated by the county's administrative offices, the teachers at the subject school rely heavily on lecture and whole-class instruction. From the months of August 2009 to May 2010, the data from administrative



school-wide walk-throughs report that out of 290 classes observed across the disciplines, 209 were involved in lecture. Overwhelmingly, this shows that the teachers depend on teacher-centered instruction. With a population of students who are taking career preparatory courses (career technical education students) and those on their way to college (advanced placement students and college prep), perhaps lecture is the best methodology. Engagement may be achieved through lecture. A study should be conducted that measures the level of engagement based on the methodology. If educators purport to want to reach all learners, then they need to know how to accomplish that.

The purpose of this dissertation is to provide insight into the teaching practices of secondary English teachers. Current learners are in classrooms in which the instructional practices or methodologies are employed, but may not be engaging students. Information sought includes the degree to which 21<sup>st</sup> century practices are being incorporated into the lessons, and the level with which students are engaging with the material.

### **Background and Significance of the Problem**

Through the United States Department of Education, a national organization that advocates 21<sup>st</sup> century readiness skills for every student, The Partnership for 21<sup>st</sup> Century Skills (Partnership), was formed among businesses (AOL Time Warner Foundation, Apple Computer, Inc., Cable in the Classroom, Cisco Systems, Inc., Dell Computer Corporation, Microsoft Corporation, National Education Association, and SAP) and individuals (Ken Kay, President and Co-Founder and Diny Golder-Dardis, Special Advisor and Co-Founder of Partnership for 21<sup>st</sup> Century Skills). The Partnership issued invitations to individual states, and several decided to join the Partnership in proactively preparing students for skills that they would need for their futures. According to the Partnership's (2009) website, the first states to accept the invitation were Arizona,

Illinois, Iowa, Kansas, Louisiana, Maine, Massachusetts, Nevada, New Jersey, North Carolina, South Dakota, West Virginia and Wisconsin, with several more joining since the Partnership's inception in 2002 (p. 1). The Partnership created a framework document that outlines skills needed by students for their successful futures, the needs of a 21<sup>st</sup> century learner. These needs are outlined by topic (learning and innovation skills, information, media and technology skills, and life and career skills) and include the following: creativity and innovation; critical thinking and problem solving; communication and collaboration; information literacy (judging the accuracy of information); media literacy (judging the reliability of media such as television/radio); technology literacy (being fluent in current technology programs); flexibility and adaptability; initiative and self-direction (being self-motivated); social and cross-cultural skills; productivity and accountability (doing what you are supposed to do); and leadership and responsibility. According to the Route 21 website, part of the Partnership for 21<sup>st</sup> Century Skills, the hope of the Partnership is to "Serve as a catalyst to position 21st century skills at the center of US K-12 education by building collaborative partnerships among education, business, community and government leaders" (Partnership, 2009, p. 1). The Partnership (2009) was founded on the belief that "There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces" (p. 2). It is their desire to enable and facilitate learning for the 21<sup>st</sup> century students, allowing them to enter the future workforce as not only competent but also as globally competitive.

The framework document (Partnership, 2009) states that to successfully face rigorous higher education coursework, career challenges and a globally competitive

workforce, U.S. schools must align classroom environments with real world environments by infusing 21<sup>st</sup> century skills. However, to align classroom environments with real world environments, educators must have the attention of the future workers. Educators must learn to engage students. In the 21<sup>st</sup> century, teachers need to be able to address the needs of students who will have to make their way in the world without much guidance. As the generations age, fewer adults will be able to help the young since the young generally have more access to technology and more willingness to learn it. As Warlick (2004) stated, “We have lost control over the information. Children control it now. They need to learn to control their information in positive, productive, and personally meaningful ways – and this is what we need to be teaching them” (p. 22). In other words, to be an effective teacher in the 21<sup>st</sup> century, educators need to keep the lessons relevant, meaningful, and interesting.

Today’s learners have a new, or at least unfamiliar to the older generations, mindset. They are digital natives, and their brains have developed differently from modern teachers’ brains. According to Tapscott (2009),

Brain regions associated with attention, evaluation of rewards, emotional intelligence, impulse control, and goal-directed behavior all change significantly between age 12 and 24. These neurological changes during adolescence may explain, in part, why many teenagers appear to be disorganized [*sic*], have poor impulse control, and have difficulty making long-term plans. (p. 100)

According to Jensen (2000),

The traditional “stand and deliver” approach is brain antagonistic. The brain is not very good at absorbing countless bits of semantic information. What feeds the brain more is meaningful exposure to larger models, patterns and

experiences. From this rich diet, the learner's brain will extract for itself the information it deems important. (p. 34).

The brains of 21<sup>st</sup> century learners work differently from the brains of their teachers. These learners are multitaskers and peripheral learners. Jensen (2000) stated, "The brain absorbs information from surrounding peripherals on a conscious and unconscious level. Although many of us commonly use peripherals, they may support learning even more than we realize" (p. 59). Tapscott (2009) acknowledged this use of peripheral learning and took it further when he incorporated into his book,

William D. Winn, director of the Learning Center at the University of Washington's Human Interface Technology Laboratory, put it this way: children think differently from the rest of us. They develop hypertext minds. They leap around. It is as though their cognitive structures were parallel, not sequential. (p. 105).

This is the key—harnessing this hyper connectivity, multitasking behavior, and parallel cognitive structures in order to facilitate learning.

In order to reach today's learners, teachers must employ alternate methodologies. The only way for the educators to facilitate learning for the 21<sup>st</sup> century is to acknowledge the needs of the contemporary learners and adjust pedagogies to meet those needs. Barry (2010) stated,

Policymakers and the public must now focus on the ways we expect teachers to think about and do their work and the varied roles they need to play in student learning. The focus of today's debates should not be about "making" better schools and teachers using a 20th century blueprint. The key conversation needs to be about changing the learning environments of students and the teachers who

serve them. (p. 4).

Actually engaging contemporary students seems to be a growing problem everywhere. Multitudinous articles have been written describing the concern and offering solutions. An entire movement has been created based on current education's failure to engage learners in the 21<sup>st</sup> century. Rotherham and Willingham (2009) stated the following:

Advocates of 21st century skills favor student-centered methods—for example, problem-based learning and project-based learning—that allow students to collaborate, work on authentic problems, and engage with the community. These approaches are widely acclaimed and can be found in any pedagogical methods textbook; teachers know about them and believe they're effective. And yet, teachers don't use them. Recent data show that most instructional time is composed of seatwork and whole-class instruction led by the teacher. Even when class sizes are reduced, teachers do not change their teaching strategies or use these student-centered methods. (p. 19)

In other words, teachers, no matter what the data state, do not seem to employ methodologies that would actively engage the contemporary learner. There needs to be a shift in pedagogy.

Tapscott (2009) described a bleak perception of learners today. He stated that his surveys indicate that today's adults consider today's teens and tweens shameless, coddled, thieving bullies with violent tendencies. Supposedly, they are the future's amoral, narcissistic, bad employees who "just don't give a damn" (Tapscott, 2009, p. 5). Tapscott went on to quote Emory's English Professor Mark Bauerlein's summation of the generation:

The twenty-first century teen, connected and multitasked, autonomous yet peer-mindful, makes no great leap forward in human intelligence, global thinking, or netizen-ship. Young users have learned a thousand new things, no doubt. They upload and download, surf and chat, post and design, but they haven't learned to analyze a complex text, store facts in their heads, comprehend a foreign policy decision, take lessons from history, or spell correctly. Never having recognized their responsibility to the past, they have opened a fissure in our civic foundations, and it shows in their halting passage into adulthood and citizenship.

(p. 5)

Professor Bauerlein's view of the current youth generation is bleak, to say the least.

However, Tapscott (2009) continued his book with arguments that the students do not fit any of the descriptions above (except the one concerning bad spelling). Tapscott argued instead that today's kids are misunderstood and their classroom needs are not being met effectively. He pointed out the need for a new teaching style, a style that would address 21<sup>st</sup> century learners. To meet the needs of the 21<sup>st</sup> century student, society needs 21<sup>st</sup> century teachers.

Warlick (2004) interconnects with these notions, and adds practical approaches to becoming an effective teacher in the 21<sup>st</sup> century. The author stated that there are four critical questions for educators to guide their practice. The questions are, "Who will we teach? What will we teach them? How will we teach them? How well are we succeeding?" (Warlick, 2004, p. 16). In answering these questions, today's educators will redefine their roles in the classroom, and become more effective for a generation that, ultimately, feels out of place in a traditional classroom with traditional instruction (also known as f2f – face to face – classrooms). Warlick makes the case for a change in a

three R's mentality (Reading, wRiting, aRithmetic) to a three E's mentality (Expose information, Employ information, and Express ideas compellingly) in order to prepare future generations for a world in which jobs skills are unknown. Society does not know what the future workforce will require because those jobs have not been invented yet. If educators' effectiveness is judged by how well they prepare students to face the future, then teachers will have to gain new skills as well. Instead of the radical change in pedagogy as referenced in Mezirow (1997), transformation is not necessary. Instead, the educational system needs a shift in pedagogy; teaching as an art form implies that the form is fluid and individual. At its essence, "teaching is an art that calls on its practitioners to work simultaneously in multiple media, with multiple elements" (Tomlinson & McTighe, 2006, p. 12). It is a craft that teachers hone rather than a science in which experimental results can be replicated under exact conditions. Roskelly (2009) argued that teacher experience is crucial to addressing the needs of the 21<sup>st</sup> century learner. She stated that a major challenge to the contemporary educator is that experience has been increasingly squeezed out in favor of "pre-packaged curricula and pre-determined tests," and continues that "experience has to do with listening, speaking, changing, being changed" (Roskelly, 2009, p. 198). These identifiers of experience speak to the idea of a shifting pedagogy.

Prensky (2008) offers *Principles for Principals*. He suggested that students have a "meaningful voice in setting all school policy regarding technology use; make 100% engagement the goal; talk with students daily about their learning; implement a 'kids teaching themselves with guidance' model" and long distance collaboration, among others (Prensky, 2008, p. 43). These suggestions coincide with both those of Warlick (2004) and Tapscott (2009), as well, with the emphasis on student-based, individual

curriculum and allowing students to become the leaders in technology and education.

In the 21<sup>st</sup> century, teachers need to be able to address the needs of students who will have to make their way in the world without much guidance. As the generations age, fewer adults will be able to help the young since the young generally have more access to technology and more willingness to learn it. Skills of research and adaptation will be needed. Students will need to be able to gather, filter, and infer. Teachers of today need to be able to teach these skills to students, students who have myriad technology skills.

As Sprenger (2009) wrote,

Throughout their long lives, our students will not be passive viewers, but participants in an interactive, digital world. We adults must help all students assimilate technology into their lives in a way that will enhance—not eclipse—skills like sustained thinking and connecting to fellow humans. (p. 34)

### **Major Issues Related to the Problem**

A major problem-related issue that exists is the definition of engagement. The definition of student engagement ranges from extra-curricular involvement at school (Stout & Christenson, 2009) to merely being present in class on any given day (Fuller, 2010). In The International Center for Leadership in Education's companion to the professional development resource kit (Jones, 2009), learner or student engagement is defined as the

extent to which all learners (1) are motivated and committed to learning, (2) have a sense of belonging and accomplishment, and (3) have relationships with adults, peers, and parents that support learning. Indicators include attendance rate and participation rates in extracurricular activities. Students need to be engaged before they can apply higher order, creative thinking skills. They learn most



effectively when the teacher makes sense and meaning of the curriculum material being taught. (p. 24).

In order for educators to understand each other, they must agree on the parameters of the definition. For the purposes of this study, student engagement will be considered *active engagement* and it will be defined according to a study conducted to measure pharmaceutical students' classroom engagements. Van Amburgh, Devlin, Kirwin, and Qualters (2007) wrote,

Student engagement in the classroom involves the student participating in a didactic triangle interaction between the instructor, fellow students, and the discipline material. The most challenging aspect of this relationship for instructors to establish is the student interaction and engagement with material beyond the basic level of knowledge and comprehension. We have begun to think of this learning process as "the continuum of engagement," where students are presented with multiple pathways to engage in learning that must begin with being actively engaged in the classroom. (p. 1)

Student engagement is being actively involved in the lesson with the ultimate purpose being a deeper comprehension of material.

The measurement of engagement is also an issue. Jones (2009) wrote, A key to increasing student engagement is finding efficient ways to measure it. When something is measured, summarized, and reported, it becomes important, and people pay attention. Many schools are working diligently to improve student engagement. Frustration can occur, however, if schools embrace this goal without a systematic approach to measure current student learning, set goals, monitor progress, and recognize success. (p. 23)

The author continued,

Other initiatives, such as student engagement, however, are not so meticulously conceived. Rather than allowing data to drive goal setting and decision making, some schools still are guided by good intentions, hunches, and impressions.

Often, these schools inadvertently lose sight of learners' needs as they struggle to ensure compliance with state regulations. The quest for student engagement must be conducted in the context of a comprehensive data system for measuring student learning. The same holds true in pursuing the implementation of successful engagement practices that foster student learning. (Jones, 2009, p. 23)

Measuring student or learner engagement can be difficult. Jones (2009) offers a checklist researched and supported by the International Center for Leadership in Education. This checklist is based on what a casual observer can glean from a brief walk-through.

Categories include positive body language, consistent focus, verbal participation, student confidence, and fun/excitement. The checklist was designed with the walk-through observation in mind so that the observer would not need to be present for a great deal of time in order to comprehend and assess the level of learner engagement. The checklist would be the first part of an observation. Included as the second part of the observation would be a questionnaire for students based on their perceptions of the lesson. Jones (2009) wrote,

As administrators and instructional supervisors conduct classroom walk-throughs, they can use the checklist to rate the level of student engagement in each of the categories. The first part is based on direct observation of students and includes these criteria: positive body language, consistent focus, verbal participation, student confidence, and fun and excitement. The second part of the checklist

requires more than direct observation. It requires talking to students to determine more about their mental engagement. These criteria include attention to individual needs, clarity of learning, meaningfulness of work, rigorous thinking, and performance orientation. (p. 28)

A second measurement tool for active learning and engagement comes from the abovementioned study by Van Amburgh et al. (2007). The two tools developed for and utilized in the study are the active learning inventory tool which measures student reaction and response to assignment tasks based on levels of complexity, and a measure of faculty approach to the assigned tasks, including making adjustments if the students disengage. The first tool would be one of observation of the students, and the second would be a self-assessment for the teacher; both designed to inform practice.

The definition and discipline of teaching is a major issue as well. Is it a science? Is it an art? Can it be termed a craft? Brown and McIntyre (1993) defined teacher craft knowledge as

that part of their professional knowledge which teachers acquire primarily through their practical experience in the classroom rather than their formal training, which guides their day-to-day actions in classrooms, which is for the most part not articulated in words and which is brought to bear spontaneously, routinely and sometimes unconsciously in their teaching. (p. 17)

The authors continue with the following:

It is on craft knowledge that teachers seem to rely most often when faced with the complexities of teaching on a daily basis (Brown & McIntyre, 1993; Batten, 1993). Coldron and Smith (1999, p. 722) argue “that certain craft skills seem fundamental” to teaching and teachers. The current study focused on

teachers' craft knowledge and did not formally address other forms of teachers' knowledge, such as those acquired through pre-service and continuing professional development or through their reading of the literature. Although it would be foolish to ignore the richness and value of these other kinds of knowledge and theorizing, according to Wideen, Mayer-Smith, and Moon (1996, p. 191) "little research evidence exists to suggest that formal knowledge generated by outsiders can or will be applied readily by teachers." If this is true, and my experience of working with teachers suggests that it is, the study of teachers' craft knowledge is both justified and necessary. This is particularly true in times of educational reform when the teacher is in danger of being cast in the role of recipient rather than innovator or owner of change. The (teachers) in this study tended to rely on their craft knowledge in the face of challenge and complexity. (Brown & McIntyre, 1993, p. 24)

Teacher craft is not well-researched or documented because it is an art, and measuring an art for scientific purposes is not precise (Day, 2005). The issue attached here is that even if a teacher has it *right*, there is no guarantee that he will have it *right* for the next class coming in. Therefore, engaging the students through teacher craft is imprecise, immeasurable, and nonspecific. There is no formula for successful art; art just happens. Even were novice teachers to observe and record every word of the expert's lesson, the novice could not recreate it because the moment cannot happen twice. The best hope for recreating the art of craft is to "investigate the roots, nature and characteristics of teachers' craft knowledge. They could then work on creating a language and framework for acknowledging, describing and extending teachers' craft knowledge" (Day, 2005, p. 28).

The effectiveness of assessment techniques designed to enhance engagement is another issue. At New Jersey's Widener University, Dr. Van Horne (2009) studied assessment techniques and their effect on student engagement based on the idea that students who are engaged with their learning, learn more. The researcher utilized mixed-methods to study upper-level crime prevention and corrections courses (approximately 150 students) for one semester, comparing the traditional style of teacher-centered instruction to two courses designed around the points and choice system described below. Again, however, the idea that engagement means different ideas to different institutions created the need to conceptualize it within the study. Van Horne (2009) chose to categorize student engagement in Bowen's (2005) four parts: "engagement with the learning process, engagement with the object of study, engagement with the contexts of the subject of study, and engagement with the human condition" (Van Horne, 2009, p. 345). The study pointed out the correlation between students' active involvement in class and their class achievement levels, as well as their levels of personal development. The focus of the study was a point system in which a specific range of points are associated with a particular grade. The students determined how their grade would be based; they chose their assignments to complete from a menu of choices with differing point values assigned. Some assignments were mandatory while others were optional. This led to a significant flexibility for both faculty and students. This also led to an increased perception of engagement, enhanced learning, and increased motivation. The drawbacks included more work for the faculty; significantly more time spent planning for both faculty and students; too many options proved to be demotivating for students; and the possibility for students to earn a high grade without having learned integral portions of the material. Additional benefits included the faculty's ability to add creative aspects to

the assessments. By creating more choices, the faculty promoted student creativity and increased students' desires to challenge themselves. The choices also included more collaborative opportunities than in past syllabi. Van Horne (2009) concluded that the points system may be a more accurate assessment of what students have learned than traditional assessment because they had the choice of which assignments to complete. For example, students who did not excel at memorization did not choose to memorize and recite. The lack of motivation because of too much choice seems like a paradox, but Van Horne (2009) explained that students who are required to make choices sometimes experience a reduction in their ability to make choices or initiate activity, based on Baumeister, Bratslavsky, Muraven, and Tice's findings in 1998. Some initial studies indicated that students performed better with a limited number of choices, such as "6 potential topics compared to 30" (Van Horne, 2009, p. 352). Future recommendations of Van Horne's (2009) study include adapting the points system for different level courses in order to grow student-centered instruction.

Another major barrier to student engagement is educational negligence. In the Yonezawa, Jones, and Joselowsky (2009) 10-year study of 5,000 San Diego high school students, including *co-researcher* high school students, the researchers found that educators have "lost sight of the need to provide students with an education that is both challenging and stimulating" (p. 191). They stated that engagement is critical to academic success; however, the researchers take issue with past emphasis on a "unidimensional definition of the term [engagement] focusing our [the public's] attention on its behaviors, cognitive, or emotional components" (Yonezawa et al., 2009, p. 192). The authors call for a multidimensional interpretation of the term engagement wherein all of the aforementioned components are acknowledged simultaneously. They advocate for

the voice of the student to be a major factor in curriculum decisions. The study reports that “America’s school and community environments have failed to support adequately youth’s academic and social-emotional development” (Yonezawa et al., 2009, p. 192). Secondary students are dropping out at alarming rates and feel disconnected or disengaged from adults hired to teach them. The curriculum is archaic and the teachers are too set in their past ways to effectively engage high school students today. In essence, the researchers seek a change in the definition of and the way to view engagement, and an answer to the question, “What do youth need to improve their engagement in school?” In the past, the authors say, researchers defined engagement based on behaviors alone such as sports team membership or the avoidance of unruly behavior. Due to this limited definition, measurements have not been accurate. There is no way to prove a level of engagement if the term’s definition is incorrect. In reality, the essential refinement needed in order to measure true engagement is studying critical youth voice and its educational setting. The research supports the fact that altering a youth’s setting by changing his peer group, peer social network, or school culture can impact student voice. The authors include in the term *setting*, specific teacher methodology within the classroom. A better understanding of “what makes particular settings more effective and supportive for youth will enable policymakers and educators to alter social settings systematically to improve setting outcomes” (Yonezawa et al., 2009, p. 198). The study also delves into identity theory, and points out that students have a self-proclaimed identity (*rebel, the friendly girl, the smart one*) which almost always differs from an adult’s perception. These identities allow the student to find his/her place in the culture of the school. Sometimes that place becomes burdensome to the student, or becomes an emotional hindrance. By altering educational settings, the

student is able to transform his/her identity and engage in the classroom. The study assigned students tasks as researchers for school improvement, thereby shifting their identities toward an academic nature. The researchers assigned the nomenclature *critical youth voice* to the results of the surveys conducted by the student researchers, and made a case that student voice is the most important piece of enhancing student engagement. Students must feel part of the reform effort; they have a unique perspective on what is actually engaging to youth. Some mentioned by the authors, and cautioned against, include adult domination and the creation of false opportunities. The study supports the fact that the students must feel integral to the process and the adults involved must be sincere. Yonezawa et al. (2009) stated, “Only when we improve how we [educators] create more engaging settings for youth can we alter youth identity and voice, and, ultimately improve students’ academic achievement” (p. 205).

Defining engagement and finding its root have proven complex for many researchers. Caulfield (2010) studied 91 master’s students at a midwestern private university. In Caulfield’s study, research indicated that there exists a difficulty in differentiating between engagement and motivation in previous studies. Pintrich and Schunk (1996) defined motivation as “the process whereby goal-directed activity is instigated and sustained” (p. 4). Caulfield pointed out that this definition has been applied to behaviors associated with student engagement. The author noted the differences and emphasized the narrower context of engagement. According to Caulfield, engagement refers specifically to “students’ ability to achieve learning tasks associated with academic work” (p. 2). The purposes of the study were to investigate whether affective, behavioral, and cognitive factors as identified in previous literature influenced graduate student engagement; to determine whether specific affective and



cognitive behaviors were good predictors of graduate student learning task engagement; and “to determine whether there was a significant difference between the level of perceived engagement and the level of achievement, as measured by grades earned, for those learning tasks that students identified as most and least engaging” (Caulfield, 2010, p. 3). The study included face-to-face, online, and hybrid courses, with Chapman’s (2003) premise that regular attendance, participation in class discussions, asking questions, actively contributing to group work, and completing assignments are the behaviors of engaged students. For the purposes of the study, the terms *most engaged* and *least engaged* were replaced with *most enjoyed* and *least enjoyed* and were measured on a Likert scale. The most frequently identified reasons reported for liking an assignment were “usefulness and applicability to the students’ professional careers and personal lives” (Caulfield, 2010, p. 13). The most frequently identified reason for disliking assignments was that the assignment “could have been valuable, but was very difficult, indicating ambiguity regarding its value” (Caulfield, 2010, p. 14). Relevance and meaning directly contribute to student perception of engagement.

### **The Setting**

The setting of the study was a high school in the piedmont of North Carolina. There were 69 staff members, 45% of whom were male and 55% were female. Of these staff members, 77% had been teaching more than 6 years. With the technological advancements made daily, the fact that the vast majority of the staff had been out of the college classroom as learners for over 5 years means that the technological knowledge of the majority of the staff would be outdated. These teachers had not had extensive training in current technologies; they had been required to learn it or use it in their classrooms. The make-up of the staff is presented in the table on the following page.

Table 1

*Table of Sex, Ethnicity, Education Level, and Experience of Educators at the Organization Studied*

Sub-groupings	Number and Percentage
Male	31 (45%)
Female	38 (55%)
White	57 (83%)
Minority/multiracial	12 (17%)
Advanced degrees	29 (43%)
National Board Certification	9 (13%)
Less than 2 years experience	8 (11.5%)
2-5 Years Experience	8 (11.5%)
6-10 Years Experience	14 (20%)
More than 10 years experience	39 (57%)

The school studied was unique to the system due to its purpose and nature: it served as a central location that offered courses unavailable to students at their regular high schools. The school offered both advanced placement and career technical education. Because the school was one which the students choose to attend based on course offerings, it is relevant to display the number of students and how many courses they took. In 2009, the total enrollment was 1,096 students from all high schools in the county. The number of classes taken by each student as compared to the total number of classes is presented in Table 2.

Table 2

*The Student Enrollment and Course Load at the Organization Studied*

Percentage Enrolled	Number of Classes Taken	Number of Students
31%	1	335
37%	2	405
24%	3	260
5%	4	56
3%	5	29
1%	6	8
<1%	7	3

A 2010 survey of a representative cross-section of 24 learners administered in a senior honors English class of career technical and advanced placement students revealed student perception of the importance of 21<sup>st</sup> century skills. Students were asked to sequentially number in order of importance the list of 21<sup>st</sup> century skills as delineated by the Partnership for 21<sup>st</sup> Century Skills, listed in the first chapter. Most students (87%) who were asked to enumerate the identified 21<sup>st</sup> century skills from 1 to 11, with 1 being the most important, ranked creativity and innovation as number 1 or 2. Flexibility ranked overall (second or third) as the next most important skill (74%), followed by critical thinking (third or fourth for 54% of the respondents). Comments on questionnaires included the remark that some students feel 21<sup>st</sup> century is not taking place in the classroom. A future nuclear engineer wrote that media literacy is “left out and not addressed in school.” He also stopped by after class to make sure that the instructor read his comment because he felt very strongly that media literacy instruction is lacking system-wide. He expressed the fact that media literacy is the most important skill being

left out of public schools, but that other 21<sup>st</sup> century skills are being addressed “somewhat” through classroom instruction. By media literacy, the student meant the ability to judge reliability of television/radio/magazine media. Based on the comments, the representative sampling of students articulated overall that some skills are being somewhat addressed in the classroom, but others are lacking. It is logical to anticipate that the organization studied needs to develop its abilities to meet the current population’s needs. At this time, the organization is planning to relocate to a new building built to the specifications of the school board; however, it is of concern to administration that the unique situation, the moving of a school that draws from all over the county, will result in fewer students making the move with the school. From the school-wide needs assessment which included a 21<sup>st</sup> century learning survey (Appendix A) conducted in 2010, it is known that one developmental need of the organization is to recruit and retain students; another is to stay relevant, one-of-a-kind, and the best educational opportunity for students in the county.

### **Research Questions**

1. How effective are methodologies in actively engaging students based on Van Amburgh et al.’s (2007) active learning inventory tool?
2. What is the relationship between methodology and measurable active engagement?

### **Definitions of Terms**

**Pedagogy.** The art and science of teaching. Pedagogy is concerned with the contexts of learning and methods of instruction, and can be evaluated on a scale ranging from teacher-centered (for example, direct instruction) to student-centered (for example, constructivist teaching, inquiry) models (Learn NC, 2011).

**21<sup>st</sup> century learner.** A student participating in any educational opportunity, preschool through university, during the 21<sup>st</sup> century.

**Instructional practice.** For the purposes of this research, instructional practice is defined as the conduct of teaching. It is the teacher's choice of methodology and mode of disseminating information to students.

**Transforming.** To incorporate a new way of thinking and a new way of being; completely changing one's pedagogy or identity as a learner (Vescio, Bondy, & Poekert, 2010).

**Engagement.** For the purposes of this study, student engagement will be considered measurable, active involvement of a student during a classroom experience. Active learning is the active involvement of students in the classroom. It is more than listening; active learning requires students to read, write, discuss, and be engaged in solving problems. The students must use higher-order thinking tasks such as analysis, synthesis, and evaluation. The students must think about what they do, rather than sit passively absorbing information (Bonwell & Eison, 1991).

## **Chapter 2: Literature Review**

### **Student Engagement**

The definition of student engagement ranges from extra-curricular involvement at school (Stout & Christenson, 2009) to being merely present in class on any given day (Fuller, 2010). Therefore, for the purposes of this study, student engagement will be considered active engagement and it will be defined according to a study conducted by Van Amburgh et al. (2007):

Student engagement in the classroom involves the student participating in a didactic triangle interaction between the instructor, fellow students, and the discipline material. The most challenging aspect of this relationship for instructors to establish is the student interaction and engagement with material beyond the basic level of knowledge and comprehension. We have begun to think of this learning process as “the continuum of engagement,” where students are presented with multiple pathways to engage in learning that must begin with being actively engaged in the classroom. (p. 1)

Student engagement is being actively involved in the lesson with the ultimate purpose being a deeper comprehension of material. By motivating students to become “interested, curious, or emotionally concerned about a topic, a teacher can create an environment that will lead to increased learning and internalization of the subject matter” (Wehlburg, 2006, p. 50).

Contemporary students can be a difficult audience. Conner (2009) wrote, “Student engagement is widely viewed as an important antecedent to learning and achievement; however, research finds that engagement declines sharply as students advance through school” (p. 9). High school, in particular, illustrates the problem of

student retention, an effect from a lack of engagement. Nationwide, only about two-thirds of students entering ninth grade graduate with a standard diploma 4 years later (Martin & Halperin, 2006). Stout and Christensen (2009) wrote, “Most researchers believe that dropout is not an instantaneous event, but rather a long process of disengagement from school” (p. 18). This supports the idea that student engagement is critical and necessary for multitudinous reasons. Based on a study of 220 upper New York suburban elementary school students ages 9-12, Skinner, Wellborn, and Connell (1990) stated, “Children who are more engaged in school do in fact earn higher grades, score higher on standardized tests of achievement, and show better personal adjustment to school” (p. 22). In the Harvard paper for the Pathways to Prosperity Project (2011), researchers likened the disengagement to a silent epidemic that is undermining the future of America (p. 10). The paper went on to cite the Organization for Economic Cooperation as stating that America has the highest college dropout rate in the industrialized world. The researchers relate this statement to the fact that students cannot connect their program of study to tangible opportunities in the labor market. According to the Harvard paper, society fails young people because it focuses too exclusively on too few pathways to success. Wider pathways should include, according to researchers, a richly diversified alignment to 21<sup>st</sup> century learning. According to the study, even though only 30% of young adults complete the preferred path of the public school system of 4-year college degrees, the schools continue to guide students toward that path. This encouragement leads to frustration in students and a lack of viable goals, which in turn becomes disengagement. Davidson (1996) asserted that lack of engagement leads to isolation and estrangement. The author stated that “barriers to information” such as academic tracking in Davidson’s case study, the lack of necessary technology or too

limited access contribute to contemporary students' "sense of powerlessness and meaninglessness" (Davidson, 1996, p. 34). These factors "generate manifestations of opposition including...the molding of oppositional or disengaged identities" (Davidson, 1996, p. 34). Dowson and McNerney (2001), in a study of 86 middle school students with 114 interviews and 24 observation periods, found that disengagement can be characterized by work avoidance such as copying from others, cheating, and even attempting to talk the teacher into an alternative assignment or pretending not to understand the teacher. Obviously, disengagement is off-task and a disruptive behavior that keeps others from learning in a classroom. The lack of engagement in a contemporary learner can have negative consequences. By ignoring engagement, educators proliferate oppositional learners.

Maintaining student interest and focus can revolve around individual learning styles and varied practice. Rhoton and Shane (2006) asserted, with credit given to Armstrong (1994),

A classroom based on an appreciation that students are individuals with a variety of intelligences operating at different levels would offer an opportunity for more students to utilize their full range of cognitive, and brain-based, skills. Building on cognitive strengths and bolstering of cognitive weaknesses would be attempts to fully utilize the biological substrates for learning. It is in this regard that the multimodal science classroom (although there are applications within the teaching of all disciplines), which involves a mixture of direct instruction, investigations, and inquiry learning, is likely to provide good stimuli for students with multiple intelligences (Armstrong 1994). Most importantly, such classrooms must be available to all students because there is no evidence from a neurobiological



perspective that the overall construct of the brain is different for one group of students compared to another group. Failure to offer such opportunities limits students' capacities. (p. 286)

Moriarty (2007), in her study on pedagogy, disseminated the various ideas behind individualized education and the challenges of engagement. The author stated,

The research in the areas of multiple intelligence (Gardner, 1999), learning styles (Dunn, Griggs, Olson, Beasley, & Gorman, 1995; Dunn & Waggoner, 1995; Kolb, 1984; Miglietti & Stranger, 1998; Sarasin, 1998), and brain-based learning (Bransford, Brown, & Cocking, 1999) share a common belief in the diversity of learners. Of growing concern is the possibility that the teaching practices...do not effectively serve students (Sternberg & Grigorenko, 2002). (Moriarty, 2007, p. 253).

Of obvious concern is the fact that contemporary learners are not having their needs met by current classroom conditions, even when varied approaches are employed in the methodology of the instructors. Moriarty (2007) continued,

Overall, the research on instructional methods in education indicates that faculty...continue to rely on a traditional lecture format for instruction, regardless of evidence that indicates students will be more satisfied with their learning and achieve more with learner-centered approaches. (p. 253).

Two major recent studies regarding student engagement warrant a detailed depiction. One is the 2009 High School Survey of Student Engagement. The 4-year nationwide study of 300,000 students from five districts elucidates the challenges of engaging students and disaggregates the data about what happens when they are not. Yazzie-Mintz (2010) pointed out the fact that students are assessed virtually exclusively

based on test scores, graduation rates and adequate yearly progress. Student achievement will continue to be the standard by which schools are measured in the future. One respondent to the survey for this study even wrote, “Is this a cleverly disguised standardized test?” One major result of a lack of student engagement, according to the survey, is dropping out. The study cites 25% of students in public high schools in 2008 did not graduate within 4 years. This is described as a slow process of disengagement from school. According to the writer, the current focus on student engagement is a response to this trend. In addition to the feeling of belonging measured by truancy and attendance that PISA (Programme for International Student Assessment) attributes to the definition of engagement, the study adds student behavior and motivation. The study also connects student engagement with the future workforce by stating that the academic records are less important to employers than whether or not an employee can work well with others, creatively contribute, and adopt the goals of the organization as their own. A relationship exists between an engaged employee and an organization, just as a relationship exists between an engaged student and a school or teacher. The High School Survey of Student Engagement measured three dimensions of student engagement. The first is cognitive/intellectual/academic achievement. This dimension is focused on student engagement during instructional time, and can be described as engagement of the mind. Survey questions that were grouped within this dimension included questions about homework, preparation for class, classroom discussions, and assignments. The second dimension is social/behavioral/participatory engagement. This dimension emphasizes student actions and participation within school outside of instructional time, including extra-curricular activities, and can be described as engagement in the life of the school. The third dimension of student engagement is emotional engagement which

encompasses students' feelings of connection to school. This can be described as engagement of the heart. The purpose of the surveys and study was to give participating schools accurate and varied information so that they could choose areas of engagement on which to focus. Participating districts used the data to improve both academic and learning environments in their schools, as well as to improve teaching practice. Participating schools ranged in size from 20 students to 3,143 students with the average of 787. The respondents to the survey were almost evenly split between males and females with 52% female and 48% male in Grades 9 through 12. Respondents identified themselves as 25% eligible to receive free or reduced lunch, 54% not eligible, and 21% did not know. On the survey were aspects of engagement with which respondents clarified the degree of their reasons for engaging or disengaging from school. These foundations of engagement were why students go to school, boredom, and risk of dropping out. The fifth most common response to "Why do students go to school?" was "Because it's the law." The most common responses to the above question were "Because I want to get a degree and go to college" (73%) and "Because I want to get a good job" (67%). These data have been consistent from 2006 to 2009. The three main purposes for which students attend school are academic in purpose, social reasons, or family pressure/obligations. Well below half of the students responded with school-based reasons such as "Because of what I learn in classes" (41%), "Because I enjoy being in school" (36%), and "Because of my teachers" (23%). The study also looked closely at the term boredom, questioning whether the answer is one that students give simply because they do not want to do the work. Researchers found that students claimed boredom as a reason for disengaging, but could not define what boredom was. However boredom was defined, the study cites it as a temporary form of disengagement. The

survey attempted to ascertain the reasons for student boredom. Two out of three respondents (66%) in 2009 were bored at least every day in class. Nearly half (49%) were bored daily, and approximately one out of six (17%) were bored in every class. Only 2% reported never being bored, and 4% said that they were bored once or twice. Students were allowed to check as many reasons for their boredom as applied. An extremely high percentage (81%) responded that the material was not interesting. The lack of the material's relevance was the second most cited cause (42%). About one third (35%) stated that the material was not challenging enough, and just over one fourth (26%) stated that the material was too challenging. More than one third (35%) were bored due to a lack of interaction with the teacher. The researchers noted that the responses in their other studies were consistent with these findings. The study also emphasizes dropout rates as a significant sign of disengagement, and accentuates the fact that, although measurable, time on task is not necessarily a sign of engagement. The author stated,

Time spent on-task can be driven by expectations, compliance, task difficulty, or external rewards, none of which necessarily indicate that a student is engaged with the task. A student who spends a great amount of time on a particular task but does not carry any learning from the task past the end of class cannot be said to have been deeply engaged. (Yazzie-Mintz, 2010, p. 8)

The study stresses the necessity of measuring the degree and quality of engagement as well as obvious visual indicators.

A second major published study of student engagement is the 2010 National Survey of Student Engagement (NSSE). This study centers on America's higher education, with 595 colleges and universities participating in the survey-based study of

students. Results selected for publication were based on responses from more than 362,000 students attending 564 United States degree-granting colleges and universities. Results include the Beginning College Survey of Student Engagement (BCSSE) of 8,000 students at 126 institutions and the Faculty Survey of Student Engagement (FSSE) of 19,000 faculty members representing 154 institutions. The purpose of the study was to provide data to colleges and universities to assess and improve undergraduate education, inform state accountability and accreditation efforts, and to facilitate national benchmarking efforts. NSSE defined engagement as student engagement in two parts. The first part concerns the amount of time and effort students invest into their studies and other educational activities. The second piece involves the way the institution utilizes its resources and organizes curricular opportunities in order to induce students to participate in activities that have been historically linked to student learning. The survey results break down into engagement by discipline. For English, 5,000 senior English majors completed the survey. The researchers include activity as a measure of engagement, concluding that because 70% wrote at least five mid-length papers of five to 19 pages, and nearly all (93%) read five or more books as part of the assigned course reading, English majors were more engaged than majors in other disciplines such as biology, psychology, or business. They were, however, less likely to spend time working with classmates outside of class, so, therefore, were not as engaged as other disciplines in the area of curricular peer interaction. In conjunction with the results of the survey, the authors (NSSE, 2010) developed five indicators of effective educational practice. These include the level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and a supportive campus environment. It is worth noting the similarity between the 2009 High School Survey of Student

Engagement results and the indicators of effective educational practice based on the higher education survey results. Both sets of students seek challenge, enrichment, and faculty-student interaction.

### **Contemporary Learners**

As mentioned, 21<sup>st</sup> century learners have a mindset that is different from that of previous centuries. Instead of rows of desks and a *sage on the stage* preparing mindless automatons who can push the correct button, “the future belongs to a very different kind of person with a very different kind of mind – creators and empathizers, pattern recognizers, and meaning makers” (Pink, 2005). Pink (2005) continued, “We are moving from an economy and a society built on the logical, linear, computer-like capabilities of the Information Age to an economy and a society built to the inventive, empathic, big-picture capabilities of what’s rising in its place, the Conceptual Age” (p. 2). Students have traditionally been taught in an industrial model; however, with this seismic shift, the necessity of a new approach is becoming obvious. Pink (2005) wrote of the decline of the “SAT-ocracy – a regime in which access to the good life depends on the ability to reason logically, sequentially, and speedily” but in order to move students forward, education must address the current learners for whom R-directed (right-brained) thinking will prevail (pp. 29-30).

Schlechty (2002) labeled responses to school tasks, and identified four types of classrooms that illustrate student response and engagement. The author distinguished among the kinds of engagement of today’s learners. He used authentic engagement to describe a situation in which the assigned task is associated with a result that has clear meaning and immediate value to the student. Ritual engagement exists when the assigned task has little meaning, but the student associates it with extrinsic, valuable

results. Passive compliance means that the student is prepared to apply effort necessary to avoid penalties; retreatism describes a disengaged student who expends no energy but does not disrupt others (Schlechty, 2002). Finally, rebellion is a condition in which the student refuses to do the task, is disruptive, and attempts to substitute activities to which he is committed for the assigned task. Of Schlechty's (2002) four classroom pictures, the first is the highly engaged classroom in which most students are authentically engaged most of the time, all students are authentically engaged most of the time, and all students are authentically engaged some of the time. There is little or no rebellion, limited retreatism, and limited passive compliance. The well-managed classroom appears well managed because students are willing to be compliant. In this situation, the absence of engagement will likely not be noticed. The pathological classroom looks like the well-managed classroom except for the presence of patterned rebellion. Many students actively reject the assigned task. The author suggests looking for patterns of engagement using rubrics to measure student response in order to inform teaching practice. In other words, look to shift pedagogy based on student response in order to facilitate greater learning opportunities.

### **Methodology and Methods of Engagement**

According to Marzano (2003),

Although the effect the classroom teacher can have on student achievement is clear, the dynamics of how a teacher produces such an effect are not simple.

Rather, the effective teacher performs many functions. These functions can be organized into three major roles: (1) making wise choices about the most effective instructional practices to employ, (2) designing classroom curriculum to facilitate student learning, and (3) making effective use of classroom management

techniques. (p. 3)

The choice of instructional practices ranks as the most important piece of a teacher's pedagogy when measuring student achievement.

Pollock (2003) described the history of planning for teaching and the results. Pollock wrote that planning instruction was first supported by Johann Herbart (1776-1841), who "developed the doctrine that...espoused the continuous integration of concepts in core areas. The idea was to guide students through the academic process of acquiring knowledge...achieving that state of knowing and using information in an original way" (p. 61). Herbart's ideas about pedagogy were student-centered, but based on "preassembled instruction" and desired outcome undertones of "moral character in every student" and the suggestion that "delinquency of thought or behavior was the direct result of a lack of suitable education" (Pollock, 2003, pp. 61-62). Herbart's philosophy eventually contributed heavily to the industrial model of education.

The traditional method of instruction based on the industrial model of education, "opposes any form of free inquiry; students are rewarded not by adding to the learning dynamic sharing their own epistemic voices and experiences but by repeating verbatim what the teacher offers as the true knowledge of the world" (Rodriguez, 2008, p. 346). Teacher-centered instruction remains, despite the fact that "teacher talk was considered a negative factor, pupils often describing the over talking and explanation by the teacher as being detrimental to their learning" (Hopkins, 2007, p. 397).

In order to promote active engagement among contemporary learners, teachers must adjust methodology. Rotherham and Willingham (2009) wrote,

There is no responsible constituency arguing against ensuring that students learn how to think in school. Rather, the issue is how to meet the challenges of



delivering content and skills in a rich way that genuinely improves outcomes for students. (p. 18)

Methodology for contemporary learners is not too far from where educators are now.

Suggestions include,

An educator can introduce authentic content, replacing textbooks with historical documents and scientific data from remote sensors. She can design problem-based activities to replace lectures. She can expect students to collaborate with one another (despite student resistance to these active requirements). She can even surrender some of her own power as an expert to join students as a co-learner. And she can support all this innovation with visualizations, simulations, and interactive technologies. (Lombardi, 2007, p. 9)

Assor, Kaplan, and Roth (2002) found in a study involving 862 Israeli-Jewish students in Grades 3-8 that where teachers clarified the relevance of the schoolwork, students were more likely to value the task and become engaged in it, especially when the teacher made connections between the students' personal goals and the task at hand. Currently, there are four recognized teaching styles: assertive, suggestive, collaborative, and facilitative. An assertive instructor gives directions, asks direct questions, and gives information. A suggestive teacher suggests alternatives, offers opinions, and relates personal experiences to serve as models. A collaborative instructor elicits learner ideas, explores learner ideas, and relates personal experiences to empathize. A facilitator elicits learner feelings, offers feelings, encourages ideas, and uses silence or "wait time" (Mountain Area Health Education Center, 2001, p. 5). In a quantitative 1993 study of student engagement of 144 students in Grades 3 through 5, Skinner and Belmont (1993) used correlational and path analyses to ascertain that teacher involvement was central to active student engagement

in an upper New York suburban elementary school. Teacher support of student autonomy and structure predicted student motivation and engagement. Strong correlates were found between student perceptions of teacher involvement and active engagement ( $p < .001$ ). Both studies imply a connection between affective domain and student engagement: The feelings and perceptions by the learner about the educator affect the level of student engagement.

Another alternative methodology that supports the 21<sup>st</sup> century ideal for learners is inquiry-based learning. Carnesi and DiGiorgio (2009) wrote,

Unlike the static, set-in-stone research project, the inquiry process is an interactive cycle used to teach research in any content area. The inquiry process engages students in a way that promotes critical thinking, higher-level processing, and the use of more varied and appropriate resources. And if that is not enough reason to teach the inquiry process, consider the fact that students are learning a process of gathering evidence to solve problems or answer questions that they can use throughout life, as opposed to Finding and regurgitating a set of facts they will never need again. (p. 32)

The authors explained the process:

The inquiry process model...shows a cyclical process that begins with questioning, and then moves on to planning, collecting information, organizing the information, synthesizing the information into a final form, and communicating results to a teacher or peers. At each step in the process, students reflect, revise, and evaluate the work accomplished and either continue forward, or repeat the step until complete. (Carnesi & DiGiorgio, 2009, pp. 32-33)

The steps of this learning process emulate those called for by the Partnership for 21<sup>st</sup>

Century Skills (2009)—critical thinking, collaboration, planning, responsibility, self-direction, and media literacy.

McWilliam (2008) wrote that in order to reach 21<sup>st</sup> century learners, 21<sup>st</sup> century teachers must “*unlearn* habits that have been useful in the past but may no longer be valuable to the future” such as the dated “sage-on-the-stage” and “guide-on-the-side” mentality (p. 263). She suggested instead the “meddler-in-the-middle” (p. 263).

McWilliam’s (2008) theory “positions the teacher and student as mutually involved in assembling and dis-assembling cultural products. It re-positions teacher and student as co-directors and co-editors of their social world” (p. 263).

Furthermore,

*Meddler-in-the-middle* challenges more long-term notions of “good” teaching in a number of ways. Specifically, it means: (1) less time giving instructions and more time spent being a usefully ignorant co-worker in the thick of the action; (2) less time spent being a custodial risk minimizer and more time spent being an experimenter and risk-taker; (3) less time spent being a forensic classroom auditor and more time spent being a designer, editor and assembler; (4) less time spent being a counselor and “best buddy” and more time spent being a collaborative critic and authentic evaluator. (McWilliam, 2008, p. 263)

McWilliam (2008) sees the meddler-in-the-middle as a far more valuable approach to 21<sup>st</sup> century learners than the very traditional lecture and the more modern, but still dated, coach/facilitator. She continued,

The challenge for academic teachers is to promote and support a culture of teaching and learning that parallels a post-millennial social world in which supply and demand is neither linear nor stable, in which labour is shaped by complex

patterns of anticipations, opportunities, time and space, and in which new combinations of “creative” skills and abilities are increasingly in demand.

(McWilliam, 2008, p. 263)

Educators must creatively incorporate methodology that will encourage and promote creativity. One such method is active learning.

Based on Chickering and Gamson (1987) and Bonwell and Eison (1991), active learning is the active involvement of students in the classroom. It is more than listening; active learning requires students to read, write, discuss, and be engaged in solving problems. The students must use higher-order thinking tasks such as analysis, synthesis, and evaluation. The students must think about what they do, rather than sit passively absorbing information (Bonwell & Eison, 1991). These higher-order tasks mirror the skills required for 21<sup>st</sup> century learning. The connection between student engagement and active learning techniques was explored in the Van Amburgh et al. (2007) study. The researchers asserted, “Active learning techniques have emerged as strategies for instructors to promote engagement with both discipline material and learning” (Van Amburgh et al., 2007, p. 1). The tools utilized were validated as follows:

To establish the validity of the Active-Learning Inventory Tool, we consulted with expert reviewers who had published and researched extensively in the field of education. The experts were asked to review the Active-Learning Inventory Tool and then comment on the use of terminology and descriptions, appropriateness of the specific activities included, overall validity of the assessment, ease of use, and generalizability to other academic disciplines, and provide general comments. The tool was subsequently modified based on the results of their written and verbal feedback, including reorganizing the rank order

of activities based on complexity versus faculty risk. Based on expert feedback, coding schemes and descriptions of active-learning techniques were clarified and the rank order of techniques was changed to reflect complexity of the active-learning activity as opposed to faculty risk. The complexity of an activity was assigned based on a combination of findings from the literature review and consensus of the authors. The section of tool that asked for qualitative comments about the use of active learning was also clarified. After approval by the Northeastern University Institutional Review Board, the revised Active-Learning Inventory Tool was tested for reliability in 2 stages: assessment using 3 videotaped 1-hour pharmacy lectures and then in 6 live lectures in large, school of pharmacy courses. Four trained observers (1 educational expert and 3 pharmacy faculty members) participated in this phase of the investigation. Of the observers, 2 had received prior formal training in adult teaching and learning. All observers participated in extensive discussions to develop a common understanding of the definition of active learning and to recognize the elements that would lead to successful implementation of an active-learning activity. We felt that it was important to include faculty members with and without prior extensive education in active learning to ensure usability by our target audience of doctoral trained faculty members who may not have training in the concepts of adult learning and active learning. (Van Amburgh et al., 2007, p. 2)

After establishing the validity of their original measurement tool, the researchers observed nine higher education classrooms in a college of pharmacy. Thirteen episodes of active learning were measured, and teacher perceptions were found to match the results from the active learning inventory tool. There was a perceivable relationship

between active learning and student engagement. The study calls for more study about the application possibilities to other disciplines. English is a required course for high school students; therefore, the measure of the relationship among active learning, teacher perception, and engagement should be studied in depth. Hurd (2000) wrote, “The cornerstone of active learning is the active engagement of students in their acquisition of knowledge, skills, and attitudes. A variety of activities and techniques can facilitate this in the classroom” (p. 29). In a 2009 Israeli survey study of 153 university and college instructors, seven were identified as educators who subscribe to active learning techniques. The study concerned itself with quantitatively examining the degree of tendency toward active learning techniques in hopes of shifting traditional teacher-centered lecturers toward an active learning approach. Researchers found that the instructors surveyed could be grouped into six key domains: (1) large class—activation of a large class; (2) involvement—student involvement in the course; (3) independence— independent learning by students; (4) development of knowledge—by students; (5) quantity versus understanding—a tendency to prefer understanding of the material to full completion of the syllabus; and (6) function of instructor—perception of the role of the instructor. These domains served as a guide to distinguishing tendencies of those who were inclined to incorporate active learning methodology into the classroom. Class size was the greatest indicator of an instructor’s perception of active learning techniques. By breaking up large classes into smaller learning groups, active learning instructors perceived greater quality of learning, whereas traditional instructors with large class sizes did not use grouping as prevalently, and, therefore, did not perceive a need for active learning. The tool developed by Pundak, Herscovitz, Shacham, and Wiser-Biton (2009) serves as a diagnostic survey to identify instructors open to using active learning

techniques. In addition to citing several articles that promote active instruction, the researchers cite studies that indicate many instructors at the college and university level do not focus on the learner *per se*. The study serves as a reminder that teachers have a choice as to methodology; a secondary English teacher may employ multitudinous techniques in a classroom.

### **Shifting the Pedagogy**

Teaching is a craft. It is not a checklist that can be ticked off as each step of a lesson is completed in order for a novice to become a teacher. Day (2005) wrote,

Although the teacher may remain constant in the sense of being physically present, the findings of the current study, in line with the research literature, show that the work and more particularly the craft of the teacher is forever developing and being recast in the changing map of educational provision. If teachers wish to be influential in the midst of change they must grow in and develop their craft knowledge, for such knowledge is essential to effective teaching. (p. 22)

Pedagogy is

the art and science of teaching. Pedagogy is concerned with the contexts of learning and methods of instruction, and can be evaluated on a scale ranging from teacher-centered (for example, direct instruction) to student-centered (for example, constructivist teaching, inquiry) models. (Learn NC, 2011)

Each educator has his own way of reaching students, and an idea of what good teaching looks like. For many, the teaching depends on the students; to teach, educators must know the audience. According to Palmer (1993),

One of the biggest barriers to good teaching is our diagnosis of students today.

Briefly stated, this diagnosis holds that the classroom behaviors of many students

(e.g., their silence, distraction, and embarrassment) reveal them to be essentially brain-dead (due to poor preparation, the dissolution of decent society, MTV, etc.), and that they therefore require pedagogics that function like life support systems, dripping information into the veins of comatose patients who are unable to feed themselves. If that is a caricature, it is nevertheless instructive: nothing is easier than to slip into a low opinion of students, and that opinion creates teaching practices guaranteed to induce vegetative states even in students who arrive for class alive and well. (p. 8)

The idea, then, becomes to find out what works and shift educators' pedagogies in order to allow them to teach more effectively, moving even those who are reluctant and negative into a positive mindset.

Killion (2008) is quick to point out that staff development is an opportunity to promote continuous improvement. The point of teaching teachers should be to improve learning for students (Killion, 2008, p. 2). Staff development programs are “ongoing, coherent, and linked to student achievement” (Killion, 2008, p. 11). However, teachers can possess an “apparent lack of interest in improving student...performance” if the suggested pedagogy shift might “take time away from their curriculum” (Killion, 2008, p. 15). Teachers must perceive the need for a shift to occur, and to understand the consequences of said shift. Implementation is up to the educator.

Teachers are willing to adapt methodology to meet certain learners' needs. In the previously mentioned study on inclusive pedagogy (Moriarty, 2007), the research showed an “inclusive mindset scale” with a positive skew, “indicative of a trend toward embracing” the belief that teachers should “adopt methodological approaches that are inclusive of diverse learners in general and students with disabilities in particular” (p.



257). Schlechty (2002) stated,

Teachers are leaders, and like other leaders, they are known more by what they get others to do than by what they do themselves. Teachers are also inventors. In this role, they are called on to create schoolwork that will produce authentic engagement on the part of students. They must ensure as well that the work they create will result in their students learning what it is intended that they learn. (p. 37).

Lawrence, Anthony, and Ding (2009) studied teachers who participated in the Secondary Numeracy Project (SNP). They found through surveys and interviews that the teachers who had participated in the same professional development utilized the results in varying ways. Lawrence et al. wrote,

Changes associated with SNP are very individual: some teachers felt they had undergone major changes of approach, while others had been more cautious and had adopted relatively few changes. Questionnaire responses included references to an increased range of teaching strategies – including increased focus on student thinking and students explaining their thinking; increased focus on developing and assessing students' mathematical understanding; and increased use of real-world contexts. (p. 13)

The degree to which teachers adapt their practice to incorporate or embrace the professional development varies greatly from teacher to teacher. The professional development can be a “stimulus for shifting” pedagogical practice, but the teacher must see the need to shift practice and must be willing to embrace change (Lawrence et al., 2009, p. 13). Cloonan (2008) wrote that pedagogical shifts occur “through commitment to theoretical engagement, sustained dialogue, sharing and reflection on practice” (p.

167). The author continued,

These sensibilities are unlike the prevailing culture in many schools wherein the development of teacher practice is not open to the scrutiny of colleagues and expectations are that teachers gain the knowledge required for their professional practice during teacher training and develop further practical knowledge predominantly through teaching experience. (Cloonan, 2008, p. 167; Elmore, 2002)

In addition to the willingness to embrace change and the comprehension of the need to shift pedagogy, there must also be support for that shift.

A British study from 2009, however, raises a caution about shifting pedagogy. Compiling background research, Choi, Lee, and Kang (2009) paraphrased Hung, Bailey, and Jonassen (2003), stating that

students experience frustrations and dissatisfactions during the initial transition from a traditional approach (eg, teacher-centered lecture) to a new approach (eg, problem-based learning). The uncomfortable experience at an early stage of a new curriculum is an unavoidable experience for learners who face the uncertainty of their roles, their responsibilities and the evaluation methods in their learning processes (Jost, Havard & Smith, 1997). Students' discomfort level, however, decreases as they adjust their learning styles and their roles to the new curriculum (Schultz-Ross & Kline, 1999). (p. 934)

Ultimately, students who are taken out of their comfort zone for learning become frustrated and may react badly, but given time, they will adjust.

### **Chapter 3: Methodology**

This study explored the relationship between active learning and engagement in secondary English classrooms, specifically junior and senior classes of regular, honors, and advanced placement. The purpose of this chapter is to present the methodology of this study. This chapter begins with a review of the purpose of the study and a restatement of the research questions, including an explanation of the research design that will address the questions.

This dissertation was designed to provide insight into the teaching practices of secondary English teachers. Current learners are in classrooms in which the instructional practices or methodologies are employed, but students may not be engaged (Rhoton & Shane, 2006; Van Amburgh et al., 2007; Yazzie-Mintz, 2010; Yonezawa et al., 2009). Information sought included the degree to which 21<sup>st</sup> century practices were being incorporated into the lessons, and the level with which students were engaging with the material. The purpose of the study was to determine the relationship between active learning and student engagement in the secondary English classroom.

#### **Research Questions**

1. How effective are methodologies in actively engaging students based on Van Amburgh et al.'s (2007) active learning inventory tool?
2. What is the relationship between methodology and measurable active engagement?

#### **Research Design**

The information sought through the research questions was both conceptual and multifaceted in nature; therefore, the mixed-method design included both qualitative and quantitative data. Creswell (2008) defined mixed-method design as “a procedure for

collecting, analyzing, and ‘mixing’ both qualitative and quantitative research and methods in a single study to understand a research problem” (p. 552). This mixed-method design gives the researcher a clearer picture, more so than relying on a single mode of data collection. Although the measurement tools indicated would provide a snapshot of a classroom environment, for this study a checklist alone would not provide enough background and detailed information to make valid conclusions about the relationship between active learning and engagement; therefore, the researcher chose to pursue the mixed-method design described above.

According to Creswell (2008), mixed-methods research exists as a research design with philosophical suppositions as well as systems of inquiry. As a methodology, it entails philosophical postulations that guide the course of the compilation and scrutiny of data and the fusion of qualitative and quantitative methods in numerous stages in the research progression. As a method, it centers on amassing, dissecting, and merging both quantitative and qualitative data in a specific investigation or series of investigations. Its predominant principle is that the utilization of quantitative and qualitative methods in amalgamation bestows a clearer comprehension of research problems than each method in isolation. Quantitative data incorporates closed-ended information such as is found on instruments for attitude, behavior, or performance. The compilation of this type of data might also entail using a closed-ended checklist, on which the researcher demarcates the behaviors observed. Occasionally quantitative information is located in documents such as census records or attendance records. The analysis is made up of statistical analysis of scores collected on instruments, checklists, or public documents to address research questions. Dissimilarly, qualitative data consists of open-ended information that the investigator collects in the course of interviews with subjects. The broad-spectrum, open-

ended inquiries made during said interviews permit the respondents to provide responses in their personal way. Additionally, qualitative data may be composed by examining participants or research locations, assembling documents from private or public sources, or accumulating audiovisual materials such as video recordings. Analysis of the qualitative data characteristically adheres to amassing the data into categories of information and portraying the miscellany of observations gathered during data collection (Creswell, 2008). For this study, the researcher gathered and assessed quantitative methods for measuring the methodology, class content, and levels of engagement. The researcher used qualitative methods to gather and assess teacher perception.

### **Population and Sample**

The research was sequential. First, after acquiring permission from the school system to gather data, the researcher solicited four volunteer English teachers of each level (regular, honors, and advanced placement) and each upper grade level (junior and senior). Second, the researcher conducted walk-through observations of two classes from each volunteer teacher for a total of eight classes of varying levels (junior and senior; regular, honors, and advanced placement) twice a week for 5 weeks. The combination of classes provided a total pool of 168 students and 236 observations because each class was observed at least once a day for a total of 25 weekdays. The population of students ranged in age from 17 to 18 years of age from all levels of socioeconomic backgrounds since these students came from the entire county. Represented were low socioeconomic status students from Title I Schools with a free or reduced lunch rate level of 53% to the highest socioeconomic school's population which has a free or reduced lunch eligibility rate of 23%. The four volunteer teachers represented the gamut of teaching experience and sexes existing in the school. The sample was 50% male and 50% female which

reflected the school make-up of 45% male and 55% female. Each volunteer teacher had a minimum of 6 years of experience, once again mimicking the school make-up of 77% with 6 years of experience. The teacher with the most experience had been at the organization since it opened in 1973, which mirrors the low turnover rate of instructors (an average of less than 5% annually).

### **Instrumentation**

The observations yielded evidence of active learning through the Van Amburgh et al. (2007) active learning inventory tool (Appendix B) which the researcher obtained permission to use for the purposes of this study. The researcher denoted which methods of active learning were observable, with the totals tabulated at the end of each week in order to compare the methods of instruction with the levels of engagement. The data was examined for a discernable relationship between the two (methods of instruction and levels of engagement). The second tool utilized for gathering data was the student engagement sections of the local district's walk-through observation tool (Appendix C). The researcher denoted on the checklist the observable signs of student engagement, tabulating the totals from each column at the end of each week in order to compare the methods of instruction with the levels of engagement. The data was examined for a discernable relationship between the two (methods of instruction and levels of engagement). Each instrument had a section for demarcation of teacher methodology. The researcher recorded the number of occurrences of various methodologies listed on the tools limited to whole class instruction, small group instruction, and paired or individual assignment. Specifically denoted were the following categories: coaching, discussion, hands-on experiences, learning centers, lecture, modeling, presentation, providing directions or instructions, providing opportunities for practice, teacher-directed

questions and answers, and testing. In a separate category were student actions which could indicate or refute student engagement. These categories were listed as follows: creating products, listening, reading, speaking, using hands-on materials, using the writing process, and unable to determine. For each classroom observation, the researcher noted the level of student work and the percentage of students actively engaged as indicated by the Van Amburgh et al. (2007) tool. This allowed the researcher to ascertain the relationship among methodology and active learning and methodology and student engagement through disaggregation of the results. The results of the totals from each observation instrument (the active learning inventory tool and the walk-through observation tool) are presented via totals in table format. The researcher performed analysis in order to determine and quantify the strength of the relationship between active learning and engagement. This informs the researcher of the dependence one variable has on another (Creswell, 2008). Often, researchers will not look at the contribution of a single variable in isolation, but instead a number of variables will be included in an analysis. Different variables may be causally related to the same occurrence (Creswell, 2008). Comparison is a way of defining the extent to which two variables are related, and can be used as a basis for prediction. It is important to note here that the existence of a correlation between variables does not necessarily indicate a cause-and-effect link among them (Gibilisco, 2004). This information is presented in table format. The relationship among active learning, student engagement, and teacher methodology is presented visually in a histogram, specifically a three-pronged bar graph and scatter plot, and in tabular format. This method of data presentation was chosen by the researcher because the multivariate data lent itself to a variety of visual aid. For example, tabular data, although informative and categorically labeled, is not as visually impacting or as

dramatically diverse as a histogram, such as a bar graph. The information in the two modes could be the same numerically, nominally, and ordinally; however, a visual comparison of a graphic representation of the data could identify trends to the viewer that would go unnoticed if illustrated in tabular form alone (Gibilisco, 2004).

Thirdly, the researcher interviewed each volunteer teacher at the end of the study in order to allow input from the teacher's perspective through an open-ended interview. This evidence was compiled via an oral debriefing (Appendix D). The researcher examined answers for patterns and trends, noting number of occurrences of methodology. Additionally, the researcher noted perceivable relationships between the teacher's perception of engagement and the actual, observable, measured degree of engagement on the debriefing form. Additional anecdotal evidence was provided through teacher observation. All qualitative data gathered through the interview process and anecdotal additional information are presented through a prose summary. The researcher sought trends in teacher perspective; the data were analyzed by percentage of occurrences of methodology and investigated for a measurable relationship to engagement.

In order to guard against bias in this convenience sample, the data were gathered based on closed-ended checklists. One instrument employed was a checklist utilized by the researched county's school system. This checklist is based on what an administrator can glean from a brief, 10-minute walk-through. Categories include remembering, understanding, applying analyzing, evaluating, and creating. The checklist was designed with the walk-through observation in mind so that the observer would not need to be present for a great deal of time in order to comprehend and assess the level of learner engagement (Jones, 2009). The second tool was the active learning inventory tool which measures student reaction and response to assignment tasks based on levels of



complexity, and a measure of faculty approach to the assigned tasks, including making adjustments if the students disengage. The tool is designed to inform practice (Van Amburgh et al., 2007). Permission from Dr. Van Amburgh was granted for use of the tool for this study (Appendix E). This research design and the above mentioned tools were appropriate choices because they have been validated as presented in the literature review section of this paper. They were selected because they measured accurately and provided a good body of evidence data for the study. The four teachers were interviewed one-on-one and in a group in order to discuss their reactions to the walk-through observations, and to ascertain their additional thoughts, perspectives, or reflections on the successful engagement of 21<sup>st</sup> century learners. These interviews served as a debriefing, and were open-ended in format. The information from the two tools were compared through tabular computation and comparative analysis in order to determine if a relationship existed between engagement, as defined by this study, and active learning. The results are presented through frequency distribution graphs and prose summaries of the findings. These findings will serve to guide future upper-level English instructors toward successful methodology for engaging 21<sup>st</sup> century learners through providing data that supports or refutes methodological choices made by the instructors. Limits and boundaries of measurement must be set. For the purpose of this study, successful methodology was considered as methodology that engaged 70% or more of the students in measurable, observable ways according to the measurement tools. This percentage was based on the definable limit set by the 2010 National Survey of Student Engagement. Furthermore, the range of effective engagement through methodology as measured by the tools listed above needed to be defined. Based on the fact that previous studies have not set exact numerical value limitations for identifying levels of engagement (Van Amburgh

et al., 2007; Jones, 2009) and have instead sometimes relied on vague quantifiers such as *sometimes*, *often*, and *very often* (National Survey of Student Engagement, 2010), the researcher chose to define the numerical limits. For the purposes of this study, the measurement boundaries were set as follows: 0% to 40% of learners observably, measurably engaged were classified as ineffective and disengaged; 41% to 69% of learners observably, measurably engaged were classified as ineffective; 70% to 89% of learners observably, measurably engaged were classified as effective; 90% to 100% of learners observably, measurably engaged were classified as highly effective.

As heretofore mentioned, the term student engagement can be defined numerous ways; it follows that the perception of student engagement can be identified based on a range of factors. For the purpose of this study, it was imperative to define and limit the parameters of student engagement. In order to recognize student engagement, the researcher consulted the research of the International Center for Leadership in Education. Jones (2009) created a Student Engagement Walk-through Checklist that, “examines the degree to which students are exhibiting engaging behaviors for the purpose of defining high degrees of student engagement” (p. 28). According to the checklist, student engagement can be recognized and is acknowledged when students exhibit positive body language (eye contact, leaning forward, head position); consistent focus (students are minimally disruptive and are not distracted); verbal participation (students ask relevant questions or share relevant opinions); student confidence (students seek limited coaching and actively participate); and fun and excitement (students exhibit interest and enthusiasm).

### **Methodology Limitations**

The study was limited in scope. The limited time involved precludes a fully

realized study of an academic year. The high school chosen for study, though representative of the entire county due to its nature of drawing all levels of learners and all socioeconomic classes, is its own culture. In other words, there is no guarantee that the results of the study would be replicable in *home* high schools across the county due to school culture. These were learners who chose to attend the high school, and chose programs specific to their futures. They had motivation that may not exist at their home high schools. The school studied has an average yearly faculty turnover rate of less than 5%. There may not exist a way to replicate the findings due to the high school's unique position in the county as a school of choice.

### **Methodology Delimitations**

This study took place in one high school only in one school system of one state. The study focused on measurable, visual cues that indicated student engagement. As cited above in the literature review, the 2009 High School Survey of Student Engagement cautions that only measurable, visual cues that indicate engagement may not be an accurate portrait of authentic engagement. In addition to these limitations, the only classrooms studied were junior and senior English classes of varying levels. Advanced Placement Literature and Composition, Advanced Placement Language and Composition, Honors, and Regular English III and IV were included.

## Chapter 4: The Results

### Introduction

The 21<sup>st</sup> century skills framework document (2009) states that to successfully face rigorous higher education coursework, career challenges, and a globally competitive workforce, U.S. schools must align classroom environments with real world environments by infusing 21<sup>st</sup> century skills. However, to align classroom environments with real world environments, educators must have the attention of the future workers. Educators must learn to engage students. In the 21<sup>st</sup> century, teachers need to be able to address the needs of students who will have to make their way in the world without much guidance. As the generations age, fewer adults will be able to help the young since the young generally have more access to technology and more willingness to learn it. As Warlick (2004) stated, “We have lost control over the information. Children control it now. They need to learn to control their information in positive, productive, and personally meaningful ways – and this is what we need to be teaching them” (p. 22). In other words, to be an effective teacher in the 21<sup>st</sup> century, educators need to keep the lessons relevant, meaningful, and interesting.

Today’s learners have a new, or at least unfamiliar to the older generations, mindset. They are digital natives, and their brains have developed differently from modern teachers’ brains. According to Tapscott (2009),

Brain regions associated with attention, evaluation of rewards, emotional intelligence, impulse control, and goal-directed behavior all change significantly between age 12 and 24. These neurological changes during adolescence may explain, in part, why many teenagers appear to be disorganized [*sic*], have poor impulse control, and have difficulty making long-term plans. (p. 100)

According to Jensen (2000),

The traditional “stand and deliver” approach is brain antagonistic. The brain is not very good at absorbing countless bits of semantic information. What feeds the brain more is meaningful exposure to larger models, patterns and experiences. From this rich diet, the learner’s brain will extract for itself the information it deems important. (p. 34)

The brains of 21<sup>st</sup> century learners work differently from the brains of their teachers. These learners are multitaskers and peripheral learners. Jensen stated, “The brain absorbs information from surrounding peripherals on a conscious and unconscious level. Although many of us commonly use peripherals, they may support learning even more than we realize” (p. 59). Tapscott (2009) acknowledged this use of peripheral learning and took it further when he incorporated into his book,

William D. Winn, director of the Learning Center at the University of Washington’s Human Interface Technology Laboratory, put it this way: children think differently from the rest of us. They develop hypertext minds. They leap around. It is as though their cognitive structures were parallel, not sequential. (p. 105)

This is the key, according to the above researchers: harnessing this hyper connectivity, multitasking behavior, and parallel cognitive structures in order to facilitate learning. Educators must actively engage the learners.

### **Statement of the Problem**

According to walk-through observations, mandated by the county’s administrative offices, the teachers at the subject school rely heavily on lecture and whole-class instruction. From the months of August 2009 to May 2010, the data from administrative

school-wide walk-throughs report that out of 290 classes observed across the disciplines, 209 were involved in lecture. Overwhelmingly, this shows that the teachers depend on teacher-centered instruction. With a population of students who are taking career preparatory courses (career technical education students) and those on their way to college (advanced placement students and college prep), a study should be conducted that measures the level of engagement based on the methodology. If educators purport to want to reach all learners, it follows then that educators need information about how to accomplish that.

This dissertation was designed to provide insight into the teaching practices of secondary English teachers at one school. Current learners are in classrooms in which the instructional practices or methodologies are employed, but may not be engaging students. Information sought included the degree to which 21<sup>st</sup> century practices are being incorporated into the lessons, and the level with which students are engaging with the material. The purpose of this study was to measure and report the relationship among active learning, student engagement, and teacher methodology. In addition, it was the purpose of this study to identify effective methodology for engaging 21<sup>st</sup> century learners.

This mixed-methods study was sequential. The information sought through the research questions was both conceptual and multifaceted in nature; therefore, the mixed-method design included both qualitative and quantitative data. The population consisted of 168 secondary English students in all levels of English III and English IV (advanced placement, honors, and regular). In addition, four representative teachers volunteered for the study, allowing each of eight classes to be observed daily for a period of 5 weeks. Data were gathered through the use of instrumentation designed by Van Amburgh et al. (2007), whose permission was granted to use the instrumentation, and the local education

agency's walk-through observation checklist, as well as teacher interviews. The results are presented in this chapter.

### **Research Questions**

This study examined quantitatively the effects of varying methodology on student engagement across class periods. Specifically, instruments were utilized to gather data on levels of engagement and to measure that engagement relative to the methodology employed by the teacher. This study also examined qualitatively teacher perception of engagement through a post-observation debriefing. This chapter reports the analysis of the data collected to answer the following research questions:

1. How effective are methodologies in actively engaging students based on Van Amburgh et al.'s (2007) active learning inventory tool?
2. What is the relationship between methodology and measurable active engagement?

### **Quantitative Data Analysis**

Of the four teachers chosen for the study, all remained in the study and completed the required participation. Each teacher allowed the researcher to conduct walk-through observations of two classes from each volunteer teacher for a total of eight classes of varying levels (junior and senior; regular, honors, and advanced placement) twice a week for 5 weeks. Classes provided a total of 168 students and 236 observations because each class was observed at least once a day for a total of 25 weekdays. The first section of results examines both research questions by presenting and comparing data gathered throughout the study. The following section includes the data analysis necessary to determine the following specified items: overall percentages of instructional practices within the studied classes; overall student actions within the studied classes; levels of

overall student engagement (not disaggregated by individual teacher); and percentage of students engaged within the studied classes.

The second section of data reports the results of the study disaggregated by individual teacher. The third section reports the qualitative analysis of the post-observation debriefings of each teacher and any anecdotal evidence gathered as a result thereof.

### **The Setting and Population**

Before reporting the research findings, it is important to review the setting and population data of the school, student participants, and teachers. The setting of the study was a high school in the piedmont of North Carolina. There were 69 staff members, 45% of whom were male and 55% were female. Of these staff members, 77% had been teaching more than 6 years. With the technological advancements made daily, the fact that the vast majority of the staff had been out of the college classroom as learners for over 5 years means that the technological knowledge of the majority of the staff would be outdated. These teachers had not had extensive training in current technologies; they had been required to learn it or use it in their classrooms. The make-up of the staff was presented in Table 1.

The school studied was unique to the system due to its purpose and nature: It served as a central location that offered courses unavailable to students at their regular high schools. The school offered both advanced placement and career technical education. Because the school was one which the students chose to attend based on course offerings, it is relevant to display the number of students and how many courses they took. In 2009, the total enrollment was 1,096 students from all high schools in the county. The number of classes taken by each student as compared to the total number of



classes was presented in Table 2.

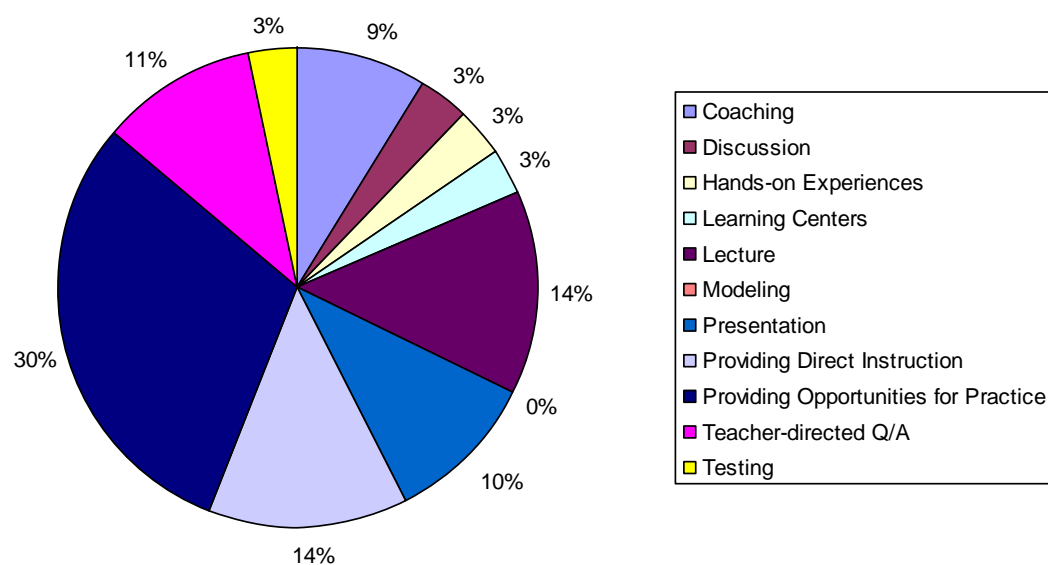
At this time, the organization is planning to relocate to a new building built to the specifications of the school board; however, it is of concern to administration that the unique situation, the moving of a school that draws from all over the county, will result in fewer students making the move with the school. From the school-wide needs assessment conducted in 2010, it is known that one developmental need of the organization is to recruit and retain students; another is to stay relevant, one-of-a-kind, and the best educational opportunity for students in the county.

The population of students ranged in age from 17 to 18 years of age from all levels of socioeconomic backgrounds since these students came from the entire county. Represented were low socioeconomic status students from Title I schools with a free or reduced lunch rate level of 53% to the highest socioeconomic school's population which had a free or reduced lunch eligibility rate of 23%. The four volunteer teachers represented the gamut of teaching experience and sexes existing in the school. The sample was 50% male and 50% female which reflected the school make-up of 45% male and 55% female. Each volunteer teacher had a minimum of 6 years of experience, once again mimicking the school make-up of 77% with 6 years of experience. The teacher with the most experience had been at the organization since it opened in 1973, which mirrors the low turnover rate of instructors (an average of less than 5% annually). The population for this study consisted of 168 secondary English students in all levels of English III and English IV (advanced placement, honors, and regular). In addition, four representative teachers volunteered for the study, allowing each of eight classes to be observed daily for a period of 5 weeks. Because the classes consisted of all academic levels of English (advanced Placement through regular), and the focus was on the level of

engagement for a typical student, the classes were composed of varying percentages of race and sex. However, race and sex were considered by the researcher to be irrelevant to this study, and students are categorized as students from across the county. Therefore, no demographic information is included here.

### **Overall Data**

The county's walk-through observation instrument lists 11 teaching methodologies. These methodologies are coaching, discussion, hands-on experiences, learning centers, lecture, modeling, presentation, providing direct instruction, providing opportunities for practice, teacher-directed question and answer, and testing. Using the aforementioned checklist for walk-through observations for the county, the number of occurrences of each methodology observed was recorded. The following figure disaggregates the number of overall individual observations of each methodology into percentages rounded to the nearest whole number. The total number of observations equaled 236.



*Figure 1.* Instructional Practices Observed During the Study's Walk-through Observations.

---

For the 236 observations, each occurrence of methodology was recorded. If, during the observation, an instructor altered methodology, the change was noted and the relative student action and engagement level were recorded as a new observation. The following table shows the absolute and relative frequencies (converted to a percentage) of each methodology observed.

Table 3

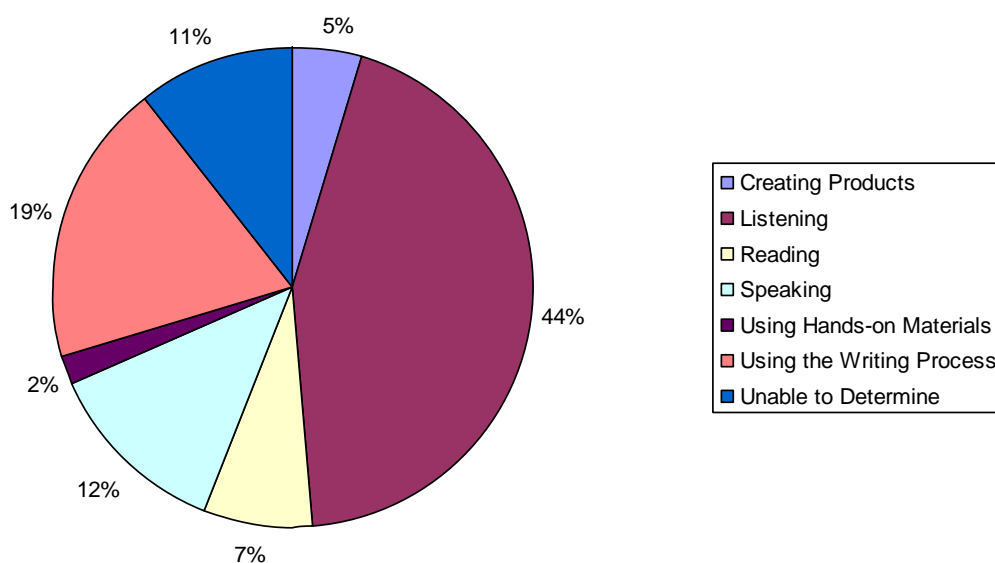
*Absolute and Relative Frequencies of Methodology*

Methodology	Number of Occurrences	Overall Percentage
Coaching	20	8.47%
Discussion	8	3.39%
Hands-on experiences	8	3.39%
Learning centers	7	2.97%
Lecture	32	13.56%
Modeling	0	0.00%
Presentation	25	10.59%
Providing directions/instruction	32	13.56%
Providing opportunities for practice	71	30.08%
Teacher-directed question and answer	25	10.59%
Testing	8	3.39%

*Note:*  $n = 236$  for all variables.

Table 3 illustrates the frequencies of methodology employment by instructors for the overall number of 236 observations. The recorded observations showed that providing opportunities for practice (71/236) was by far the most frequently observed methodology with lecture (32/236), and providing directions or instruction (also 32/236) frequently utilized during observation times. Next in degree of use were presentation (25/236) and teacher-directed questions and answer (also 25/236), with coaching (20/236) close behind. Occasionally utilized were discussion (8/236), hands-on experiences (also 8/236), testing (also 8/236), and learning centers (7/236). Modeling was never observed (0/236).

For each of the 236 classes observed, student actions were recorded using the county's checklist for walk-through observations and the Van Amburgh et al. (2007) active learning inventory tool. The results are shown in the following figure.

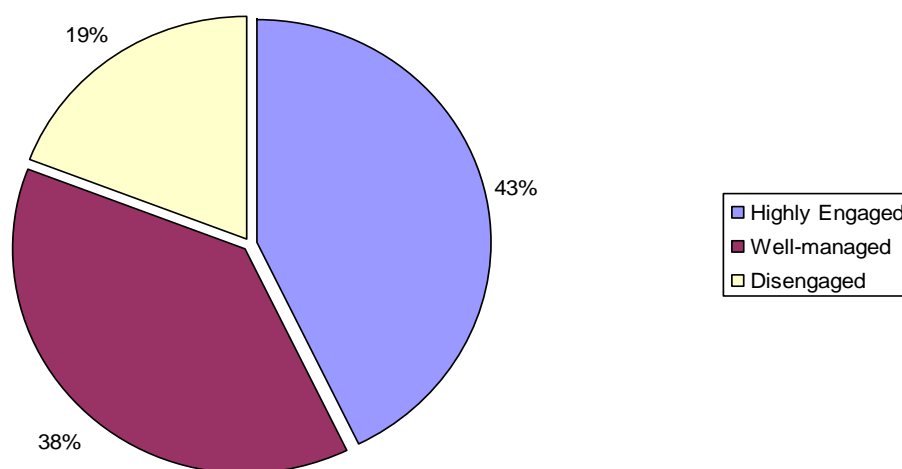


*Figure 2.* The Percentage of Observed Student Actions Observed During the Study's Walk-through Observations Rounded to the Nearest Whole Number.

Regardless of the lesson presented and the learner tasks expected, student actions can vary widely within the classroom. Therefore, according to Van Amburgh et al. (2007), student actions must be recorded to gauge student response and to determine the levels of active participation within the lesson time. The above figure shows the recorded student action responses to the various lessons presented. During the 236 walk-through observations, the highest percentage of observable responses to instruction was listening (44% of the observed time); the second most observed response was using the writing process (19% of the observed time); in descending order, the next observed responses were speaking (12% of the observed time), reading (7% of the observed time), creating products (5% of the observed time), and using hands-on materials (2% of the observed time). For 11% of the observed time, the researcher was unable to determine what the

student actions were or what they were supposed to be. This response was specifically demarcated when the students were milling about waiting for instruction, when the teacher was out of the room, or when the teacher was conferencing with an individual student before the class had been given instructions.

Based on the county's walk-through observation checklist, classes could be categorized into three levels of engagement: engaged, well-managed, or disengaged. The following figure represents the percentage of classes that were categorized into the three available levels.

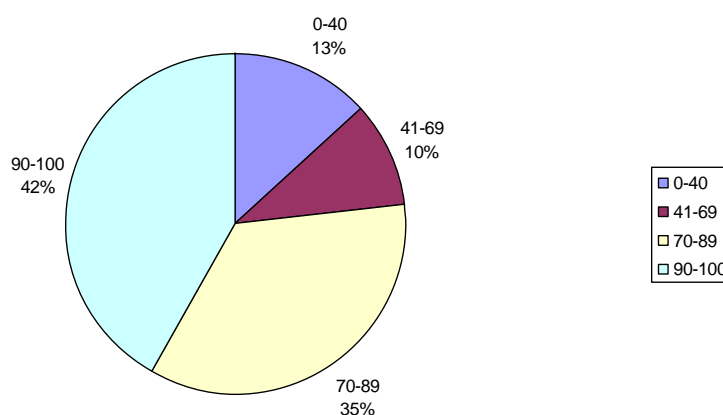


*Figure 3. The Levels of Class Engagement as Disaggregated by the County's Walk-through Observation Tool and Rounded to the Nearest Whole Number.*

The county's observation tool does not currently utilize a specific number categorization in order to determine the level of engagement, nor are there specific physical responses listed; however, the walk-through observer determines the level of class engagement. The researcher observed each classroom during the walk-through time

and determined the levels of engagement. Based on the county's walk-through observation instrument, the overall percentages of levels of class engagement during the 236 walk-through observations were determined to be 43% highly engaged, 38% well-managed, and 19% disengaged.

Based on the Van Amburgh et al. (2007) study and the researcher's categorization levels of engagement, percentages of engaged students were ascertained based on visible, observable body language as referenced in above chapters of this dissertation. The results of these observations are recorded in the following figure.



*Figure 4.* The Percentage Breakdown of Engaged Students Based on the Van Amburgh et al. (2007) Active Learning Inventory Tool.

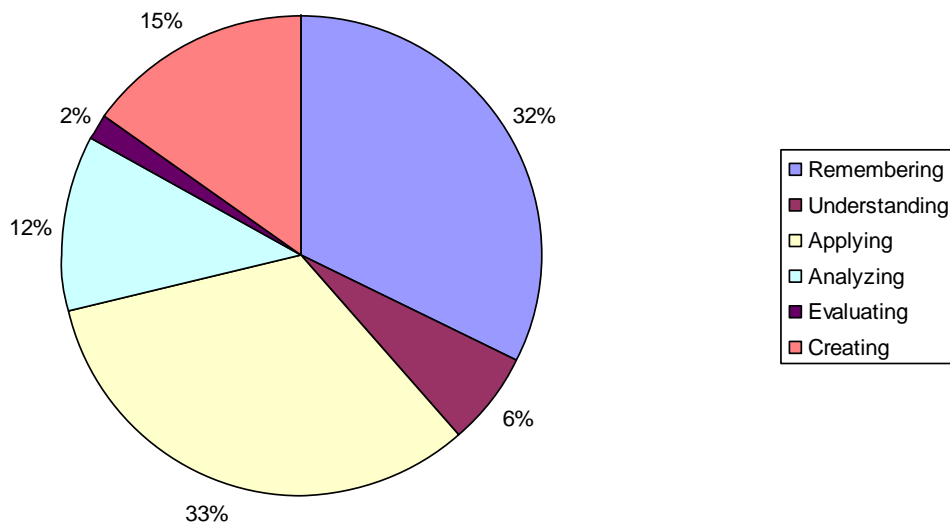
---

Based on the fact that previous studies have not set exact numerical value limitations for identifying levels of engagement (Jones, 2009; Van Amburgh et al., 2007) and have instead sometimes relied on vague quantifiers such as sometimes, often, and very often (National Survey of Student Engagement, 2010), the researcher chose to define the numerical limits. For the purposes of this study, the measurement boundaries

were set as follows: 0% to 40% of learners observably, measurably engaged were classified as ineffective and disengaged; 41% to 69% of learners observably, measurably engaged were classified as ineffective; 70% to 89% of learners observably, measurably engaged were classified as effective; 90% to 100% of learners observably, measurably engaged were classified as highly effective. During the 236 observations, the categorization of numbers and percentages of engaged students during the observed times are as follows: 90 to 100% of students were engaged for 42% of the observations (highly effective); 70 to 89% of students were engaged for 35% of the observations (effective); 41 to 69% of the students were engaged for 10% of the observations (ineffective); and 0 to 40% of the students were engaged for 13% of the observations (ineffective and disengaged). The level of effectiveness refers to the instructional practice, and the level of engagement refers to the learner's engagement response level.

According to Van Amburgh et al. (2007), a relationship exists between the level of difficulty of the task and observable engagement. Therefore, the difficulty level of the task being performed by the students in each class was recorded, as well as the level of student work based on the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001) from the county's walk-through observation form. The following figures report the difficulty level and the level of student work.





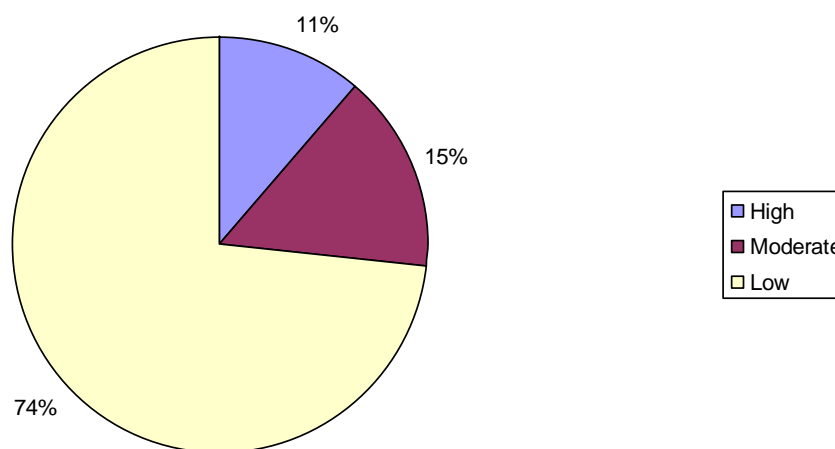
*Figure 5.* The Bloom's Taxonomy Categorical Breakdown of Task Level Difficulty for the Observed Classroom Activities Rounded to the Nearest Whole Number.

The county's walk-through observation instrument asks that the observer categorize the observed student assignments according to the levels of the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001). Those categories (from lowest to highest cognitive dimension) are defined as follows:

1. Remember – Retrieve relevant knowledge from long-term memory.
2. Understand – Construct meaning from instructional messages, including oral, written, and graphic communication.
3. Apply – Carry out or use a procedure in a given situation.
4. Analyze – Break material into constituent parts and determine how parts relate to one another and to an over-all structure or purpose.
5. Evaluate – Make judgments based on criteria and standards.

6. Create – Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure.

These six dimensions of cognition mirror the county's walk-through observation instrument which asks that the observer delineate which level of learning the students are experiencing during the walk-through time. These categories are remembering, understanding, applying, analyzing, evaluating, and creating. The purpose in assigning a cognitive dimension to the assignment (during walk-through observation time) is to determine if students are being challenged in varying ways and are experiencing different means and modes of communicating what they have learned. Student tasks were categorized in the following levels of Bloom's Taxonomy for the following percentages of the observation time in descending order: applying knowledge (33% of the observed time); remembering knowledge (32% of the observed time); creating (15% of the observed time); analyzing (12% of the observed time); understanding (6% of the observed time); and evaluating (2% of the observed time).



*Figure 6.* The Van Amburgh et al. (2007) Categorical Breakdown of Student Levels of Work Observed During the Study and Rounded to the Nearest Whole Number Percentage.

---

Van Amburgh et al. (2007) defined the levels of student work based on tasks similar to Bloom's Taxonomy. According to the Van Amburgh et al. (2007) observation form, there are three levels of complexity for student work (high, moderate, and low). The categories given are low complexity (activities that require student responses of lower-ranking thought processes according to Bloom, such as question and answer or think/pair/share); moderate complexity (activities that require student responses wherein the student must draw from pre-lesson knowledge and create a response, such as student-generated questions or small group presentations); and high complexity (activities that require the highest levels of Bloom's Taxonomy, such as problem-based learning or debates). The researcher demarcated each student activity according to Van Amburgh et al.'s (2007) levels and the above figure illustrates the results. Of the 236 observations,

the levels of complexity observed were low complexity (74%), moderate complexity (15%), and high complexity (11%).

### Results by Teacher

Teacher 1, a male with 25 years of experience, was observed 60 times. The following table shows the number of occurrences and percentage of methodology employed, as categorized by the walk-through instrument.

Table 4

*The Number of Occurrences and Relative Percentage of Methodology for Teacher 1*

Methodology	Number of Occurrences	Overall Percentage
Coaching	0	0.00%
Discussion	0	0.00%
Hands-on Experiences	0	0.00%
Learning centers	0	0.00%
Lecture	17	28.33%
Modeling	0	0.00%
Presentation	11	18.33%
Providing directions/instruction	5	8.33%
Providing opportunities for practice	20	33.33%
Teacher-directed question and answer	5	18.33%
Testing	2	3.33%

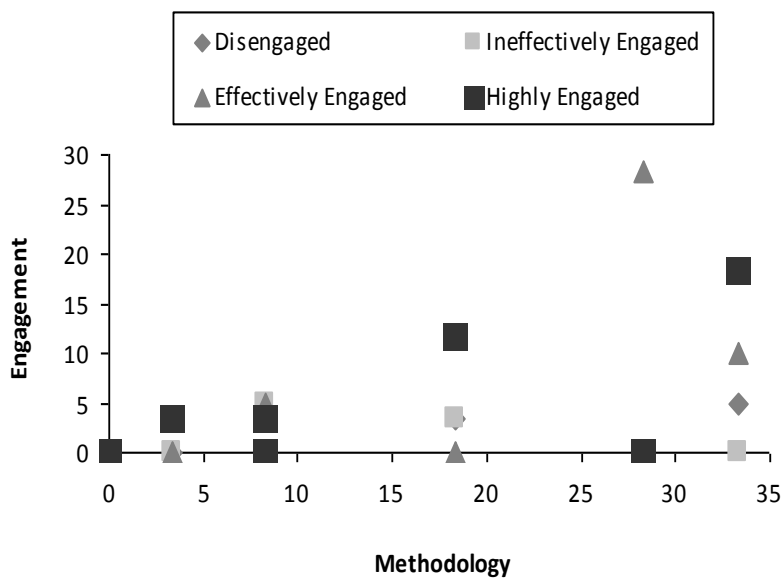
In 60 observations, Teacher 1 utilized methodologies in the following descending order: the most utilized was providing opportunities for practice (20 instances for 33.33% of the observation time); next most utilized was lecture (17 instances for 28.33% of the observation time); presentation was the next in order of use (11 instances for 18.33% of the observation time); followed by the equally used providing direction/instruction and teacher-directed question and answer (both 5 instances for 8.33% of the observation

time); and testing was utilized little (2 instances for 3.33% of the observation time).

Teacher 1 was never observed to use coaching, discussion, hands-on experiences, learning centers, or modeling (all with 0 instances).

According to the parameters and definitions established in the previous chapters, Teacher 1's students were measurably, actively engaged (effective and highly effective) for 79.99% of the total observed time. In lecture, 70-89% of the students were engaged for 28.33% of the observed time; 90-100% of students were engaged for 11.67% during presentation; and 70-100% of students were engaged for 28.33% of the observed time in providing directions or instruction.

The following graph illustrates the level of student engagement in comparison with Teacher 1's methodology.



*Figure 7. Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 1's Class.*

The above figure shows the comparison between methodology and the researcher's categorization according to Van Amburgh et al. (2007) of percentage of

student engagement during the 60 observations of Teacher 1's class. The distribution of points indicates a positive trend in the relationship between methodology and engagement. However, there is no obvious convergence of plot points, indicating that the methodology cannot be proven to have a relationship with the level of engagement. In the case of Teacher 1, there is no relationship between the level of engagement and the method of instructional delivery.

Teacher 2, a male with 30 years of experience, was observed 53 times. The following table shows the number of occurrences and percentage of methodology employed, as categorized by the walk-through instrument.

Table 5

*The Number of Occurrences and Relative Percentage of Methodology for Teacher 2*

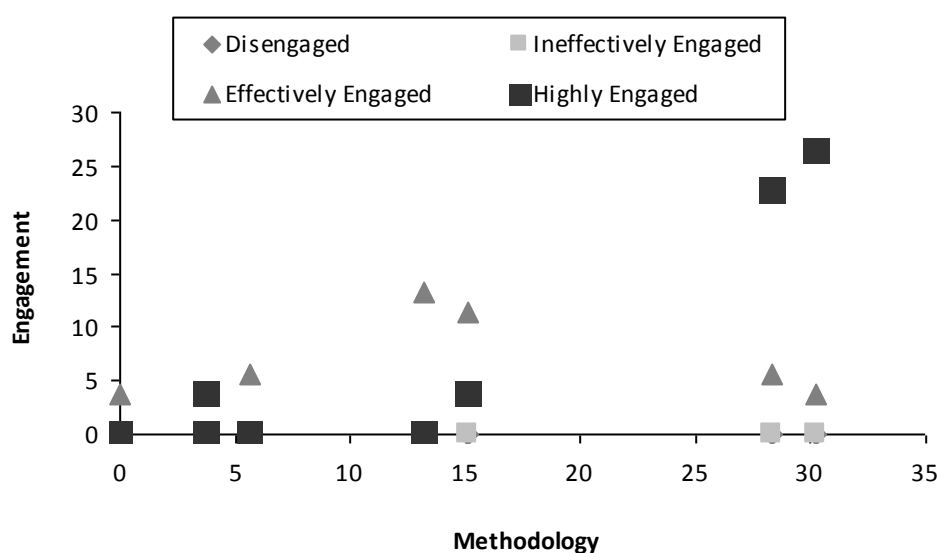
Methodology	Number of Occurrences	Overall Percentage
Coaching	15	28.33%
Discussion	2	3.77%
Hands-on experiences	0	0.00%
Learning centers	3	5.66%
Lecture	0	0.00%
Modeling	0	0.00%
Presentation	2	3.77%
Providing directions/instruction	7	13.21%
Providing opportunities for practice	16	30.19%
Teacher-directed question and answer	18	15.09%
Testing	0	0.00%

During 53 observations, Teacher 2 utilized methodologies in the following descending order: most utilized was teacher-directed question and answer (18 instances for 15.09% of the observation time); close behind was providing opportunities for

practice (16 instances for 30.19% of the observation time) and coaching (15 instances for 28.33% of the observation time); a large gap exists between those lead three and the next in order, providing directions/instructions (7 instances for 13.21% of the observation time); then little-employed learning centers (3 instances for 5.66% of the observation time), discussion and presentation (2 instances each for 3.77% of the observation time). Not utilized were hands-on experiences, lecture, modeling, and testing (0 instances each).

According to the parameters and definitions established in the previous chapters, Teacher 2's students were measurably, actively engaged (effective and highly effective) for 100% of the total observed time. The highest levels of engagement occurred during opportunities for practice (70-100% of the students engaged for 30.19% of the observed time). The second highest level of engagement was evidenced in coaching (70-100% of students engaged for 28.30% of the observed time).

The following graph illustrates the level of student engagement in comparison with Teacher 2's methodology.



*Figure 8. Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 2's Class.*

The above figure shows the comparison between methodology and the researcher's categorization according to Van Amburgh et al. (2007) of percentage of student engagement during the 53 observations of Teacher 2's class. The distribution of points indicates a positive trend in the relationship between methodology and engagement. However, there is no obvious convergence of plot points, indicating that the methodology cannot be proven to have a relationship with the level of engagement. In the case of Teacher 2, there is no relationship between the level of engagement and the method of instructional delivery.

Teacher 3, a female with 13 years of experience, was observed 66 times. The following table shows the number of occurrences and percentage of methodology employed, as categorized by the walk-through instrument.

Table 6

*The Number of Occurrences and Relative Percentage of Methodology for Teacher 3*

Methodology	Number of Occurrences	Overall Percentage
Coaching	3	4.55%
Discussion	4	6.06%
Hands-on experiences	3	4.55%
Learning centers	2	3.03%
Lecture	12	18.18%
Modeling	0	0.00%
Presentation	10	15.15%
Providing directions/instruction	14	21.21%
Providing opportunities for practice	9	13.64%
Teacher-directed question and answer	3	4.55%
Testing	6	9.09%

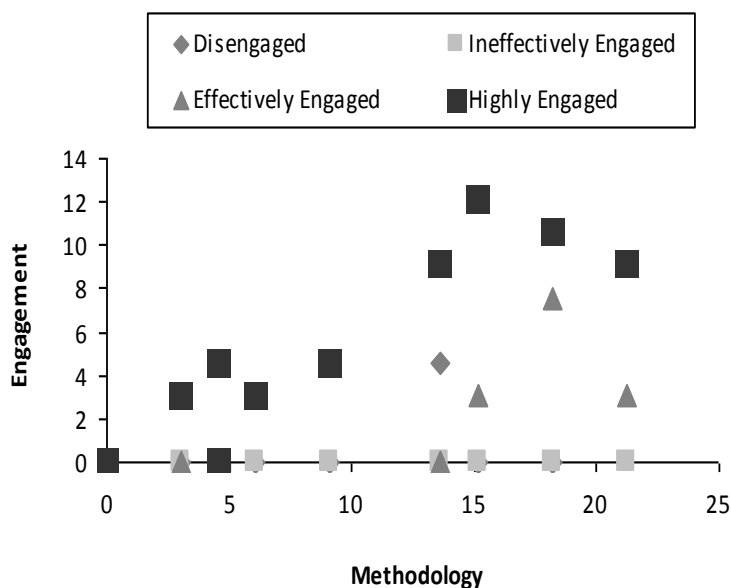
In 66 observations, the following methodologies were employed by Teacher 3 in descending order: providing directions/instruction was the most observed (14 instances



for 21.21% of the observation time); close behind is lecture (12 instances for 18.18% of the observation time), presentation (10 instances for 15.15% of the observation time), and providing opportunities for practice (9 instances for 13.64% of the observation time); testing (6 instances for 9.09% of the observation time) was next in frequency; discussion came next (4 instances for 6.06% of observation time); equally observed were coaching, hands-on experiences, and teacher-directed question and answer (all with 3 instances for 4.55% of the observation time); and learning centers (2 instances for 3.03% of the observation time). The only methodology not observed was modeling (0 instances).

Of Teacher 3's students, 70-100% were actively, measurably engaged for 71.83% of the observed time. The highest level of engagement was for lecture (70-100% engaged for 18.18% of the observed time), with presentation as a close second (70-100% of students engaged for 15.15% of the total observed time). Testing showed the third highest level of engagement (70-100% of the students engaged for 9.1% of the observed time).

The following graph illustrates the level of student engagement in comparison with Teacher 3's methodology.



*Figure 9.* Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 3's Class.

The above figure shows the comparison between methodology and the researcher's categorization according to Van Amburgh et al. (2007) of percentage of student engagement during the 66 observations of Teacher 3's class. The distribution of points indicates a positive trend in the relationship between methodology and engagement. However, there is no obvious convergence of plot points, indicating that the methodology cannot be proven to have a relationship with the level of engagement. In the case of Teacher 3, there is no relationship between the level of engagement and the method of instructional delivery.

Teacher 4, a female with 16 years of experience, was observed 57 times. The following table shows the number of occurrences and percentage of methodology employed, as categorized by the walk-through instrument.

Table 7

*The Number of Occurrences and Relative Percentage of Methodology for Teacher 4*

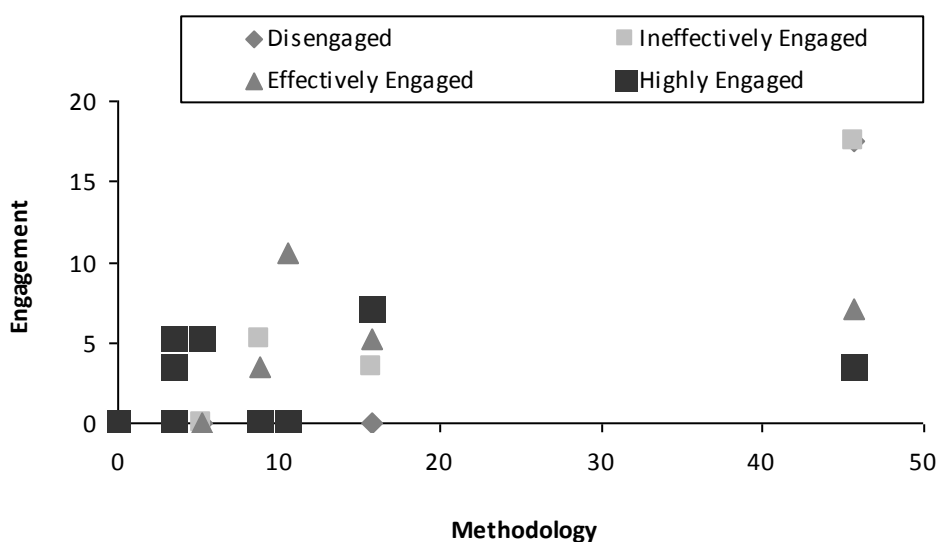
Methodology	Number of Occurrences	Overall Percentage
Coaching	2	3.51%
Discussion	2	3.51%
Hands-on experiences	5	8.77%
Learning centers	2	3.51%
Lecture	3	5.26%
Modeling	0	0.00%
Presentation	2	3.51%
Providing directions/instruction	6	10.53%
Providing opportunities for practice	26	45.61%
Teacher-directed question and answer	9	15.79%
Testing	0	0.00%

During 57 observations, Teacher 4 utilized the following methodologies in descending order: providing opportunities for practice was by far the most utilized (26 instances for 45.61% of the observation time); far behind was teacher-directed question and answer (9 instances for 15.79% of the observation time); providing directions/instruction (6 instances for 10.53% of the observation time) and hands-on experiences (5 instances for 8.77% of the observation time) followed; lecture was the next in order (3 instances for 5.26% of the observation time); and equally used were coaching, discussion, learning centers, and presentation (2 instances each for 3.51% of the observation time). Not employed were modeling or testing (0 instances).

Teacher 4's student engagement levels were notably lower than the other subject teachers. The tool indicated that 70-100% of Teacher 4's students were actively, measurably engaged for 50.88% of the observed time. Teacher question and answer

yielded the highest level of student engagement (70-100% of students engaged for 12.28% of the observed time). Providing directions or instructions and providing opportunities for practice tied for the second highest levels of student engagement in Teacher 4's class during the observed time (70-100% of students engaged for 10.53% of the time).

The following graph illustrates the level of student engagement in comparison with Teacher 4's methodology.



*Figure 10.* Scatter Plot of Methodology Compared with Percentage of Engaged Students during Walk-through Observations of Teacher 4's Class.

The above figure shows the comparison between methodology and the researcher's categorization according to Van Amburgh et al. (2007) of percentage of student engagement during the 57 observations of Teacher 4's class. The distribution of points indicates a positive trend in the relationship between methodology and engagement. However, there is no obvious convergence of plot points, indicating that the methodology cannot be proven to have a relationship with the level of engagement. In

the case of Teacher 4, there is no relationship between the level of engagement and the method of instructional delivery.

### **Qualitative Analysis**

The third piece of this study was teacher perception. The researcher sought knowledge of each teacher's perception and reality of student engagement. Each of the four subject teachers was asked to complete a debriefing form interview. Originally, the interviews were to be conducted daily; however, due to the unavailability of each teacher for daily debriefings, the researcher interviewed each teacher briefly at the end of every 3 days, with the formal address of the debriefing form at the close of research. The single question on the form was, "What thoughts or comments do you have about what was happening during the walk-through today, specifically as it relates to student engagement?" For the purposes of adjusting the interview frequency, the question became, "What thoughts or comments do you have about what was happening during the walk-through observations, specifically as it relates to student engagement?"

### **Teacher 1**

The following is a transcript of the debriefing interview with Teacher 1. The researcher includes the word-for-word transcript rather than pulling quotes in order to present the answer as a whole instead of highlighted parts. The researcher perceives the answer's import *in toto*.

The more I teach, the more I feel that it is less and less curricular-oriented and more students trying to get them to be better citizens, to have work skills necessary to succeed in the real world. This is far more important to me now than 21<sup>st</sup> century learning is – it's adaptive, a pragmatic view of student needs versus hidebound bureaucratic dictates. Some teachers might call this guerilla teaching.

Anything (in my class) that looks like it's part of the curriculum is only a tool used to secure immediate purpose of getting kids ready for the real world. A lot of my teaching is about how to avoid pitfalls; why peer pressure is bad; why self-reliance is so important. Pick a book, novel, play, or poem and somehow I'll bring it back to those themes. The way I teach class really appeals to students. The way I teach each class is different because I teach to each class's needs and personality. I would classify my students engaged for 75%. I would say that 60% of my students are engaged at any given time.

### **Teacher 2**

Teacher 2's debriefings were very succinct. Class schedules prevented extensive time for interviewing, and Teacher 2 was scheduled to attend national grading, then was scheduled for retirement. Therefore, the answers gleaned were to the point and gathered over many brief mini-interviews. Teacher 2 stated that he hoped the observer of his classroom would note his ability to reach students, but he expressed a grave concern that he was "always teaching last year's class." He was not convinced that he was making a difference, and expressed hope that his students were learning, and were engaged; however, he also articulated the awareness that students were more easily distracted than in the past. He stated that engagement is important, and his means of knowing that students were engaged were eye contact, facial expressions, and the nodding of heads. He estimated that his students were engaged for 85% of the observation time, and that 85% of his students were engaged at any given time during class.

### **Teacher 3**

Teacher 3 asked for extra time to think about the debriefing questions, and composed the following reply:

Student engagement is both a tangible and perceptual need. Tangibly, engaged students can be noted as focused on the task at hand, whether the students are seen listening to the teacher, working with others, or completing activities.

Perceptually, engaged students can be noted as interested in “buying into” the task at hand, whether through questioning, contemplation, or active listening. It is my belief that student engagement is heightened when there is a set of expectations between student and teacher, setting standards for both the teacher AND the student to bear responsibility toward learning during the class period.

Teacher 3 answered the question, then gauged perception. She replied that she would estimate that her students were engaged for 80% of class time, and that 80% of her students were engaged at any given time during class.

#### **Teacher 4**

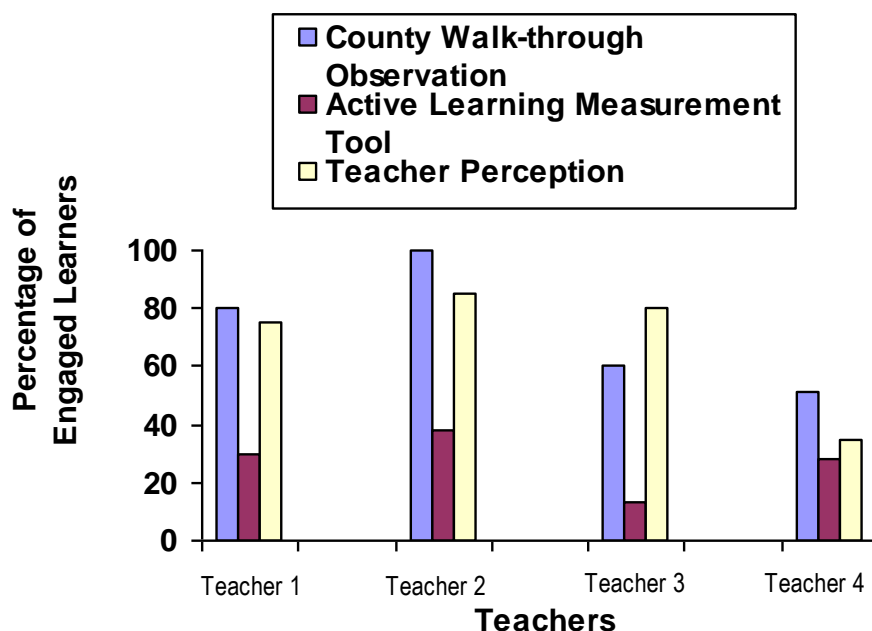
Teacher 4 answered the debriefing form orally. She stated that she felt one period was easier to engage than the other (the earlier class was easier to engage than the last class of the day). She added that she liked to give 3 to 4 minutes to settle before she starts “barking at them.” Teacher 4 liked to engage the students right away with the board (the whiteboard), but expressed the concern that she was not “very good at it.” She said that she could tell that her students were engaged by eye contact, but eye contact does not always reveal true engagement. She worked this year by letting the students talk first, and answering questions. Teacher 4 stated that she used focused listening activities, and that engagement was important, but that it was “hard to keep all the plates spinning.” She stated that she would estimate that her students stay engaged for 35% of class time, and that 35% of her students were engaged at any given time during the lesson.

### **Teacher Perception Comparison**

Butin (2010) stated that data triangulation is “the cross-referencing and synthesis of multiple data sources in order to enable more valid analysis and conclusions” which adds “a stronger foundation upon which to draw conclusions” (p. 121). In order to be able to draw detailed, valid conclusions, the researcher felt that the triangulation of data was essential. In addition to providing a comparison between the teacher perception and the actual level of engagement according to the county’s walk-through observation instrument with measurement limitations as placed by the researcher, data triangulation provides a comparison between actual measured levels of engagement based on the county’s walk-through observation instrument and the Van Amburgh et al. (2007) active learning inventory tool, allowing comparisons to be drawn about the accuracy of the tool itself when utilized in the context of this study. The county’s observation tool is designed to gauge student-teacher interaction, including the cognitive level of the lesson as well as the level of engagement. The Van Amburgh et al. (2007) active learning inventory tool is designed to gauge student-teacher interaction as well, with a focus on the level of assignment complexity and the resulting level of engagement. Teachers should be aware of the level of engagement in their classrooms and make adjustments; however, teachers may not have accurate perceptions of the actual level of engagement (Moriarty, 2007; Van Amburgh et al., 2007). Therefore, it is essential that the data from all three measurement instruments (the county’s, Van Amburgh et al.’s, and the debriefing interview) be triangulated and examined for possible comparisons. In order to triangulate the data from the county’s walk-through instrument regarding engagement, the data from the (2007) observation tool for active learning, and individual teacher perception of engagement within the classroom, data were compiled and synthesized into the following



graphic.



*Figure 11.* Triangulation of Data from the County Observation Tool, the Van Amburgh et al. (2007) Active Learning Inventory Tool, and the Teacher Perception Debriefing Interviews.

Because the researcher set the parameters for the definition and degree of engagement, the measurement boundaries were defined as follows: 0% to 40% of learners observably, measurably engaged were classified as ineffective and disengaged; 41% to 69% of learners observably, measurably engaged were classified as ineffective; 70% to 89% of learners observably, measurably engaged were classified as effective; 90% to 100% of learners observably, measurably engaged were classified as highly effective. Therefore, when calculating the percentage of engaged students, only the categories of effective (70% to 89% engaged) and highly effective (90% to 100% engaged) were utilized for the data input from the county observation tool.

As shown in Figure 11 above, Teacher 1's engagement levels were as follows: for

the county walk-through observation tool, the overall level of engagement was 70 to 100% of students engaged for 79.99% of the observation time; the active learning inventory tool showed that students were engaged for 30% of the observation time; and the teacher perceived that 75% of students were engaged for 75% of class time. Teacher 2's engagement levels were as follows: for the county walk-through observation tool, the overall level of engagement was 70 to 100% of the students engaged for 100% of the observation time; the active learning inventory tool showed that students were engaged for 37.73% of the observation time; and the teacher perceived that 85% of the students were engaged for 85% of classroom time. Teacher 3's engagement levels were as follows: for the county walk-through observation tool, the overall level of engagement was 70 to 100% of students engaged for 60.61% of the time; the active learning inventory tool showed that students were engaged for 13.63% of the observation time; and teacher perception was that 80% of students were engaged for 80% of classroom time. Teacher 4's engagement levels were as follows: for the county walk-through observation tool, the overall level of engagement was that 70 to 100% of the students were engaged for 50.88% of observation time; the active learning inventory tool showed that students were engaged for 28.07% of the observation time; and the teacher perceived that 35% of the students were engaged for 35% of classroom time. Obvious discrepancies exist among these data, and will be discussed in Chapter 5 of this dissertation.

## **Chapter 5: Summary, Conclusions, and Recommendations**

This chapter begins with an overview of the study which includes the research questions and methodology. Next, a summary of the study's major findings is presented. The chapter examines conclusions in four areas: the usage of various methodologies by the classroom teachers, the relationships between methodology and student engagement and student engagement and active learning, and 21<sup>st</sup> century student engagement in the local education agency. Finally, some recommendations for further research are offered.

### **Overview**

According to walk-through observations, the teachers at the subject school relied heavily on lecture and whole-class instruction. From the months of August 2009 to May 2010, the data from administrative school-wide walk-throughs report that out of 290 classes observed across the disciplines, 209 were involved in lecture. Overwhelmingly, this shows that the teachers depended on teacher-centered instruction. With a population of students who are taking career preparatory courses (career technical education students) and those on their way to college (advanced placement students and college preparatory), a study was conducted that measured the level of engagement based on the methodology. If educators purported to want to reach all learners, it followed then that educators needed information about how to accomplish that.

This dissertation was designed to provide insight into the teaching practices of secondary English teachers at one school. Current learners are in classrooms in which the instructional practices or methodologies are employed, but may not be engaging students. Information sought included the degree to which 21<sup>st</sup> century practices are being incorporated into the lessons, and the level with which students are engaging with the material. The purpose of this study was to measure and report the relationship among

active learning, student engagement, and teacher methodology. In addition, it was the purpose of this study to identify effective methodology for engaging 21<sup>st</sup> century learners.

The study's population consisted of 168 secondary English students in all levels of English III and English IV (advanced placement, honors, and regular English III and IV). In addition, four representative teachers volunteered for the study, allowing each of eight classes to be observed daily for a period of 5 weeks. Data were gathered through the use of instrumentation designed by Van Amburgh et al. (2007), whose permission was granted to use the instrumentation, and the local education agency's walk-through observation checklist, as well as teacher interviews. The results were presented in the previous chapter.

### **Research Questions**

This study examined quantitatively the effects of varying methodology on student engagement across class periods. Specifically, instruments were utilized to gather data on levels of engagement and to measure that engagement relative to the methodology employed by the teacher. This study also examined qualitatively teacher perception of engagement through a post-observation debriefing. Chapter 4 reported the analysis of the data collected to answer the following research questions:

1. How effective are methodologies in actively engaging students based on Van Amburgh et al.'s (2007) active learning inventory tool?
2. What is the relationship between methodology and measurable active engagement?

After acquiring permission from the school system to gather data, the researcher solicited four volunteer English teachers of each level (regular, honors, and advanced placement) and each upper grade level (junior and senior). Second, the researcher

conducted walk-through observations of two classes from each volunteer teacher for a total of eight classes of varying levels (junior and senior; regular, honors, and advanced placement), twice a week for 5 weeks. The combination of classes provided a total pool of 168 students and 236 observations because each class was observed at least once a day for a total of 25 weekdays. The observations yielded evidence of active learning through the Van Amburgh et al. (2007) active learning inventory tool (Appendix B) which the researcher obtained permission to use for the purposes of this study. The researcher denoted which methods of active learning were observable, with the totals tabulated at the end of each week in order to compare the methods of instruction with the levels of engagement. The data were examined for a discernable relationship between the two (methods of instruction and levels of engagement). The second tool utilized for gathering data was the student engagement sections of the local district's walk-through observation tool (Appendix C). The researcher denoted on the checklist the observable signs of student engagement, tabulating the totals from each column at the end of each week in order to compare the methods of instruction with the levels of engagement. The data were examined for a discernable relationship between the two (methods of instruction and levels of engagement). Each instrument had a section for demarcation of teacher methodology. The researcher recorded the number of occurrences of various methodologies listed on the tools limited to whole class instruction, small group instruction, and paired or individual assignment. For each classroom observation, the researcher noted the level of student work and the percentage of students actively engaged as indicated by the Van Amburgh et al. (2007) tool. This allowed the researcher to ascertain the relationship among methodology and active learning and methodology and student engagement through disaggregation of the results. The researcher performed

analysis in order to determine and quantify the strength of the relationship between active learning and engagement. The researcher interviewed each volunteer teacher at the end of the study in order to allow input from the teacher's perspective through an open-ended interview. This evidence was compiled via an oral debriefing (Appendix D). Additional anecdotal evidence was provided through teacher observation. One instrument employed was a checklist utilized by the researched county's school system. This checklist is based on what an administrator can glean from a brief, 10-minute walk-through. The second tool was the active learning inventory tool which measures student reaction and response to assignment tasks based on levels of complexity, and a measure of faculty approach to the assigned tasks, including making adjustments if the students disengage. The tool is designed to inform practice (Van Amburgh et al., 2007). Permission from Dr. Van Amburgh was granted for use of the tool for this study (Appendix E).

This research design and the above mentioned tools were appropriate choices because they have been validated as presented in the literature review section of this paper. They were selected because they measured accurately and provided a good body of evidence data for the study. The four teachers were interviewed one-on-one and in a group in order to discuss their reactions to the walk-through observations, and to ascertain their additional thoughts, perspectives, or reflections on the successful engagement of 21<sup>st</sup> century learners. These interviews served as a debriefing, and were open-ended in format. The information from the two tools were compared through tabular computation and comparative analysis in order to determine if a relationship existed between engagement as defined by this study and active learning.

### **Summary of Major Findings and Conclusions**

This section presents the study's findings concerning the relationships among

methodology, active learning, and student engagement.

With 236 classroom observations, the researcher disaggregated data in multitudinous variations. Data support the fact that student engagement is not predictable based on teacher methodology. No relationship was found between method employed in the classroom and a high level of engagement.

In instructional practices, the teachers participating in the study overwhelmingly chose the methodological mode of providing opportunities for practice, with an average frequency of 30%, compared to the other modes available (coaching, discussion, hands-on experience, learning centers, modeling, presentation, providing direct instruction, lecture, teacher-directed question and answer, and testing). The next practice used in frequency was 14% which shows that teachers chose to provide opportunities for practice more than any other methodology. This does not support the data from Moriarty (2007) and the system's walk-through observations presented in previous chapters (209 out of 290 classes involved in lecture). This discrepancy could be explained by the fact that the overall number (209 out of 290) was for all disciplines, not only English. There may be classes whose content may lend itself more to lecture than others. This would be an area for further research. Additionally, the teachers participating in the study represent a cross-section of the faculty, but all have career status, so many years of experience.

Students were expected to listen with great frequency. In 44% of the student actions observed during the researcher's walk-through observations, listening was by far the most repeated student activity observed. The fact that the second most utilized student action was writing (19% of the observed time) means that students were required to listen twice as much, in effect, as they wrote. This leads the researcher to believe that even though providing directions or instructions is not lecture, according to the walk-

through instrument, both methodologies require listening. It could be a fault in the observation instrument that it does not measure student action and methodology by senseate. The researcher is struck by the fact that if providing directions or instruction, which did go on in some observed classes for 10 or more minutes, was to be classified as lecture, the percentage of observed time spent in classes would equal the amount of time for providing opportunities for practice. This would tend to support the data from Moriarty (2007) and the system's walk-through observations. In short, the instructors spent too much time talking, according to the data.

Measurement of overall engagement showed that students were highly engaged or well-managed for the vast majority of observed time (81% of the time observed), with only 19% of the observed time suggesting students disengaged. Noted in the previous chapters, however, is the fact that there are degrees of engagement according to Schlechty (2002) which should be taken into account. The system's walk-through observation instrument lists three levels of engagement (above) instead of Schlechty's four: authentic engagement, ritual engagement, passive compliance, and retreatism. Although the three provided by the system's instrument can denote when teachers have a problem with discipline or classroom management, the researcher believes that the shades of difference among Schlechty's engagement categories would be helpful in designing instruction and in accurately assessing teacher progress toward addressing the needs of the 21<sup>st</sup> century learner.

The researcher synthesized the findings of Van Amburgh et al. (2007), Jones (2009), and the system's walk-through observation form to create clear measurements of the categories of student engagement: 0% to 40% of learners observably, measurably engaged were classified as ineffective and disengaged; 41% to 69% of learners



observably, measurably engaged were classified as ineffective; 70% to 89% of learners observably, measurably engaged were classified as effective; 90% to 100% of learners observably, measurably engaged were classified as highly effective. During the 236 observations, the categorization of numbers and percentages of engaged students during the observed times are as follows: 90 to 100% of students were engaged for 42% of the observations (highly effective); 70 to 89% of students were engaged for 35% of the observations (effective); 41 to 69% of the students were engaged for 10% of the observations (ineffective); and 0 to 40% of the students were engaged for 13% of the observations (ineffective and disengaged). The level of effectiveness refers to the instructional practice and the level of engagement refers to the learner's engagement response level. From these findings, it can be logically concluded that in this particular school, during these particular classes, the majority of students were visibly, actively engaged; therefore, the methodologies were effective in engaging students. The researcher must emphasize, however, that the students involved in the observation, as discussed in previous chapters, came to the studied school by choice from all over the county: The findings may indicate that these students are more motivated to be engaged because they have made the choice to attend the school. This signifies the need for a wider study, or closer examination of schools within the district so researchers may make comparisons of the levels of engagement.

Van Amburgh et al.'s (2007) study based on their active learning inventory tool denotes the levels of task difficulty as a signifier of degree of engagement. These levels of difficulty correspond to the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001). The tool indicated that students' cognitive levels were on the middle to low end of the spectrum for the majority of the time (33% of the observed time was spent in

applying knowledge, and 32% of the observed time was spent in remembering knowledge). This denotes that 65% of the observed time was not indicative of higher levels of learning, even though the tool's categories specified that students were either effectively or highly effectively engaged. This goes against Van Amburgh et al.'s (2007) theory that active participation signifies student engagement. The Van Amburgh et al. study, however, was based on a smaller sample of students (100 students over the course of 9 lectures) at a higher level of education (university) in a far different discipline from English (pharmacology). Therefore, the antithetical finding could be based on the differences in circumstance.

Each teacher in the study produced different results regarding methodologies, student engagement, and active learning. No two teachers were similar in percentages of any of the above, with the exception that providing opportunities for practice figured prominently in the percentage of observed time; however, all teachers were extremely accurate in their gauge of student engagement. Teacher 1 suggested that 75% of his students were measurably engaged for 60% of the time. The results of the study indicated that for 79.99% of the observed time, Teacher 1's students were engaged, at either an effective or highly effective level. Teacher 2 estimated that 85% of his students were engaged for 85% of classroom time. The study showed that 70-100% of the students were engaged for 100% of the observed time. Teacher 3 stated that 80% of her students were engaged for 80% of classroom time. The study indicated that 70-100% of Teacher 3's students were engaged for 71.83% of the observed time. Teacher 4 observed that 35% of her students were engaged for 35% of classroom time. The study indicated that 70-100% of Teacher 4's students were engaged for 50.88% of the observed time. These findings indicate that these teachers had a fairly realistic sense of when their

students were engaged. Even though there is obvious discrepancy of exact percentage, it must be pointed out that the teachers spoke of their classroom time in general, and not particularly of the observed time. This validates teacher perception as an indicator of student engagement (Van Amburgh et al., 2007). Of note again, however, is the fact that the teachers in this study were experienced, career status teachers.

**Research Question 1: How effective are methodologies in actively engaging students based on Van Amburgh et al.'s (2007) active learning inventory tool?**

According to the Van Amburgh et al. (2007) active learning inventory tool, students should have had a consistently high level of engagement in classes in which active learning techniques were employed. The level of engagement, according to Van Amburgh et al. (2007), is greater if the level of expected active participation is high, and as the level of activity increases, the level of complexity follows suit. The active learning methodologies from the local educational agency's walk-through observation form that corresponded to the inventory tool included small group discussion, hands-on experiences, learning centers, and providing opportunities for practice (think, pair, share; peer and self-assessment; small group presentations and discussions; peer teaching; jigsaw; problem-based learning). The level of active learning did not show a discernable, predictable measure of the relationship between the level of activity and student engagement. In some cases, the level of complexity did seem to correspond to a higher level of engagement. In triangulating the data, the researcher found that the walk-through observation tool and the teacher perception of student engagement were correspondent; however, the Van Amburgh et al. (2007) active learning inventory tool did not correspond to either the levels of measured engagement or teacher perception of engagement. There is no methodology that was proven to be effective at producing

consistent, high levels of student engagement. It was shown, however, that high levels of complexity, as measured by the Van Amburgh et al. (2007) active learning inventory tool, were shown to promote a high level of student engagement.

**Research Question 2: What is the relationship between methodology and measurable active engagement?** There is no discernible relationship between methodology and measurable active engagement. Although students were visibly, actively engaged in lessons in which movement was required, such as small group work or learning centers, neither the qualitative nor the quantitative data indicate a noticeable increase in the level or the consistency of engagement based on methodology. Based on the research, there is no connection between methodology and student engagement.

### **Further Research**

The more the researcher observed the teachers and students at the subject school, the more the researcher realized that the multitudinous hours spent researching student engagement did not help to identify the true problem. She saw no connections among the studied factors of methodology, student engagement, and active learning. Moreover, she noticed that student engagement was not achieved by a factor such as methodology or a planned active learning activity. Engagement was shown to be based on the subject matter. The students seemed to pay close attention to lessons that held interest for them. In one class, there was background research for a coming debate of their choice topic. Those students had a very high level of visible, measurable engagement. In a grammar lesson, however, by the same teacher, the engagement level was low. Another teacher lectured on how to start a small business. The level of engagement was very high. Another lesson on *Dracula*, however, did not hold the students' interest. During a learning center activity, some students were highly engaged, whereas others were not

participating. During a test in an advanced placement class, students were visibly, but passively, engaged.

From this anecdotal evidence, the researcher concludes that true student engagement is not based on methodology, active learning, or the instructor; it is based solely on student interest in the content. Students have priorities, and if the content of the lesson is not meaningful, relevant, or interesting, they do not actively, measurably, joyfully engage. This lack of engagement begs the question, then, “Why are students choosing not to engage?”

In the midst of analyzing the data for this study and completing the format of a dissertation, the poverty rate in America hit 15.1% (DeNavas-Walt, Proctor, & Smith, 2010). The percentage of children under the age of 18 living in poverty jumped to 22% (DeNavas-Walt et al., 2010). These numbers are the highest they have been since 1993. During dire circumstances, when survival is the priority, the researcher concludes that students have an interest in lesson content that can increase survival rates. Collaboration, critical thinking, problem-solving, creativity, communication, and career skills are essential survival skills according to the Partnership for 21<sup>st</sup> Century Skills (2009). These skills enable students to overcome adversity and to be successful in the 21<sup>st</sup> century (Partnership for 21<sup>st</sup> Century Skills, 2009). However timely the poverty rate is for the topic of this study (engaging 21<sup>st</sup> century learners), the researcher recognizes the fact that her own priorities have shifted during the writing of this dissertation. Educators must prepare students for the workplace and for academic success, yes, but they must also recognize and address the fact that student priorities and foci have changed drastically, just in the last year. Now the question becomes, “What are schools going to do about the shifting educational and sociological needs of the students?”

### **A Call to Arms: Recommendations for Further Study**

In Venkatesh's (2008) sociological novel of the poverty-stricken Chicago housing projects in the 1990s, the author describes meeting with a tenant:

I would walk in to discuss the 60% dropout rate among the project's high school kids.

"Research today says that if kids can get through high school, they have a 25% greater likelihood of escaping poverty..."

Mrs. Bailey interrupted, "If your family is starving and I tell you that I'll give you a chance to make some money, what are you going to do?"

"Make the money. I have to help my family."

"But what about school?"

"I guess it will have to wait."

"Until what?"

"Until my family gets enough to eat."

"But you should stay in school, right? That's what will help you leave poverty."

Then she smiled triumphantly and made no effort to hide her patronizing tone,

"So...you said you wanted to talk with me about high school dropouts?" (p. 149).

According to Venkatesh's extensive study, the cycle of poverty creates a no-holds-barred shift in society, creating new priorities and acceptable levels of morality. In the researcher's opinion, until schools recognize these shifts and address the students' needs for a realistic 21<sup>st</sup> century, a century of unemployment, poverty, and homelessness, students will continue to categorize education as a low priority, and student engagement will continue to wane. By focusing on real-world skills, students can learn relevant, meaningful, and interesting skills that will allow them to thrive in a world that is

increasingly unwelcoming and unaccommodating. The researcher is not suggesting that schools solely address the basics of feeding a family; however, the researcher is suggesting that schools keep learners' needs and priorities in mind, and relate the curriculum to real-world application. Currently, the local education agency is addressing the Core Standards which emphasize real-world application. This is a step, but education needs a leap.

Many states could benefit from looking at different instructors' methodologies, active learning, and student engagement. Although this study was based in a school that houses students from all high schools in the county, and of diverse backgrounds, other counties may benefit from their own study. School culture can play a tremendous role in the results of student engagement levels, as shown in the studies cited in previous chapters. A study that closely examines the content of lessons and its connections and its adherence to the Common Core Standards might also be beneficial. Further studies might include the relationship between poverty and student engagement, the usefulness of Core Standard content, or student perspectives on engagement. Additionally, it would be of interest to examine the idea of a connection between the teacher-student relationship and levels of learning.

Educators purport a desire to prepare students for the 21<sup>st</sup> century. How far are we willing to move beyond our comfort zone and examine the root cause of their lack of preparation? In our changing and currently adverse economic times, we can no longer afford the catastrophic price of ill-prepared students.

## References

- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Addison, Wesley, Longman, Inc.
- Armstrong, T. (1994). *Multiple intelligences in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good, but relevance is excellent: Autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork. *British Journal of Educational Psychology*, 72, 261-278.
- Barry, B. (2010). *The teachers of 2030: Creating a student-centered profession for the 21<sup>st</sup> century*. Hillsborough, NC: Center for Teaching Quality.
- Batten, M. (1993). The identification, development and sharing of professional craft knowledge. In C. Day, J. Calderhead, & P. Denicolo (Eds.), *Research on teacher thinking: Understanding professional development* (pp. 177-184). London: Falmer Press.
- Baumeister, R. F, Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology* 74(5), 1252-1265.
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. ASHE-ERIC Higher Education Report No. 1. Washington, DC: George Washington University School of Education and Human Development.
- Bowen, S. (2005). Engaged Learning: Are we all on the same page? *Peer Review* 7(2), 4-7.
- Bransford, J. D., Brown, A. L., & Cocking, R. (Eds.). (1999). *How people learn: Brain, mind, experience and school*. Committee on the Developments in the Science of Learning, National Research Council, Washington, DC: National Academy Press.
- Brown, S., & McIntyre, D. (1993). *Making sense of teaching*. Buckingham: Open University Press.
- Butin, D. W. (2010). *The education dissertation: A guide for practitioner scholars*. Thousand Oaks, CA: Corwin.
- Canton, J. (2007). *Extreme future: The top trends that will reshape the world for the next 20 years*. New York: Penguin Books, Ltd.



- Carnesi, S., & DiGiorgio, K. (2009, March/April). Teaching the inquiry process to 21<sup>st</sup> century learners. *Library Media Connection*, 32-36.
- Caulfield, J. (2010). Applying graduate student perceptions of task engagement to enhance learning conditions. *International Journal for the Scholarship of Teaching and Learning*, 4(1), 1-18.
- Chapman, E. (2003). Alternative approaches to assessing student engagement rates. *Practical Assessment, Research and Evaluation*, 8(13), 1.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice. *AAHE Bulletin* 39, 3-7.
- Choi, I., Lee, S. J., & Kang, J. (2009). Implementing a case-based e-learning environment in a lecture-oriented anaesthesiology class: Do learning styles matter in complex problem solving over time? *British Journal of Educational Technology*, 40(5), 933-947.
- Cloonan, A. (2008). Multimodality pedagogies: A multiliteracies approach. *International Journal of Learning*, 15(9), 159-168.
- Coldron, J., & Smith, R. (1999). Teachers' construction of their professional identities. *Journal of Curriculum Studies*, 31(6), 711-726.
- Conner, J. O. (2009). Student engagement in an independent research project: The influence of cohort culture. *Journal of Advanced Academics*, 21, 8-38.
- Creswell, J. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3d ed.). Upper Saddle River, NJ: Pearson Education.
- Davidson, A. L. (1996). *Making and molding identity in schools*. Albany, NY: State University of New York Press.
- Day, T. (2005, March). Teachers' craft knowledge: A constant in times of change. *Irish Educational Studies*, 24(1), 21-30.
- DeNavas-Walt, C., Proctor, B. D., & Smith, J. C. (2011). U.S. Census Bureau, Current Population Reports, P60-239, *Income, Poverty, and Health Insurance Coverage in the United States: 2010*. U.S. Government Printing Office, Washington, DC.
- Dowson, M., & McInerney, D. M. (2001). Psychological parameters of students' social and work avoidance goals: A qualitative investigation. *Journal of Educational Psychology*, 93, 35-42.

- Dunn, R., Griggs, S. A., Olson, J., Beasley, M., & Gorman, B. S. (1995). A meta-analytic validation of the Dunn and Dunn model of learning-style preferences. *The Journal of Educational Research*, 88(6), 353–362.
- Dunn, R., & Waggoner, B. (1995). Comparing three innovative instructional systems. *Emergency Librarian*, 23(1), 9–16.
- Elmore, R. (2002). *Bridging the gap between standards and achievement: Report on the imperative for professional development in education*. Washington D.C.: Albert Shanker Institute.
- Fuller, A. (2010). Skipping class? Sensors now take the roll. *Chronicle of Higher Education*, 56(34), A11. Retrieved from Education Research Complete database.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Books.
- Gibilisco, S. (2004). *Statistics demystified*. New York: McGraw-Hill.
- Hopkins, E. A. (2007). Classroom conditions to secure enjoyment and achievement: The pupils' voice. *Education 3-13*, 36(4), 393-401.
- Hung, W., Bailey, J. H., & Jonassen, D. H. (2003). Exploring the tensions of problem-based learning: Insights from research. *New Directions for Teaching & Learning*, 95, 13-23.
- Hurd, P. D. (2000). Active learning. *Journal of Pharmacy Teaching*, 7(3/4), 29-47.
- Jensen, E. (2000). *Brain-based learning: The new science of teaching and training*. Thousand Oaks, CA: Corwin Press.
- Jones, R. (2009). *Student engagement: Teacher handbook*. Rexford, NY: International Center for Leadership in Education.
- Jost, K. L., Havard, B. C., & Smith, A. J. (1997). A study of problem-based learning in a graduate education classroom. In M. Simonson (Ed.), *Proceedings of Selected Research and Development Presentation at the National Convention of the Association for Educational Communications and Technology* (pp. 87-91). North Miami Beach, FL: Nova Southeastern University.
- Killion, J. (2008). *Assessing impact: Evaluating staff development*. Thousand Oaks, CA: Corwin Press.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

- Lawrence, A., Anthony, G., & Ding, L. (2009). Teacher learning and pedagogical shifts subsequent to professional development experiences. *New Zealand Journal of Teachers' Work*, 6(2), 136-147.
- Learn NC. (2011, January 16). *Education reference*. Retrieved from <http://www.learnnc.org/reference/p/>
- Lombardi, M. (2007). Authentic learning for the 21<sup>st</sup> century: An overview. *Advancing Learning Through IT Education*, 1-12.
- Martin, N., & Halperin, S. (2006). *Whatever it takes: How twelve communities are re-connecting out-of-school youth*. Washington, DC: American Youth Policy Forum.
- Marzano, R. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. Upper Saddle River, NJ: Pearson Education, Inc.
- Mezirow, J. (1997, Summer). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, No. 72. San Francisco: Jossey-Bass.
- McWilliam, E. (2008, Aug.). Unlearning how to teach. *Innovations in Education and Teaching International*, 45(3), 263-269.
- Miglietti, C., & Stranger, C. C. (1998). Learning styles, classroom environment preferences, teaching styles, and remedial course outcomes for underprepared adults at a two-year college. *Community College Review*, 26(1), 1-19.
- Moriarty, M. A. (2007). Inclusive pedagogy: Teaching methodologies to reach diverse learners in science instruction. *Equity & Excellence in Education*, 40, 252-265.
- Mountain Area Health Education Center. (2001). *Teaching styles/Learning styles*. Asheville, NC: Author.
- National Survey of Student Engagement. (2010). *Major differences: Examining student engagement by field of study – annual results 2010*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- Palmer, P. (1993). Good talk about good teaching. *Change*, 25(6), 8. Retrieved from Education Research Complete database.
- Partnership for 21<sup>st</sup> Century Skills. (2009). *Framework for 21<sup>st</sup> century learning*. Tucson, AZ: Author.
- Pathways to Prosperity Project. (2011). *Meeting the challenge of preparing young Americans for the 21<sup>st</sup> century*. Boston, MA: Harvard Graduate School of Education.

- Pink, D. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Penguin Group (USA), Inc.
- Pintrich, P., & Schunk, D. (1996). *Motivation in education: Theory, research and applications*. Englewood Cliffs, NJ: Prentice-Hall.
- Pollock, J. E. (2003). *Improving student learning one teacher at a time*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Prensky, M. (2008). Turning on the lights. *Educational Leadership*, 65(6), 40-45.
- Pundak, D., Herscovitz, O., Shacham, M., & Wiser-Biton, R. (2009). Instructors' attitudes toward active learning. *Interdisciplinary Journal of E-Learning and Learning Objects*, 5, 215-232.
- Rhoton, J., & Shane, P. (2006). *Teaching science in the 21<sup>st</sup> century*. Arlington, VA: National Science Teachers Association.
- Rodriguez, A. (2008). Toward a transformative teaching practice: Criticity, pedagogy and praxis. *The International Journal of Learning*, 15(3), 345-352.
- Roskelly, H. (2009). Teaching like weasels. In H. S. Shapiro's (Ed), *Education and Hope in Troubled Times: Visions of Change for our Children's World* (pp. 198-209). New York: Routledge.
- Rotherham, A. J., & Willingham, D. (2009). 21<sup>st</sup> century skills: The challenges ahead. *Educational Leadership*, 67(1), 16-21.
- Sarasin, L. C. (1998). *Learning style perspective: Impact in the classroom*. Madison, WI: Atwood.
- Schlechty, P. C. (2002). *Working on the work: An action plan for teachers, principals, and superintendents*. San Francisco, CA: Jossey-Bass.
- Schultz-Ross, R. A., & Kline, A. E. (1999). Using problem-based learning to teach forensic psychiatry. *Academic Psychiatry*, 23, 37-41.
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4), 571-581.
- Skinner, E. A., Wellborn, J. G., & Connell, J. P. (1990). What it takes to do well in school and whether I've got it: The role of perceived control in children's engagement and school achievement. *Journal of Educational Psychology*, 82, 22-32.

- Sprenger, M. (2009, Sept.). Focusing the digital brain. *Educational Leadership*, 67(1), 34-39.
- Sternberg, R. J., & Grigorenko, E. L. (2002). Applying the theory of successful intelligence as a basis for instruction in higher education. *Applying the science of learning to university teaching and beyond*. San Francisco: Jossey-Bass.
- Stout, K., & Christenson, S. (2009). Staying on track for high school graduation: Promoting student engagement. *Prevention Researcher*, 16(3), 17-20.
- Tapscott, D. (2009). *Grown up digital*. New York: Linworth Publishing, Inc.
- Thompson, M. (2010). *Learning-focused solutions that work*. Retrieved February 25, 2010, from <http://www.learningfocused.com/>
- Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Van Amburgh, J. A., Devlin, J. W., Kirwin, J. L., & Qualters, D. M. (2007). A tool for measuring active learning in the classroom. *American Journal of Pharmaceutical Education*, 71(5), 1-9.
- Van Horne, S. (2009). Changing the grading paradigm: Applying assessment techniques to enhance student engagement. *The International Journal of Learning*, 16(6), 345-358.
- Venkatesh, S. A. (2008). *Gang leader for a day: A rogue sociologist takes to the streets*. New York: Penguin Group, Inc.
- Vescio, V., Bondy, E., & Poekert, P. E. (2010, Spring). Preparing multicultural teacher educators: Toward a pedagogy of transformation. *Teacher Education Quarterly*, 36(2), 5-24.
- Warlick, D. F. (2004). *Redefining literacy for the 21st century*. Santa Barbara, CA: Linworth Publishing, Inc.
- Wehlburg, C. M. (2006). *Meaningful course revision: Enhancing academic engagement using student learning data*. Boston, MA: Anker Publishing Company, Inc.
- Wideen, M. F., Mayer-Smith, J. A., & Moon, B. J. (1996). Knowledge, teacher development and change. In I. F. Goodson & A. Hargreaves (Eds), *Teachers' professional lives* (pp. 187-204). London: Falmer Press.
- Yazzie-Mintz, E. (2010). *Charting the path from engagement to achievement: A report on the 2009 High School Survey of Student Engagement*. Bloomington, IN: Center for Evaluation & Education Policy.

Yonezawa, S., Jones, M., & Joselowsky, F. (2009, May). Youth engagement in high schools: Developing a multidimensional, critical, approach to improving engagement for all students. *Journal of Educational Change*, 10(2), 191-209.

Appendix A  
21<sup>st</sup> Century Learning Survey

## Needs Assessment Survey

### Survey for Students

You are 21<sup>st</sup> Century Learners. The following list contains suggested skills for the 21<sup>st</sup> Century. **Please rank the following skills in importance to YOUR future** (college, career, life) with **1 being of utmost importance and 11 being least important**.

- \_\_\_ Creativity and Innovation
- \_\_\_ Critical Thinking and Problem Solving
- \_\_\_ Communication and Collaboration
- \_\_\_ Information Literacy (judging the accuracy of information)
- \_\_\_ Media Literacy (judging the reliability of media such as television & radio)
- \_\_\_ Technology Literacy (being fluent in current technology programs)
- \_\_\_ Flexibility and Adaptability
- \_\_\_ Initiative and Self-direction (being self-motivated)
- \_\_\_ Social and cross-cultural skills
- \_\_\_ Productivity and Accountability (doing what you're supposed to do)
- \_\_\_ Leadership and Responsibility
- \_\_\_ Other: \_\_\_\_\_

Looking at the list above, are there critical skills not being addressed in school?

If so, which skills are being left out of your curriculum?

Feel free to add additional comments on the back of this form.



## Appendix B

Van Amburgh et al.'s (2007) Active Learning Inventory Tool

Complexity Level <sup>1*</sup>	Code	Activity Description <sup>2,3</sup>
Low Complexity	A*	Question & Answer: Students orally respond to a question, comment, etc either <b>voluntarily</b> or by <b>cold-calling</b> . <i>*A1 and A2 denote simple knowledge / comprehension questions (recall) and generally are asked by instructor but limited or no time is provide for the student to process / respond. A1 denotes students responded to question / A2 denotes students were asked to respond AND given time but did not respond – will track A1 and A2 for numbers but not time as conducted in less than 1 minute. A3 denote a higher-order question, where students are provided time (&gt;1 min) to process then respond. This does not include rhetorical questions.</i>
	B	One-minute paper / Focused Listing / One Sentence Summary: Short writing task designed to allow students to focus attention on a single important term, name or concept from a particular lesson / session
	C	Think/Pair/Share: Short, individual written response to a prompt/question; <b>then</b> instructed to share and discuss briefly with partner; <b>then</b> asked to share with larger group
	D	Brain Dump / Free Write: Short write in which students write down everything they know about an announced topic.
	E	Muddiest Point: At some point during or after an in-class presentation, students write a quick response to the prompt, "What was the muddiest point in _____?"
	F	Misconception / Preconception Check: Simple technique for gathering information on what students perceive they already know
	G	Application Activity: Written activity in which students apply 1-2 principles and concepts to real life situation
	H	Student-Generated Questions: Students create questions for quizzes or exams that are crafted to capture central elements of the course
	I	Formative Quizzes / Surveys (Background Knowledge Probe): Ungraded quizzes / surveys to determine comprehension
	J	Computer Based Interaction Systems: (Personal response system) Students participate in the lecture by responding to questions / statements via computers / wireless technology.
	K	Self / Peer Formative Assessment: Activities that require students to assess performance against applicable criteria; extend to offer specific suggestions for improvement
Moderate Complexity	L	Small Group Presentations / Discussions: Presentations / discussions of course material – led by <input type="checkbox"/> Faculty vs. <input type="checkbox"/> Student
	M	Role Playing / Simulations / Games: Students and/or faculty performing specific roles for demonstration purposes Simulations / games include guiding principles, specific rules and structured relationships
	N	Categorizing Grid / Pro-Con Grid: Students are presented with 2-3 important categories (superordinate concepts) along with a scrambled subordinate terms, images, equations or other items that belong in one or another of the superordinate categories.
	O	Defining Features Matrix / Memory Matrix: Students categorize concepts presented according to presence (+) / absence (-) of defining features
	P	Debates: Small or large group structured exploration of central concepts, data, beliefs, values
	Q	Peer Teaching: Students teaching each other basic and/or intermediate levels of course materials or needed skills
High Complexity	R	Concept Maps: Drawings or diagrams that show the mental connections that students make between a major concept presented and other concepts they have learned
	S	Cases: Scenarios that require students to integrate their skills to solve problems that relate to course material
	T	Cooperative Cases: Scenario-based problem-solving activity using small groups to tackle specific questions/issues from larger list
	U	Jigsaw: Team-based: each member becomes subject matter expert in 1 of 4 areas selected from current course material. Each member teaches their subject matter.
	V	Cooperative Learning / Problem Based Learning: Students work together to learn course knowledge and to develop course skills.

## Appendix C

### Modified Walk-through Observation Form

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Course: \_\_\_\_\_

### Focus on Instruction

Grouping Format:	Whole Group	Small Group	Paired	Individual
Instructional Practices				
○ Coaching	○ Modeling		○ Testing	
○ Discussion	○ Presentation			
○ Hands-on experiences	○ Providing Direction/Inst.			
○ Learning centers	○ Providing opps for prac			
○ Lecture	○ Teacher-directed Q/A			
Research-based Instructional Strategies				
○ Acceleration		○ Reinforcing effort/recognition		
○ Activating prior knowledge		○ Setting objectives/providing feedback		
○ Cooperative learning		○ Summarizing/note-taking		
○ Cues/Questions/Advance (i.e. graphic organizers, etc.)				

### Focus on the Learner

Student Actions				
○ Creating products		○ Using hands-on materials		
○ Listening		○ Using the Writing Process		
○ Reading		○ Unable to determine		
○ Speaking				
Instructional Materials				
○ Art materials/tool	○ Handheld technology	○ Real-world objects		
○ Computer apps	○ Lab/Activity sheet	○ Textbook		
○ Content-specific Manipulatives	○ Music materials	○ Video		
○ Created materials	○ Overhead/Board/Flipchart	○ Worksheets		
	○ Published print mat.			

### Level of Student Work

- Remembering: Can the student recall or remember the information?
- Understanding: Can the student explain ideas or concepts?
- Applying: Can the student use the information in a new way?
- Analyzing: Can the student distinguish between the different parts?
- Evaluating: Can the student justify a stand or decision?
- Creating: Can the student create a new product or point of view?

### Levels of Class Engagement

- Highly engaged (most students authentically engaged)
- Well managed (students are ritually engaged)
- Disengaged (many students are not engaged)

## Appendix D

### Debriefing Interview Form for Teachers

### Oral Debriefing Form

Date \_\_\_\_\_ Period \_\_\_\_\_ Subject/Level \_\_\_\_\_

What thoughts or comments do you have about what was happening during the walk-through today, specifically as it relates to student engagement?

## Appendix E

Permission from Dr. Van Amburgh to Use the Tool

To:  
 From: "Van Amburgh, Jenny" <[J.VanAmburgh@neu.edu](mailto:J.VanAmburgh@neu.edu)>  
 Date: 06/08/2010 02:19PM  
 cc: "Van Amburgh, Jenny" <[J.VanAmburgh@neu.edu](mailto:J.VanAmburgh@neu.edu)>  
 Subject: RE: A tool for measuring active learning

Dear Laural,

You may use our tool for research purposes and I would be happy to review your research and write up.

Best of luck,

Dr. Van Amburgh

**From:**  
**Sent:** Tuesday, June 08, 2010 10:50 AM  
**To:** Van Amburgh, Jenny  
**Subject:** A tool for measuring active learning  
**Importance:** High

Dear Dr. Van Amburgh,

I am a student at Gardner-Webb University and seek your permission to use your tool for research purposes in my classroom. Eventually, I may need your signature somewhere on something (I'm just beginning this process), but for now, may I have your permission to use your tool for measuring active learning for my research and write-up? Naturally, I will give you and the rest of your team credit for the tool as follows.

Van Amburgh, J.A., Devlin, J.W., Kirwin, J.L., & Qualters, D.M. (2007). A tool for measuring active learning in the classroom. *American Journal of Pharmaceutical Education*, 71 (5), 1-9.

Thank you!

Laurel Eury Naughton