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The Effect of Reading and Social Studies Integration on Content Knowledge and Vocabulary

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SUNY COLLEGE AT BROCKPORT

The Effect of Reading and Social Studies Integration
on Content Knowledge and Vocabulary

By

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Abstract

The purpose of this study was to determine if the integration of reading in the content area would improve students' vocabulary and content knowledge test scores. The belief of content area literacy is that students learn with text, not from them. An interaction with text provides opportunities for students to enhance their own mental models of the material. This research report reveals the positive effects of teaching reading skills in all curricular areas, and it emphasizes the benefits of immersing students with literature in science, social studies and math, as well as language arts. The researcher compared two fifth grade classes in the areas of vocabulary and content knowledge, after one class had five weeks of social studies content integrated with language arts. Following the five weeks, both classes took the New York State Document Based Questions test in social studies. Although the scores did not show improvement on this particular test, the depth of understanding on the topic was enhanced. The research report concludes with implications for further research, and ideas for practical use of content area reading in the classroom.

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CHAPTER I

Statement of the Problem

Purpose

The purpose of this study was to examine the effectiveness of integrating reading and social studies as a means of improving content knowledge and vocabulary.

Review of the Literature

Educators are preparing students for a future where reading for understanding is a necessary survival skill. Students are consistently demonstrating a lack in ability to read and comprehend written text. This is an area of concern considering these skills are necessary for their future success. A summary of findings from the National Assessment of Educational Progress by Applebee, Langer & Mullis (cited in Armbruster, Anderson & Meyer, (1991) includes this

dismal conclusion about the reading ability of American students:

The failure of 61 percent of 17-year-olds to demonstrate the ability to find, understand, summarize, and explain relatively complicated information, including material about topics they study at school, suggests that most students leaving secondary school do not have the comprehension skills often needed in the world of higher education, business, or government. (p.22)

As our economy changes from an industrial and manufacturing base to a service and technological base, students will need a high proficiency in literacy skills. Improving these reading to learn skills has become a role of teachers across all content areas.

McKenna, Kear and Ellsworth (1995) surveyed students' attitudes towards reading in the kindergarten through sixth grades. In this survey 18,185 students were asked questions relating to their attitudes towards reading and the results showed a steady decline as the students advanced in age. The decline in attitude may be the result of textbook based instruction and the tendency for grade levels to move away from literature books and concentrate on instructional texts as students progress through the

years. Teachers can increase motivation by engaging students in social participation and collaboration, providing praise and feedback, and allowing choice of materials and tasks to perform (Bean, 2000).

Integration of literature in the content areas is one way to battle the decrease in reading skills, comprehension and motivation.

Content area reading came about when researchers and instructors recognized readers were required to utilize a variety of strategies when they read a medley of materials for different purposes. Moore, Readance and Rickelman (1983) noted that content area reading is designed to deliver those strategies. They claim the primary mission of content area reading instruction is to develop students' reading-to-learn skills.

Traditional textbook based instruction has followed a transmission model of learning, in which information to be learned is contained in the textbook, and transmitted to the student's memory, via the teacher's lecture (Stahl, Hynd, Britton, McNish & Bosquet , 1996). This style of teaching tends to shy away from explaining why things happen, opting instead to list the events that happened. Current

understanding of learning theory does not support this methodology. More recent theories suggest that as information is learned, the information is not merely copied from one source to another, but it is transformed by the process of learning (Spiro, 1980). The new rationale, the constructivist theory, believes that when students are able to construct mental models of information, then they can fully grasp the content. They believe that although knowledge can be retained in short term memory through rote memorization, the information is quickly lost if it is not applied in authentic, relevant ways (Stahl et al., 1996). This is easy to detect when one remembers cramming for a test, doing well, then immediately forgetting the information.

Mayer (1984,1989) explains that meaningful learning depends on three basic processes: selecting, organizing and integrating information. *Selecting* involves focusing on the bits of text that are relevant to the goals or the tasks needed for the learning situation. The second process, *organizing*, involves arranging the units of selected information into coherent mental structures. Mayer (1984) refers to

this step as building internal connections, or constructing logical relations between ideas and text. One technique used to help students select and organize information is the application of instructional graphics. These graphics assist students in organizing verbal or written information in a spatial arrangement. Examples of instructional graphics include structured overviews, graphic organizers, knowledge maps, networks, and flow charts. Several studies have investigated the effects of these instructional graphics on children's learning from informational texts and have seen a positive correlation. Boothby and Alvermann (1984) trained fourth graders in the use of instructional graphics. The students who filled out the instructional graphics recalled a greater number of idea units from a targeted passage both immediately and after a 48-hour delay than did a control group. The third process, *integrating*, involves taking this newly organized information and adding to existing coherent structures.

The integration of language arts into other curricular areas is becoming a popular way for teachers to encourage meaning making and enhance mental models

of the subject matter for the students. Integration supports the interaction with media, text and other students as a way of teaching the entire picture rather than teaching individual lessons in isolation. This helps students to see reading and writing as used for a purpose. Within the content area students are able to practice reading, writing, listening and speaking. Researchers and writers believe that literature books are generally more aesthetically pleasing, exhibit stronger literary qualities, and tend to approach the topic at greater depth.

The utilization of multiple texts has the potential to increase student reasoning because they present various viewpoints on a topic. When students relate the text to previous knowledge their level of understanding will improve. For example, when teaching about a particular event in history, historical documents from different sources will give students a broader perspective of the event and a clearer picture of what happened. Multiple sources enhance the backdrop we paint for the students to store in their long term memory. One goal of history instruction, then, should be for the learner to construct a

well-articulated mental model of history, understanding the interconnections between various events and actors (Stahl, Hynd, Britton, McNish & Bosquet, 1996). For example, when teaching the Revolutionary War, a teacher may want to provide opinion pieces such as The Crisis, by Thomas Paine, and others that represent both the Loyalist and the Patriot points of view. Poetry, diaries, maps, newspaper articles and other historical documents should be presented together to increase the students content knowledge and build a broader mind map of the event.

Reading in the content area is said to positively increase content vocabulary. Researchers Brabham, Boyd and Edington (2000) developed a study that looked at elementary school students' acquisition of vocabulary in science and social studies. In this study students were read two informational story books on a topic. Vocabulary gains for all students who participated in this study ranged from 18% to 25%. Vocabulary recall increased because students were taught to make meaning from the text, improving their chances of having that information stored in their long term memory.

Motivation

In November of 2001, fifth grade teachers in New York State gave the Social Studies test to their students for the first time. This test is based on third, fourth and fifth grade material. The test format parallels the format of the eighth grade test. The students are responsible for knowing information on world cultures, American history, including Civil War, Revolutionary War, Immigration and Native Americans, as well as economics and government. The task of the fifth grade teacher is to not only familiarize the students with the test format, but to review the third and fourth grade material as well as teach the new fifth grade material before the middle of November. This can be an overwhelming task. Therefore, the researcher decided to look into possible ways of meeting the challenge of preparing the students by using content area reading. The New York State Social Studies test is designed to test not only students' content knowledge of social studies, but their vocabulary, reading, writing and critical thinking skills.

Need for Study

Teachers are constantly faced with the challenge of meeting increased curriculum requirements within a limited time frame. At the same time, students may lack the interest and the skills necessary to understand content area reading. One solution to this problem is integrating subject areas. It is the researcher's theory that if teachers are able to combine reading skills and strategies within content area text, retention will increase. As teachers begin to present information in ways that interest students and require them to be involved in the material, vocabulary and comprehension will increase.

CHAPTER II

Review of the Literature

Purpose

The purpose of this study was to examine the effectiveness of integrating reading and social studies as a means of improving content knowledge and vocabulary.

Students are consistently demonstrating a lack in ability to find, understand, summarize and explain relatively complicated information. The point where young readers first encounter content area text typically is the point where they begin to flounder (Readence, Bean & Baldwin, 1988; as cited in Blanchowicz and Fisher, 2000). Teachers are looking at how students learn, and applying that knowledge into their integrated language arts and content specific courses. Teaching reading skills is no longer the sole responsibility of the reading teacher; teachers are united in their quest for preparing children for the

next step. Knowledge is power, and in order to know, one must be able to read.

The traditional textbook-based teacher can be caricatured as using a transmission model of learning, in which information to be learned is contained in one vessel, the textbook, and transmitted to another vessel, the student's memory, via the teacher's lecture. This method follows the belief that students need to learn basic information and the best method of transferring the information from the teachers to the students is through lecture and textbooks. Transmission teachers tend to shy away from explaining why things happen, opting to list the events that happened (Stahl, Hynd, Britton, McNish & Bosquet, 1996).

The current understanding of the learning process does not support the traditional transmission model. More recent theories suggest that as information is learned, the information is not merely copied from one source to another but it is transformed by the process of learning (Spiro, 1980). When students are able to construct mental models of the information, according to the constructivist theory, they then can fully grasp

the content. Social constructivist theory places the experience and views of participants in social context at the forefront (Au, 1988). Constructivists believe that although knowledge can be retained in short term memory through rote memorization, the information is quickly lost if it is not applied in authentic, relevant ways.

McKenna, Kear and Ellsworth (1995) surveyed students' attitudes towards reading in the kindergarten through sixth grades. 18,185 students were asked questions relating to their attitudes towards reading and the results showed a steady decline as the students advanced in age. The relationship between attitude and reading frequency is critical to increasing comprehension. The decline in attitude may be a result of transmission style teaching or the tendency for grade levels to move away from literature books and concentrate on instructional texts as the students progress through the years. Integration of literature in the content areas is one way to battle the decrease in reading skills, comprehension and interest.

Literature in the Content Areas

The integration of language arts into other curricular areas is one way teachers can encourage understanding and enhance mental models of the subject matter for the students. Integrated language arts theory is similar to whole language in that it supports interaction with media, text and other students as a way of teaching the entire picture rather than teaching individual lessons in isolation. Pappas writes in 1991 that students need to see reading and writing as used for a purpose (Morrow, Pressley, Smith & Smith, 1997). He suggests that this approach will increase students' literacy abilities and knowledge of content by providing a flexible framework for concept-oriented instruction. Within the content area students are able to practice reading, writing, listening and speaking. They use children's literature as a major source for instruction. Researchers and writers generally believe that literature books are more aesthetically pleasing, exhibit stronger literary qualities, and they tend to approach a topic at a greater depth. Baumann, Hatem and White (1999) conducted a study that measured

students' attitudes towards reading and literature after the students were immersed in a lengthy literature-based thematic unit. The researchers were able to conclude with confidence that the students' responses showed an increase in attitudes, interest, time spent on reading for pleasure, and number of books read. This study, and countless others, leads researchers to encourage teachers at elementary, middle and high school levels to read aloud in content area classes within the curriculum to enhance learning in science, social studies, and even mathematics.

(Brabbham, Boyd & Edington, 2000).

Reader response studies in content classes show that students are more likely to construct personally meaningful interpretations of literature in settings that encourage multiple perspectives. The utilization of multiple texts has the potential to increase student reasoning because they present various viewpoints on a topic (Hartman & Allison, 1996; Palmer & Stewart, 1997; Perfetti, Britt & Georgi, 1995; Stahl, et al., 1996). For example, when teaching about a particular event in history, historical documents from different sources will give students a broader perspective of the event

and a clearer picture of what happened. It will also help the students to recognize reliable sources and analyze and draw conclusions from the documents.

Researchers Brabham, et al. (2000) developed a study that looked at elementary school students' acquisition of vocabulary, comprehension and content area concepts in science and social studies, along with the ability to distinguish between fact and fiction in informal books. Two informational storybooks that were compatible in readability level, information, content and vocabulary were chosen for the study. The books were read aloud to the students by trained pre-service teachers. For two of the variables measured in this study, comprehension and the ability to distinguish between fact and fiction, the results indicated that the reading of the informational story did not have a significant impact on the students' learning. In the area of vocabulary acquisition, the third variable, significant gains were made across all three grade levels involved in the study. Vocabulary gains for all students who participated in this study ranged from 18% to 25%. The positive vocabulary results are supported

by several reports written on vocabulary in the content area.

Rosenblatt (1995) notes that when students react to an informational story book in both an efferent and aesthetic manner, the reader carries away information and experiences the emotional and artistic elements of the story (Brabham, et al. 2000). This engagement develops interest and aids in retention of the content.

Even though the study did not reveal significant gains in all elements studied, the importance of making these connections and adding them to the students personal mind maps are critical when weighing the importance of using literature.

Mayer (1984,1989) presents three basic processes that encourage meaning making. The first is selecting. This involves paying attention to and focusing on the information that is relevant to the goals of the task. The second process, organizing, involves arranging the information into a coherent mental structure, and finally integrating the information with previous knowledge and building on those existing structures. Rumelhart (1984) agrees that new learning is constructed from the transformation of old information

into new knowledge, either through assimilating the new knowledge into already existing knowledge structures, or accommodating the new information by creating new knowledge structures that would account for both the previously known and new information (Stahl, et al. 1996). The remainder of this research review looks at the three basic processes and the methods in which researchers and studies support Mayer's theory.

Selecting

Integration of language arts into content specific courses is supported by the work of John Dewey (1996). Dewey's studies focused on how students learn. He determined that interest drives thought, and students should play a role in choosing text to supplement the content with teacher direction (Morrow, Pressley, Smith & Smith, 1997). Rueda, Golenberg & Gallimore (1992) suggest that teachers will discover students' knowledge levels about current topics when they implement instructional conversations. Instructional conversations can lead to a discovery of how students

process information and can aide teachers in choosing appropriate levels to discuss topics. In addition, classroom activities become more equitable as teachers, peers and students act as learning partners (Bradford, 1999).

Jones, Coombs and McKinney (1999) studied the effect of using literature books in place of a text to teach a Social Studies unit. After taking into account the readability level and the content, the researchers chose non-fiction books to be used in the study. The researchers followed the procedures for employing literature based instruction described by Reutzel and Cooter as closely as possible. These procedures included the act of having a teacher provide a brief introduction of the books followed by asking the students to secretly vote on their book of choice. They were given a twenty-four hour period in which they could change their book after previewing it. Analysis of the pre and post attitudinal surveys indicated that the use of these literature stories influenced the students thoughts towards literature and comprehension in a positive way. The researchers claim that giving the students the opportunity to choose a text that

appeals to him or her allows the students to feel they are in charge of their own learning. This power of choice is given partial credit for the positive outcomes of the study.

An intermediate level social studies teacher, Jacqueline E. Dunn (2000), noticed that her students lacked the ability to fully understand the content in her text. She noticed that although they were going through the physical process of reading that they were not actually comprehending the information. After careful evaluation of learning theory, Dunn recognized the importance of student choice as a means for them to take ownership in their learning. Dunn had open discussions on how the brain works with her students. When they began to understand their learning styles she had them create their own reading strategy. One group was able to construct a strategy that the class agreed to utilize in their attempts to comprehend the text. Upon observation Dunn was convinced her class was better able to comprehend content area material. She attributed this success to the fact that the students arrived at their strategy together. Selecting strategies as well as literature books benefits the

students' reading comprehension in that they were more willing to buy into an idea because they have been given the opportunity to take ownership in it.

Constructing Meaning

Students often struggle with reading in the content area because they are not given an opportunity to interact with and draw meaning from the text. Therefore the information remains in the short term memory. Retention occurs, meaning is made, when students are engaged. Guthrie, Alao & Rinehart, (1997) noted that an engaged reader is intrinsically motivated to use content area learning strategies to create connections between prior knowledge and new information (Bean, 2000). An increase in literature rich presentations of materials will have a positive correlation with an increase in engagement. The goal of reading in the content area is for students to comprehend and retain the information with which they are being presented. Integrated language arts programs aim to present information at the higher end of the retention scale.

Intermingling of subject matter is another way to think about integration of language arts. Tuchdi (1994) explained that children's individualized reading and writing activities often allow them to make connections among various aspects of the curriculum, and the interdisciplinary curriculum is structured so that the students are encouraged to explore and discover these connections. Literacy and language lend itself to connecting reading and writing to social studies, science, and math. The right piece of literature can enhance any content area subject matter. Couple literature with an engaging activity and the student's comprehension, enjoyment and retention will improve. Allison Hoewisch (2001) developed an effective integrated language arts experience for her preservice teachers to share with the students in their field studies. The practicum teachers integrated the literature book Flat Stanley with the social studies curriculum. After reading the story about a boy who was flattened by a bulletin board and sent through the mail to visit a friend in California, the teachers had the students write letters to friends and relatives in other parts of the world to learn more about the area's

culture, geography and history. The students were anxious to receive letters back describing Flat Stanley's adventures. The language arts experience included an integration of reading, writing and social studies. The story and the activity affected both the students and the teachers in a positive way. The students were actively engaged in the activity, and excited to learn. The teachers commented that the results on the students' comprehension quizzes was higher than ever. The literature experience helped to promote meaning making, and added to the students mental infrastructure.

Holley and Danseraeu (1984) describe one technique, the use of instructional graphics, as a way to convey verbal information. Examples of these graphics might be structured overview, graphic organizers, mind maps, knowledge maps, networks,, and flow charts. Ogle (1986) created a popular instructional graphic that is utilized in classrooms across the grade levels. This graphic, the K-W-L chart, involves students brainstorming background knowledge on a topic, determining what information they want to learn on the topic, and after the information

is read, writing what they learned. All of these methods encourage meaning making by building links or organizing ideas in the students' mind.

Several studies have looked at how these instructional graphics have aided students' comprehension of informational texts. For example, Boothby and Alverman (1984) trained fourth grade students to use instructional graphics to help them remember what they read in their social studies books. When the students were later measured against a control group that was not given the extra instruction on organizers, those students with the organization strategies recalled a greater total of idea units both immediately and after a 48-hour delay. Loranger (1999) looked quantitatively at a middle school science teacher, John Hodson's use of instructional graphics as a way to help students understand and comprehend science material. Comprehension and recall of information both improved with the aid of the graphics. Similar studies were conducted by researchers Armbruster, Anderson and Ostertag (1987) at the fifth grade level and Berkowitz (1986) at a sixth grade level both using the instructional organizers as a reading

strategy and again the findings supported the idea that these strategies do increase comprehension and retention of information that students were reading within the content area.

Drawing on Background Knowledge

The content in children's literature lends itself to drawing on background knowledge. When students are able to draw on information they already know they will construct their own understanding. As another means of increasing students' comprehension, teachers look to motivate the students before the reading begins. Teachers can effectively motivate students by using materials that draw on the students existing background knowledge, and that they can connect to in real-world situations.

Successful learning depends largely on the student's prior knowledge on the topic. The amount of knowledge one has on the content can significantly enhance or hinder his or her comprehension of related material. In order to understand a sample paragraph,

students will need to have an understanding of the vocabulary before the new vocabulary words are introduced. Well written texts will include familiar terminology along with the new vocabulary words so that students can make connections with their prior knowledge as they read for information. Making connections to prior knowledge is the best way to comprehend new information. It is necessary for teachers to encourage students to actively participate in pre-reading activities as a way to help them draw on their own prior knowledge before they begin the literature activity. This strategy is sometimes referred to as scaffolding.

Muth (1993) looked at teacher's beliefs and practices as they related to reading in the area of math. In the past math has been neglected in the push to encourage reading strategies in the content area. However, the skills are needed more than ever as students are expected to read and problem solve in math. The survey indicated that the math teachers enjoyed learning about how to teach reading in the content area, but did not feel that the information they learned was beneficial. The reasons for these

outcomes could be credited to the fact that most of the samples used in the course were related to science and social studies content areas. These results confirmed a better connection between reading and math must be made. Again, the need for content specific inservices would increase the utilization of reading strategies in the area of math.

As stated in the beginning of this research report, it is imperative that the teachers understand the way students learn as it relates to their comprehension of content area reading. Spor and Schneider (1999) decided to study a group of K-12 classroom teachers and look specifically at their existing knowledge of, use of, and desire to learn content reading strategies. The study surveyed four hundred and thirty-five kindergarten through twelfth grade classroom teachers from varied socioeconomic based schools. A series of twenty-seven multiple choice questions were designed to elicit quantitative data about classroom teachers and their practices related to content reading strategies. Considering that content area textbooks are the most often used materials, researchers are concerned that the teachers

utilizing them are not familiar with the reading strategies the students would benefit from. The results of the survey showed that the teachers' were the most confident about their personal knowledge of the content material. The survey also showed that teachers were the least confident about having access to suitable reading materials, and that they are concerned about developing activities that interest and involve the students. The results indicated that the majority of the teachers surveyed said that they learned about content area reading strategies through college courses. The results demonstrate a significant discrepancy between what teachers know and what they practice. This would suggest a need for more in-service courses related to content area reading strategies. This need is amplified because a majority of experienced teachers have not benefited from college level courses in many years. Refresher courses in new techniques and reminders of the importance of content area reading would benefit all involved (Rogers, 2000). Data from NAEP provides evidence that students perform at a satisfactory level on tasks involving the implementation of basic skills, however they lack the

skills needed to perform higher level critical thinking. It is believed by Spor and Schneider that content area reading strategies, when implemented effectively, will help to narrow the gap in students' ability to move from narrative text to informational text during the early years of instruction and beyond.

CHAPTER III

Design of the Study

Purpose

The purpose of this study was to examine the effectiveness of integrating reading and social studies as a means of improving content knowledge and vocabulary.

Research Questions

1. Do content area reading strategies improve social studies vocabulary?
2. Do content area reading strategies improve social studies content knowledge?

Methodology

Subjects

The subjects of this study consisted of two fifth grade classes. The classes were divided into a control group and an experimental group. Each heterogeneous class was composed of approximately 24 students.

Materials

The materials for both the experimental and control groups included the fifth grade textbook, primary sources and social studies review books based on geography, New York State history, government and economics. The experimental group used additional story books, poems, informational texts, historical fiction novels and biographies. Instructional graphics were used with both groups. The New York State Social Studies Test was administered as the assessment.

Procedures

Both groups were given the same instruction in social studies content for 45 minutes a day. The experimental group was taught reading skills using

social studies content specific selections, such as diaries, biographies, story books and legends. These lessons took the place of their regular language arts block. The skills taught directly related to the language arts curriculum and standards. The content specific lessons lasted approximately three days a week for one hour a day. This schedule was adhered to for five weeks. There were six centers set up in the classroom. Students worked in groups of four at each center for 20 minutes, and they completed two or three centers a day. Each week focused on a specific topic in social studies.

The following is an example of how one of the weeks was set up. In week one the topic was the Native Americans of the Northeast region. One center began with the students filling out the K (Know) part of a KWL chart. Upon completion of an instructional picture book of Native Americans of the Northeast, the students completed the KWL chart. This activity focused on activating prior knowledge, reading for information and extending. All three skills are found in the language arts curriculum. Another center involved reading a Seneca legend and the students completed another

instructional graphic, a cause and effect chart, that correlates to the story. A third center included reading an informational story book aloud, followed by a cubing activity that has students reacting to the information presented. A cubing activity would require students to toss a cube that has different open-ended questions about the story. This activity involved the students in making inferences, drawing conclusions and interpreting events in the book. All three skills are a part of the language arts curriculum. The fourth center involved the students reading an informational story book about the Iroquois Indians. Before they read the story they were asked a series of questions in which they needed to predict the correct answer. After reading the book in a small group, they determined if their predictions were correct. Reading for information and predicting are both skills required in the language arts curriculum. In the fifth center the students read a Native American story of creation. When the group finished the story, they were asked to compare their own theories of creation with the Native Americans. Compare and contrast are two aspects of reading that are required in the language arts

standards. The final center involved the students reading about the Iroquois long house. When they were finished with the story, they were asked to sequence the steps the native Americans took to build a long house. When they finished their sequence they shared their "Directions on how to build a long house" with their partner. In the next three weeks the students spent one week researching a topic. They presented their newly acquired knowledge at the end of the week. Another two weeks were spent in literature groups reading and discussing the novel Freedom's Fire. The final weeks were spent in individual centers much like the Native American week described beforehand. At the close of each week a writing component was added. All centers incorporated the core language arts standards involving reading, writing, listening and speaking.

After five weeks the subjects from both groups were given the New York State Social Studies Test. This test asked a series of multiple choice questions, and constructed response questions. It concluded with the completion of an essay that could be supported from documents presented in the test.

Analysis of Data

The test data will be analyzed in two separate categories; vocabulary and content knowledge. The teacher will determine which test questions focused on knowledge of vocabulary and those which require content specific knowledge. The classes will be measured quantitatively against each other in these areas. A statistical analysis of the data will determine the results of the experiment.

CHAPTER IV

Analysis of the Data

Purpose

The purpose of this study was to examine the effectiveness of integrating reading and social studies as a means of improving content knowledge and vocabulary.

Null Hypotheses

#1. There will be no statistically significant difference between the mean scores of the control group and the experimental group on the content knowledge portion of the New York State Document Based Questions test.

#2. There will be no statistically significant difference between the mean scores of the control group and the experimental group on the vocabulary portion of the New York State Document Based Questions test.

Summary of Findings

For five weeks the control group and the experimental group received forty-five minutes of social studies instruction. The experimental group used social studies based selections during their language arts block, while the control group did not. At the conclusion of the five weeks the students took the New York State Document Based Questions test. The control group and the experimental groups' averages were calculated in both the area of vocabulary and content knowledge. In both cases the averages for the control group were higher. In vocabulary the control group averaged 86%, where the experimental group averaged 80%. In content knowledge, the control group averaged 84% and the experimental group averaged 74%. The researcher then analyzed these averages into a two tailed t test to determine if the difference in the averages were statistically significant.

Table One shows that the control group averaged higher in content knowledge than the experimental group. The t test was then administered to determine if the scores showed a statistically significant difference. The correlated t value fell outside the critical value, therefore the score did show a statistically significant difference. In the area of content knowledge the null hypothesis was rejected.

Table 1

Content Knowledge Scores

Class	D.F.	Mean raw score	S.D	Correlated t test value
Experimental	23	.74	.253	-2.31
Control	23	.84	.117	

Critical $t = -2.014$

Table Two shows that the control group averaged higher in vocabulary than the experimental group. The t test was then administered to determine if the scores showed a statistically significant difference. The correlated t value fell within the critical value, therefore the score did not show a statistically significant difference. In the area of vocabulary the researcher failed to reject the Null hypothesis.

Table 2

Vocabulary Scores

Class	D.F.	Mean raw scores	S.D.	Correlated t test values
Experimental	23	.80	.195	-1.22
Control	23	.86	.141	
Critical $t = -2.014$				

CHAPTER V

Conclusions and Implications

Purpose

The purpose of this study was to examine the effectiveness of integrating reading and social studies as a means of improving content knowledge and vocabulary.

Conclusions

This research topic was chosen because of the researcher's interest in determining how to enable students to have a more well-rounded look at history and to increase the depth of their understanding of historical events. The researcher was also motivated by the challenge of teaching several important historical events within the limited time frame of three months, as the Social Studies test was administered in November. Students in the control

group were given 45 minutes of social studies instruction, while the experimental group was given the same instruction, along with social studies content used in their language arts lessons. At the conclusion of the first five weeks, both classes completed the New York State Social Studies Test. The vocabulary and content knowledge averages were analyzed for each student. In the area of vocabulary, there was no statistical difference. In terms of content knowledge, however, there was a statistically significant difference.

The research hypothesis stated that the integration of reading and social studies would increase the depth of understanding of historical events, and therefore result in higher averages on the New York State Social Studies test. An analysis of the test data concluded that this integration did not improve the scores, and in the area of content knowledge, the scores were statistically different enough to imply that the experimental group actually performed worse than the control group. The researcher did however take note of several variables that could

shed light on the reasons behind the unexpected results.

The first reason could be credited to the fact that the control group out-performed the experimental group on all social studies and science tests prior to the Social Studies test. This suggests that the control group had either a higher ability than the experimental group, or they were better test takers.

The exact content of the test was unknown to the researcher, therefore the material chosen was not a guaranteed match to the questions on the test. The researcher had to rely on her understanding of the test and previous tests to guide her choices on the literature selections. As a result, only five questions calculated were directly related to the content discussed in the language arts class. On two of the five questions, the experimental group showed a higher average. Of the remaining three questions the experimental group averaged better than they had on the other questions calculated. This indicated to the researcher that the added content knowledge did improve the students' understanding of the topic.

A final explanation may be a result of the instructor's increased knowledge of the content as a result of the content area reading that was also relayed to the control group in social studies classes. The depth of understanding of a particular topic was not necessarily tested on this particular test, and the bits of information transmitted to the control group were enough for that class to perform well on the test. It should also be noted that the control group performed the highest in the district on this test, again supporting the claim that the groups were not of equal capabilities from the start.

Implications for Further Research

A replication of this study should begin with a pretest to determine if the subjects' ability level are equal. Also, the test used to measure vocabulary and content knowledge growth should directly relate to the subject matter being integrated into the language arts lesson.

As teachers begin to consider experimenting with content area reading, I predict several questions will

arise. The first question I imagine many teachers would ask is: How can we effectively cover all the material necessary to prepare students for standardized tests if we take time away from direct instruction to include literature? Will we need to sacrifice content for literature experiences? A full year study could be set up to compare direct instruction with literature immersion classes and measured by the standardized tests. Although I am not a supporter of those tests, they are reality, and students and teachers are measured by them. Teachers need to see the positive results that I believe the study would show in order to convince them it was worthy of their time.

I also would like to see curriculum teams researching novels, picture books and informational books that would be relevant to their content areas. It would also be beneficial to include scripted conversations for those teachers just starting off, ideas for engaging students in the literature, and authentic activities for teachers to be able to easily access.

Implications for the Classroom

Content area literacy is a necessary form of integration for teachers of all grade levels. Literacy can be a part of introducing new math concepts or presenting various viewpoints of historical events. Before classroom teachers are able to take on the challenge of immersing their curriculum with literature I think that it is necessary that educators have a clear understanding of how students learn and retain information. Teachers also need to familiarize themselves with the different reading strategies and techniques such as SQ3R, highlighting, activating prior knowledge, and graphic organizers.

When introducing a new topic in any curricular area, the first step a teacher should take is to apply pre-reading strategies. As mentioned in the text of this report, students will retain information better when they are able to connect it to something they already know. This may take place through small group discussion, interaction with artifacts or vocabulary words, webbing or free writing. Once the students have

a basis on which to go on, they can then begin to add new information to their pre-existing mind maps.

Allowing the students to choose the literature book they wish to read as a part of the unit will increase the students' interest level in the lesson. They will begin to feel that they have a say in the classroom and that their voice is heard by the teacher. Studies have shown that student choice, whether it be in the literature book or the type of reading strategy they employ, enhances the students comprehension and retention. Classrooms should empower students with choices across the curriculum so that they begin to take ownership in their learning.

It all comes down to purpose in the end. What is our purpose, as educators? It is to prepare students for the life they will be expected to lead, and to show them the world. Without literature, we will falter, with literature, we will meet success.

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