

HOW DOES USING AN INTEGRATED CURRICULUM PROMOTE CRITICAL
THINKING AND ENGAGEMENT IN MIDDLE SCHOOL STUDENT LEARNING?

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TABLE OF CONTENTS

Chapter One: Introduction.....	1
Research Questions.....	3
Limitations.....	3
Summary.....	4
Chapter Two: Review of the Literature.....	5
An Integrated Curriculum.....	5
Approaches to Curriculum Integration.....	7
The Ideal Middle School Curriculum.....	11
A Curriculum Responsive to Diverse Learners.....	13
Educator Concerns.....	15
Curriculum Integration and Standardize Testing.....	16
Benefits for Middle School Students.....	18
Chapter Three: Methodology.....	22
Research and Design.....	22

Participants.....	22
Data Collection.....	23
Data Analysis.....	25
Chapter Four: Results.....	27
The Integrated Unit.....	27
Table 1: Integrated Unit Lesson Plans Meet State Standards.....	28
Student Survey.....	29
Table 2: Survey: Middle School Students' Opinions of Integrated Unit.....	29
Student Interview Results.....	37
Summary.....	40
Chapter Five: Discussion, Conclusions and Implications for Practice.....	42
The Curriculum Characteristics that Promote Critical Thinking in Students.....	42
The Curriculum Characteristics that Promote Engagement in Student's Learning.....	43
The Qualitative Gains Made by Students Using an Integrated Curriculum.....	43
Conclusions and Implications for Practice.....	45
References.....	47

Appendix A: Consent Letter from Building Principal.....	50
Appendix B: Informed Consent Statement.....	51
Appendix C: Student Survey Questionnaire.....	52
Appendix D: Student Interview Questions	54

CHAPTER ONE

INTRODUCTION

Teaching students to become critical thinkers and to develop the skills necessary to excel in today's society has become an important focus of education. Using an integrated curriculum is an effective way to promote critical thinking in students and engagement in their learning in a middle school classroom. A curriculum that brings together content from different disciplines in a meaningful way to focus upon issues and areas relevant to students' lives is referred to as an integrated curriculum or an interdisciplinary curriculum. Curriculum integration is not simply a multidisciplinary approach to teaching and learning. The integrated curriculum's focus must be on meeting the needs of early adolescents and should be centered on themes that address concerns, questions, and issues that middle school students have about their own lives and the world. "Curriculum integration involves not only helping students make connections across content areas, but also promoting democracy in the classroom-letting students determine to a large extent what they want to study (Paterson, p. 10).

The importance of the topic lies in the significant qualitative gains made by adolescent students when using an integrated curriculum. The majority of the research found on the topic of implementing an integrated curriculum was conducted prior to the last ten years. Many newer studies on the subject address the integrating of two subjects by a single teacher in a self-contained classroom. It is important to understand the benefits of an entirely integrated unit or curriculum where students can make connections among all subjects. Students in the middle grades benefit the most from the implementation of an

interdisciplinary curriculum. Young adolescents are developing independence, lack self-direction, are very socially motivated, and place a high importance on peer interaction. “As early adolescents try to make sense of the personal issues that absorb them, they readily engage with themes like “Living in the Future” that link their concerns to the larger world through areas like science, social studies, and health” (Cushman, p. 2).

The aspects of an integrated curriculum, such as cooperative learning and development of problem-solving skills accommodate this developmental stage. The important qualitative gains made by middle school students using an integrated curriculum are numerous and arguably more important than quantitative measures such as standardized test scores. Students are gaining enduring intellectual abilities that will be used long after specific facts have been forgotten. “Perhaps most importantly, using an integrated approach to the middle school curriculum helps prepare students for lifelong learning” (Musslewhite, p. 3).

Curriculum integration is also responsive to how students learn. The brain searches for patterns between new information and learning occurs faster when information is presented in a meaningful context. Teachers must take into account how students learn as a guide for teaching practices. The constructivist view of learning views the learner as the creator of meanings and learning as an active process. A teacher should not try to put information into a student’s head and expect them to learn it. The educator should not be a lecturer or knowledge-giver, but a facilitator that helps students try to make sense of information. An interdisciplinary approach is in line with this view of learning and teaching. The theme and subsequent activities used in an integrated curriculum come from the students thoughts and concerns. Students concentrate on using their own skills and

knowledge to answer their questions and construct their own meaning. “With its emphasis on real-life themes, contextual application of knowledge, and constructivist learning, the curriculum integration approach is particularly well suited to help students integrate learning experiences into their developing schemes of meaning” (Beane, 2007, p. 2).

Research Questions

This paper seeks to answer the following questions: What are the characteristics of an integrated curriculum that promote critical thinking in middle school students? What are the characteristics of using an interdisciplinary curriculum that promote engagement in student’s learning? How significant are the qualitative gains made by students using an integrated curriculum?

Limitations

Major limiting factors for this master’s research project are:

1. The student participants had only completed a month long integrated unit study. Student attitudes might change about curriculum integration over a larger time period.
2. Classroom teachers declined to participate in the study; therefore their opinions, intentions for the use of the integrated unit, and ideas are not addressed.
3. The opinions found within this study apply to sixth grade students in a small, rural school district. School size and location factors may contribute to the opinions of the participants.
4. A limited number of participants were selected from each class period to answer more in-depth interview questions regarding student attitude towards the integrated unit.
5. Students had completed the *Anne of Green Gables* unit several weeks prior to participating in this study. Student responses might have been affected by the short period

of time between their participation in the unit and their participation in the study.

Summary

Background information on the topic of curriculum integration has been covered in this introductory chapter. The remainder of this paper seeks to answer the research questions stated in the introduction. Chapter two will present a review of literature on the subject and the following chapters will present and discuss a study on the use of an integrated unit. The argument will be put forth that the obtainment of critical thinking skills is just as or perhaps even more important than the obtainment of facts and discipline content. The question of whether or not integration has a place in the curriculum alongside standardized testing will also be addressed.

CHAPTER TWO

REVIEW OF LITERATURE

An Integrated Curriculum

Implementation of an integrated curriculum provides many benefits for students and teachers alike. The curriculum design is centered on themes that address adolescent's concerns and the activities that are generated from this type of approach to teaching and learning are constructed to promote thinking skills and increase students' interests in learning. Achievement of an integrated curriculum has been established by research and classroom records of the teachers who have put the method into action. The majority of research supports the use of an interdisciplinary curriculum to promote critical thinking and to prepare children for lifelong learning.

Supporters of the use of an integrated curriculum believe in its power to provide students with a more meaningful learning experience and address the needs of young adolescent students. Dr. James Beane is one of today's leading advocates and practitioners of curriculum integration. Beane has devoted the majority of his professional life to the study of early adolescents and how educators can meet their needs in the classroom.

Beane describes a typical, middle school curriculum as one that presents an endless array of unconnected facts that might be connected or lead to a whole picture, but students must take this by faith. He compares this type of curriculum to working on a jigsaw puzzle without a picture (Beane, 1991). An integrated curriculum presents students with a complete picture, because they can take skills and knowledge from different areas to solve the problems before them. As participants of the real world, we follow a similar approach to problem solving, using all the available sources that we have.

Another advocate for curriculum integration is the National Middle School Association, whose mission statement affirms that they are dedicated to improving the educational experiences of young adolescents by providing vision, knowledge, and resources to all who serve them in order to develop healthy, productive, and ethical citizens. The association calls for learning experiences that are organized around real-life issues and problems significant both to young people and adults. They believe that a student's learning environment should support a meaningful curriculum that encourages them to think critically and problem solve and these are just two of the benefits of the interdisciplinary curriculum design.

The NMSA's position paper titled *This We Believe: Successful Schools for Young Adolescents* states what they believe to be the characteristics of an efficient school. One of the *This We Believe* characteristics of an effective school is to have a curriculum that is relevant, challenging, integrative, and exploratory (NMSA, 2003). Educators must do away with teaching separate disciplines in order to meet these objectives. In an integrated curriculum: there is an emphasis on higher-order thinking processes, cooperative learning, and thoughtful consideration of human values, rather than the minutiae of separate subjects.

Approaches to Curriculum Integration

There are different approaches to successfully integrating the curriculum in a middle school. It can be implemented by teachers agreeing to teach related topics in different classrooms, one teacher integrating the subjects she is responsible for teaching in

her classroom, or a school adopting a fully integrated curriculum. Some research suggests that subject integration should be started by a small cohort of teachers with the same initiative, instead of rethinking an entire school completely.

When teachers of different subjects decide to integrate the curriculum, they discuss what they will be teaching in their classrooms and then find meaningful connections between the main topics taught in each class. The teachers then correlate the times in which they will be covering the connected material so that it coincides. An individual teacher can do his or her own part in integrating subjects in his or her own classroom. In this interdisciplinary approach to teaching, the teacher can use lessons and activities that combine the subjects that they are in charge of teaching, instead of spending a certain amount of time on each subject. There are many cross connections that can be found throughout the curriculum. Some subjects like language arts and social studies are the most easily integrated. Students are still taught in a way that promotes the use of thinking skills with lessons that mimic real-world situations, as long as the crossing of disciplines is organized around a concept that is of interest to adolescents.

The educators or individual teacher should cross subject areas by shaping the curriculum around a theme that will take into account issues that concern adolescents. The issues should be ones that young adults have about themselves and their world and those that are widely shared by people in the larger world. An example of this type of theme would be a unit on Wellness. Students would investigate their personal lives and the larger world as they study environmental issues, nutrition, disease, stress, and health regulations. This type of theme gives educators the opportunity to engage students' knowledge and skill in the search for self and social meaning (Beane, 1991).

Teachers at Marquette Middle School in Madison, Wisconsin implemented this type of unit. The middle school teachers began planning for the unit by asking students to write questions they had about themselves and their world. Students then selected the theme "Living in the Future" and teachers developed activities around this theme. Several positive changes occurred by putting into practice the new curriculum. It compelled teachers to work closely with students and gave students a powerful voice. The students' main focus was to use their skills and knowledge to search for answers to their questions. The goal of the unit was for students to explore these questions, not prepare for tests. However, the curriculum taught content on top of thinking skills. The educators at this school, who truly want curriculum integration, had to step up and make the vision a reality and did so with positive results (Beane, 1992).

Fully integrated schools often use the thematic approach to integrating the curriculum. NMSA believes that students who participate in fully integrated programs tend to have high levels of commitment and assume greater responsibility for their learning and that the greater the degree of integration, the greater the benefits (NMSA, 2002). Some schools have used thematic teaching and curriculum integration to completely makeover the way the curriculum is taught. The curriculum is fully integrated, organized around themes, with many hand-on activities. Instruction is planned to accommodate individual interests and abilities. Students are grouped into heterogeneous classes by their learning levels instead of by their age, and they stay with the same group of students and the same teacher for two years. The teacher is a facilitator, rather than an instructor. Students work in groups to do activity-based, learning projects and move on to more difficult work when they are ready. There is no limit to the level of work they can do and this design

emphasizes perseverance, responsibility, and other life skills (Thematic Teaching, 2005).

There have been many research studies on middle schools that have decided to have a fully integrated curriculum or adopt a program that integrates subjects. These studies report that overall, students in the integrated programs did as well or better than students in separate-subject programs. Assessment of learning is authentic, continuous, and based on individual growth and performance. Parent involvement is recognized as essential for creating a nurturing school environment; therefore, many parents work in the classroom and throughout the school (Thematic Teaching, 2005). Also, the teachers who plan and teach together had the same expectations across subject areas, which was a factor in the overall performance of the students (Lake, 1991).

Examples of schools that have been restructured in this way are some members of the Coalition of Essential Schools. The Coalition of Essential Schools (CES) has been at the forefront of creating and sustaining personalized, equitable, and intellectually challenging schools. Less is more, depth over coverage; Learning to use one's mind well; Student-as-worker, teacher-as-coach; and Democracy and equity are some of the common principals that CES schools share. Essential schools are places of powerful student learning where all students have the chance to reach their fullest potential (Cushman, 1993).

Some CES schools have broken their large schools down into “charter schools or houses” that keep the same students working with the same teachers who teach an integrated curriculum. Their goal is for students to master thinking skills, not memorize specific information. The charter schools have been highly successful in improving student achievement. “Natalie Hiller, a co-coordinator of an integrated charter school says, ‘we’ve seen the difference start to happen. As resistant as kids were when we started out, that’s

how ecstatic they are in the end'. 'We never knew we were capable of doing this kind of work,' they tell us, 'and now we know'" (Cushman, p.6).

Curriculum planning should involve responsive and reflective practices and teachers should remain flexible in their planning. Virtue (2007) believes that teachers should have a generative approach to curriculum at the middle level, which means curriculum, derives in a creative and intuitive way from the ongoing life of the classroom (p.16). It is vital that a teacher has the ability to recognize teachable moments when they occur and implement a curriculum that addresses them. The teachable moment becomes the theme in which an integrated curriculum is designed around. September 11 is one such event that called for a change in curriculum. Questions from students regarding the infamous tragedy were relevant and needed to be addressed. "September 11, 2001, was a critical teachable moment that provided me and my team with an avenue to middle level curriculum that was relevant, challenging, integrative, and exploratory" (Virtue, p.14).

An integrative curriculum can take advantage of teachable moments or spontaneous events. Taking into account current or monumental events makes the curriculum more meaningful for students. A curriculum that is focused on current events and issues is relevant to students' lives, which engages them in their learning. It also promotes students to think critically as they make connections to understand the world around them.

One way to focus curriculum planning away from subject-specific planning is to use a standards-based common learnings or a combination of such approaches. Educators should focus on life skills that are emphasized in an integrated curriculum and are common across subject standards. One such set of common learnings is the Schoolwide Goals for Student Learning compiled by the National Study of School Evaluation and the Alliance

for Curriculum Reform. These learnings are: Learning-to-Learn Skills; Expanding and Integrating Knowledge; Communication Skills; Thinking and Reasoning Skills; Interpersonal Skills and Personal and Social Skills. (Beane & Vars, 2000).

The Ideal Middle School Curriculum

These approaches, if implemented correctly, will greatly benefit adolescent students. Cooperative learning is one aspect of using an integrated curriculum that is very important to meeting the developmental needs of young adolescents. There is a need for middle school classroom teachers to promote positive peer relations. Peer relations take center stage during the period of early adolescents, and research suggests that a student's relations with his or her peers play an important role in the student's attachment to school (Stevens, 2006). "Cooperative learning uses peers as both an instructional and motivational resource, taking advantage of students' increasing sense of independence and stronger peer orientation during adolescence" (Stevens, p. 17).

Stevens defines early adolescence as the ages between ten and fifteen years old. These middle-level students are in an important transition, are trying to develop a sense of self, and are very socially motivated. Research cites that students who do not develop positive peer relationships during this time are much more likely to drop out of school. Also, if a middle school is not responsive to adolescent needs, there are many negative repercussions: a decline in student academic achievement, attendance, and motivation to learn (Stevens, 2006).

Stevens documents the results of implementing changes in middle school literacy instruction in a northeastern urban area. The project used the TARRGET model, whose goal was to make instruction more developmentally appropriate for young adolescents. The

TARRGET model takes into account cognitive, social, and motivational characteristics of learners to look at Tasks, Autonomy, Resources, Recognition, Grouping, Evaluation, and Time variables in redesigning instruction (Stevens, p.14). The program combined Reading and English by having one teacher teach both areas with a longer class period. This provided students more time to engage in extended reading and writing activities and facilitated their ability to transfer what they learned.

The school also implemented a Student Team Reading and Writing program (STRW). This program called for explicit instruction on text comprehension strategies, writing as the focus for language arts instruction, using cooperative learning to more positive, peer-relations, and an implementation of student team reading and writing. Both programs focused on teaching multiple subjects, addressing the needs of their adolescent students, developing a theme or unit-usually a famous author-and having students focus on how the literature relates to their own lives and writing about what issues came to mind while reading that relate to their lives. The results of implementing the two programs were very positive. The new instruction engaged students in interactive dialogue about what they were learning and students showed improvement in their speaking and writing abilities and vocabulary. The integration of subjects made learning an active process that required engagement, motivation, and critical thinking on the part of the learner (Stevens, 2006).

A Curriculum Responsive to Diverse Learners

An integrated curriculum better serves all students in a learning environment than the traditional, separate subject approach. Paterson (2003) interviewed several teachers and administrators who use an integrated curriculum and discussed the results. Gert Nesin, a former seventh grade teacher and current professor at the University of Maine, shares a

story about a former pupil named Robert. Nesin had worried about Robert-who had been suspended from school 40 times-before the start of the new school year. She had been concerned about how he would react to her new approach to teaching: using an integrated curriculum. Robert's performance in the new learning environment made Nesin a believer in the power of using an integrated curriculum. Robert paid more attention in class, participated in classroom discussions, and improved his grades and attendance (Paterson, 2003). Another benefit of using curriculum integration is that it helps at-risk students who are in jeopardy of falling behind and motivates students that have a tendency to be disruptive to participate in their learning.

Integrating subjects has been suggested to be an effective way to teach gifted children. All children learn better when information is presented in a comprehensive manner (Parker, 2007). This is because real life problems are not divided into defined topics, so it does not make sense for schools to teach subjects in this way. Students must have the ability to merge different skills to deal with problems in the real world. Parker (2007) asks, "Is it really possible for students on any given school day to flip a switch in their brains that tells them they are turning off their 'math brains' and engaging their 'social studies brains'?" (p.1). Learning subjects separately causes students to miss out on connections that can be made across disciplines. Their learning is not based on previously learned concepts and does not provide skills that they can use in other subject areas or the real world.

Gifted students will benefit from the opportunities provided by an integrated curriculum. They will be engaged in active problem finding and solving activities and will be given the chance to make connections across subject areas by focusing on issues and

ideas. The approach that promotes the use of higher-order thinking skills, because students take an active role in their learning and must use their abilities to answer their own questions and problem solve is “exactly the kind of academic programming that works well for gifted students who need to be challenged” (Parker, p. 1).

Integrating subjects has also been proven to be successful in helping English as a Second Language, or ESL students to follow along with the class. Many times, cross-curricular strategies are used to help students record information in an organized way and using these strategies help ESL students to keep up with the rest of the class. Also, an integrative curriculum design in the classroom involves teamwork while working on “real world” problems and this cooperative learning environment promotes students to help one another. This has been found to improve student’s attitudes about schoolwork, improve their work habits, and increase their motivation to learn.

Educator Concerns

An integration curriculum is a potentially power design, but only if it is implemented in an appropriate way that promotes progress toward significant educational goals, not as merely a way to cut across disciplines. Advocates for and those opposed to using an integrate curriculum would agree that “integration for integration’s sake is ill advised” (Hinde, 2005). Activities should not be “pointless busy work”, distort the content, or be beyond the student’s knowledge and skill levels. Burton (2001) makes the plea to integrate content from different disciplines only when there is a valid reason for doing so,

and only when there are obvious connections and touch points between them.

A complaint about an interdisciplinary curriculum is from a small minority of teachers who believe that students will not be challenged enough in certain content areas if they are crossed with other disciplines. "I don't consider it challenging material," says one math teacher, "to be asked to add up survey figures and make charts in somebody's social studies project" (Cushman, 1993, p. 4). A former fear of some teachers was that they did not feel adequately prepared to teach outside their licensure areas. Middle school teachers should be confident in integrating the two subject areas that they are licensed to teach. In addition, teachers should work in teams and help each other to design and implement the curriculum.

Curriculum integration also takes time. Planning time is needed to select themes, explore resources, consult with students about issues and concerns, and coordinate with other teachers. However, the advantages of curriculum integration far outweigh any disadvantages and although implementation initially requires more time and attention, it is well worth the results.

The majority of schools have not put this type of design into action. Those that are hesitant to use the method are worried about addressing state standards and lack confidence in the power of integration. Parker (2007) states that the only thing that students do get out of a segregated curriculum is preparation for "subject-driven state mandated" tests; however, it is possible to teach students the test material through interdisciplinary teaching (p.1).

Curriculum Integration and Standardize Testing

Newer research explores the use of an integrated curriculum that meets state and

federal mandates. The trend in education today is to have a subject-centered curriculum that meets the demand put on teachers by state standards and testing. Beane and Vars (2000) believe that middle level schools can reap both the benefits of a genuine student-centered, integrative curriculum without neglecting to teach the disciplines that teachers are held accountable for on standardized testing. Two problems that exist with standardized testing and curriculum integration are that most state standards and proficiency tests are set up in terms of conventional subject areas, such as reading, mathematics, science, or social studies and the rather huge number of competencies specified in the standards (Beane & Vars, 2000). Having the focus of the curriculum on testing is detrimental to students' learning. Drilling students for tests makes learning and school unpleasant and creates an environment where students are disengaged and uninterested.

The focus on testing also causes an emphasis to be placed on teaching reading and math, causing areas, such as social studies, to be neglected in some classrooms. Using an integrated curriculum allows teachers to cover social studies concepts, while still giving adequate attention to the subjects that are on standardized tests.

A way to aid students in developing thinking skills and to engage them in their learning is to invite them to help in the process of meeting state mandates. This gives them the opportunity to think critically, realize that their opinions are valued, and help them see that education is important to society. "Teachers may deal with standards before, during, or after engaging students in planning learning experiences focused on their personal and social concerns" (Vars & Beane, p.2).

Maine is one state where using an integrated curriculum seems to be embraced by schools. Goodyear, a middle school principal, says, "The state has high standards but

allows local schools to determine their own methods of appraisal” (Paterson, p.11). Teresa Kane and Sharon Littlefield, middle school teachers at Warsaw Middle School in Pittsfield, tried out using an integrated curriculum a few years ago and found that their students became excited about coming to school. They let their classes propose potential topics for the interdisciplinary approach last year. The students picked the theme: the war on terrorism.

Kane and Littlefield also made sure to meet state standards through the use of the curriculum integration design. The students learned geography by studying the countries involved, math by dealing with distances and statistics, and social studies by considering the countries affected by war. They studied biology by learning about biological weapons. Both teachers agree that if an integrated curriculum does not address all subject matter, it can be supplemented with more traditional lessons. (Paterson, 2003). Teachers who implement this type of curriculum have an interest in excellence. Beane asserts that any teacher who engages in curriculum integration will not revert to the traditional discipline-based delivery of curriculum (Hutchings, 2006).

Benefits for Middle School Students

An integrated curriculum brings together subject areas in a meaningful way and addresses diverse learning styles. There are numerous benefits to using this type of approach including: learning in-depth information, becoming physically involved with learning, learning process skills, promoting group cohesiveness, addressing individual needs, and motivating children and teachers (Benson, 2004). Students are engaged in their learning and develop a positive attitude towards school. Knowledge from the different disciplines is still learned, but students are not just learning a bunch of facts and the content

is presented to them in a way that they can make connections among the subject areas.

Middle school students already have trouble with retaining the information presented to them. The point of having an integrated curriculum is that it will engage students in real-world problem solving as they gain knowledge and skills. The design will help students to retain more of what they read, hear, say, and do, because they are given more opportunities to be active learners. A curriculum that crosses disciplines is a way to increase motivation, knowledge retention, critical thinking, and problem-solving skills (Musslewhite, 2000). Also, Student's transitions from middle school to high school are eased.

Proponents of an integrated curriculum attest to why it is worth saving.

The first proponent of the design is psychological. Students are highly motivated and learn better because an integrative curriculum relates to their needs, problems, concerns, interests, and aspirations. The second and third proponents of an integrated curriculum design are sociological and philosophical. Students are better prepared for life in contemporary society because current social problems are addressed in all their real-life complexity. Students learn major concepts and processes of the disciplines through studying integrated units. An integrative curriculum supplies a sound foundation of common learnings that are vital for all citizens in a democracy and provides a meaningful framework for examining values. Other benefits of implementing an integrated curriculum include: a love of learning, concern for other people, creative thinking, self-confidence and commitment to democratic group processes (Vars, 2001).

Studies have concluded that integration has significant advantages for middle school students. Observations and interviews with teachers who have implemented an

integrated curriculum believe in its positive results Susan Quirk and Jessica Larson are two teachers at Shapleigh Middle School that wanted to try implementing an integrated curriculum. Quirk believes the new approach allowed her to spend more time with her students and every student learned in a deeper, more meaningful way. Larson believed she was able to give students better and more positive feedback (Paterson, 2003). Two clear benefits of curriculum integration are the fostering of community and relationships. The teacher is no longer an information giver, but a facilitator (Hutchings, 2006).

These teachers feel an interdisciplinary curriculum promotes better learning in students because they are allowed to determine, for the most part, what they want to study. “Beane argues that an integrated curriculum is more rigorous and relevant than traditional approaches because it challenges young people to think, learn, and tackle issues that are important to them personally” (Paterson, p.11). A mandated curriculum narrows down what you can do with students. An integrated curriculum best meets the students’ needs because it helps them to find their world and to become independent. Parents are also pleased with the integrated curriculum because it motivates their children to work harder. They can see the positive results the design has on their student’s learning, which motivates them to become involved (Paterson, 2003).

The interdisciplinary curriculum approach benefits both teacher and learner. The design requires students to work in groups and teachers in teams, which promotes a sense of community and classroom unity and results in higher expectations set for the quality of work. The design also offers teachers the opportunity to construct new and profound meanings for themselves (Beane, 1991). Teachers experience fewer disciplinary problems when using this design and may experience increased creativity in collaborating with others

in nontraditional academic combinations. They are viewed as coaches or facilitators who guide students' learning (Burton, 2001). In addition, some teachers see combining subjects as a solution to not having enough time in the day to cover the required grade level material.

The National Middle School Association believes that the benefits of an interdisciplinary curriculum exceed national, state, and local standards. They believe that their philosophy is backed by significant research into neurological function, learning theory, social development, and curriculum design and underscores the importance of four types of relationships that affects how young adolescents learn: relationships between learner and content, learner and teacher, among learners, and within the content itself" (NMSA, 2002).

There are numerous studies that argue that an integrative curriculum leads to higher student achievement. Research on the gains made on tests by students using an integrated curriculum is still limited. However, the research in existence indicates that students perform as well as or better on standardized achievement tests than their peers who were enrolled in more traditional, separate-subject programs of study (Hinde, 2005). An integrated curriculum is much more beneficial for students than just preparing them for tests.

"The integrated curriculum is a great gift to experienced teachers. It's like getting a new pair of lenses that make teaching a lot more exciting and help us look forward into the next century. It is helping students take control of their own learning" (Lake, 1991 p.1).

Curriculum integration has a significant place in middle school classrooms teaching life skills, making learning meaningful and addressing adolescents' physical and social needs without neglecting their academic needs. Activities and lessons generated to address the integrated curriculum theme foster critical thinking in students and engage them in what they are learning. Active participation from the students in designing the curriculum and in the classroom leads to this engagement. Students increase communication and problem-solving abilities while trying to answer their own questions and exploring topics related to the unit theme which leads to higher student achievement and higher-order thinking. These gains made by students are every bit or maybe even more important than quantitative gains such as standardize test scores.

CHAPTER THREE

METHODOLOGY

Research and Design

The purpose of this study was to prove that implementing an integrated curriculum is especially beneficial for middle school students. The intent of the research was to find out the opinions of sixth grade students who had recently completed an integrated unit on the book and movie topic *Anne of Green Gables*. Data was gathered for this study through the use of open-ended question surveys, classroom instruction and lesson planning for the integrated subject unit, and individual interviews conducted on a voluntary basis with a small sample of the sixth grade students. These interviews provided additional, more in-

depth information to validate the findings. The findings of this study will hopefully motivate additional educators to try integrating the curriculum by furthering their knowledge of the topic and proving to them the benefits of using curriculum integration even on a small scale, such as the implementation of the single integrated unit in this study that fostered positive results.

Participants

The participants in this study consisted of male and female sixth grade students at Wheelersburg Middle School. This is the actual name of the participating school district and it is part of the Wheelersburg Local School District and located in Wheelersburg, Ohio, which is in Scioto County. There are approximately 391 students that attend Wheelersburg Middle School. The school was designated as effective on last year's school year report card. The middle school met eleven out of the fourteen state indicators. The percentage of students at and above the proficient level was not high enough for fifth and eighth grade social studies and fifth grade mathematics. The student population is almost entirely Caucasian. A small percentage of students have a disability and the percentage of students that are considered economically disadvantaged is well over one-fourth of the population.

Wheelersburg Middle School consists of 98.5% White students. The median income for residents of Wheelersburg, Ohio in 2005 was \$33,449. According to the 2006-2007 school year report card, 29.4% of all students are considered economically disadvantaged. According to the same source, 11.1% of the students have disabilities. Many of the students in the sixth grade classrooms have behavioral problems or have been diagnosed with a disability. These disabilities range from a student with a physical disability that inhibits his motor skills to a male student with autism. Both of these students

have full-time aids to help them. Students with disabilities did not meet adequate yearly progress on last year's school report card.

The majority of the teachers are fully certified and over half have obtained their master's degree. The student-teacher ratio is eighteen to one. The sixth grade classrooms usually consist of around twenty-one students each period. Classroom expectations are printed in each student's agenda book along with the code of conduct for the building. Every middle school teacher follows the same discipline plan in the building. Students in all periods, except for the students with disabilities that are grouped into one inclusion class, are considered high achievers. However, they have not been motivated thus far this year and are receiving much lower grades than expected. Many students who have the ability to make good grades are receiving Ds and Fs on their grade cards. The sixth grade teachers have labeled this class as being lazy and unenthusiastic.

The students selected for the study recently participated in an integrated unit on *Anne of Green Gables*. Student participation was voluntary. Consent was given for participation by the sixth grade students by the homeroom teacher and the building principal. (Appendix A). A total of 90 sixth grade students agreed to participate in the study. The age range of the participants was eleven to thirteen years old. Students who had an Individual Education Plan (IEP) were all grouped into the inclusion class. All 90 sixth grade subjects had participated in the integrated unit's activities and lessons in their science, social studies, writing, math, and English classes.

Data Collection

The active research was conducted at the participants' school and the survey and interview data was collected during the course of one school day. Prior to having students

participate in the student surveys and interviews, I took part in the implementation and instruction of the integrated unit through conversations with and observations of the social studies and reading teachers, participation in weekly teacher meetings, and lesson planning for and instruction of social studies lessons for the *Anne of Green Gables* unit. Data collected from my participation in the planning and instruction yielded part of the research findings.

A survey instrument was designed to determine students' attitudes toward the recently implemented integrated unit and their perception of their performance in their classes during the *Anne of Green Gables* unit (Appendix C). Participation in the survey was voluntary and took place in the students' social studies classroom. An oral announcement was made about the details of the survey at the beginning of each class period and students were then asked to make the decision whether or not to participate (Appendix B). It was stated that there would be no rewards or disciplinary actions for taking or not taking the survey or participating in the personal interview and neither would affect his or her social studies grade. The students were also asked to not write their names on the surveys, ensuring that their answers would be confidential. I asked them to be completely honest when answering the questions to make certain that I would collect the most accurate data. The survey consisted of a set of questions that covered students' likes/dislikes of participating in the integrated curriculum, whether or not they felt like they were benefited by using the new curriculum, and what the aspects of using the integrated curriculum were that helped them to learn the subject material better. The use of the 11 open-ended question surveys allowed the participants to write as much as they wanted and put their thoughts and feelings about integration into their own words. Students were instructed to answer each

question with a yes or no and then explain their answers.

The personal interview consisted of a set of more in-depth questions over the use of the integrated unit (Appendix D). Students who volunteered to participate in the personal interview were asked to write his or her name on the dry erase board and I later randomly chose a couple students from each period to take part in the interview. Prior to asking each student the questions, I assured them that their answers would not affect their social studies grade and that I would be the only person to see their individual responses. The importance of giving truthful answers so that I would have the most accurate data was stressed to each interviewee. A total of 10 students participated in the personal interviews. These interviews were conducted during the sixth grade study period and took place in an empty computer lab to minimize distractions and promote thoughtful and honest answers.

Data Analyses

The focus of the study was to add to educators' understanding of curriculum integration and the benefits it holds for middle school students. All student participants in this study completed one survey instrument and ten of those students participated in a personal interview. Objectives of the study were to determine whether or not middle school students had made the qualitative gains that should result from this type of curriculum. Classroom activities should have promoted problem-solving, cooperative learning, and engage students in their lessons. The study results suggest that students are highly motivated to learn when the curriculum relates to their needs, problems, concerns, or interests. Data should also be analyzed to find out if two other objectives of the study were proven: whether or not curriculum integration should have been responsive to how students learn, this will be evident by students making connections among the subjects, and whether

or not integration has a place in the curriculum alongside standardize testing.

In order to determine if the objectives for the study were met, I tabulated the responses for each question of the survey into whether or not the student agreed or disagreed for each of the eleven questions. The survey consisted of open-ended questions and individual responses varied; therefore, I next broke down the survey questionnaire by individual questions and responses. The student interview consisted of ten open-ended questions that were asked orally to the interview participants. The student responses to the interview questions are discussed. I also discuss whether or not curriculum integration belongs in a world of standardize testing by showing how a small sample of lessons from the *Anne of Green Gables* unit meet state standards. The analysis of data shows whether or not the sixth grade teachers and I have addressed state standards efficiently through the use of the integrated unit. Specifically, I am interested in finding out whether or not this study's research data on a single integrated unit does maintain the beliefs of supporters of curriculum integration and has supported the theory that middle level learners do benefit greatly through the use of an integrated curriculum.

CHAPTER FOUR

RESULTS

This chapter presents the analysis of the survey taken by 90 sixth grade students and personal interviews from 10 of the students. The surveys were taken after the middle school students participated in an integrated subject unit on the series *Anne of Green Gables*. The lesson plans and instruction of the integrated unit will also be discussed.

The Integrated Unit

Anne of Green Gables is the title of the story of an orphan girl who goes to live with an elderly brother and sister and is also the universal theme for the integrated unit of this study. All of the sixth grade teachers taught lessons that were connected to the character of Anne or an event that happened in the story. The students watched the 1985 20th century movie in their reading class. Students were not required to read the book. The

reading teacher cited time restraints for the unit and diverse reading levels among the sixth grade students as reasons for solely watching the movie. The teachers decided to take the sixth graders to see *Anne of Green Gables* the play for their yearly field trip and they wanted the unit to be completed by that time. The reading teacher believed that students on a very low reading level would have great difficulty with the book and the movie would be fun for the students to see.

The sixth grade teachers at Wheelersburg Middle School chose and implemented a unit on *Anne of Green Gables* because they wanted students to be more interested in their subjects. They believed that students would be excited about seeing the theatrical performance of *Anne* and this would make them excited to learn lesson plans that connected to the movie. The *Anne of Green Gables* unit study provided teachers with a variety of material to choose from to teach in their classrooms. Ideas and questions generated from the movie provided topics to address in lessons in the different subject areas. Another purpose of using *Anne of Green Gables* for an integrated unit topic was the character of Anne, who is in the same age group as the sixth grade participants. Anne experiences in the movie many of the same events, feelings, ideas, and needs that middle school students feel today. The majority of the sixth grade students could relate to Anne and her life and many themes were addressed throughout the unit plan. Students had questions and concerns regarding adoption, homelessness, loneliness, bullying, death, romantic relationships, feeling like an outsider, and many other important issues. In addition to answering student questions about themselves and the larger world, the unit plan's goal was also to meet state standards.

Integrated Unit Lesson Plans Meet State Standards

All teachers worked to create lesson plans that met state standards and related to the overall *Anne* theme. In the social studies classroom, my lesson plans focused on geography and economics. As an introduction to the character and life of *Anne*, my students and I explored the geography of Canada, concentrating on Prince Edward Island, the setting of the story. Students completed many group activities, one of which they were in charge of finding and labeling major cities on Prince Edward Island. During the second part of the unit, the sixth grade students were taught economics. The terms and activities in the social studies classroom connected with those taught in other subject areas. For example, while I was teaching students about producers, consumers, marketing and advertising, they were asked to form groups in their writing classroom and come up with an advertisement that would make consumers want to buy the book *Anne of Green Gables*. Every lesson that I prepared and taught during the integrated unit study covered material that addressed state standards.

My lesson plans easily met social studies grade six standards and many included other grade six subject standards. When students learned about the setting of the story, Prince Edward Island, during the first social studies lesson, they were shown pictures of the island on the television screen through the use of computers. As the pictures were shown, students were asked to think about why someone would want to live on Prince Edward Island. A question and answer session followed the picture show. Next, the students were asked to label important cities on a blank map of Prince Edward Island. Students were put into small groups and took turns going up to the big map in the classroom and finding cities. Lesson number, like many of the other group activities, met the Social Studies Skills and Methods standard, number seven: Work effectively to achieve group goals.

In the social studies classroom, the participants then learned about the economy of Prince Edward Island, which led to lessons on supply and demand, monopolies, input and output, competitive markets, marketing, innovation, etc. meeting several grade six economic standards. Examples of grade six indicators covered in the students reading and writing classes were: Acquisition of Vocabulary: 1. Define meaning of unknown words by using context clues and the author's use of definition, restatement, and example, 4. Interpret metaphors and similes to understand new uses of words and phrases in text, and 8. Determine the meanings and pronunciations of unknown words by using dictionaries, thesauruses, glossaries, technology, and textual features, such as definitional footnotes or sidebars. Reading Applications: Literary Text: 7. Distinguish how an author establishes mood and meaning through word choice, figurative language and syntax. Writing Processes: 1. Generate writing ideas through discussions with others and from printed material, and keep a list of writing ideas and 4. Determine a purpose and an audience. Writing Applications: 5. Write persuasive essays that establish a clear position and include organized and relevant information to support ideas. 6. Produce informal writings. These are just some of the grade six indicators addressed by the reading and writing teachers.

The reading teacher focused her lesson plans on the character Anne's speech, because Anne uses a lot of figurative language throughout the movie. She also facilitated many lessons on the new vocabulary the students were learning from the film. Both teachers had the students keep notes about the movie and had them answer essay questions. In writing, the students completed a group activity that required them to create an advertisement and market the book through an oral presentation. They were also asked to do a retelling of the story. Science and math lesson plans related to the topic of *Anne of*

Green Gables also met sixth grade state standards.

Student Survey

The student survey was completed after the student participants had completed the integrated unit on *Anne of Green Gables* and grades had been turned in for the current nine week period. The survey contained 11 questions regarding student attitudes and beliefs about their participation in the integrated unit and curriculum integration in general.

Students first answered each question with a yes or a no and then explained their answers.

TABLE 2

Middle School Students' Opinions of Integrated Unit

N=90 QUESTIONS	YES		NO	
	N	%	N	%
1. Did you like having all of your classes focusing on the theme of Anne of Green Gables?	53	59	37	41
2. Anne was about your age. Could you relate to her life in any way?	52	57	38	43
3. Did learning about the series Anne of Green Gables in reading make you more interested in the content taught in your other classes?	38	43	52	57

4. Was there anything that you were interested in learning more about that your teachers did not talk about?	28	31	61	69
5. Did watching the movie make you more interested in the geography of St. Edwards Island in social studies, etc. or any other topic taught related to the movie in any of your other classes?	50	60	40	40
6. Did you participate in group work in any of your classes during the Anne of Green Gables unit?	90	100	0	0
7. Do you enjoy working in groups as opposed to working by yourself?	77	85	14	15
8. What were some of your favorite activities that you participated in during the Anne of Green Gables unit?	N/A	N/A	N/A	N/A

9. Was there any project or assignment during the <i>Anne of Green Gables</i> unit that required you to problem-solve by yourself or with a group?	90	100	0	0
10. Do you remember any specific connections that you made between the topics taught in more than one class?	32	36	58	64
11. Did learning about the same overall theme in every class help you when it was time to be assessed or take tests in your individual classes?	66	73	24	27

As shown by the data in Table 1, students' attitudes toward the integrated unit on *Anne of Green Gables* varied. A slim majority of the students, 59% (n=53) responded that they liked having all their classes focus on the movie theme. A slightly bigger number of students, 60% (n=50) responded that watching the movie made them more interested in learning about topics or material related to the story in their other classrooms. Student responses to the final survey question that stated: Did learning about the same overall theme in every class help you when it was time to be assessed or take tests in your individual classes?, yielded another insignificant number of positive responses, producing only a slightly larger number with 73% (n=66) of participants in agreement. For the

purpose of this study, individual qualitative responses are of great importance. Reasoning from students as to why they did or did not agree with a survey question will address whether or not the implemented integrated unit and its overall theme had the characteristics of using an interdisciplinary curriculum that promote critical thinking and engagement in student's learning. Individual answers from those students who made a connection with the main character, Anne and were interested in the movie show gains in their learning and achievement.

The 59% (n=53) of the student participants who liked their classes focusing on the *Anne* theme, cited liking the story as their number one reason. Notable answers from the sixth grade students included: each class connected, it helps to talk about something more than once, I had a better understanding because more time was spent on it, I liked being able to use information learned in one class in the others, every teacher can help you with your work, I knew what to expect in every class, and I could relate to the story and use the information from it to learn about the subject of the class we were in. One student also wrote, "Yes, because being in the lowest class it feels good to do stuff with people who are a lot smarter than you". This statement by a student supports the literature that says curriculum integration is an effective way to meet the needs of at-risk students and motivate them to stay on track and engaged in their learning. The number one reason cited by the 37 student participants who answered no to survey question one was the theme did not appeal to them. Some students said *Anne of Green Gables* was boring, something that they did not like, a bad movie, the story was too girly, and the topic was not exciting enough.

A few students responded that the movie theme did not make sense for some of the

classes. Survey question three asks students if learning about *Anne* made them more interested in learning the content taught in their other classes. Once again, a number of the students, who answered no to this question, responded that some classes were “forced” to relate to the theme, which caused them to have to participate in stupid activities. These student complaints are an ongoing concern by educators with curriculum integration. The sixth grade students were aware of this pitfall to the integrated unit and their responses back up the literature on using an integrated curriculum. A different theme voted on by students would have appealed to a greater majority of the participants and other topics would be easier to fit in to every classroom. The teachers also did not have to teach something in their classroom simply for the reason that it relates to the *Anne* theme. Teachers should foremost consider the educational value of what they are teaching.

A positive aspect of using *Anne of Green Gables* as the integrated unit’s theme is the character of Anne, who is around the same age as the sixth grade students. The percentage of the students who agreed that they could relate to Anne in some way responded with numerous answers. Responses to the survey question ranged from fun to serious. 4 of the 52 student participants wrote that they were talkative like Anne, 3 do not like their appearance, 4 are smart and get good grades, 2 have imaginary friends, and 2 live on a farm. The following responses deal with adolescence and the situations and feelings that middle school students are dealing with: 4 students have lost a close loved one, two of which said a grandpa. 4 of the students stated they are made fun of, one of which listed his/her height as the source of the bullying. 2 students said they are lonely and 2 more stated they do not like their life at this age. 2 students wrote that they secretly like a boy and 4 wrote about their bosom (best) friend. In addition, to these coming of age

circumstances, 4 of the student participants have moved before and 2 were adopted.

34 of the 52 students who answered that they could relate to Anne's life in survey question two, also answered yes to the first survey question regarding liking the story theme for their classes. If middle school students can relate to the universal theme for the curriculum, they will be more interested in what they are learning and more engaged in the process. The student responses to survey question two were eye-opening for educators as to what adolescents are dealing with on a daily basis. Middle level learners have concerns and questions that need to be addressed. Letting students have a say in the theme for curriculum integration is one way to meet their needs.

Of the 31% (n=28) of student participants who responded yes to survey question number 4 and wanted to know more about the *Anne* theme, almost half were interested in learning more about the characters Anne and Gilbert's romantic relationship. This finding is of no surprise from adolescent students. However, one participant wrote that the movie's setting made him more interested in learning about Canada, which led him to the question: "Why can gay people get married in Canada?" Here is an example of a middle school student having a question about the wider world in which he/she lives and needing a place in the curriculum where his answers can be asked and answered.

During the course of the integrated unit, students participated in group activities in every one of their classrooms. The majority of the students in survey question 7, 85% (n=77) said that they enjoyed working in groups as opposed to working by his/herself. Student responses included: I like to check my answers with group members, it makes work more interesting, it makes work easier, I like having group members there when I get stuck, I like to hear the opinion of other group members, there is more information with

more than one person, I get better grades on group assignments, I can ask a partner questions instead of bothering the teacher, I don't feel lonely when I have group members, groups help you stay on task and I feel more confident working in a group. Student responses to survey question seven support the literature on curriculum integration that states that integrating the curriculum leads to more group activities and there are many positive results from group work, including problem solving as a group.

Survey question 8 asked students to name some of their favorite activities they participated in during the *Anne of Green Gables* unit. Every student wrote down a response to this question. Watching the movie, the Prince Edward Island mapping activity, and the book advertisement activity were the main answers given. Every students also wrote down a response for survey question 9, which asked them to name a project from the integrated unit that required them to either problem-solve by themselves or in a group.

Comprehension questions in reading and science were given as answers. The two activities mentioned the most often were from their writing classes. The first was the group story retelling activity. The second is the group advertisement project, which required students to decide what marketing strategies they were going to use to sell the book and what the price of the book should be. Students also had to come up to solutions for economic problems in social studies.

The 36% (n=32) of students who agreed with survey question 10 remembered specific connections they made between topics and classes during the integrated unit. Student responses included: topics taught in social studies helped on his/her reading quiz, he/she was asked to participate in interviews in both writing and social studies class, in writing I had to retell the story I learned in reading, I learned about advertising and

marketing during economics lessons in social studies and used that knowledge in writing when we did advertisements for the book, and I used the answers to questions asked in reading to write a retelling in writing. Some students gave very detailed answers and could remember specific bits of information they had learned in one class that helped in another. One participant wrote, “I remember when we were watching the part of the movie in reading where Anne dyes her hair and it turns green and then later in science we were talking about chemical reactions”. Another student wrote, “I used the information about Prince Edward Island I learned in social studies when I did my advertisement project in writing. A social studies to science connection was also made. “ I learned about natural resources while learning economics in social studies and then I remembered that information when we learned about them in science”. These connections made by students led to high achievement on the assessments at the end of the unit.

A larger majority of the students, 73% (n=66) answered that learning the same overall theme in every class helped when it was time to take tests in individual classes. One student’s positive response was, “Yes, learning about the same overall theme helped me when we took a test because they asked questions that I could use some of the material I learned in other classes to help me answer the questions”. Other students who agreed with survey question 11 gave similar responses. The importance of teachers’ having a thorough understanding of the topics they are teaching to is evident by the following response of a student who disagreed: “Too many teachers who hadn’t either seen the movie or read the book thought they were teaching the correct stuff before they saw either one and made us have to correct them repeatedly. It got so annoying so I began to hate *Anne of Green Gables*. As good as the movie was, I hated studying it”. Teachers should be able to

facilitate the learning and be a source of information for students about what they are studying in any curriculum instruction regardless of whether or not it is integrated. The previous statement from a sixth grade student shows once again that lots of thought and preparation are essential to choosing a universal theme for all classes.

Student Interview Results

A total of 10 sixth grade students, chosen at random from a list of willing students' names on the classroom white board, completed personal interviews. Interview participants were asked to be completely honest when answering the questions orally. Students were asked ten interview questions and their responses were recorded (Appendix). Each individual student participant was able to give reasoning to explain his/her responses. Student interview answers paralleled student survey responses and supported those of the sixth grade class as a whole.

Student interview questions were similar to those found on the student survey questionnaire. The purpose of the interview was to be able to discuss student answers further and focus on what sixth grade students want as their curriculum. The first question asked not if the students liked having all their classes focus on *Anne of Green Gables*, but whether or not they thought it was beneficial. Eight out of the ten students responded yes to this question. The two students who responded no, explained that they were not interested in the story at all; therefore, found it particularly hard to pay attention in every one of their classes. Interview question two asked why the students liked a particular activity from the integrated unit the best. For the students who enjoyed the theme, they chose watching the movie. My five female interview participants were the respondents who chose the movie. One of the biggest complaints for student survey question one, on whether or not the

students liked the theme, was that the topic was too “girly”. My other interviewees chose the advertisement activity, because they liked working as a group to find ways to sell the book.

Reading class was given by all students as the classroom that focused the most on the *Anne* theme. The number four interview question asked whether the students were interested more in the topics taught in their classrooms that related to the story or the material that had no connections to the story. Three of students once again enjoyed any material that did not relate to *Anne* because they disliked the movie. One student who liked when they were related said that it confused her when a class veered away from the *Anne* theme when all of the others were still focused on it. This is another response that shows how important it is to have careful consideration when choosing an integrated curriculum theme.

All of the student interview participants believed that integrating subjects makes learning easier. Every one of them also said the topic was of importance. The number seven question gave the interviewees a chance to choose a topic of interest to them for the next integrated unit. Student responses varied and many were very insightful. Two answers were *Harry Potter* and *Little House on the Prairie*. One sixth grade students came up with: What Makes a Good Book? A couple of students would enjoy using the theme of Sports or Physical Activity and Health. The more serious answers were: Two students talked about the War in Iraq. One student suggested Violence in Schools, Global Warming, or The Meaning of Life: The purpose of people, plants, and animals. Two other students suggested Important Historical Documents and Government around the World. These students responses show again that middle school students are at a time in their life when they are

searching for their own personal identity have questions about their lives and the larger world in which they live.

All ten of the interview participants answered yes when asked if they would pay attention more to a class that taught material that they could relate to or concerned them. One student explained that his/her mind wandered in class when the subject was not interesting and he/she found it hard to pay attention to. Another student gave me an example. She told me that she usually hated social studies class, but when the teacher decided to do a unit on religion, she paid more attention, because she loved the topic. In return, she earned better grades. Other student responses were that it was easier to pay attention when the subject was something they were familiar with and if the activities were better or fun than any material taught could be of interest to them.

The students who enjoyed the *Anne* theme answered that the integrated unit motivated them to learn more than a separate subject unit. One student told me that her ideas just seemed to come together when it was time to take the test and it was very helpful. All ten student interview participants would like their teachers to implement another integrated unit plan. They all agreed that they would want input on the new theme. The majority of the interviewees said that integrating the subjects helped them on their assessments at the end of the unit and they earned better grades.

Summary

The findings show that only a small majority of the sixth grade students was

satisfied with their integrated unit experience. Although, they believe that integrating subjects helped them to learn the material better, they thought *Anne of Green Gables* was not the best choice for an overall theme. In the surveys and personal interviews students stressed the importance of choosing a topic that was of interest to them and could be focused on in every classroom with out force. Studies have been done that show integration activities that are lacking in value (Brophy, 1997). The literature advises that forcing classroom activities to relate to a theme is pointless busy work.

A finding of the study is that adolescents have many questions about the world in which they live. Students were interested in learning about topics that concerned and affected their lives. Responses for both the survey and the interview questions stressed that the ability to relate to the theme, affected their engagement in their learning. Promotion of group work during an integrated unit was proven. Many students expressed their happiness over being able to work in groups with a few of the projects.

Another finding of the study is that even with using curriculum integration on a small scale through the implementation of a short unit study, the design was beneficial to middle school students. As the student teacher in the social studies classroom, I witnessed for myself the positive change in one student's letter grade for the grading period that covered the *Anne of Green Gables* unit. His social studies grade changed from a D-to a B.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS FOR PRACTICE

The first part of this chapter discusses this study's findings in relation to the original questions. This chapter is broken down into four sections with an original research question as a subheading for each of the first three sections. The study's findings and their relationship to existing literature will be discussed. The fourth section of the chapter will present the conclusions of the study and the implications for practice.

The Curriculum Characteristics that Promote Critical Thinking in Students

Existing literature concludes that an integrated curriculum promotes critical thinking in students. The curriculum design that addresses middle school students concerns will promote thinking skills as students make connections between subject areas. An integrated unit is more challenging to adolescents. "Beane argues that an integrated curriculum is more rigorous and relevant than traditional approaches because it challenges young people to think, learn, and tackle issues that are important to them personally" (Paterson, p.11). Findings on the promotion of problem-solving and critical thinking during the integrated unit were positive. Many students wrote and talked about making connections between classes, using prior knowledge when they were familiar with a topic and using thinking skills when answering questions and completing projects for the unit study.

The Curriculum Characteristics that Promote Engagement in Student's Learning

Research discussed in Chapter two states that the point of having an integrated curriculum is that it will engage students in real-world problem solving as they gain knowledge and skills and that cooperative learning is important to meeting the developmental needs of young adolescents. "Cooperative learning uses peers as both an

instructional and motivational resource, taking advantage of students' increasing sense of independence and stronger peer orientation during adolescence" (Stevens, p. 17).

Data collected in this study supports the claim that middle school students enjoy group activities and are more engaged in their learning while participating in them. Student responses to survey and interview questions cited group activities as their favorite activities that they participated in during the *Anne of Green Gables* unit. One student wrote that participating in group activities made him feel less lonely. Positive peer relations are vital during this stage of adolescents. Some students cited that they could relate to the character of Anne because they often felt lonely.

Students who liked the *Anne* theme also wrote that they were more interested in learning the material in all their classes. They paid better attention and participated more in class. Data from this study backs up existing research that states that when middle school students can relate to what they are being taught or the topics concern them, they will be highly engaged in their learning.

The Qualitative Gains Made by Students Using an Integrated Curriculum

A section of review of literature for this paper names an integrated curriculum as the ideal middle school curriculum. Supporters of using curriculum integration believe that it benefits both teacher and learner. Students make gains when they are required to work in groups that promote a sense of classroom unity. The majority of students responded on their surveys that they preferred working in groups over working as an individual. When teachers work together it promotes a sense of community. The teachers had weekly meetings to discuss the ways they were using the *Anne* theme in their classrooms. The results of team teaching and group work are higher expectations set for the quality of work.

A significant amount of research has concluded that curriculum integration has a place in middle school classrooms addressing adolescents' physical and social needs without neglecting their academic needs. Activities and lessons generated to address the integrated curriculum theme are supposed to foster critical thinking and engagement in students. Active participation from the students in designing the curriculum and in the classroom leads to this engagement. The sixth grade students in this study stressed the importance of the topic chosen for the overall theme to the integrated unit. Curriculum integration based on a theme that was interesting to only a percentage of the participants resulted in an unsatisfying experience for a large portion of the students. Students who were not making connections between the subject areas and were not engaged in their learning cited that they did not pay attention in their classes due to a lack of interest in the theme. Students who enjoyed the theme and could relate to the character of Anne increased their communication and problem-solving abilities while trying to answer their own questions that they came up with during the integrated unit. These students attained higher achievement and higher-order thinking. These are important quantitative gains made by students in addition to learning state standard content.

Conclusions and Implications for Practice

Chapter two of this paper states that research suggests that subject integration should be started by a small cohort of teachers with the same initiative, instead of rethinking an entire school completely. This is the type of curriculum integration that occurred in the middle school of this study. The sixth grade teachers had weekly meetings to prepare for and implement an integrate unit on the *Anne of Green Gables* movie.

The intent of this study is to encourage other educators to try curriculum integration

even on a small scale such as a grading period long integrated unit. As this study has shown integrating subjects yields positive results. However, educators should take into account the pitfalls of curriculum integration and learn from this study ways to implement a more improved integrated unit. Advocates for and those opposed to using an integrate curriculum would agree that “integration for integration’s sake is ill advised” (Hinde, 2005). Activities should not be “pointless busy work”, distort the content, or be beyond the student’s knowledge and skill levels. This is one problem that existed with using the theme *Anne of Green Gables* for the integrated unit. The students were aware of when the material being taught was making them think and when it was just filling their time. As existing research and this study conclude, when curriculum integrated is used properly, middle school students will benefit the most from the design.

The review of literature in this paper talks about Kane and Littlefield, two middle school teachers who are advocates for curriculum integration. The two educators make sure to meet state standards through the use of the curriculum integration design. I was able to meet state standards along with the other classroom teachers through the use of lesson plans for the integrated unit. There are numerous studies that argue that an integrative curriculum leads to higher student achievement. Research on the gains made on standardize tests by students using an integrated curriculum is still limited. This study was conducted before students participated in standardized testing for the school year; therefore, the findings of this study can not provide any new information on the affect curriculum integration has on standardized testing achievement. However, higher achievement was made by students in this study. This was evident by the rise in letter grades for some students and student participant responses that stated that integrating subjects improved

their ability to remember information and helped them to do better on tests.

CHAPTER SEVEN

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APPENDICES

APPENDIX A

BUILDING PRINCIPAL CONSENT LETTER

WHEELERSBURG ELEMENTARY SCHOOL



**1731 DOGWOOD RIDGE ROAD
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Angela D. Holmes

Amber B. Fannin

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*Principal 5-8
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*Dora Carmon
Guidance Counselor*

*Barry Spradlin
Guidance Counselor*

May 21, 2008

To Whom It May Concern:

This letter is in regard to Meghan Kaskey's time spent at Wheelersburg Middle School during which time she completed her student teaching in our sixth grade Reading and Social Studies classrooms.

Meghan is allowed to collect data over the unit taught during her student teaching from the students through a survey and interview process. The data from both is completed in a voluntary manner and consists of questions only related to curriculum. Parent consent is not necessary due to the nature of the questions not being personally identifiable.

Sincerely,
Amber B. Fannin

APPENDIX B

INFORMED CONSENT STATEMENT

This survey and the personal interviews that I conduct are research on the use of an integrated curriculum. Your participation in the project will give me information about the Anne of Green Gables unit you have completed, which is an integrated unit plan. The purpose of collecting data on the topic is to use for my master's research project. There are no foreseeable risks or discomforts to participating in the research. There are no individual benefits to participating in the project. Participation in the survey and personal interview is voluntary. The approximate time for completing the survey is twenty minutes and the approximate time it will take to complete the personal interview afterwards is twenty minutes. There is no penalty to refusing to complete the survey or take part in the personal interview.

APPENDIX C

STUDENT SURVEY QUESTIONNAIRE

1. Did you like having all of your classes focusing on the theme of Anne of Green Gables?
2. Anne was about your age. Could you relate to her or her life in anyway?
3. Did learning about the series Anne of Green Gables in reading make you more interested in the content taught in your other classes?
4. Was there anything that you were interested in learning more about that your teachers did not talk about?

5. Did watching the movie make you more interested in the geography of St. Edwards Island in social studies, in the subject Anne hated: geometry in math or any other topic taught related to the movie in any of your other classes?

6. Did you participate in group work in any of your classes during the Anne of Green Gables unit?

7. Do you enjoy working in groups as opposed to working by yourself?

8. What were some of your favorite activities that you participated in during the Anne of Green Gables unit?

9. Was there any project or assignment during the Anne of Green Gables unit that required you to problem-solve by yourself or with a group?

10. Do you remember any specific connections that you made between the topics taught in more than one class?

11. Did learning about the same overall theme in every class help you when it was time to be assessed or take tests in your individual classes?

APPENDIX D

STUDENT INTERVIEW QUESTIONS

1. Do you think it was beneficial to you as a student to have all your classes focus on the theme of Anne of Green Gables for their lessons?

2. Was there any particular activity from the Anne of Green Gables unit that you liked the best? Why?

3. Did any one class focus more on the theme of Anne of Green Gables than the other ones?

4. Were you more interested in the topics taught in other classes that related to Anne of Green Gables than ones that were not connected in any way?

5. Do you believe organizing class material around a central theme like Anne helps learners to better grasp the material presented to them?

6. Do you believe integrating subjects helps you to learn about a topic better?

7. What topics would be of interest to you as the theme of an integrated unit plan?

