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Fifth grade student learning and interest in the American Revolution through reading graphic novels compared to reading biography or other nonfiction books

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Fifth grade student learning and interest in the American Revolution through reading graphic novels compared to reading biography or other nonfiction books

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Abstract

The purpose of this study was to examine student recall of facts, along with enjoyment of reading and interest in the topic when using graphic novels as compared to illustrated nonfiction prose in social studies content area reading. Twenty-two fifth grade students (13 f, 9 m) in a public school in a Midwestern state participated in the study. Half of the students read about the Boston Massacre and Patrick Henry through graphic novels and read about Paul Revere and the Boston Tea Party with illustrated nonfiction texts, with the other half doing the opposite. The mean number of correct ideas recalled by students two weeks after reading two books in the graphic novel condition was 8.6 compared to 7.1 for the nonfiction prose condition with a medium effect size. Students in the graphic novel condition recalled more factual topics related to the complex events of the Boston Massacre and Tea party. Students rated their reading enjoyment significantly higher in the graphic novel condition. They also rated their interest in the social studies topics higher after reading graphic novels, but this was not statistically significant. The efficacy of graphic novels shows they should be employed more often into the school curriculum.

FIFTH GRADE STUDENT LEARNING AND INTEREST IN THE AMERICAN
REVOLUTION THROUGH READING GRAPHIC NOVELS COMPARED TO READING
BIOGRAPHY OR OTHER NONFICTION BOOKS

A Graduate Project

Submitted to the

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

by

Kari Bosma

August, 2010

This Project by Kari Bosma

Titled: Fifth Grade Student Learning and Interest in the American Revolution through Reading
Graphic Novels Compared to Reading Biography or Other Nonfiction Books

has been approved as meeting the research requirement for the
Degree of Master of Arts.

Date Approved

Graduate Faculty Reader

Date Approved

Graduate Faculty Reader

Date Approved

Head, Department of Curriculum and Instruction

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Abstract

The purpose of this study was to examine student recall of facts, along with enjoyment of reading and interest in the topic when using graphic novels as compared to illustrated nonfiction prose in social studies content area reading. Twenty-two fifth grade students (13 f, 9 m) in a public school in a Midwestern state participated in the study. Half of the students read about the Boston Massacre and Patrick Henry through graphic novels and read about Paul Revere and the Boston Tea Party with illustrated nonfiction texts, with the other half doing the opposite. The mean number of correct ideas recalled by students two weeks after reading two books in the graphic novel condition was 8.6 compared to 7.1 for the nonfiction prose condition with a medium effect size. Students in the graphic novel condition recalled more factual topics related to the complex events of the Boston Massacre and Tea party. Students rated their reading enjoyment significantly higher in the graphic novel condition. They also rated their interest in the social studies topics higher after reading graphic novels, but this was not statistically significant. The efficacy of graphic novels shows they should be employed more often into the school curriculum.

Chapter 1

Introduction

A teacher comes into the library looking for books for the students to read to supplement an upcoming topic that they will be teaching. The teacher librarian begins to point out and pull a few books for the teacher. After showing the teacher a few regular text nonfiction books, the teacher librarian grabs a graphic novel. The teacher thinks that the book looks interesting and that the kids would like it, but the pictures would overshadow the text and that the student wouldn't get enough reading practice. Also the teacher is concerned that an illustration rich text will be too quick and students reading graphic novels will complete this reading much more quickly than their peers.

The scenario above illustrates a common and continuing problem about people's perceptions of graphic novels. Teachers are concerned about the amount of illustrations they contain because they want students to focus on comprehending the text.

The researcher's interest in graphic novels stems from her work as a teacher librarian. The researcher has noticed a steady circulation of these books among her student population. They are especially popular with the upper elementary students and boys in particular.

Problem Statement

Teachers and parents may not understand the effect that graphic novels have on students' learning and interest, and the role comprehension of images plays in overall comprehension of this literary form, resulting in a hasty rejection of an effective medium for learning. This study investigates the use of graphic novels compared to traditional nonfiction texts in fifth graders' study of concepts related to the American Revolution. Additionally, it assesses students' interest in the topic and enjoyment of reading through this comparison.

Research Questions

1. Will student reading of graphic novels increase comprehension of: a.) the historical event/person and b.) retention of information?
2. How does the medium of reading about the American Revolution affect student attitudes toward reading and learning history?

Research Hypotheses

1. Student comprehension and retention will increase after reading content information through the graphic novel format as compared to reading illustrated nonfiction prose.
2. Student will evidence a more positive attitude (enjoyment of reading and interest in the topic) toward reading and learning history through the use of graphic novels as compared to reading illustrated nonfiction prose.

Definitions

Graphic Novel- A novel or complete story in comic-book format with a beginning, middle, and end and continuing characters and plots (Bruggeman, 1997)

Concept - In social studies, a concept is a representation “of a group of objects, people, events, or symbols of two or more members,” (Sunal & Haas, 2011, p. 95).

Generalization - A generalization “identifies relationships between two or more concepts,” (Sunal & Haas, 2011, p. 117) especially to explain cause and effect. Generalizations supported by evidence are particularly powerful aspects of social studies learning because they permit prediction and explanation of events.

Nonfiction - A written work describing real life characters and events.

Manga- Japanese “printed comics found in graphic-novel format.” (Schwartz & Rubinstein-Avila, 2006, p. 41)

Assumptions

It is assumed that the researcher is competent to create, administer, and interpret the findings from the data collected. It is assumed that fifth graders will devote similar effort to learning to both book mediums.

Limitations

This research was limited to 22 fifth grade students of an Elementary School in the suburban area of a major city of the Midwest.

Significance of Research

Graphic novels are stories or nonfiction presented in comic book style. Graphic novels have been shown to increase student interest in reading and to require complex cognitive skills (Lavin, 1998). Graphic novels appeal to young people and offer visuals that can make history and other “dry” subjects come alive (Schwarz, 2002). Therefore, graphic novels may be the answer for reluctant readers. Graphic novels often require readers to obtain information primarily from the illustrations and secondarily from the text rather than, as with traditional texts, using pictures and illustrations only as supplements (Carrington, 2004). In spite of the wide popularity of graphic novels, *limited research* in their use has been conducted (Schwartz & Rubinstein, 2006). Graphic novels are an increasingly popular medium, yet their efficacy has yet to be documented. This study provides quantitative data to support or refute their use in classroom instruction.

Chapter 2

Literature Review

The purpose of this study is to examine the effects of graphic novels compared to illustrated nonfiction prose in fifth graders' study of concepts and generalizations of the American Revolution. The following is a summary of the related professional literature and a synthesis of its pertinence to this research. The information is organized by sub headings: graphic novels in content area reading, graphic novels for reading engagement, and planned social studies outcomes for study participants.

Graphic Novels in Content Area Reading

Graphic novels, as distinguished from comic strips or comic books, are longer works that have continuing characters and plots (Bruggeman, 1997), just as a prose novel. Manga are Japanese "printed comics found in graphic-novel format" (Schwartz & Rubinstein-Avila, 2006). The related Japanese art form, anime, consists of animated cartoons often derived from manga and vice-versa. Today's Generation Y students (born between 1982-2003) desire constant visual stimulation to maintain attention; graphic novels meet this need (Short & Reeves, 2009). MacDonald (2004), a librarian, found that the popularity of graphic novels with teenagers motivated many to visit the library with or without special promotional events.

Carter (2007) proposed that graphic novels be used to "expose injustice and examine complex social issues," (p. 51) part of Contact Zone theory. Certainly, the current study's topic of the American Revolution constitutes a complex social justice issue. One approach recommended by Carter is for teachers of different disciplines to collaborate using graphic novels. In the current study, a teacher librarian teamed with fifth grade teachers to support learning about the American Revolution through reading graphic novels and informational books. As Carter

advocated, these school library texts were used as a supplement to the regular social studies textbook. Important taxation and oppression issues were examined from several viewpoints (colonists, British soldiers, King George III, elementary students) to critically examine motives and consequences.

There are many reasons to use graphic novels in social studies content area reading. Principles of acceptance of diversity are reflected by providing students with a wide range of reading materials and genres valued by teachers. Classrooms should move away from a one-sided notion of literacy instruction, recognizing that students need a variety of texts to correspond to their diverse needs, including examining social and democratic issues. Graphic novels provide visual imagery to accompany text, giving visual cues to boost reading comprehension. Emotional subtleties embedded in the text are sometimes more easily interpreted and remembered through facial expressions of the illustrated characters. For example, Schwarz (2002) commends the ability of graphic novels to supplant dull textbooks with emotionally-rich, imaginative illustrations such as the empire state building bent in sorrow over the ground zero site. Martin (2009) suggests several popular graphic novels that address social studies topics relevant to middle grades students, including a book that contrasts President Lincoln through historical and contemporary perceptions (McCloud, 1998) and another story of a student's battle with bulimia (Gorman, 2008). Graphic novels often "present alternative views of culture, history, and human life in general in accessible ways, giving voice to minorities and those with diverse viewpoints," (Schwarz , 2002, p. 264). She also noted that students may examine the medium of graphic novels by analyzing the effects of color on emotion, how illustrations can stereotype various groups, how perspective and view angle affects perception, and how realism and fantasy affect the image's message. Rudiger and Schliesman (2007) recommend that librarians take the

first step in approaching teacher to help them map the ways graphic novels can address curriculum standards.

Graphic Novels for Reading Engagement

Edwards (2008, 2009) conducted a rare research study involving graphic novels to determine ways free-choice reading of graphic novels would positively impact middle school students. Although her findings were not statistically significant, she detected small trends in improvement of reading motivation, vocabulary development and comprehension ability. Edwards noted that the prevalence of video games, cell phones, and MP₃ players leave little room for time spent in pleasure reading. Graphic novels, however, were a choice for some students who would not read anything else.

Another recent study (Simmons & O'Briant, 2009) was conducted by librarians at a school wanting to spend grant money to increase library use by adolescent male reluctant readers. They surveyed this population, asking what they wished would be included in the media center. The results overwhelmingly indicated that students desired manga and graphic novels. Seyfried (2008) recommended a middle school student book club focused on graphic novels, reporting that it was so popular with students at his school, a waiting list for the for the elective book club class had to be formed. Reluctant readers who participated in the book club returned to the library for additional graphic novels after completion of the course.

Rudiger and Schliesman (2007) recommend that libraries build a collection of graphic novels to support the needs of their patrons. The visual nature of graphic novels assists student with cognitive disabilities and English language learners. O'English, Matthews, and Lindsay (2006) provided a list of ways to promote graphic novel reading among students, including: displays of new books or holiday reading, creating a Web log or wiki where students can post

reviews of graphic novels, and providing opportunities to students to create their own graphic novels.

Much has been written recently about using graphic novels with middle school students. Little has been discussed about their use with elementary students. Additionally, few research studies concerning the efficacy of graphic novel use have been conducted. The current investigation examines graphic novel use in a social studies content area reading context.

Planned Social Studies Outcomes for Study Participants

In social studies, a concept is a representation “of a group of objects, people, events, or symbols of two or more members,” (Sunal & Haas, 2011, p. 95) while a generalization “identifies relationships between two or more concepts,” (p. 117) especially to explain cause and effect. Generalizations supported by evidence are particularly powerful aspects of social studies learning because they permit prediction and explanation of events. Regarding the American Revolution, some *concepts* include: colonists, tea party, taxation, and Boston Harbor. The teacher-librarian identified generalizations related to the four chosen topics (Boston Massacre, Boston Tea Party, Patrick Henry, and Paul Revere) that matched state standards and represented important learning outcomes of reading these texts. These are shown in Table 1. Data were collected and analyzed during this study to determine if students acquired the identified key concepts and generalizations and met state standards for social studies education.

Table 1 Teacher librarian-identified key concepts of each historic event or person connected to state social studies standards

Topic	Key Generalizations	Related State Social Studies Standard from the Iowa Core (Iowa Department of Education, 2008)
Boston Massacre	<p>Colonists are killed by British soldiers, becoming the first heroes in the colonists' fight for independence</p> <p>The conflict was started accidentally, indicating how delicate relationships are when stressed.</p> <p>The Boston Massacre was one of the main events that led to the American Revolution. Loyalists supported the British; Patriots boycotted the British. Conflict between colonists with different views occurred first, followed by conflict between colonists and the British. Some British soldiers who fired on colonists were guilty of manslaughter; their trigger fingers were burned.</p> <p>This conflict was fueled by colonists' anger over taxation (Stamp Act, Townshend Act, Quartering Act) and loss of freedom under British soldiers' oversight.</p>	<p>Understand cause and effect relationships and other historical thinking skills in order to interpret events and issues.</p> <p>Understand how and why people create, maintain, or change systems of power, authority, and governance.</p> <p>Understand the effect of economic needs and wants on individual and group decisions.</p>
Boston Tea Party	<p>The Boston Tea Party was one of the main events that led to the American Revolution.</p> <p>This "tea party" involved colonists dumping thousands of pounds of tea overboard from a British ship in the Boston Harbor as a financial and symbolic strike.</p> <p>Tea was a popular drink during colonial times. Great Britain made the colonists pay tax on the tea. Colonists grew tired of Great Britain's taxation without representation; eventually boycotting tea.</p> <p>Colonists disguised themselves as Indians to avoid recognition and punishment. King George III was angry when he heard about the loss of tea and punished the colonies with the Intolerable Act, furthering the conflict. Other colonies helped Boston while its port was closed by the Intolerable Act, cementing colonial relationships.</p>	<p>Understand how and why people create, maintain, or change systems of power, authority, and governance.</p> <p>Understand the effect of economic needs and wants on individual and group decisions.</p> <p>Understand cause and effect relationships and other historical thinking skills in order to interpret events and issues.</p>
Patrick Henry	<p>Patrick Henry's quote, "Give me liberty or give me death," shows the depth of feeling of colonists concerning the need for independence. His speech inspired colonists to act, changing the course of history.</p> <p>Large families helping with farm life was a reflection of the colonial lifestyle.</p> <p>Patrick Henry served his community through various jobs: farmer, clerk, lawyer, governor.</p> <p>Patrick Henry displayed courageous attributes that showed service to others and democratic principles.</p>	<p>Understand cause and effect relationships and other historical thinking skills in order to interpret events and issues.</p> <p>Understand historical patterns, periods of time, and the relationships among these elements.</p> <p>Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.</p>
Paul Revere	<p>Paul Revere risked his life for his democratic principles and service to others.</p> <p>The technology of colonial times included symbolic communication through lanterns.</p> <p>The technology of colonial times included traveling by horseback and speaking directly to warn others of the British invasion.</p> <p>Paul Revere helped save Hancock and Adams, who asked inconvenient questions and challenged new laws imposed by the British.</p>	<p>Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.</p> <p>Understand historical patterns, periods of time, and the relationships among these elements.</p> <p>Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.</p>

Chapter 3

Methodology

Problem and Purpose

Teachers and parents may not understand the effect that graphic novels have on students' learning and interest, and the role comprehension of images plays in overall comprehension of this literary form, resulting in a hasty rejection of an effective medium for learning. This study compared student comprehension after reading and student recall of information about revolutionary war topics when students read either graphic novels or illustrated nonfiction texts. Student enjoyment of reading and interest in the topics was also assessed.

Participants

Twenty-two fifth graders (13 female, 9 male; 21 Caucasian, 1 African American; 20 Native English speakers; 2 English language learners) from a suburban school in a Midwestern state who were investigating the American Revolution in social studies class participated in the study. All students and their parents gave permission for data to be collected and used in this research study, which has been approved by the overseeing university human subjects review board (IRB # 08-0166).

Set-up of the Study

For instruction, students were divided into four groups of 5 or 6 students each. Each small group read one book on each of the four chosen social studies topics related to the American Revolution. Students in two of the small groups read about the Boston Massacre and Patrick Henry through graphic novels and read about Paul Revere and the Boston Tea Party with illustrated nonfiction texts. Students in the other two small groups read about Paul Revere and

Boston Tea Party through graphic novels and read about the Boston Massacre and Patrick Henry through illustrated nonfiction texts.

Each small group met daily for four consecutive days with the school's teacher librarian for about forty minutes. The teacher librarian showed students the book cover and asked for ideas of how this topic might be related to the American Revolution. Although this topic had not yet been formally addressed in the students' current classroom instruction, it was the topic of their next unit, which began after the posttest of the current study. These lessons were purposely isolated from other instruction so that student learning shown on the posttest assessment could be attributed to the treatment of reading books under one of the two conditions of this study. Generally, students recognized the name of Paul Revere, associating it with his famous ride but could not recall other details of his life or explain the significance of his role in American history. Similarly, they had heard of the Boston Tea Party as a key event in the American Revolution, but could not explain what happened. Students were unfamiliar with Patrick Henry and the Boston massacre. After students had expressed their prior knowledge, they took a picture walk through the book and spent some initial time exploring its content and hypothesizing what the story entailed. Then a student volunteered to read a passage, followed by group discussion of its content. After the entire book had been read by student volunteers in this fashion, the group listed the key ideas from the reading on a piece of chart paper. The teacher librarian made sure that the key concepts she had previously identified were discussed and listed among those on the chart. In this way, students in both conditions were exposed to the key concepts through reading the books and through discussion. However, these concepts were not addressed or reviewed until after students had completed the posttest two weeks later.

Texts Used

Four illustrated nonfiction prose texts (Draper, 2000, 2001a, 2001b; Gillis, 2005) that focused on the four topic areas were used for the illustrated nonfiction condition. The Draper books had a color partial-page illustration approximately every other page, while the Gillis book had a small illustration on every page. A reviewer (Gaffney, 2001) reported that *The Boston Tea Party: Angry colonists dump British tea* (Draper, 2000) featured illustrations from old paintings and quick and easy reading. The publisher of the Draper books (Powerkids Press) noted that this series of books was designed with newspaper style headlines and reporting to engage readers into important historic events. A review (Chapman, 2005) of *Patrick Henry* (Gillis, 2005) noted the period reproductions illustrating the text.

The graphic novels used in this study (Burgan, 2006; Doeden, 2005; Glaser, 2006; Niz, 2006) were from a Capstone Press series called Graphic History. *The Boston Massacre* (Burgan, 2006) was listed as one of the best children's books of 2005 in the special interest – history category (Bank Street College of Education, 2006, p.39). It also received a positive review for its presentation of complex issues and easy-to-follow storyline (Peterson, 2006). A review (Ackroyd, 2005) of *The Boston Tea Party* (Doeden, 2005) remarked on the straightforward text, bright illustrations, and active dialogue. *Paul Revere's Ride* (Niz, 2006) was described by a reviewer as appealing to nonreaders and containing interesting information such as the horse's name (Krall, 2005). *Patrick Henry: Liberty or death* (Glaser, 2006), according to a review (Cooper, 2006), features a rather uninteresting, uninspiring childhood, but increases reader's interest near the end with the fact that he argued against the Constitution. All of the graphic novels had large page-sized and half-page-sized color illustrations throughout with no text appearing without illustration.

The graphic novels and illustrated nonfiction prose books were of roughly comparable lengths: all graphic novels were 36 pages long, one nonfiction prose book was 36 pages also (Patrick Henry) with the remaining nonfiction prose books each having 24 pages. All books were read and discussed within the forty-minute class periods.

Instrumentation

At the end of each instructional session, students completed two rating scales in which they circled a number from one to ten (one meaning least enjoyable or interesting and ten indicating most enjoyable or interesting) to indicate their enjoyment of reading this particular book and their interest in the topic.

Two weeks later, each student was given a posttest. There had been no lessons or review of the social studies concepts about the American Revolution between reading the four books and taking the posttest. The posttest consisted of four questions that asked the student to “Tell five important things you remember about ____ (each of the four topics were put here, in turn, forming the four questions of the assessment).” Students had twenty minutes to complete the posttest.

Data Analysis

Student responses to the two rating scales were compiled with the mean and standard deviations calculated. Student posttest responses were compiled for the topics under each condition and reported in order of most to least frequently occurring. Mean numbers of correct responses were tabulated for students under each condition. Paired t-tests results and a common measure of effect size, Cohen’s *d* (Cohen, 1988) were calculated to determine statistical and practical significance.

Chapter 4

Results

Table 2 shows the results of the statistical analysis of the collected data.

Table 2. Comparison of student performance, reported enjoyment, and reported interest under the two study conditions of 22 fifth grade students.

	Illustrated Nonfiction Condition	Graphic Novel Condition	Paired T-Test Results	Cohen's <i>d</i> Effect Size
Mean number of correct ideas recalled two weeks after reading two books	7.1 (3.2)	8.6 (2.9)	$p < 0.01$ Statistically significant	$d = 0.49$ Medium effect size ²
Mean reported level of enjoyment on a scale of 1-10 (low to high)	7.6 (2.0)	8.3 (1.7)	$p = 0.05$ Statistically significant	$d = 0.35$ Small to medium effect size ²
Mean reported level of interest on a scale of 1- 10 (low to high)	7.7 (2.3)	8.0 (2.2)	$p = 0.15$ Not statistically significant	Not calculated

¹Standard deviation in parentheses.

² Interpretation according to Cohen (1988).

Table 3 and Table 4 provide the social studies concepts and generalizations written by students on the posttest, two weeks after reading about the four topics under different conditions.

Table 3. Comparison of relative frequency of types (most frequently cited facts listed first) of information listed by students on the posttest two weeks after reading books about the Boston Massacre and Boston Tea Party.

Topic	Facts recalled by students in order of most to least frequent	
	Graphic Novel Condition	Illustrated Nonfiction Condition
Boston Massacre	Several colonists killed	Several colonists killed
	Eleven-year-old boy killed	Started accidentally
	British fired on colonists	Eleven-year-old boy killed
	Started accidentally	Led to American Revolution
	British called Redcoats, Lobsterbacks	Occurred on a corner in Boston
	Led to American Revolution	Ten or twelve shots fired
	Marked soldiers by burning thumb	Some people were wounded but not killed
	Jailed soldiers for manslaughter	British called Redcoats, Lobsterbacks
	Colonists angry about tea tax	There were fights between colonists and British
	Unknown who fired first shot	Date March 5, 1770
Told names of participants		
Loyalists were loyal to British		
Boston Tea Party	Colonists dumped tea overboard into the harbor	Colonists disguised themselves as Mohawk Indians
	Colonists disguised themselves as Mohawk Indians	Colonists dumped tea overboard into the harbor
	Colonists were angry about the tea tax	Colonists were angry about the tea tax
	Led to American Revolution	Ninety-thousand pounds of tea in 342 crates was dumped
	Occurred at night in Boston Harbor	Date December 16, 1773
	Colonists boycotted buying tea	Occurred in Boston
	Colonists loved drinking tea	Led to American Revolution
	The British king was angry and punished the colonies	Afterward, colonists drank coffee instead
	“No taxation without representation”	Not really a tea party
	Ninety-thousand pounds of tea in 342 crates was dumped	
Date December 16, 1773		
Colonists swept the decks of the ship to make sure all tea was overboard		
British were surprised and did not try to stop it		

Table 4. Comparison of relative frequency of types (most frequently cited facts listed first) of information listed by students on the posttest two weeks after reading books under different conditions about Patrick Henry and Paul Revere.

Topic	Facts recalled by students in order of most to least frequent	
	Graphic Novel Condition	Illustrated Nonfiction Condition
Patrick Henry	Quote "Give me liberty or give me death."	He had 2 wives and 17 total children
	He had 2 wives and 17 total children	Fought for American independence
	Brave, smart, stood up for himself and others	Patrick Henry was a lawyer
	Patrick Henry was a lawyer	Colonist from Virginia
	Patrick Henry became governor of Virginia	Quote "Give me liberty or give me death."
	Washington offered him political offices that he refused	Quit school at age 10
	He had jobs as clerk and farmer	Played violin
	Lived during revolutionary war	House is a museum now.
		Patrick Henry became governor of Virginia
		Quote: "No taxation without representation."
	Died on June 6	
Paul Revere	Captured by Redcoats and horse taken away.	Lantern signal in church about British invasion: "One if by land; two if by sea."
	Lantern signal in church about British invasion: "One if by land; two if by sea."	Midnight ride on horseback
	Said, "The British are coming," to warn people.	Captured by British.
	Midnight ride on horseback Lexington to Concord	Said, "The British are coming," to warn people.
	Saved Hancock and Adams	British let him go.
	Gunshot frightened British and they let him go.	Saved Hancock and Adams
	He was a colonial silversmith	He rowed past a warship in a boat.
	He rowed past a warship in a boat.	He wore a hat.
		He watched guard for the Boston Tea Party
		He was a silversmith.

Chapter 5

Discussion and Conclusion

Research Hypotheses

1. Student comprehension and retention will increase after reading content information through the graphic novel format as compared to reading illustrated nonfiction prose.
2. Students will evidence a more positive attitude (enjoyment of reading and interest in the topic) toward reading and learning history through the use of graphic novels as compared to reading illustrated nonfiction prose.

The results of the study showed that both hypotheses were confirmed with a medium effect size for student retention of social studies concepts and generalizations related to information read in the graphic novel condition. Students evidenced a positive attitude in both enjoyment of reading and interest in the topic in the graphic novel condition, but only enjoyment of reading was statistically significant. These results are further discussed below.

Greater Recall of Issues Related to Complex Events

The mean number of student-recalled ideas reported in Table 2 shows that students were able to recall significantly more concepts and generalizations when reading graphic novels as compared to nonfiction prose. This finding had a medium effect size, indicating that, beyond statistical significance, there was a noticeable practical effect in using graphic novels to teach students concepts and generalizations about the American Revolution. In general, students recalled similar information from the two different genres. A comparison of the key generalizations that the teacher librarian wanted students to acquire (Table 1) with the information reported by students two weeks after reading books under the two conditions (Tables

3 and 4) showed that students met most expectations under both conditions, but that the graphic novel condition was superior in helping students recall more issues related to complex events.

Specifically, concerning the Boston Massacre, students under both conditions did recognize the cause and effect significance of the event to the American Revolution, the accidental and explosive nature of the conflict, and the tragic loss of lives, including an eleven-year-old boy. These ideas addressed several key generalizations planned for students and the social studies standards of the state in which the study occurred. However, students in the nonfiction prose condition neglected to mention two key ideas that were discussed by students who read graphic novels – the frustration of over-taxed colonists under British authority when their everyday necessities were becoming economically out of reach and the difference between loyalists and patriots, indicating that students reading graphic novels retained more key ideas.

Regarding the Boston Tea Party, students under both conditions were able to describe the nature of the event including colonists disguising themselves as Native Americans and dumping tremendous amounts of British tea into the harbor, their dislike of the increased tax burden on tea, and its impact on the American Revolution. However, students reading the nonfiction prose did not mention the colonists' love of tea, boycotting of tea, or King George's revenge upon the colonists, while those reading the graphic novels did, implying the efficacy of the graphic novel condition.

Students in both conditions evidenced understanding of major ideas concerning Patrick Henry's famous speech ("give me liberty or give me death") that showed his courage and commitment to democratic principles and how it inspired colonists to fight for their independence. They also recognized the large family colonial lifestyle and Patrick Henry's lifelong service to his community including work as a lawyer and governor. Similarly, students

under both conditions were able to describe Paul Revere's role in warning people of the British invasion and saving other key colonists, Hancock and Adams. They mentioned the colonial technology of using lanterns as signals and traveling on horseback to verbally warn colonists. There was little difference in topics of the recalled facts between the two conditions concerning biographies of important colonists. However, as mentioned previously, there were several key ideas related to the complex events of the Boston Massacre and Tea Party that were noted by students reading graphic novels but not reported by students reading nonfiction prose. This may indicate that more complex issues are better understood with the multimodal input afforded by graphic novels. Schwartz and Rubinstein-Ávila (2006) noted that readers of graphic novels are adept at using the multimodality of text and graphics to obtain greater meaning for critical inquiry.

Greater Student Reading Enjoyment

After each reading lesson, students rated their enjoyment and interest in the text on a scale of one to ten. Table 2 shows that both enjoyment and interest were higher for the graphic novel condition, but only enjoyment evidenced a statistically significant difference. Student reported enjoyment of reading graphic novels had a small to medium effect size, indicating the practical impact of student motivation supported by reading enjoyment. This finding builds on the one existing study available for the emerging field of graphic novel use in schools. Edwards (2008, 2009) examined seventh graders' motivation for reading graphic novels in an eight-week study that examined student vocabulary development, reading comprehension, and motivation toward reading. Although her results did not show statistical significance, all three areas showed improvement for the graphic novel condition. Student ratings for graphic novels were higher and they reported spending more time in free-choice reading of this genre. This current study with

fifth graders showed a positive, but statistically insignificant trend for student interest being increased with use of graphic novels. A larger sample size in a future study may yield significant results in this area also.

Spontaneous student comments to the teacher librarian during and after the reading of graphic novels revealed student preferences and reasoning. Many students commented that they enjoyed the graphic novel format because the illustrations helped them to see whether or not they were on the right track with their ideas and the meaning they were making from the text. The students preferred a lot of illustrations, remarking on the appeal of visual learning rather than reading plain text. Their own free-choice reading at home was often comic books; this matched their visual learning style. The facial expressions in illustrations helped them obtain more subtle meanings from the stories and insights into characters. Students enjoyed the novelty of being able to read a graphic novel to learn about history rather than always relying on a textbook.

Conclusion

Teachers at the school where this study was conducted mentioned they were reluctant to have students read graphic novels because they didn't think they would retain as much factual information from reading. They believed that students would "fly" through the novels without thinking about the implications of what they were reading because student focus would largely be on the exciting, action-packed graphic illustrations. This sentiment is widespread. Carter (2007, p. 49) states that "graphic novels' potential has yet to be acknowledged in many American classrooms." Hopefully this small study that showed students learned more from reading graphic novels will begin to change this misconception.

Rudiger and Schliesman (2007) suggested that teachers be made aware of how graphic novels can be used to meet state standards. Certainly, the students in this study who read graphic

novels met state standards (as listed in Table 1) and evidenced understanding of the key generalizations the researcher had identified for this social studies unit. Martin (2009) explained that student understanding of abstract concepts can be facilitated by use of visuals in graphic novels, as most students automatically use images to navigate their everyday lives. “Growing up with television and video games, contemporary young adults look for print media that contain the same visual impact and pared-down writing style and contribute to their enthusiasm for visual rather than written literacy” (Bucher & Manning, 2004, p. 67). This study indicates that students may better understand abstract, complex events when presented through the graphic novel format.

Versaci (2001) noted that many students expect painful, boring reading experiences in content areas; as this study has shown, graphic novels can improve student enjoyment. Readers make emotional connections to characters in graphic novels (O’English et al., 2006). The students in this study remarked on their attraction to the illustrations of character faces expressing the emotions of the story. Students, especially boys, prefer to read items that relate to their interests that they can talk about with friends (Newkirk, 2002). The comic book format and action-oriented illustrations meet that need.

Because of the success in using graphic novels for reading about and learning concepts and generalizations related to the American Revolution in the content area of social studies, the following practices are recommended. Teacher librarians should collaborate with classroom teachers to introduce new genres like graphic novels to enliven and enrich content area reading. In this study, the teacher librarian initiated contact with fifth grade teachers after purchasing a graphic novel series for the school library. Teacher librarians can highlight new books through displays, book talks, reading clubs, informal conversations, and “spotlights” at faculty meetings.

Both school and public libraries should develop a collection of graphic novels to supplement content area teaching and meet the varied interests of young people. This study indicated that students experienced more enjoyment when reading graphic novels, boosting their motivation for reading. Finally, the research base on use of graphic novels in content area reading is almost nonexistent. More studies defining the efficacy and best instruction practices of this genre in helping students learn content information are needed.

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