GRAPHIC NOVELS AND THE COMMON CORE

By

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ABSTRACT

State tests, which assess reading comprehension, ask students to make inferences and connections beyond the text. The problem of practice in which this study is situated is that students are having difficulty making meaningful connections and developing inferences in relation to the material that is read aloud together in class or assigned for homework. Indicators of their struggle include post-reading assessments such as reading comprehension tests with multiple choice and open-ended questions similar to those used on high-stakes tests. The dissertation describes a research project in which graphic novels were incorporated into the curriculum to provide students with an opportunity to work with a nontraditional literary genre. Data sources included video recordings of student think-alouds, video recordings of literature circles; and the NJ High School Proficiency Assessment (NJ HSPA) test scores. Descriptive statistics informed the analysis of the data. The constructs of the research were examined through forms of behavior such as student performance during individual and small group work (e.g. think-alouds and literature circles.) The think-aloud and the literature circles were coded by text features for the reading comprehension strategies and student behavior and allowed for reflective analysis. Findings suggested that readers made connections to the Common Core Standards when reading graphic novels. The research also found correlations between NJ HSPA scores and reading strategies used and behaviors enacted. The research also indicated that students, of varying Language Arts proficiency levels, supported one another in reading comprehension in small group settings.

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CHAPTER ONE: INTRODUCTION

Statement of the Problem

Even some secondary school students struggle with reading comprehension and therefore have difficulty making inferences (Bowyer-Crane & Snowling, 2005). State tests, which assess reading comprehension, ask students to make inferences and connections beyond the text. A "proficient" score is required for graduation in the state of New Jersey. "Partially proficient" outcomes suggest that students have been having difficulty with writing and reading comprehension. In 2010-11, 9.7% of New Jersey students received partially proficient scores on the High School Proficiency Assessment (HSPA), which is the state test students must pass in order to graduate from high school (New Jersey Department of Education, 2010).

As a grade 12 teacher of English in a culturally diverse school district, I have worked with a range of students struggling with reading comprehension as evidenced through a variety of contexts, including state testing data. Primarily, I have observed students having difficulty making meaningful connections and developing inferences in relation to the material that is read aloud together in class or assigned for homework. Indicators included post-reading assessments such as reading comprehension tests with multiple choice and open-ended questions that are similar to those used on high-stakes tests, such as the NJ HSPA. In 2010-2011, 12.1% of students at the school studied scored partially proficient on the HSPA and in turn, these students had to prepare for and take the Alternate High School Assessment (AHSA) in 12th grade (New Jersey Department of Education, 2010).

The problem of practice around which this study was focused is poor reading comprehension skills among high school students. The design and implementation of utilizing graphic novels as literacy tools in the high school language arts classroom is a novel idea in terms of teaching literature. Graphic novels replace the traditional literary canon with rich text supported by the juxtaposition of words and pictures, which provides students additional opportunities to make textual inferences.

In an effort to motivate students to read, I designed a new course titled Creative Writing: Genre Studies. With the opportunity to incorporate new texts in the classroom, I wanted to support reading comprehension by choosing texts that would provide additional scaffolds and motivation. The chosen texts were *Maus, Perespolis*, and *The 9/11 Report*, which each detail significant historical events. The Creative Writing: Genre Studies course was developed during the 2009-2010 school year with a strong focus on graphic novels and the course was first implemented in the 2010-2011 school year.

Graphic novels were selected because they have been shown to motivate students to read and write in a non-stressful situation (Hughes, King, Perkins, & Fuke, 2011). Furthermore, Hughes et al. (2011) argued students are familiar with the content of each story, and therefore are able to focus more on the inference and meaning making when making connections to the text. Hughes et al.'s research showed that students were able to combine what they read with what they saw (i.e. the pictures) to make connections to the text. Thus it was important to analyze students' reading approaches when reading the graphic novels to interpret how they make these connections.

Although some researchers argued that pictures in graphic novels support reading comprehension (Hughes et al., 2011; Rowsell & Burke, 2009), others found that the

pictures presented a unique challenge to readers (Hatfield, 2005; Krinsky, 2012). In an earlier iteration of the Creative Writing: Genre Studies course, it was clear that there was a need to learn what students do as they read graphic novels. In the same school as where the dissertation study was situated, Krinsky (2012) found that graphic novels are complex texts and that there is a need for explicit reading strategy instruction. Krinsky argued that the pictures are narrative, and contrary to previous research, suggested that the pictures are not illustrative, which may make the texts more difficult to understand. In response to this need, the dissertation study explored how students attempted to make meaning of the text.

Purpose of the Study

To expand on Krinsky's (2012) research, I incorporated explicit reading comprehension strategies within the course instruction. After instruction, I sought to understand the strategies I had taught. Some of the strategies taught were based on pre-existing reading strategies, and others were adapted based on my experience teaching graphic novels. The purpose of the dissertation study was to understand the reading comprehension strategies students employed when reading text of graphic novels. I explored what students did while reading graphic novels, such as using pictures to support the text with visual details (Hughes et al., 2011; O'Neil, 2011).

When reading graphic novels, students are able to analyze more than just the words; they can combine what they read with the colors of the page, the size of the objects, and the expressions of the characters. However, Krinsky (2012) reported that students had difficulty utilizing these text affordances. Therefore, it was essential to explore the behaviors and reading strategies students employed while reading graphic

novels in order to find out where the comprehension breakdowns occurred and whether and how students repaired comprehension breakdowns.

It is important for educators to understand what students do when they read complex texts, especially when assuming students will naturally connect to the content. It is also important to study how textual features affect reading comprehension. In a case study analyzing students' interaction with multimodal digital texts, Rowsell and Burke (2009) concluded that the images provided additional reading comprehension support and gave students the opportunities to connect to the context of the characters' world. Since graphic novels include various textual layers, and students need to learn how to connect to the text, it was essential to explore the steps students take while reading graphic novels so that educators can provide text-specific instruction (Krinsky, 2012).

Research Questions

The dissertation study explored students' metacognitive thinking and use of reading strategies while reading graphic novels to make meaning of the text (i.e. the words and pictures). Other studies have explored students' use of reading comprehension strategies in repeated reading. Gorsuch and Taguchi (2010) found that when students read the same text repeatedly, they read with more fluency and engage with more reading comprehension strategies, and ultimately, understand the text better. Krinksy's (2012) research explored the difficulties students had in reading comprehension and suggested that text-specific strategies would enhance students' ability to make meaning of the text. As a follow up to Krinsky's (2012) research in the same school context, the research explored the following questions:

- What reading strategies do students use to make meaning when reading graphic novels?

- Based on the different forms and features of the text, when do students use each of the reading comprehension strategies?

- How does students' use of reading strategies relate to their comprehension?

For the purposes of the dissertation study, the terms "graphic novel" and "comic" are interchangeable. McCloud (1993) defined graphic novels (i.e. comic books) as "juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or produce an aesthetic response in the reader" (p. 9). Graphic novels have been integrated slowly into high school English/Language Arts curricula. For example, Bitz (2004) started an after school comic book program entitled the Comic Book Project, and Ranker (2007) explored how a teacher incorporated graphic novels into her classroom to increase student engagement and motivation in the English classroom. The teacher focused on the textual features of the text, which Ranker (2007) stated allowed students to fully engage in the text through the exploration of the reading process. In contrast with Ranker's strategy, the dissertation study explored how students interacted with the graphic novels, and later investigated how students interacted with the textual features of the text.

CHAPTER TWO: LITERATURE REVIEW

The New Jersey State test scores reported partially proficient outcomes of students on the English component of the HSPA. Researchers suggested that students are unable to make connections beyond the text with personal experiences and other texts (Bowyer-Crane & Snowling, 2005; Williams, 2008). Furthermore, students are not motivated to read. In order to motivate students, teachers must look at texts students are familiar with (e.g. graphic novels) so they can relate the texts to their own experiences (Williams, 2007). Many students are aware of the format of graphic novels (Griffith, 2010). Graphic novels offer additional clues for readers to use. They also connect to issues, ideas, and concepts students are familiar with and thus are engaging texts.

Popular literature includes graphic novels (i.e. comic books), movies, and television. In relation to this evaluation, Williams (2007) argued that using popular culture actually supports literacy practices of characters and therefore, teachers should bring popular texts into the classroom. Williams asks his own students to observe the literacy behaviors of cartoon figures, superheroes, and television characters with a specific emphasis on the intended audience. Graphic novels were the chosen genre for the Creative Writing: Genre Studies course and dissertation study because students are familiar with those texts outside of the classroom, in that graphic novels embody contemporary literature and culture. Graphic novels are useful literacy tools because students engage with graphic novels for pleasure at home and in school. Hughes et al. (2011) found the popular culture of graphic novels supports multi-literacy practices. Since the graphic novels in this study related to historical content that the students had

some familiarity with, they were expected to be able to access prior knowledge and text-to-self connections easily.

There is research that explored the use of graphic novels in the English Language Arts classroom and research to support reading comprehension strategies; however, there has not been any research showing the behaviors of students as they read graphic novels. In addition, there has been no research suggesting connections between reading comprehension strategies and the Common Core Standards. The goal of my research was to integrate two areas of research to better understand the reading comprehension strategies of students when reading graphic novels in the English Language Arts classroom.

Reading Comprehension

In relation to visual literacy, students will use the textual features of the page to create their own meaning. White (2011) argued that pictures supplement the text so that the reader is able to reach understanding. The structure and format of the words and pictures provide readers with deeper insight to the happenings of the page. For example, White found that students were able to slow their reading pace when they saw a comic panel extend along the length of two pages. While reading graphic novels, students can utilize the words, pictures, and textual features when creating their own representations of the text (i.e. text processing). Students are then able to make additional assumptions about a particular text.

Although reading comprehension is traditionally a skill first taught in elementary school (Ehren, 2009), the skills taught in the lower grades are not always transferred to the higher grades. For example, in reflecting on the current curriculum, teachers noticed

that their students were not applying the reading comprehension skills previously taught

(Ehren, 2009). This may be due to a lack of motivation (Ehren, 2009) and personal

choice (Kim & White, 2011).

        The National Reading Panel (NRP) (2000) defined reading comprehension as

being able to understand vocabulary and make connections between the reader and the

text. With explicit vocabulary instruction, students are able to define words in context,

but may still have difficulty making the text-to-self connections. The NRP (2000)

suggested that teachers explicitly teach reading comprehension strategies to enhance

students' understanding of a text. Focusing on reading comprehension strategies

provides students with the necessary scaffolds needed to make valid inferences about a

text. Once students know how to read the text, they should be able to focus on the

content prior to making connections.

        The first step to making connections to a text entails understanding the text itself;

this is where explicit, repeated reading comprehension instruction is needed. In a study

on reading comprehension, Pressley and Gaskins (2006) examined the teaching methods

associated with reading. Pressley and Gaskins placed emphasis on understanding the text

as a whole as opposed to an understanding of individual words or passages. The reading

strategies identified by Pressley and Gaskins were grouped in three categories—before

reading, during reading, and after reading. Before reading strategies included an analysis

of the text, including its length and structure. During reading strategies included think

time (i.e. stopping to think while reading) and restating the content. Pressley and Gaskins

referred to a student's ability to make inferences as making interpretations of the text.

Text structuring, "the construction of global representation of the text" and monitoring,

pacing one's speed and assessing problems during a reading were characteristic of good

readers (p.101). In the discussion of after reading strategies, Pressley and Gaskins noted

that good readers go back and skim the text. Pressley and Gaskins suggested that the

reading strategies he identified were used frequently throughout the school day. In the

study, the older students (e.g. high school students) were cued to make connections to the

text based on prior experience; however, this skill still posed to be a challenge for some.

In order to facilitate the process, the teacher modeled each reading strategy. In

connecting the reading strategy with the teacher model, Pressley and Gaskins found that

the use of reading comprehension strategies provided students a better opportunity to

build upon prior knowledge and experience. After repeated practice with the reading

strategies, students were able to use the strategies on their own.

In order to understand which reading strategies were useful, Pressley and Gaskins

(2006) reported that teachers used benchmark assessments, typically in the form of short

quizzes. After the assessment, teachers asked students to reflect on what they read as

well as what they did as they read, similar to a retrospective recall (Fox, Ericsson, &

Best, 2011). The research showed that students who are active readers perform better on

the benchmark assessments when students see the strategies often.

Reading Comprehension Strategies

Previous research has examined reading comprehension and text processing

strategies. Researchers delved into the strategies using multiple forms of data to

understand reading comprehension strategies. Reading comprehension strategies, such as

telling stories and employing self-monitoring assist students in understanding a text as

evidenced by data derived from immediate recall worksheets and quizzes (Crabtree,

Alber-Morgan, Konraid, & Moira, 2010). In addition, when reading, good readers use

questioning and paraphrasing as reading comprehension strategies (Hagaman, Luschen,

& Reid, 2010). Other strategies included looking at vocabulary in context and reading

with fluency. (Kim, Samson, Fitzgerald, & Hartry, 2010). Additional reading strategies

included the use of graphic organizers, mnemonic devices, peer-mediated strategies, and

the use of study guides in conjunction with cooperative, comparison, and concept mastery

routines (Sencibaugh, 2008). The instruction of many reading strategies has proven to be

effective when adapted specifically for varying student populations (Hagaman et al.,

2010).

　　　　To support reading comprehension development among high school students,

there is a variety of reading comprehension programs with embedded strategies that have

been studied. One study explored student self-monitoring through active response

(Crabtree et al., 2010). Crabtree et al. asked participants to read a text and stop at three

pre-determined points where they then answered reading comprehension questions.

Their study suggested that stopping while reading through self-monitoring aided in

reading comprehension scores as assessed by reading comprehension quizzes and through

active responding. In addition, Gorsuch and Taguchi (2010) assessed students after

reading, but added an additional step—repeated reading with an additional assessment.

Gorsuch and Taguchi asked participants to read a section of text and immediately

assessed students' knowledge of that section. The participant continued to use the

repeated reading strategy and read the text five more times and was subsequently

assessed again on the section. Results suggested that repeated reading is an effective

reading strategy.

Read-Ask-Perform (RAP), another studied strategy, required students to read a small section of text and subsequently perform a task. RAP required students to read a paragraph, ask a question, and put the content into their own words (Hagaman et al., 2010). On a finer level, an alternative would be for students to read sentence by sentence. Scott (2009) called for sentence comprehension review and argued that an understanding of complex sentences is important in understanding the context in which the reading is situated. Alternatively, a well-known reading strategy program, Read180, which is a computer-based software reading intervention program, breaks reading into four distinct teaching units: (a) teacher-facilitated whole-group instruction and (b) three small-group activities scaffolded by the computer software (Kim et al., 2010). Kim et al. argued that the slight increase in test scores shown by the study was attributed to the use of Read180 when compared with a population of students who did not use Read180.

Although these strategies have offered improvements in reading comprehension, Ehren (2009) suggested teachers vary reading comprehension techniques to maintain student engagement and increase motivation. Such reading comprehension techniques include peer tutoring and self-explanation (Chi, 1996). According to Chi, "there is indirect evidence to suggest that tutoring effectiveness in the form of promoting deep understanding results from the self-construction of knowledge on the part of the tutee, as well as the co-construction from scaffoldings" (p. S46). Scaffolds, including text-specific reading strategy instruction and support provided by student-lead literature circles may assist in promoting deeper understanding of graphic novels (Blum, Lipsett, & Vocom, 2002).

Not only do teachers need to know how to adapt reading instruction to students' academic level, but students also need to learn how to apply these text-specific strategies when reading different types of text (Krinsky, 2012). These strategies support text processing and are approaches to reading comprehension.

Text Processing

Text processing is the process by which the reader constructs a unique representation of the text (Sanders & Gernsbacher, 2004). Text processing has been defined as the process readers take to make meaning of the text. During text processing, the reader attempts to construct knowledge about the text. In other words, the reader's intention is to understand the text (McCrudden & Schraw, 2007). The ultimate goal is for students to create their own representations of the text. Furthermore, students need to extend the text to demonstrate understanding of a reading by making personal connections to themes.

In research on adolescents and text-processing, Wolfe and Goldman (2005) found that students were able to make only surface-level connections to the text, but found that students enjoyed providing explanations in their connections to the text. In the study, students were asked to think-aloud as they read a section of text (Wolfe & Goldman, 2005). The think-alouds were parsed by idea unit and were coded for the following: (a) paraphrasing, (b) evaluating, (c) referencing multiple documents, (d) incurring a comprehension problems, (e) incurring a comprehension successes, and (f) elaborating. The open-ended questions on the HSPA, which align with the Common Core Standards, suggested that by grade 11 students should be able to make connections to what they already know (e.g. the contexts of historical events or personal events); however, Wolfe

and Goldman (2005) found that students tended to make associations and self-explain the content of the text rather than engage in deeper level analysis.

Other studies have asked students to self-report in order to gain a better understanding of how students process text. For example, Ericsson (2002) analyzed the differences between participants' spontaneous thoughts (i.e. think-alouds while reading) and verbal reports (i.e. verbal explanations of read text). He argued the issue with this approach was that students have to access information beyond retroactive memory. He found that the verbal response was effective for only five minutes in a small group setting. Therefore Ericsson suggested that researchers develop a reactive procedure including components of interviewing, open-ended and non-leading questions, and contextual reinstatement (e.g. cognitive interview) so that students can react (i.e. respond to) the text immediately.

Literature circles have also been used to promote reading comprehension (Blum et al., 2002; Dellinger & Hines, n.d.; Mills & Jennings, 2011). Literature circles empower students because the students are able to make their own reading decisions. (Blum et al., 2002). Through research on the effects of literature circles, Blum et al. (2002) concluded that proper literature circle modeling, connections of ideas to reading, and utilization of task organizers during and after reading encourage students to read. According to Blum et al., when modeled correctly, literature circles serve as scaffolds, which provide students opportunities to "ask questions, discuss, and construct meaning of the text" (p. 102). Most importantly, the research findings suggested that students were able to accurately self-report as evidenced by post reading survey data.

The literature circle may be organized by having students lead discussion by using the following roles: (a) discussion leader, (b) picture reader, (c) travel tracker (the person keeping track of the spot on the page in which the reading occurs), (d) gist expert, and (e) predictor (Dillinger & Hines, n.d.). The results of Dillinger and Hines research demonstrated that students who engaged in the literature circle activities increased their reading comprehension as measured by post-reading tests. Mills & Jennings (2011), on the other hand, found that concrete strategies must be put in place prior to implementing literature circles. Mills & Jennings recommended that the teacher should first model what a literature circle looks like, and students must generate a list of what effective literature circle behavior looks like. Following participation in a literature circle, Mills suggested that students create self-evaluations of their roles in literatures circles. Additionally, students should watch others (e.g. adults; professionals; other classes) participate in literature circles, and teachers should teach students question-stems such as "I noticed…" or "I wondered…" when generating literature circle questions (Mills & Jennings, 2011). As a result, students who work in small groups can understand difficult text through their reflective discussion (Pressley & Gaskins, 2006).

Text Features and Prior Knowledge

Visual literacy has been defined as the ability to understand the features of the text (Felton, 2008). These features include the representation of words and pictures; however, visual literacy also is the ability to understand and use culturally significant objects (Felton, 2008). These culturally significant objects include symbols and icons, but also include more subtle objects such as colors and lines (O'Neil, 2011). Readers can

use various visual forms to interpret text, but visual literacy may need to be explicitly

taught in schools (Felton, 2008).

The visual-spatial organization of text may also be important for reading

comprehension. McCrudden, Schraw, and Hartley (2004) defined text presentation as the

text's format. Text organization is the spatial organization of the related idea units in

text. Their research explored how the various text formats affected learning. The

findings showed that the ease of comprehension, fact learning, and concept learning

scores were high and that changing the text format had an effect on these scores.

Text features and visual-spatial organization are essential in understanding any

type of text, but may be more difficult to comprehend when reading graphic novels.

Graphic novels lend themselves towards an interpretation, which requires the reader to

combine ideas from the pictures and the words. The reader must make use of the various

features and forms of the text when analyzing the panel (Griffin, 2008). When reading

graphic novels, students have to be able to denote various image types and uses. In

particular, pictures take a symbolic role in narrating a story. In connection with this,

students have the opportunity to see how the author depicts a character and can then use

this connection to make his/her own inferences (O'Neil, 2011). It is important for

students to recognize the varied layers of meanings to determine how a character feels

and what is going on in the story with regard to the setting. The reader can use the lines

and colors to make meaning of the text (O'Neil, 2011).

Active Processing

Mayer's (1997) conducted research to "understand how people integrate verbal

and visual information during multimodal learning" (p. 4). Mayer sought to explore how

multimedia presentations correlate with reading comprehension outcomes. In the

literature review, Mayer found that multimedia presentations offered reading support

when words and pictures were coordinated. Mayer compared participant problem-

solving abilities from verbal and visual instruction and compared findings with

participants who received verbal instruction only. Findings showed that students who

received the verbal and the visual representation generated more creative responses. In a

similar study, Mayer found that college students who read a passage with pictures

generated more solutions to a problem than those who were asked to read the text only.

Active processing is the idea that meaningful learning occurs when students integrate

existing knowledge (Mayer, in press; Wittrock, 1974).

Activation of existing knowledge is enhanced with visual aids; thus, visual

components of text enhance students' understanding (Mayer 1999; Mayer & Moreno,

2002). This is possible when students are able to construct knowledge representations

(Mayer, 1996). Mayer suggested that meaningful learning occurs when texts integrate

multiple representations (i.e., pictures or animation with narration or text), which enact

the sensory memory of both the eyes and ears. Next, the working memory utilizes the

images and words in the pictorial and verbal modes, which then activate prior knowledge

in the long-term memory (Figure 1). Students may be able to make mental connections to

text when the words are juxtaposed with pictures. Although not all pictures support the

words in the same way (Krinsky, 2012), pictures may support reading comprehension

(Mayer, 2002).

Mayer (1991) also studied instructional words and pictures by examining a

variety of word and picture combinations: (a) words with pictures, (b) words only, and

(c) pictures only. The prediction was that learners would remember information they see

and hear in order to recall and transfer information. Mayer argued that pictures have the

capability of allowing students to build representations and connections to the text. The

results demonstrated that animation with narration improved students' textual

understanding and in turn, had the capability of allowing for better recall of information.

Mayer sought a connection between animation and narration. The multimedia effect

allowed participants to comprehend text more easily. The same can be demonstrated

with printed text (e.g. narration; dialogue; word balloons) and juxtaposed pictures (i.e.

static images) in graphic novels.
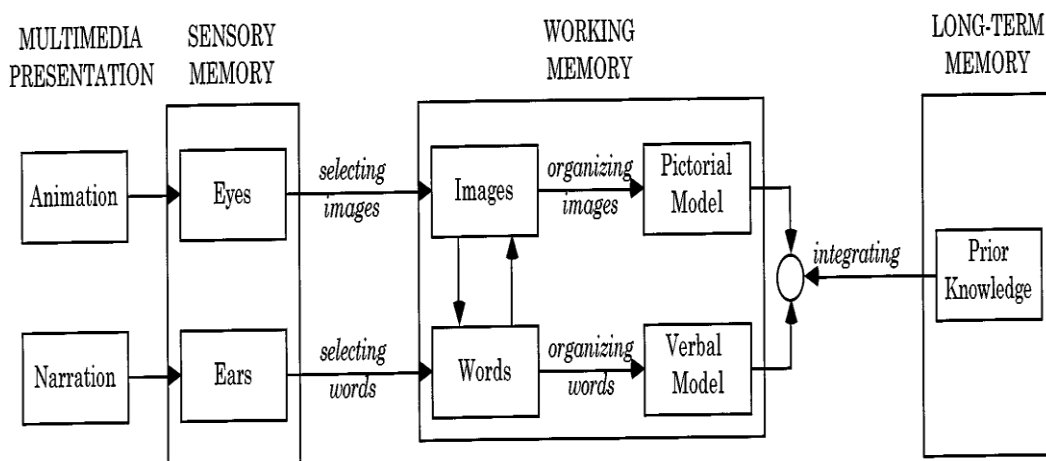
Figure 1. A cognitive theory of multimedia learning. Adapted from "Animation as an aid

to multimedia learning," by R. E. Mayer & R. Moreno, 2002, *Educational Psychology*

Review, 14(1), p. 92. Copyright 2002 by Plenum Publishing Corporation.

Graphic Novels

A potential advantage of graphic novels is motivation to read (Botzaki, 2009; Kim

& White, 2011). With a sample of 12 adults who shopped at a local comic book store,

Botzaki researched the following question: "Why do people read when it isn't required of

them?" The data (interviews, field notes, and artifacts) showed that the adults chose to

read comic books because they were able to make text-to-world connections based on their prior experiences. Botzaki argued educators should adopt this idea by bringing what students already know and what engage them (e.g. comic books) into the classroom. To connect to the reading practices of adults, Botzaki brought attention to the texts students read in informal learning environments (e.g. at home in their free time).

Students choose to read graphic novels in their personal time and space; therefore, it may be practical to bring graphic novels into schools. An example of texts students read at home is comics (graphic novels) and educators have found that children and adolescents find comic books enjoyable (Dorrell, Curtis, & Rampal, 1995; Morrison, Bryan & Chilcoat, 2002), and as a result, are more likely to sustain interest in a discussion about it. It is evident that students may be motivated to read graphic novels, but Morrison et al. detailed how students may "engage in greater literacy exploration than they otherwise would, due to the comics' popular and easily accessible format" when creating their own graphic novels (p. 579). The accessible format identified by Morrison et al. refers to the juxtaposition of words and pictures, which enhance understanding most of the time, but at the same time, can hinder understanding when students do not know how to read the two simultaneously (Morrison et al., 2002). The problematic text features include panel design and layout, dialogue balloons and designs, and narration.

Graphic novels are being slowly introduced into classrooms. Bitz (2004) explored the use of graphic novels in the classroom through The Comic Book Project, which was an after school program he created in alignment with the New York State learning standards. Bitz studied the development of reading skills among students through an exploration of the social contexts of literacy. In a post-project survey using a

Likert scale, students reported that for the duration of the project, that they used pictures as clues to determine the storyline. This was important because students used the pictures to understand the text. Therefore, they made connections between what they saw and what they read.

Chute (2008), used the term graphic narrative to describe texts that combine words and pictures, as she argued they are telling a story (e.g. *Maus* tells the story of a survival of the Holocaust, and Persepolis tells the story of a young girl's experience in the Iran/Iraq war). In her work, Chute explored the impact the visual has on a person's understanding of events and the graphic narrative's ability to represent trauma by employing a variety of literary techniques to help the reader understand the text (2008). Chute also analyzed how *Maus* tells a story in a linear sequence. In her work teaching graphic novels, Chute found that graphic narratives help readers connect to contemporary history (Chute, 2006). Chute has used texts such as *The 9/11 Report*, *In the Shadow of No Towers*, *Maus*, and *Persepolis* when teaching at a New Jersey state university. These texts explore the historic events of September 11, the Holocaust, and the Iranian Revolution. The implication for practice is that educators can use these texts to teach students about historical events in a linear manner with the combination of words and pictures.

Meeting Reading Comprehension Standards

In order to understand what students might learn from graphic novels, it is important to understand whether students are meeting appropriate standards. Students should focus on reading small segments of text when learning how to make connections to the reading (Pressley & Gaskins, 2006). Reading strategies using a variety of reading

combinations, such as reading the words or images first, or attempting to read both

simultaneously (Mayer, 1991), and engaging in literature circles (Dellinger & Hines, n.d.)

can be adapted for a specific group of readers (Hagaman et al., 2010). Regardless of the

text genre or student reading level, according to the Common Core Standards Initiative,

(2010), by grade 12, students should be able to meet or exceed the following College and

Career Readiness Standards:

- Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

- Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

- Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

- Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

- Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

- Assess how point of view or purpose shapes the content and style of a text.

- Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

- Delineate and evaluate the argument and specific claims in a text, including

   the validity of the reasoning as well as the relevance and sufficiency of the

   evidence.

- Analyze how two or more texts address similar themes or topics in order to

   build knowledge or to compare the approaches the authors take.

- Read and comprehend complex literary and informational texts independently

   and proficiently. (Common Core Standards Initiative, 2010, p. 35)

Although the traditional curriculum includes works from the literary canon,

graphic novels may have the potential to meet or exceed the requirements of the Common

Core Standards. According to the "Text Complexity: Qualitative Measures Rubric" for

information texts, Achieve the Core would score the text structure of *The 9/11 Report* as

"Exceeding Complex" based on organization, text gestures, and use of graphics

(Achievethecore.org, 2013). Monnin (2013) advocated for the use of graphic novels in

the Language Arts classroom. With strong evidence, she suggested that pairing graphic

novels with traditional literary texts enables students to make inferences, and connect

with the Common Core Standards (2010). Monnin concluded,

> [contemporary graphic novels] may actually be a step forward. As we work
> together to implement [the common core] standards, they can serve as a middle
> ground where proponents and opponents of standardization can come together and
> create an entirely new way of making sure that no child is left behind. (p. 56)

In conclusion, much of the research reviewed showed how students read and

understand traditional texts (e.g. novels). In addition, the studies demonstrated the

variety of ways students report understanding traditional texts as they read (e.g. self-

report and literature circles). However, none of the studies explored how students

interact with graphic novels. Therefore, the dissertation study sought to explore the

reading comprehension strategies students use when reading graphic novels, and to explore student behavior when reading graphic novels. Chapter 3 discusses the methods used when combining the literature and my own teaching experience teaching graphic novels to conduct the study.

CHAPTER THREE: RESEARCH DESIGN

The educational focus of the dissertation research design was based on the premise that due to the multiple layers of text associated with graphic novels, students have to employ various reading strategies to make meaning of the text. Therefore, the purpose of the research design was to examine what reading strategies students used to make meaning when reading graphic novels. Individually, in pairs, in small groups and in whole group discussions, students explored the various strategies they implicitly and explicitly used while reading. Having an understanding of how students read graphic novels will allow teachers to present a new reading genre in a meaningful way. Although the focus of this study addressed a problem of practice in my own classroom, future work may look at how these practices can enhance reading instruction. According to Krinsky (2012), "if teachers want to use [graphic novels] in their classrooms, they may need to prepare to present the material within an appropriate instructional framework and provide their students with text-specific strategies for meaning making" (p. 134). Therefore, the dissertation research sought to capture the text-specific strategies students made use of, and therefore, the instruction varied to meet these students' needs.

More specifically, the dissertation study investigated the strategies students used as they read graphic novels. The students who were asked to participate in the survey were enrolled in my grade 12 Creative Writing: Genre Studies course. The study focused on how students read graphic novels independently and in small groups. To meet the research objective, students first met individually to read a short selection of the graphic novel during class time or after school, and again, in small groups. All meetings were recorded using a video camera. The video data was used to capture the actions of

students as they engaged with graphic novels as they read independently and in small groups.

The curriculum was designed to include graphic novels to increase student motivation in reading, and thus provide students with an outlet for making meaning of the text and developing inferences. In order to ensure that students were able to draw inferences to and make connections beyond the text, the dissertation research explored questions guided by the Common Core Standards:

The English department supervisor at study site school had asked all English teachers to create formative assessments for each novel/reading unit in alignment with the Common Core Standards. Based on the standards, the reading comprehension question types she reviewed included: (a) central idea or theme, (b) details from the text, (c) inferring, (d) vocabulary in context, (e) text organization, (f) purpose for reading, (g) make a judgment or draw a conclusion, and (h) literary elements. In conversation with her, I suggested we code each reading comprehension question type (R. Cavallo, personal communication, October 9, 2012). Therefore, an 8-question multiple-choice reading comprehension assessment was given to students twice during the course of each graphic novel. Teachers and students were able to look at test score data to see which question types were answered correctly. My previous instruction has already included a pre-reading assessment utilizing the eight question types and was followed by a post-assessment debriefing. It was during the latter lesson when students learned the different types of questions.

Embodied Conjectures and Anticipated Outcomes

The research was guided by the concept of embodied conjectures and anticipated outcomes (Figure 2). Reading strategies encourage students to make connections between the text and their own lives (NRP, 2006). After making text-to-self connections, students are often asked to make text-to-world connections because it is important for students to be able to connect to the world around them (Bowyer-Crane & Snowling, 2005; Williams, 2008).
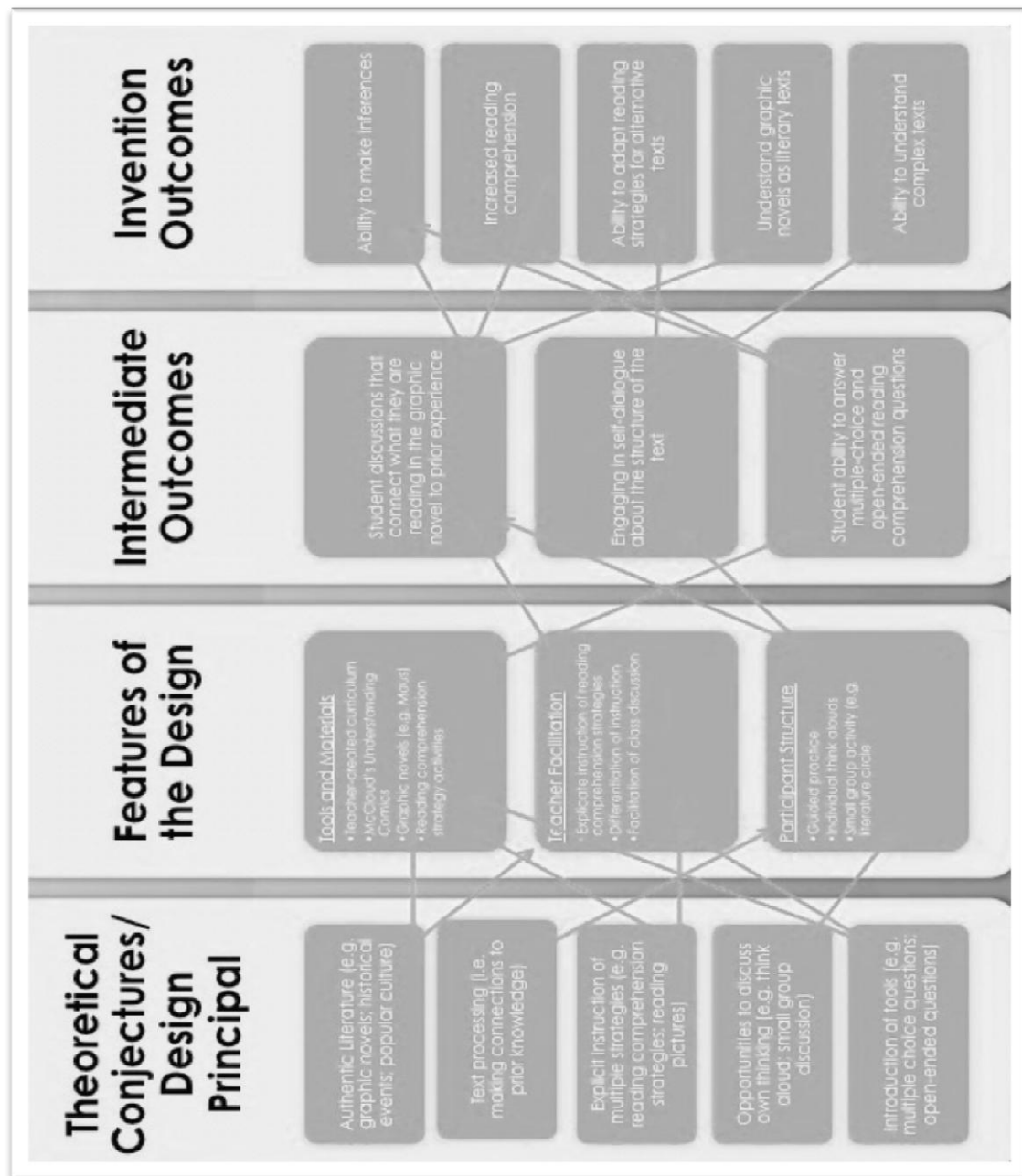
Figure 2. Embodied conjectures and anticipated outcomes.

Students are explicitly asked to make text-to-self and text-to-world connections to reading as required by the HSPA open-ended question rubric (Figure 3), which is used to assess students' reading comprehension. The NRP also stated that prior knowledge correlates with understanding text. The open-ended questions assessing reading comprehension traditionally asks students to make text-to-self connections and even when the questions does not state this explicitly, the rubric states that students should make insightful connections beyond the text (New Jersey Department of Education, 2010) .

Points	Criteria
4	A 4-point response clearly demonstrates understanding of the task, completes all requirements, and provides an insightful explanation/opinion that links to or extends aspects of the text.
3	A 3-point response demonstrates an understanding of the task, completes all requirements, and provides some explanation/opinion using situations or ideas from the text as support.
2	A 2-point response may address all of the requirements, but demonstrates a partial understanding of the task, and uses text incorrectly or with limited success resulting in an inconsistent or flawed explanation.
1	A 1-point response demonstrates minimal understanding of the task, does not complete the requirements, and provides only a vague reference to or no use of the text.
0	A 0-point response is irrelevant or off-topic.

Figure 3. New Jersey Department of Education Open-ended Scoring Rubric

Context

The course in which this study was situated ran 40 minutes a day, five days a

week for one academic year (10 months). The instructional component of the research

predominately took place during the first half of the school year (September 2012-

December 2012). Literature circles were introduced into the course work in January

2013. Self-selected students participated in the study through after school activities

including the data collection procedures described in this chapter. I introduced the goals

and purposes of the research in January 2013. The course was aligned with the national

Common Core Standards.

Because the graphic novels chosen for this study embody contemporary literature,

students were able to make text-to-world connections easily and supported multi-literacy

practices. Therefore, my study explored what students did as they read graphic novels so

that students and teachers can learn how to better read these complex texts. The in-class

learning environment I created was consistent with Almasi, Garas-York, and Shanahan's

(2006) suggested learning environment set-up, which includes the following:

- Authentic literature (e.g. graphic novels; historical events; pop-culture)

- Explicit instruction of multiple strategies (e.g. reading comprehension
  strategies)

- Opportunities to discuss own thinking (e.g. think-a-louds, retrospective
  reporting, literature circles)

- Introduction of tools (e.g. multiple-choice questions, open-ended questions)

In alignment with Almasi et al.'s suggested learning environment set-up, the design of

the Creative Writing: Genre Studies course attempted to connect contemporary literature

and culture (e.g. graphic novels about cultural events) to the high school curriculum. During class, students had the opportunity to participate in literature circles, small group conversations, and whole group discussions. After school, during the research study, students were asked to individually think-aloud and to collaboratively participate in literature circles. I was unable to collect comprehension measures due to the alignment of class instruction, assessment, and participant scheduling. Instead I used HSPA scores as a proxy for reading comprehension levels to show a range of students with varied reading abilities. The purpose for having participants of varied reading abilities was to investigate correlations between reading level, reading strategies, and student behaviors.

Although there was no explicit instruction of reading comprehension strategies during the time of the study, students had the opportunity to use reading comprehension strategies in alignment with the curriculum. The reading strategies I previously taught included the following:

- Making predictions

- Activating prior knowledge

- Setting personal goals

- Skimming headings and subheadings

- Establishing task demands.

Additional reading comprehension strategies specific to graphic novels included the following:

- Reading the pictures first

- Reading the words first

- Comparing the words with the pictures

- Assessing the action which occurred in the gutter

- Asking questions

- Annotating text

These reading strategies included traditional as well as adapted reading. When examining how students used reading strategies, I explored where the cognitive breakdowns occurred and how students fixed those breakdowns. McCloud's (1993) *Understanding Comics* was introduced to the students prior to reading their first full graphic novel. After having read chapters of the McCloud text, the students were able to use the text as a reference throughout the course of study.

In addition to the identified reading comprehension strategies, students explored various "reading combinations" (e.g. reading words then pictures, pictures then words, words only, pictures only) (Mayer, 1991) and engaged in literature circles (Dellinger & Hines, n.d.).

Curriculum design. The high school in which this study was situated was looking for ways to improve literacy instruction through the creation of multiple options for grade 12 college preparatory English courses. During the school year 2009-2010, I presented my idea for the new course and was granted permission to begin designing Creative Writing: Genre Studies using *Understanding by Design* (UbD) (Wiggens & McTighe, 2005) for the design process. Contemporary graphic novels were chosen as the primary texts as representations of authentic literature (Almasi et al., 2006). The course texts include *Persepolis*, *Maus*, *The 9/11 Report*, and *In the Shadow of No Towers*. These texts explore historical events in a context students are familiar with, thus creating

authentic learning opportunities. I updated the curriculum based on feedback I received

from students as well as own perception of how well the students were succeeding

   After a drafted curriculum was in place, I met with students to increase interest.

We aired a commercial on the morning report and I met with every eleventh grade

English class to provide the students with a brief introduction to the course. Students

began enrolling with the recommendation of their eleventh grade teacher. There were 83

students enrolled in the course for the 2012-2013 academic year.

   Participants. The high school in which this study took place was an urban

district in Bergen County, New Jersey. According to the demographic research provided

by the superintendent and assistant superintendent of schools, the study body is

comprised of the following ethnicities: Asian (5.7%), Black (30.59%), Hispanic

(49.48%), and White (13.81%) (Kliszus, 2010). There were approximately 1,700 students

in the school including students from three sending districts. The research was conducted

with my grade 12 English class students serving as the research participants. Although

all students were required to complete all course assignments and assessments; I focused

on the 12 students who met during period 10, the extra help period, in my classroom.

   Sample. Although all students participated in daily class and homework

activities, the research focused on the 12 research participants who participated in the

think-aloud and literature circles. The literature circles were heterogeneous to reflect the

cultural diversity of the school as well as a range of reading abilities. I used a stratified

sample of 12 students. Students were selected based on their Language Arts High School

Proficiency Assessment (HSPA) score. There were four students who performed close to

"partially proficient." They are referred to as having "low-range HSPA scores." I also

selected four students who scored "proficient," and referred to them as achieving

"medium-range HSPA scores." The four students who performed "advanced proficient,"

were referred to as achieving "high-range HSPA scores." The selection criteria

accounted for a range of reading abilities. The student sample included an equal number

or male and female students (6 males and 6 females). The students described in the

narratives represent each of the HSPA score groups.

Data Sources. The following data sources were used to address the research

questions: (a) video recordings of student think-aloud, (b) video of literature circles, and

(c) HSPA state assessment test scores. The think-aloud, used as a data collection

instrument, revealed the natural reading process students used when reading graphic

novels. The video of small group activities (i.e. the literature circle) was used as an

observation tool. The HSPA scores were compared to the reading comprehension

strategies and student behavior.

Research Design Procedures

Phase I of the research was the explicit instruction of reading comprehension

strategies, which were documented throughout the study. Instruction included a reading

of McCloud's (1993) *Understanding Comics*. During Phase II, the data collection phase,

students read a short excerpt from the graphic novel, *The 9/11 Report* individually during

a think-aloud. Next, students read another short excerpt from the *9/11 Report* in a small

literature circle. Phase III, the coding and data analysis phase, began immediately after

students read *The 9/11 Report* individually and in the small literature circle groups.

To address the first and second research questions, students were asked to think-

aloud as they read approximately six pages of raw text from the selected graphic novel.

Students verbalized the processes they used when interpreting the contents of the page

(Chi, 1997). Fox et al. (2011) defined "level one" of the verbalization process as the

verbalization of inner thoughts (e.g. concurrent reporting, think-aloud). Thus, the 12

focus students were asked to individually think-aloud so that the observed behavior,

including reading strategies used, could be recorded as data. To capture the students'

interactions with the text, the video camera was angled toward the individual student. In

addition, the behaviors and reading strategies were analyzed in conjunction with the text

features of each page. By looking at different pages of the text, I was able to see where

the breakdowns occurred by comparing the form and features of the page with what the

student said or did while reading that page (Griffin, 2008).

Think-aloud Protocol

Each student met with the researcher individually and was read the following

same directions:

Thank you for participating in this study. As you know, I am exploring what

students do as they read graphic novels. I would like you to read six pages of the graphic

novel that are new to you. As you read, try to say everything that comes to mind. If you

don't feel like reading a page, please say it. If you are confused say, "I'm confused" or "I

don't get it." Use sentence stems like "I predict…," "I can connect to my own

experience…," "I am just skimming…," "I'm going to read the pictures first…," "I am

going to read the words first," etc. If you are only reading the pictures and not the words,

say that. Just say whatever you are thinking. There are no right or wrong answers. If

you have any questions, feel free to ask them aloud but I will not be able to respond.

Please read pages 2-9 of *The 9/11 Report*. At the start of each page, please say the page

number before reading.

Phase II also included each student participating in one literature circle activity

during the graphic novel unit. I had piloted the study using *Maus*, and I followed the

same videotaping protocol for *The 9/11 Report*. The video of small group activities (the

literature circle) was used for observation. Each student participated in one literature

circle activity during the graphic novel unit. There were three literature circle groups

consisting of 4 students each. The students read sections of the text that were new to them

(Fox et al., 2011). The camera was directed on the small group activities to capture

student conversations as well as the page of the text students were reading. Each section

chosen from the text included various forms and features of the text. The purpose of the

video recording was to support the coding the reading comprehension strategies students

used while reading the text with others. In such cases, students may become more

thoughtful and reflective readers while paying attention to their social interactions with

others (Mills & Jennings, 2011).

Literature Circle Protocol

Each literature circle group meet individually and were read the following same

directions:

The literature circle may be organized by having students lead discussion by using

different roles: (a) discussion leader, (b) picture reader, (d) travel tracker, (d) gist expert,

(e) predictor. If you are confused say, "I'm confused" or "I don't get it." Use question

stems like "I predict…" "I can connect to my own experience…," "I am just

skimming…," "I'm going to read the pictures first…," "I am going to read the words

first," etc. Make sure you establish your group roles. Please read pages 10-17 in your

literature circle. I will begin recording now.

Educators use case studies to tell stories of their experiences in the classroom.

"Fieldwork" is "the process in which researchers interact with participants in their natural

setting" (Gall et al., 2010, p. 339). Gall et al. (2010) defined case studies as

"representations of phenomenon on which data collection and analysis will concentrate"

(p.338). The "phenomenon" refers to the "set of events, individuals…or other

circumstances of interest to the researcher" (p. 338). The fieldwork of the dissertation

study took place in my classroom with my students. Each case represents a specific

phenomenon based on reading ability level justified by HSPA testing scores "bounded in

time and place" (p. 338).

The narratives that follow in Chapter 5 are organized by the phenomenon of

page/features of the page. The narratives are framed by the phenomenon of each page,

and are organized in sequential reading order. The students represented in the narratives

were chosen because they offered a large amount of interpretation and analysis of each

page as they read. As such, the selected students provided substantial data for analysis.

The students also represent a range of reading abilities based on HSPA scores from the

low, middle, and high HSPA score groups.

All 12 students who participated in the study had equal opportunities to read the

same pages of the graphic novel for the think-alouds and literature circles. Each student

received the same instructions, and was offered the same opportunities bounded in time

and place. Interpretation was used in analyzing the phenomena of each case study.

"Patterns represent systematic relationships between two or more phenomena within a

case or across cases" (Gall et al., 2010, p. 350). The patterns of students across HSPA

score ranges, and the patterns among all students drove the analysis of each narrative. In

addition, reflective analysis, which "requires case study researchers to rely mainly on

their own intuition and personal judgment to analyze the data," was used to analyze the

findings (p. 351).

Data Analysis Procedures

Table 1 shows the relationship between the research questions, data sources, and

data analysis. The table lists the reading question, the data sources to answer the research

question, and the method of data analysis. There were three research questions:

1. What reading strategies do students use to make meaning when reading

   graphic novels?

2. Based on the forms and features of the text, when do students use each of the

   reading comprehension strategies?

3. How does students' use of instructed reading strategies relate to their

   comprehension?

Data sources included think-aloud video data, literature circle video data, and state High

School Proficiency Assessment (HSPA) test scores. The data was coded for reading

comprehension strategies used, student behavior while reading, and text features. The

HSPA scores were compared to the reading comprehension strategies and student

behavior.

Table 1.

Research Questions, Data Sources, and Data Analysis

Research Question	Data Source	Data Analysis
What reading strategies do	Think-aloud video	Code for reading

students use to make meaning when reading graphic novels?	Literature circle video	comprehension strategies used, behaviors, and text features (frequency tables) Descriptive case study
Based on the different forms and features of the text, when do students use each of the reading comprehension strategies?	Think-aloud video data Literature circle video data	Code for reading comprehension strategies used, behaviors, and text features (frequency table) Descriptive case study
How does students' use of instructed reading strategies relate to their comprehension?	HSPA state assessment test scores	Relation between reading comprehension score and reading comprehension strategies used

Coding

Coding involved both inductive and deductive strategies. The first pass through the video focused on identification of emergent themes, particularly those related to forms and features of text. The second viewing was deductive and included coding reading strategies that have been identified in the literature as well as any new strategies identified. The coded reading strategies were placed into frequency tables and written into descriptive case studies (Pressley & Gaskins, 2006). The constructs of the research were examined through forms of behavior such as student performance during individual and the literature circle. The think-alouds provided insight into cognitive processing. The literature circles uncovered socio-cultural factors of reading graphic novels. The HSPA scores revealed student comprehension skills (Gall, Gall, & Borg, 2010). The HSPA scores were linked to student reading strategies.

HSPA scores were categorized by low-range, middle-range, and high-range. Low-range HSPA scores were scores of 215-228 and were slightly above what the is considered partially proficient by the state of New Jersey education department. The dissertation study did not include any partially proficient scores because students who

scored partially proficient did not pass the HSPA and, therefore, would not be enrolled in

the course. Mid-range scores were 229-242 and are considered proficient according to

the state of New Jersey education department. Finally, high-range scores are scores of

243-263, and the state of New Jersey education department considers scores of 250 and

higher to be "advanced proficient." For the purposes of the dissertation study, I created

low, medium, and high-ranges based on equal numbers of students who fell into each

category.

The quantitative data was categorized by type of reading comprehension strategy

used based on the particular forms and features of the text and the data was placed into a

frequency table. Following a narrative research approach, the qualitative analysis was

told by the "interpretation of stories" (Gall et al., 2010).

The think-alouds were coded for the number and type of events to "capture the

children's reasoning and comprehension strategies" (Cote, 1998, p. 42). The

observations led to an analysis in which I determined which reading comprehension

strategies and student behaviors were employed while reading the graphic novel. The

reading strategies and behaviors noted included the actions and verbalizations students

took when reading the graphic novel in relation to the textual features of the page. A

guided framework for analyzing the think-alouds and literature circles was developed to

include student behavior and reading comprehension strategies. Reading comprehension

strategies and behaviors related to text features were coded by text feature. The coding

system allowed for the comparison of the forms and features of the text with student

behavior and reading comprehension strategies used.

Think-aloud and literature circle codes. The guiding framework for analyzing the think-alouds and literature circles was used to develop the codebook. The codes evolved into three categories: (a) Common Core reading strategies (Table 2), (b) behaviors (Table 3), and (c) text features (Table 4). The tables contain an operational definition of the code and illustrative data.

Common Core reading strategies. The Common Core reading standards (2010) were used to define the reading strategies shown in Table 2. Each code was aligned with a standard and was used to identify reading behaviors.

Behaviors. Behaviors were defined as actions performed by a student while reading that were not directly tied to a Common Core standard. These behaviors included actions such as redirection or finger pointing. Most behaviors involved a physical movement while reading, while other behaviors referred to student comments. Gesture-related behaviors referred to the actions of the students; whereas, the other behaviors referred to spoken words of the students. Table 3 contains a detailed description of the behaviors.

The three gesture-related strategies were finger tracing, finger pointing, and finger pointing in discussion. There was a clear distinction among the three strategies that involved a reader's index finger. Finger tracing referred to a student using the index finger to follow along with the words/pictures read aloud individually or in the literature circle. Evidence of finger tracing was important because finger tracing showed where the student was reading on the page. Finger pointing referred to the process in which a student specifically points to the page and is always used in connection with one of the verbal reading strategies which provides an explanation for the pointing (Table 3).

Independent finger pointing helped students manage all the words and images on a page. Finger pointing occurred when students attempted to make sense of the text (Chi, 1996). In addition, finger pointing evolved into a communicative act in peer discussions.

Text features. The text feature codes shown in Table 4 were used any time a student commented on the structure of the text or when the features of the text complemented the students' ability to read the page. For example, a student may have noticed the colors, font size, and sound words of the text. The text feature codes also were used when describing how students interacted with a particular type of text. The text feature codes were important because the codes captured when students changed how they read when interacting with the variety of textual features.

The data was cross-tabulated with the type of reading comprehension strategy students most frequently while reading graphic novels. The students had ample opportunity to demonstrate their ability to make real-world connections and make inferences as they read aloud and participated in the literature circle. Their think-aloud and conversations within the literature circle allowed students to demonstrate their mastery of reading comprehension skills.

Researcher Role

Because I was studying the reading comprehension strategies my students use, my role, as the researcher was twofold. As an educator, my primary goal was to develop and implement reading comprehension lessons in alignment to the school's curriculum and common core standards. I was responsible for the instruction of the graphic novels and reading comprehension strategies. Secondly, my role as the researcher was to design and implement the research instruments. Many of the instruments have been utilized as

standard course work material in my previous years teaching the course. Additions to the

course work included specific literature circle instruction and student-lead facilitation.

The procedures of the think-aloud were also taught to the students. Additions to the unit

of study compensated for the implementation of the new school curriculum and the

alignment of lesson plan to the common core standards.

Table 2.

Common Core Reading Strategies and Codes

Reading Strategy	Common Core Standard (2010)	Example
Direct Text Reference	Cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	The student flips between the two pages again and says, "Let's go back to flight 11," when he sees that pages 8-9 match the format of pages 6-7.
Inference	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	The student notices that some of the pictures on page 3 match the pictures of the people on page 4 to draw the conclusion that these are the terrorists who were on the planes.
Evaluation	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence	"I don't know if that is accurate"; "Oh well, that's great!" "I don't get it because I always thought that the messages were typed" (in regards to the pilot not hearing the message, "We have some planes.")
Character Voices	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.	The stewardess says, "Pillow anyone?" and the student reads this in a female high-pitched tone.
Text Structure Questions	Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.	"Why did the author use these sound words?" "Do I even need to read this…?"
Content Questions	Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.	"Wait? Is that even his name?"
Fluency	Read and comprehend complex literary and informational texts independently and proficiently.	The student reads the page seamlessly without pausing, questioning, or adding any additional comments and/or questions.

Table 3.

Student Reading Behavior Codes

Student Behavior	Definition	Example
Finger Tracing	The student read with a finger on the page and pointed to the page being read. The student used a finger to point to the words that a peer was reading aloud.	The student used a finger to point to the text on the page being read. The student used the index finger to trace the direction of reading.
Finger Pointing	The student reading stopped to point to a specific panel of the text and discussed that particular component of the text.	The student says, "I don't like this quote here" while pointing to the text.
Finger pointing in peer discussion	Finger pointing in peer discussion referred to peer-monitoring when a student pointed to a piece to describe what is happening to another student in the literature circle. A peer re-directed the reader by describing the format of the page. The student either described the words or may also have pointed to the panel when describing the set-up.	On page 11, a student said, "You have to read this way" and points along the lines of the books. The student reading said, "Ohhhh…It's like a timeline. Now you tell me."
Redirection/Self-Monitoring	A student recognized a mistake being made in the reading and redirected the reading. Self-monitoring behavior occurred when students mispronounced a word or skipped a word or number. Redirecting/self-monitoring behavior also occurred when students read the page incorrectly.	The student noticed that pages 6 and 7 were read horizontally across the two pages and not singularly.)
Description	The student explained what was on the page. Instead of reading the words, the students described what they saw on the page.	On page 4, the student said, "There are 5 men on each plane" but did not read the name of each man.
Connections to Prior Knowledge	A student talked about the text and connected to prior knowledge. The prior knowledge was either from the student's past learning or something that learned earlier in the text.	In the literature circle the students thought the use of the sound word "BLAM" was to be like "Batman."

Table 4.

Text Features

Text Feature	Definition	Example
Font Size	Comment related to the size of the text; Only large titles read	The students read the large text on page 4, but do not read all the terrorists' names
Color	Comment related to text color	The students comment on the differentiation of color of characters in the drawings
Sound Word	Comment related to choice of sound words.	The students comment on the use of sound words
Format	Comment related to the format of the text; corrections in reading based on the format	The students notice or do not notice the format of the "timeline" as they read.

Limitations

A limitation to the research design was that I was the only instructor in my district who taught graphic novels. Therefore, the participants, who were my students, presumably did not have prior explicit instruction on reading graphic novels. As such, the strategies students used when reading graphic novels may have been limited to those I introduced to them. However, the purpose of the study was to find the strategies. Students may have been able to make connections to previous reading comprehension strategies utilized when reading traditional texts in previous school years. A potential bias was that I find graphic novels to be exciting and enriching texts even though students may find the texts to be difficult to understand. A possible limitation of using HSPA scores was that the HSPA measures reading comprehension of short fiction and nonfiction readings. However, the use of particular reading comprehension strategies correlated with HSPA score categories.

Trustworthiness and Reliability

To maximize the trustworthiness and validity of my findings, I used a stratified sample of 12 students. Using students' Language Arts HSPA score, I identified four students who were identified as partially proficient, four students who scored as proficient, and four students who scored as advanced proficient. Doing so accounted for a range of reading abilities. The sample population included an equal number or male and female students (six males and six females). The data collection plan included a variety of different methods including think-alouds, literature circles, and HSPA scores. Conclusions were drawn based on students' actual performance through multiple forms of data.

To ensure reliability, a coding check was used. For the coding check, I reviewed the literature that classified reading comprehension strategies by the same categories (Gall et al., 2010). The HSPA scores, which were used statewide and subsequently, state-reported, were used as reliable data measures of student achievement. I also used inter-rater reliability; my supervisor and I coded 20% of the data and were in 86% agreement (Gall et al., 2010). The same procedure was used for the deductive coding of think-aloud coding. The inter-rater reliability check consisted of a total of four videos. We viewed 3 of the 12 think-aloud videos and one of the three literature circle videos. This constituted a total of 25% of think-alouds and 33% of the literature circle videos jointly coded to check for inter-rater reliability.

The data collection instruments used throughout the duration of the study demonstrated which reading comprehension strategies were used and the student behaviors that occurred during the reading of graphic novels. After the data was coded

for each task, student, and HSPA score, the data were organized by research question.

After the data were collected and conclusions drawn, I conducted participant

crosschecking by asking participants whether they had been represented properly in the

case studies.

CHAPTER 4: FINDINGS

The primary goal of the dissertation research was to explore how students interacted with graphic novels. The findings are organized by the three research questions. In this chapter, I first present the data from the think-alouds and literature circles. I use a frequency table to show the total number of events. I describe the most frequent reoccurring themes and offer explanations of student behavior. Next, I compare the results of the think-alouds to the results of the HSPA assessment. In a second frequency table, I show the comparisons between reading comprehension strategies, behaviors, and/or text features to low, middle, and high student HSPA scores. Finally, I present the results in form of a narrative, detailing how students interacted with specific text features of the pages of the text.

The findings showed what students did as they read graphic novels. The findings also showed where comprehension breakdowns occurred and what students did or did not do to repair the breakdowns. The findings indicated correlations between HSPA scores and reading strategies. A further assessment of which strategies are actually helpful for understanding graphic novels may be developed for future research. The objectives of this research were as follows:

- To determine the specific strategies used to make meaning while reading graphic novels

- To understand the challenges of reading graphic novels

- To explore how students overcome these difficulties through discussion and varying reading strategies used

Reading Strategies Used to Make Meaning

One of the research questions asked, what reading strategies do students use to make meaning when reading graphic novels?

Each remark a student made while reading aloud was recorded in a frequency table (Tables 5-7). Descriptive statistics were used because the number of participants was small and it was an exploratory study. The frequency tables show how often students engaged with a variety of reading comprehension strategies, behaviors, and mentions of text features. An analysis of when each reading strategy was used is described through case studies in chapter 5 of this dissertation.

As Table 5 shows, students used a variety of common core reading strategies, with evaluation and character voices being the most frequent. The Common Core reading strategies that occurred 20 or more times were considered frequent. The Common Core reading strategies that occurred 10 or less times were considered rare.

As Tables 5-6 show, students took opportunities to engage in metacognitive activities of re-direction/self-monitoring and evaluation, suggesting that these graphic texts were challenging but students took them seriously. Self-monitoring was evident when students commented on where they should focus their reading on the page. Self-monitoring was supported by students used finger-tracing to track their reading and finger-pointing to reference a place on the page.

Table 5.

Reading Strategy Event Type and Frequency

Common Core Reading Strategy	Frequency
Direct Text Reference	1
Inference	16
Evaluation	34

Character Voices	31
Text Structure Questions	6
Content Questions	2
Fluency	22

As Table 6 shows, students exhibited a variety of behaviors, with finger pointing and finger tracing as guides for following the text. Redirection/self-monitoring behavior was the most frequent student behavior. Connections to prior knowledge were the least frequent behavior. In peer-lead discussion, students pointed to the page to correct their classmate who was reading or to indicate a topic of interest to discuss. Finger tracing and finger-pointing also served as indicators of redirection/self-monitoring behavior. Some students verbalized how they were correcting their reading, while others used these behaviors to suggest the redirection in the self-monitoring behavior. Some students also used description. The students described the features of the page. When doing this, they did not necessarily explain what was happening. Rather, they just described what they saw on the page. Surprisingly, students made limited connections to prior knowledge. There were only three moments when students expressed a connection to prior knowledge or experience. In sum, students exhibited use of physical behaviors more often than verbal behaviors.

Table 6.

Behavior Event Type and Frequency

Behavior	**Frequency**
Finger Tracing	19
Finger-Pointing	14
Redirection/Self-monitoring Behavior	40
Description	24
Connections to Prior Knowledge	3

As Table 7 shows, students acknowledged the various forms and features of the

text, with format being the most frequently recognized issue of the text. Page size was

recognized when students read or didn't read a words of varying sizes. Surprising for

such a color-loaded book, only one student noted the color of a particular panel (e.g.

"This is a yellow background) without noting any significance the color may have had on

the meaning of the panel. All students read the sound words although most students

emphasized the sound words more often in their literature circle. The pages of the text

used during the think aloud included limited sound words. Students' comments

expressing confusion of pages 7-10 showed that the format of the text hindered students'

ability to read in the correct order.

Table 7.

Text Feature Reference and Frequency

Text Feature	Frequency
Text Feature – Size	6
Text Feature – Color	1
Text Feature – Sound Word	3
Text Feature – Format	12
Text Features - General	22

Argument for Reading Strategies Used to Make Meaning

I had anticipated that students would use reading comprehension strategies

learned during previous class instruction in addition to the strategies they read about in

the core text, *Understanding Comics*. As anticipated, students were able to activate prior

knowledge, choose their own reading order, and ask questions about the text. Reading

comprehension strategies that were anticipated, but not executed included setting

personal goals and annotating the text. If personal goals were set, they were not

verbalized except for instances when students skimmed though the book to see how many

pages they had left to read. Students were not able to annotate the text because they did

not have permission to write in school property. However, findings showed that students

used a mix of strategies from those learned in class to those specific to the Common Core

Standards.

Based on the Common Core standards, the reading comprehension strategies used

included the following in order of most frequently used:

- Analyzed and evaluated the effectiveness of the structure an author used;

- Read closely to determine what the text said and to make logical inferences;

- Determined an author's point of view or purpose;

- Interpreted words and phrases as they were used in a text;

- Delineated and evaluated the argument and specific claims in a text;

- Cited specific textual evidence;

- Read and comprehended complex literary and informational texts
  independently and proficiently (Common Core Standards, 2010).

As Table 5 illustrates, students naturally engaged with each of the reading standards as

they read the text.

Explanation of Reading Strategies Used to Make Meaning

Students enacted a range of reading strategies and behaviors when making

meaning of graphic novels. Students used a set of reading strategies to repair

comprehension breakdowns (e.g. finger-tracing). Students used other reading strategies

to make meaning, including reading strategies related to the Common Core Standards.

Students also used gestures (e.g. finger-pointing) when reading all types of text, but used specific reading strategies in connection with particular textual features.

Common Core Standards Reading Strategies

The strategies enacted in alignment with the Common Core Standards included referring to details from the text (e.g. text features; direct text reference), making inferences, commenting on text organization, making a judgment (i.e. opinion), or drawing a conclusion (Table 3). The Common Core Standards also required students to make connections with central ideas or themes, new vocabulary words in context, reading purpose, and literary elements; however, in this particular reading selection, students only had minimal opportunities to engage with these standards. Students may made those specific connections in their think-aloud during the reading of the short excerpt of the text in the following ways:

- The central ideas or themes were evident in the text and students expressed this knowledge through other reading strategies such as summarizing and inferring;

- New or challenging vocabulary terms were sounded out as students read;

- Students questioned the author's purpose of including certain sound words.

Character voices. An interesting thing students did as they read the text was change their voice when reading the dialogue of characters in word bubbles. Specifically, students changed their voice to match an image of the character's perceived voice. For example, when students read the dialogue of a young, female flight attendant, they used a high pitch voice. In contrast, students used a stern voice for the security officer. All students used character voices when reading the graphic novel. The use of

character voices correlated with inference-making. When a student changed tone or voice in reading, the student was making an inference, based on the words and pictures, of what the character would sound like. More detailed evidence of this is discussed in the case studies.

Evaluation. In alignment with the Common Core Standards, by means of verbalization, students made connections to prior knowledge, as shown in Table 5. Anytime a student recognized a feature of the text or an experience similar to their own, they made note of it. Students frequently provided personal opinions when reading graphic novels. Many times, students would comment about the content of the story, not the graphic novel itself. Many of the content-related questions referred to students' concerns about airport security, as evidenced in the think-alouds when students read about the terrorists' ability to board the planes on September 11, 2001. Students often related the story with their personal experiences.

Fluency. The last code that was necessary to add was "reading with fluency." To read with fluency is not necessarily a reading strategy; rather, it is part of the common core which outlines the reading behaviors students must be able to complete. However, it was important to note the points in the reading where students read the pages seamlessly with errors or without verbalizing thought. The pages that were read with perceived fluency occurred on the pages that were filled mostly with narration and dialogue. Pages that were not read with fluency included the first three pages of the reading selection, pages 2-4.

Student Reading Behavior

Student reading behavior included gesture-related behaviors, redirection/self-monitoring, and description.

Gesture-related student behavior. Finger tracing was a frequently used reading strategy most commonly used among the lower HSPA scoring students. Evidence of finger tracing was important because finger tracing showed where the student was reading on the page. Despite the use of finger-tracing, some students inaccurately read the texts because students were having difficult keeping track of where to read some specific formats of the text as shown in Table 7. Because of this, finger-tracing can be seen as a cue for teachers to know when students are not reading the text correctly.

Finger-pointing also is important because it gave students the opportunity to make sense of the words and pictures in the text (Chi, 1996). Finger pointing referred to the process in which a student specifically pointed to the page and was always used in connection with one of the verbal reading strategies, which provided an explanation for the pointing. Finger pointing helped students manage the words and pictures on the page, allowing them to point and discuss. Finally, although finger pointing was similar to finger pointing in discussion, the purpose of the finger pointing shifted from personal opinion and explanation to finger pointing for direction and explanation in the peer group.

Redirection/self-monitoring. The most commonly used reading strategy was "redirection/self-monitoring" behavior. Redirection occurred any time students realized they had made a mistake in their reading and subsequently described the piece of the page that they were going to read next. As students self-monitored, they described where

their reading focused and why. This strategy was used almost always in connection with other behaviors such as finger-pointing (to indicate where they were reading) and finger-pointing in peer discussion (to indicate an interpretation of how to read a page). Students did not state whether or not they were focusing on a particular word or picture on a page during any "redirection/self-monitoring" behavior. Instead, it was implied that a student "self-monitored" when he or she made a reading pronunciation error, and subsequently, repaired the error by sounding out the word before moving forward in the reading. Although there were numerous pronunciation errors with repair, the incorrect pronunciation of a word did not interfere with students' ability to comprehend the text.

Students repeatedly made one reading comprehension error when reading the graphic novel. The comprehension error was an error in reading order (the students read the pages out of the book's intended order). When such reading errors occurred, students repaired their reading by tracing their finger across the page to demonstrate where they should have read. However, students did not re-read the pages that were read incorrectly even after they noticed they had made an error. Instead, students continued to read the page in the correct manner.

Description. Another commonly used strategy was explanation. Students described or explained what they saw on the page (e.g. describing the features of the page). Traditional explanation involves explaining what the text is about by referring to the content. When reading the graphic novel, the students described what they saw (e.g. "There are 5 men on each plane.")

Relationship of Reading Strategies Used and Reading Skill Level

Another research question asked, how do students' use of reading strategies relate to their reading skill level? Table 8 shows how students of different skills levels, as measured by HSPA scores are distributed. The frequency table shows that students in the high range used more inferences; the middle range used more explanation; and the low range exhibited more behaviors. I discuss these in more detail in the sections that follow.

Common Core Standards Reading Strategies

The reading strategy frequency chart demonstrates the range of strategies students applied when reading graphic novels. In addition, frequency of codeable text feature related comments were calculated. The raw numbers are followed by percent in parentheses (Table 8).

When examined more closely, the strategies varied in accordance with the three HSPA score ranges. In other words, the students with higher HSPA scores most frequently used the same reading strategies. The students with middle-range HSPA scores used similar strategies to one another. Lastly, the students with low-range HSPA scores used similar strategies. There was a clear differentiation between HSPA scores and reading strategies used and/or behaviors enacted. Students with high HSPA scores used more strategies and had more codeable behavior. There were an equal number of students in each group.

Direct text reference versus description. In all the think-alouds, there was only one instance of a student making a direct text reference to a previous section of the text . The only student to do this was a student with a high HSPA score. Wolfe and Goldman (2005) claimed students prefer to explain what they see rather than refer back to previous

text. Describing, a reoccurring behavior across all students, was consistent with Wolfe and Goldman's argument.

Inferences. The ability to make inferences while reading was assessed on the HSPA assessment. It was not surprising that the students with low HSPA scores did not show evidence of making inferences as a reading comprehension strategy. Also anticipated was that students with middle to high HSPA scores showed evidence of repeated inference making in their think-aloud.

Evaluation. Most students provided evaluations of the text, and most evaluations were personal opinion. Some of the personal opinions were content-related (e.g. "They [the security guards] should have been doing their jobs better"). Other evaluations were related to the format of the text. Students in the middle to high HSPA offered more opinions as they read the text selection.

Table 8.

Reading Strategy Frequency by HSPA Score

	Reading Strategy	Low HSPA Score (215-228)	Low HSPA Score Percent	Middle HSPA Score (229-242)	Middle HSPA Score Percent	High HSPA Score (243-263)	High HSPA Score Percent
Common Core	Direct Text Reference	0	0.0	0	0.0	1	0.6
	Inference	0	0.0	7	14.6	9	5.7
	Evaluation	1	3.6	4	8.3	26	16.5
	Character Voices	2	7.1	1	2.1	25	15.8
	Text Structure Question	1	3.6	1	2.1	4	2.5
	Content Question	0	0.0	0	0.0	2	1.3
	Fluency	3	10.7	1	2.1	18	11.4
Behavior	Finger Tracing	4	14.3	1	2.1	14	8.9
	Finger-Pointing	2	7.1	4	8.3	8	5.1
	Redirection/Self-monitoring Behavior	6	21.4	11	22.9	23	14.6
	Explanation	2	7.1	9	18.8	13	8.2
	Connections to Prior Knowledge	0	0.0	1	2.1	2	1.3
Text Features	Text Feature: Size	2	7.1	0	0.0	4	2.5
	Text Feature: Color	0	0.0	0	0.0	1	0.6
	Text Feature: Format	4	14.3	1	2.1	7	4.4
	Text Feature: Sound Word	1	3.6	1	2.1	1	0.6

Character voices. Many students used character voices in their think-alouds. Although there was a trend across all HSPA score levels, students with higher HSPA scores showed more emphasis in their development of character voices. The use of character voices demonstrated the ability to make surface level inferences. Students with low HSPA scores did not make explicit inferences while reading, but were able to make implicit inferences when they used character voices. The use of character voices, across all HSPA levels, indicates students' ability to use text features (e.g. pictures) to read with emphasis (i.e. use character voices). The pictures of the flight attendant and the guard, in the appropriate context, gave students the ability to create distinctively difference voices for each character.

Student Behaviors

Reading behavior codes were more evenly spread among the three HSPA score ranges. For example, there was evidence that students with low HSPA scores used finger-tracing, thus, showing evidence of the pattern of their reading. Finger-tracing was rare in the middle group, but increased again with the high group. Redirection/self-monitoring behavior was used across all the groups. This behavior increased with HSPA score. Students who self-monitored and redirected their reading made repairs moving forward, but never went back to re-read misread sections of the text.

Low-range HSPA score students. Students scoring in the lower range on the HSPA enacted fewer reading strategies and student reading behaviors than those in the middle and high range on the HSPA. The lower scoring students used finger tracing more often, and students with lower HSPA scores also had more pronunciation errors

compared to their peers. They read without pausing more frequently and had more

difficulty with the text features. Students who scored lower on the HSPA made use of

traditional reading strategies as they followed along the page. However, just because a

student followed along on the page did not mean they were making meaning of what was

happening in the text. Instead, they simply may be using the gesture of finger-tracing to

keep track of where they are reading. This silent reading strategy lacks a depth of

understanding of the material. If students used finger-tracing with some of the more

verbal strategies, such as self-explanation, they may have scored higher on measures of

reading ability, as did the students who used these strategies in the higher-range HSPA

score group (Wolfe & Goldman, 2005). These students exhibited physical engagement

with the text (e.g. finger-pointing and finger tracing) but verbalized their thoughts less

often than higher level readers.

 Middle-range HSPA score students. Students who scored in the middle range

on the HSPA made more connections to the text through evaluation than the participants

in the low and high group as shown in Table 8. They also self-directed more frequently

than their peers when they made a reading error. Lastly, they commented on the text

features more often than their peers. The use of evaluating the text showed that students

had the ability to connect to the text, but did not dive into a deeper layer of textual

analysis. The same argument could be made for making connections to the text by

connecting with personal experiences. Students who employed these types of behaviors

were engaging in surface-level interpretations of the text "without creating an

explanation" (Wolfe & Goldman, 2005, p. 481). Opinion and personal experiences both

showed that the student understood the text at a surface level, but did not offer a deeper

understanding in why something was happening within the text.

High-range HSPA score range. Students who scored in the higher range on the

HSPA used character voices throughout their reading. They also made significant

connections to the text by way of opinion and personal experience. The ability to make

such inferences related directly to the Common Core Standards. The ability to show

insight is considered to be the highest level of understanding on the HSPA test on the

open-ended assessments as outlined on the scoring rubric (Figure 3). As anticipated,

these students, who used character voices in their reading, and therefore, used repeated

inference as a reading strategy, scored in the high-range of the HSPA reading

comprehension assessment. Students who scored in the higher range on the HSPA had

less difficulty than their peers understanding the text features.

Summary of Major Findings

Reading strategies, such as evaluating the text and reading in character voices,

were characteristic among all three HSPA score groups. The use of explanation as a

reading strategy increased with reading level. Student groups with higher frequencies of

explanation and insight included the middle and high HSPA score groups. Although the

low, middle, and high HSPA score groups used a range of strategies, the strategies and

behaviors used did not break expected reading patterns of students in each level with the

use of the graphic novel.

Student behaviors such as finger-tracing and self-monitoring seemed to have little

correlation with reading abilities, as shown in Table 7. The HSPA open-ended scoring

rubric (Figure 3) specifically required that students provide insightful

explanation/opinion. The results showed there was a relationship between groups of students who provided description and opinions (the term opinion is used in place of evaluation to be consistent with the terminology of the Common Core Standards). Therefore, it may be essential to teach students how to make inferences when reading any text genre. It is especially important to teach students the format of new genres of text when learning to read a new genre. The following chapter details how students interacted with the new genre when the first the text for the first time.

CHAPTER 5: QUALITATIVE ANALYSIS

This chapter tells the narrative of how three students interacted with the particular forms and features of the text. Because graphic novels have text features much different than traditional texts, and because graphic novels can be difficult to read, this chapter describes the reading strategies and behaviors related to specific text features. Because each page of the narrative included varied text features, each page was carefully analyzed. This chapter will first address the forms and features of some of the key passages students read. Then, it will describe the strategy strategies students, with HSPA scores in each of the categories interacted with the page. Specifically, the reading comprehension strategies used and which behaviors enacted are described.

It was important to have participant representation from each HSPA category for two reasons: (a) the HSPA test assessed students' reading comprehension abilities in relationship to the Common Core Standards, and (b) The HSPA scores ranged from 213 to 259, thus demonstrating a wide gap in achievement. Therefore, it was important to understand the different strategies students use when engaging with the same text, something that cannot be seen when the students are taking a test. The variability in HSPA scores and the correlation of HSPA scores to reading strategies demonstrated how, and if, the Common Core Standards were being met in a reading of a graphic novel.

In summary, *The 9/11 Report*, the text used in the dissertation study, included a range of text features that challenged students' normal approaches to reading a text. The reading strategies students used were reflective of the Common Core Standards. Students used adaptive strategies to make meaning of the text. In addition, the various features led students to engage with different strategies and behaviors. Analysis of the data led to a

broad understanding of how students interact with the various forms and features of the text.

<div align="center">**Think-alouds Case Studies**</div>

This section contains a case study analysis of how the students interacted with the texts during the think-alouds. A narrative approach is used to describe the interactions.

Page and Text Features and Analysis

The features of each page described the phenomena of the page. Each research participant read eight pages of *The 9/11 Report*. These pages included the "title pages," pages 2-3, and subsequently pages 4-9. Each page or pair of pages of *The 9/11 Report* served as an exemplar of the various forms and features of graphic novels. With each of the varying forms and features of the text, students utilized differentiated reading strategies (or behaviors). In this chapter, I provide an image of each page and a description of the forms and features of that page.

Distinctive page features. Each page the participants read was composed of distinctive forms and features, which set each page apart. For illustrative purposes, each page is described by its format. The first page students read, page 2 of the graphic novel, contained a picture only. Page 3 included a picture and a title. Page 4 included multiple images with captions. Page 5 included several comic panels with narration and dialogue. Page sets 6-7 and 8-9 were double-paged where each set was to be read as a single page. For detailed analysis, each page is further examined in detail in the following paragraphs. Students had the most difficulty reading the double-paged pages of the text (pages 6-7; 8-9).

Reading selection (pages 2-9). The features of pages 2 and 3 were single images on single-black background pages. Students typically described what they saw or expressed opinions of these pages. The features of page 4 were headings in large font and square boxes each containing a photo of a terrorist (i.e. character) with a name appearing underneath. None of the students read every name. Instead, students read the titles in the large font. Some made connections to prior knowledge. Some said, "I am not going to read all this." The features of page 5 included word bubbles, narration, and illustration. Most students used a new voice to designate the voice of the flight attendant. The primary feature of pages 6-7 was the timeline that ran across both pages. There was a white line under each segment to designate the timeline per airplane. There were four airplanes. The students either noticed or did not notice the format of the timeline as they read. Pages 8 and 9 contained the same features as pages 6 and 7. As with pages 6 and 7, the students noticed or did not notice the format of the timeline as they read. Some students began to notice the differences and made the reading repair.

Picture only versus picture with title (pages 2-3). Students were asked to begin reading on page 2. The features of pages 2-3 are summarized in Table 9 and shown in Figure 4. Table 9 contains a synthesis of the features of pages 2 and 3 and the strategies used by the students to comprehend the pages. Figure 4 shows an image of the two pages. Page 2 was in the form of a single page. The features of the page included a singular picture of a radar screen. The radar was green with four white lines with dots, probably meant to represent the four planes hijacked during the attacks on September 11. The following page, page 3, also in the form of a single page, had a solid black background and images of four identical white planes. The four white planes probably represented

the four planes that were hijacked during the attacks of September 11 and probably were

connected to the four white lines with dots on page 2. Page 3 included the following

words: Chapter 1: "WE HAVE SOME PLANES…" Because the form of pages 2 and 3

shared the form of single pages with black backgrounds and limited text, the two pages

were most often read together. In addition, the fact that the picture of the radar was on

page 2 and the title was on page 3, both pages could be considered as a paired title page.

Table 9.

Pages 2-3 Analysis

Page(s)	Text Features	Reading Strategies
2	Single page	Explanation
	Single picture	Opinion
	Black background	
3	Single page	
	4 white planes	
	Black background	
	Large chapter heading	

Figure 4. Pages 2-3

Multiple images with captions (page 4). Students continued reading on page 4.

Page 4 was in the form of a single page. The features of this page included four large

titles, all in capital letters, in white font on the same black background as pages 2 and 3.

Table 10 shows an analysis of the page and the strategies used to comprehend the page.

The titles read "AMERICAN AIRLINES FLIGHT 11," "UNITED AIRLINES FLIGHT

175," "AMERICAN AIRLINES FLIGHT 77" and "UNITED AIRLINES FLIGHT 93."

The four titles were meant to represent the four planes hijacked during the attacks on

September 11. Under each title were four or five white boxes with a drawing of one man

per box in black coloring. Under each box was a subtitle with the name of the man in the

picture in white text. Each man was probably meant to represent a terrorist on each of the

flights. Figure 5 contains an image of the page.

Table 10.

Page 4 Analysis

Page(s)	Text Features	Reading Strategies
4	Single page	Explanation
	Large capitalized title in white	Opinion
	Black background	Inference
		Questioning

   Multiple comic panels with narration and dialogue (page 5). Students continued

reading on page 5. Page was is in the form of a single page. The features of this page

included one large title in black ink, five panels with narration inside each panel,

narration outside most panels, two word balloons, and one sound word. All of these text

features were the foreground to the background image of a crowded airport with a plane

taking off in the background. The large title was underlined and read, "Inside the Four

Flights." The narration started outside the panels on the background. Table 11 contains

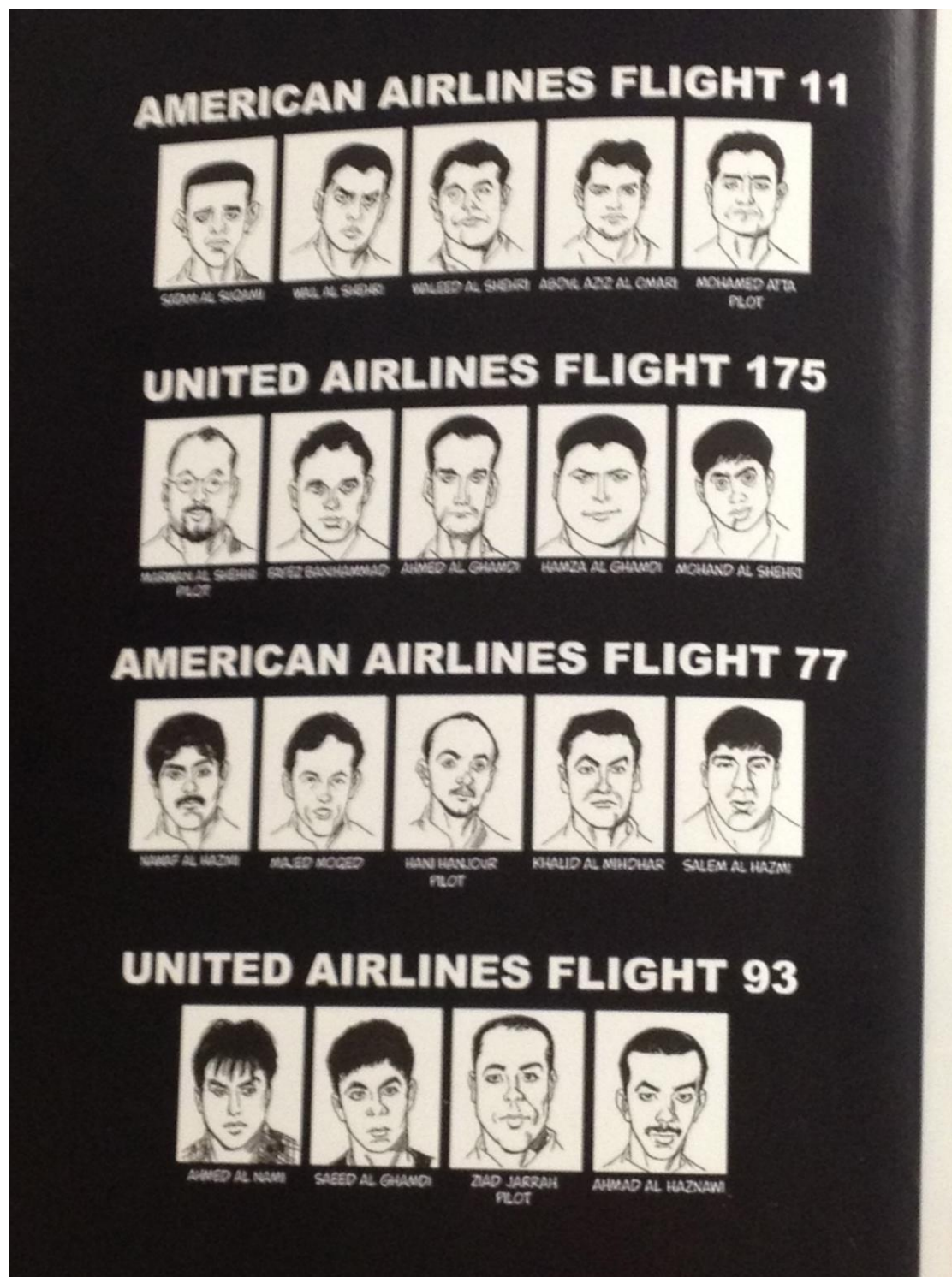an analysis of the pages and Figures 6-9 contain reproductions of the pages.

Figure 5. Page 4.

Table 11.

Page 5 Analysis

Page(s)	Text Features	Reading Strategies
5	Single page	Inferences
	Large capitalized title in black	Character Voices
	Five panels with narration inside	Personal Learning
	Narration outside most panels	
	Two word balloons	
	One sound word	

Double-paged (pages 6-7). Students continued reading on page 6. Pages 6 and 7 were to be read together—the reader should move horizontally from left to right across both pages. The features of the pages included a black background, horizontal white lines above and below the panels to designate a timeline, a vertical white line with titles of flight numbers, a white box with an explanation of the page, times, text boxes with narration, narration outside panels of pictures, word bubbles, and different colored shading. At the top of page 6 was a white text book with the words, "What follows is a time line showing the simultaneous histories of the four hijacked airplanes as they began and completed their horrendous missions…" in capital, bold letters. The thick white lines on the page took the form of a table with the flight numbers in the first column and the events of each flight across each of the four rows. The four flight titles were "Flight 11," "Flight 175," "Flight 77," and "Flight 93." Table 12 contains an analysis of the text features and reading strategies used for comprehension and Figure 10 contains a reproduction of the page.
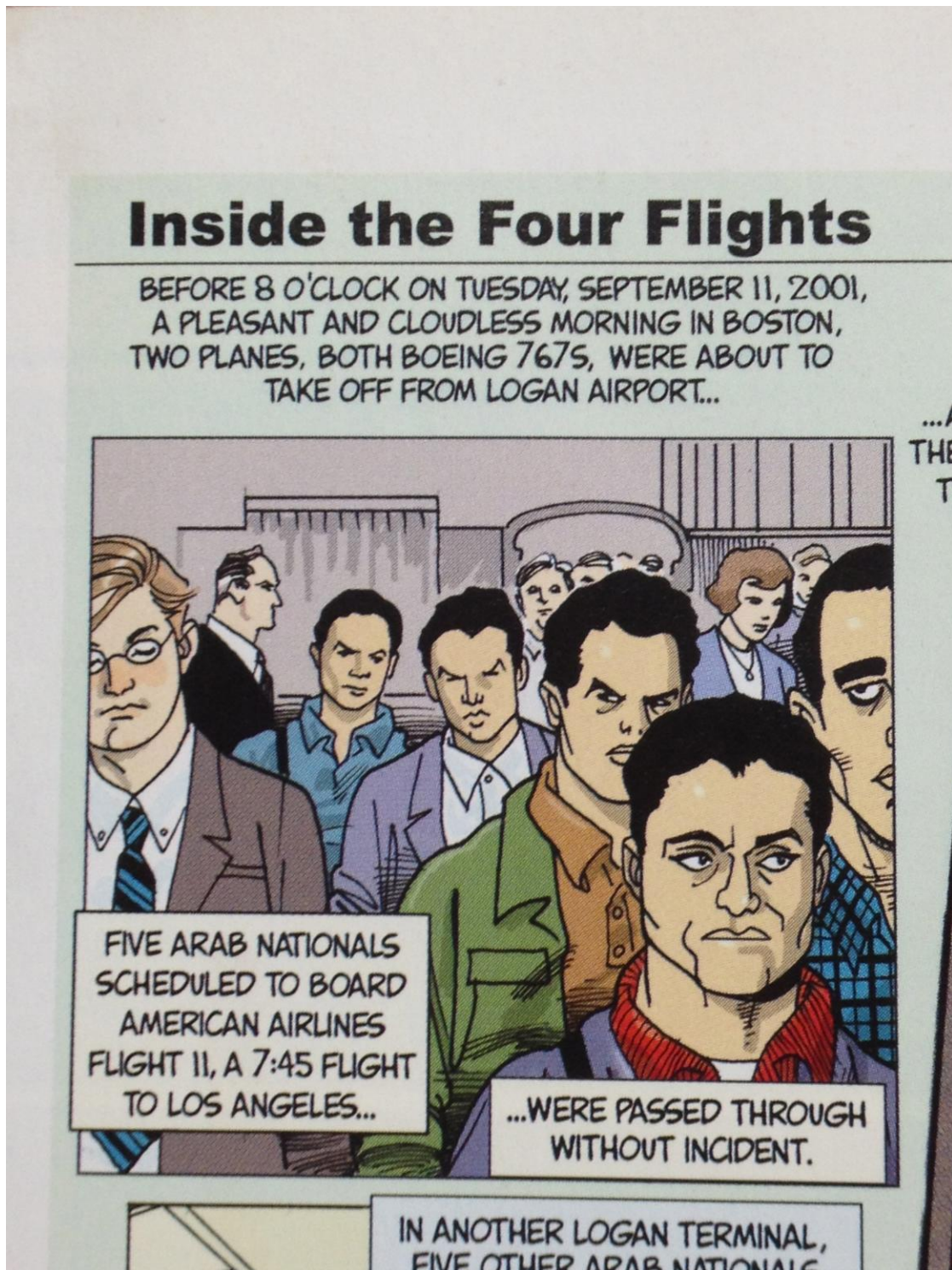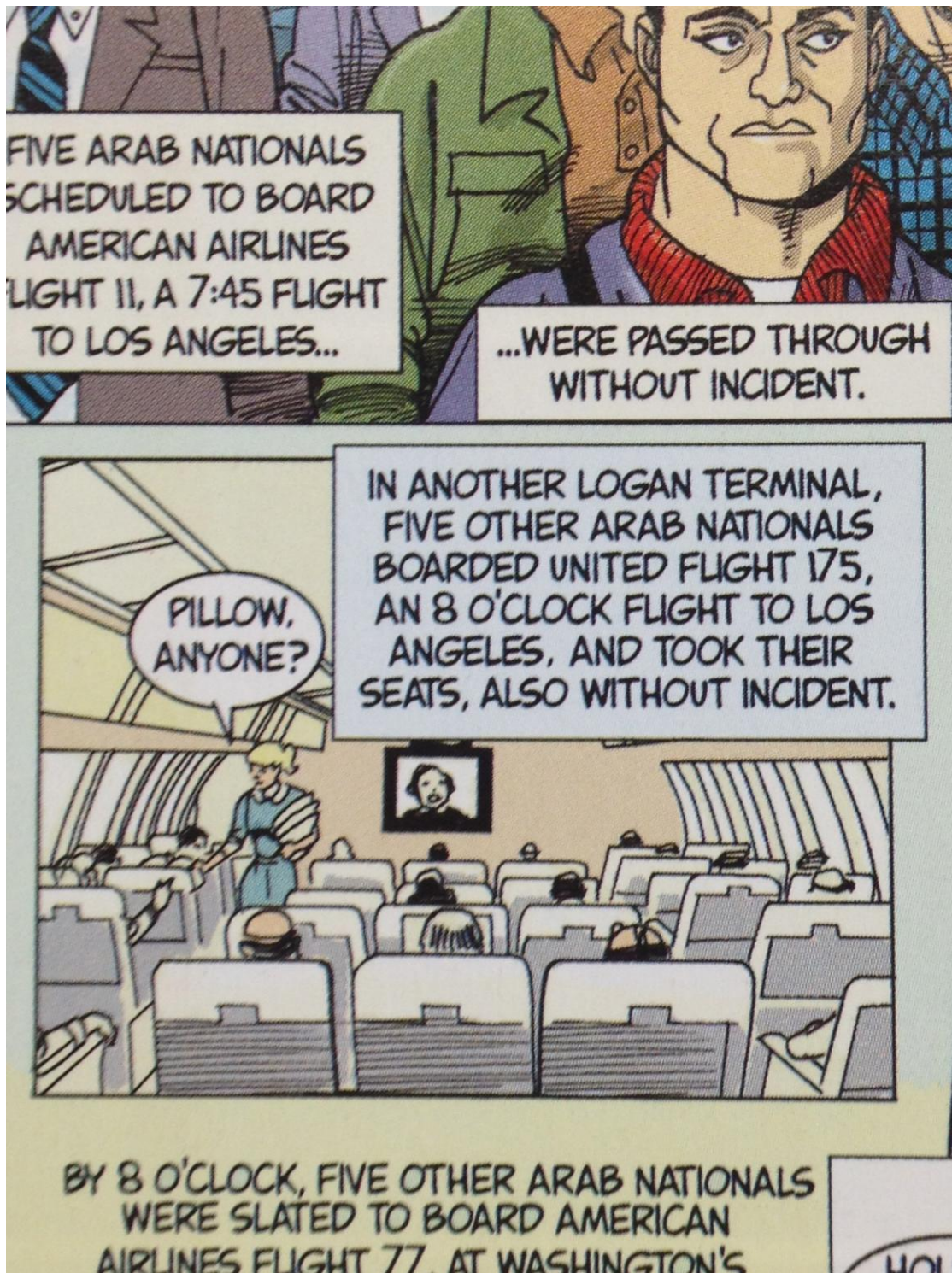
Figure 6. Page 5 panel 1.

Figure 7. Page 5 panel 2.

Figure 8. Page 5 panel 3.
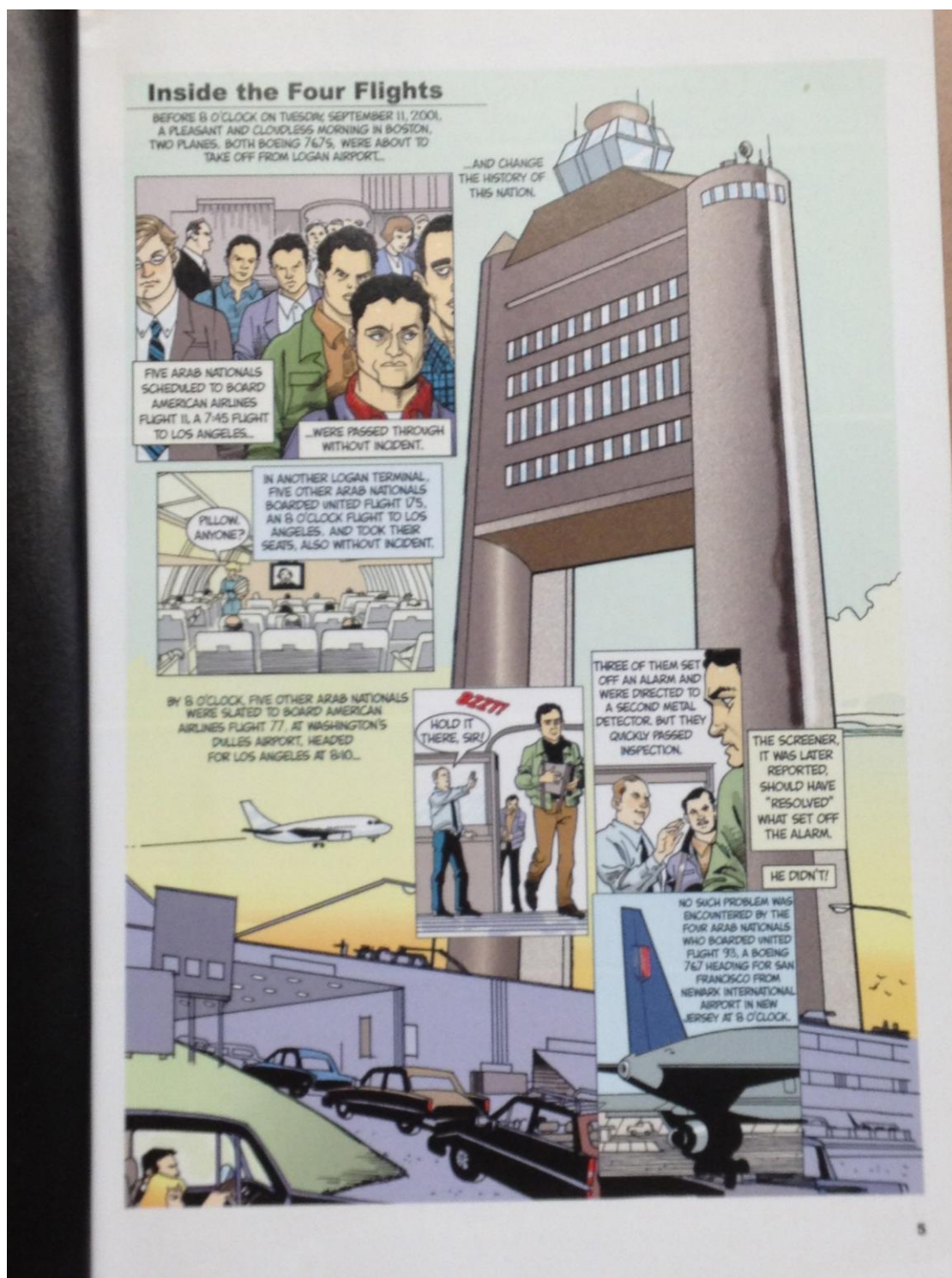
Figure 9. Page 5 full view.

Table 12.

Pages 6-7 Analysis

Page(s)	Text Features	Reading Strategies
6-7	Double page	Explanation
	Horizontal and vertical white lines	Inference
	Time of events	Color
	Narration	Character voices
	Text boxes with narration	Reading with fluency
	Narration outside picture panels	Opinion
	Word bubbles	
	Different colored shading	

Figure 10. Pages 6-7 full view.

Double-paged pages 8-9. Students continued reading on pages 8-9. Pages 8 and

9 were designed similarly to pages 6 and 7. The pages were to be read together—the

reader should move horizontally from left to right across both pages. Likewise, the

features of the pages included a black background, horizontal white lines above and

below panels to designate a timeline, a vertical white line with titles of flight numbers,

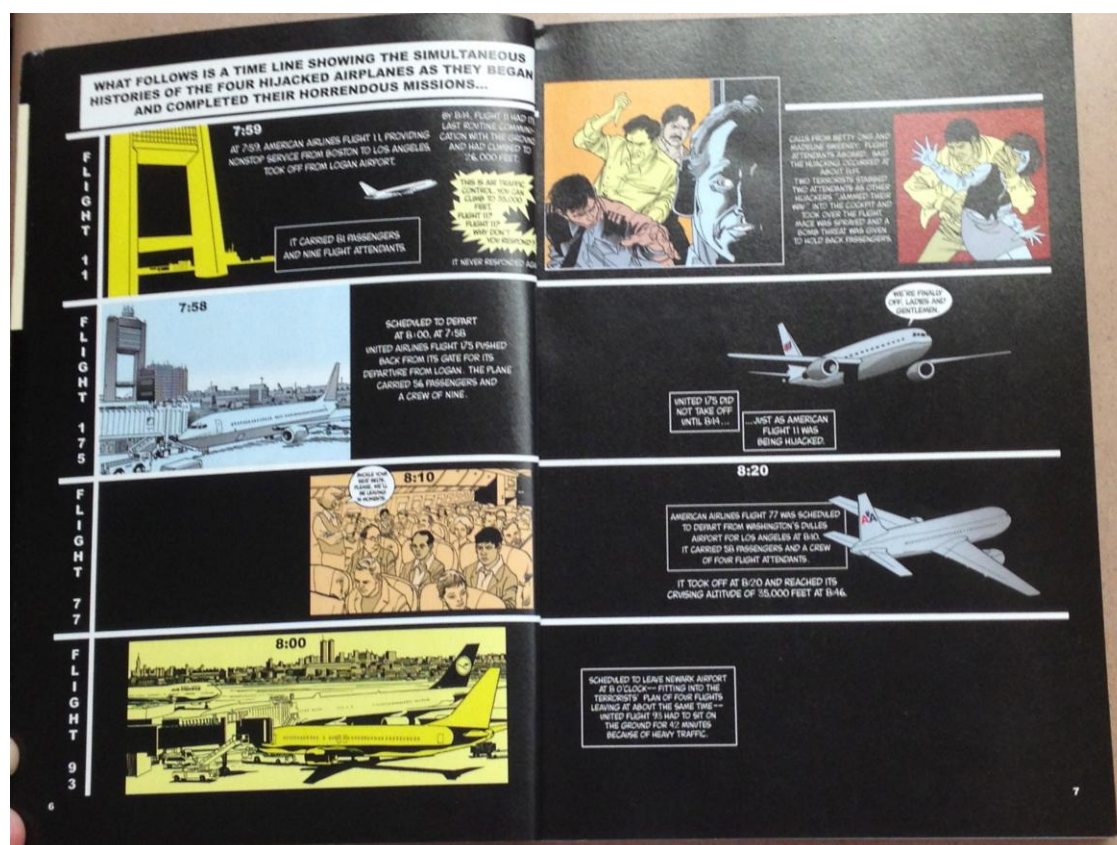times, text boxes with narration, narration outside panels of pictures, and word bubbles.

Unlike page 6, there was no white text box with the words to introduce the page because

pages 8-9 were meant to be a continuation of the timeline presented on pages 6-7. The

thick white lines on the page took the form of a table with the flight numbers in the first

column and the events of each flight across each of the four rows. The four flight titles

were "Flight 11," "Flight 175," "Flight 77," and "Flight 93." Table 13 contains an

analysis of the page and the reading strategies used. Figure 11 and Figure 12 contain

reproductions of the page.

Table 13.

Pages 8-9 Analysis

Page(s)	Text Features	Reading Strategies
8-9	Double page	Description
	Horizontal and vertical white lines	Character voice
	Time of events	Misreading/Text Format
	Narration	Corrected reading
	Text boxes with narration	Question about content
	Narration outside picture panels	Reading with Fluency
	Word bubbles	Reading with fluency
	Different colored shading	Opinion
		Connection to prior knowledge
		Doesn't read the titles

Figure 11. Pages 8-9 close-up of airplane.
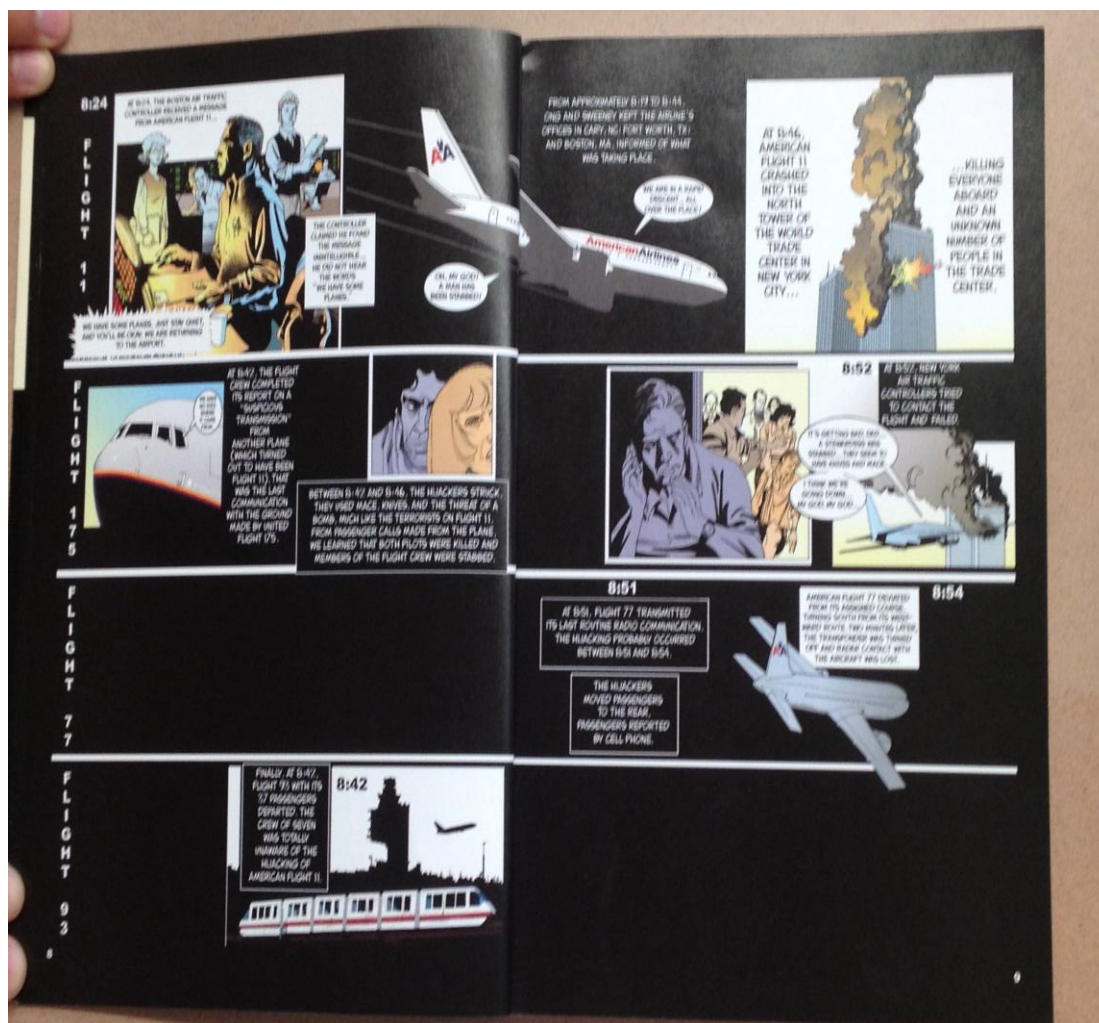
Figure 12. Pages 8-9 full view.

Case Study Narratives

The following narratives are organized by page. The first part of chapter 5

provided descriptions of the text forms and features of each page. This section contains a

discussion of how students in each of the HSPA score ranges interacted with the specific

forms and features of each page. All student names used in the narratives are

pseudonyms to protect the anonymity of the study participants.

Laura had the highest HSPA score of all 12 participants, and therefore,

represented the high HSPA score group. Sean offered substantial commentary during the

think-aloud and scored in the middle range of all the HSPA scores and therefore,

represented the median, or middle HSPA score group. Brett had the lowest HSPA score

of all 12 participants, and therefore represented the low HSPA score group. Each

subsection begins with a description of what most students did while reading the page.

Following the broad description of each page, I describe how the student with the highest

HSPA score interacted with the page. Next, I describe how the three middle students

interacted with the page. Last, I describe how the student with the lowest HSPA score

interacted with the page.

   Pictures only versus picture and title (pages 2-3). The most commonly used

reading strategies enacted on pages 2 and 3 were description and evaluation. The

students were not responsible for reading large amounts of text. Rather, they were

presented with large images that introduced the graphic novel. Students either explained

what they saw on the page or stated an opinion (Wolfe & Goldman, 2005). Laura, who

had achieved the highest HSPA score, simply skimmed the page. As evidenced the video

data footage, Laura looked at the page, but did not comment on what she saw. She

assessed the text with a glance at the page, which is a "before reading" strategy that good

readers employ (Pressley & Gaskins, 2006).

   One of the frequently used reading strategies for this page, description, was

represented in cases such as Sean and as other students in the middle HSPA score range.

In his think-aloud, Sean described what he saw on the page. He commented on the two

prominent text features of the page—the black background color and the four identical

images of planes. Sean was constructing knowledge of the page using the pictorial

representations on the page (Mayer, 1996).

Brett, who scored the lowest on the HSPA assessment, began by reading the cover of the book. Even though students were asked to begin reading on page 2, Brett used an important reading strategy—assessing the text (Pressley & Gaskins, 2006). He also read the title on the title page, whereas other students commented on the pictures.

Other less frequently used reading strategies students enacted were making connections to prior knowledge embedded within their opinion (e.g. "I like this because I have seen something like this before") and simply reading the bold face title. Although students knew they were going to read a text about September 11, *The 9/11 Report* graphic novel was a text they have never read before, which may explain why none of the students made inferences about the image of the radar with the four white lines and dots on page 2 and the four identical white planes on page 3 (Figure 3). Another explanation for the students not making this inference is that although they knew about the events of September 11 from the media and other prior knowledge, they were only 9-years-old at the time of the September 11 attacks; therefore, they may only know and/or recall limited information. At the same time, the fact that students had some prior knowledge about September 11 also supported their reading ability of the graphic novel as evidenced on page 4.

Multiple images with captions (page 4.) The most frequently used reading strategy enacted on page 4 continued to be description and evaluation. In addition to these strategies, some students asked questions about how to read the text. Students either described what they saw on the page or evaluated the text by stating an opinion or providing a personal example or, at the same time, asking questions. Students probably described what they saw on the page rather than read the page because there was a lot of

"unnecessary" information on the page. I use the term unnecessary because no students read the names of all the terrorists on the page. Instead, they skimmed the page, knowing that it was important enough to know there were terrorists, but less important to know the individual names. Regardless of the prominently used reading strategy, students never read all the words on page 4.

For example, Laura, the HSPA scoring student, briefly skimmed the page and summarized the page by stating, "with some random guys," instead of reading any of the words, including the titles. Students in the middle HSPA score group, as exemplified by Sean, began reading page 4 by reading the first title "AMERICAN AIRLINES FLIGHT 11." This title was the only title Sean read on the page. He stated, "Got some names of, I guess, some suspected terrorists. But I think that's B.S. because how could they find out who they were if their passports burn with the planes?" Here, Sean was paying attention to one specific text feature, the titles. However, he read only one of the four large titles and zero of 19 subtitles. Instead, Sean made an inference about the content of the page when he saw the pictures of all the men. He stated, "Got some names of, I guess, some suspected terrorists." Scott was probably able to make this inference because he had prior knowledge about the events of September 11. However, although Sean recognized the fact that these were the terrorists, he was unable to draw a conclusion about how the authors knew the names. Sean stated, "That's B.S., because how could they find out who they were if their passports burn with the plane?" His questioning of the content showed that he was actively engaged with the text; however, he did not try to answer the question before reading the next page. Sean's decision to stop as he read allowed him to process the text (Crabtree et al., 2010).

Brett followed the same routine as Sean. He skimmed page 4 and stated, "Oh. I ain't reading all this." He took a moment to scan the page once again, and then stated, "Okay, we are just going to say American Airlines." It is important that Brett recognized that the titles, and not the images, were important for his understanding of the page. By skimming the page, he was choosing which content to focus on as evidenced through his behavior of finger pointing. He pointed to the titles and stated, "There are the titles we are going with." As evidenced in his think-aloud, the titles were the only important piece of information to take away from the page. It was not important to Brett to learn the names.

Sean's statement, "I guess we have some terrorists," and Brett's comment, "Oh, I ain't reading all this" showed that the names of the terrorists were not important to the students. Whereas Sean referred to the men as "terrorists," Brett referred to the men as part of a group (e.g. "American Airlines."). Laura did not comment at all. Each student knew multiple men were involved at this point, but one student chose to focus on the racial identity and job function. In all three cases, the fact that there were 19 men on the page was enough for the students to know there were multiple people involved, but showed that it was not important to differentiate between the individual characters because they all did the same thing. Here, the students showed that all the men were involved in the same activity and therefore, it did not matter who they were as individuals.

Multiple comic panels with narration and dialogue (page 5). One of the most frequently used reading strategies enacted on page 5 were evaluation and inference making. However, due to the varying text features on the page, students enacted other

strategies: speaking in character voices, finger pointing, and mimicking sound words. In addition to these strategies, some students enacted behaviors such as asking questions about how to read the text. Page 5 was the first page in the text where students started to read with fluency. Students who read with fluency read all the words on the page. As students read with fluency throughout the page, the most attention was paid to the text narration: "No such problem was encountered by four Arab nationals who boarded United Flight 93. A Boeing 767 heading for San Francisco from Newark International Airport in New Jersey at 8 O'clock."

For example, Laura read all the words at the page and began to insert evaluations toward the end of the page when she asked, "Why do you let people do that?" and "Well, obviously, if you see a beep" in reference to the person who did not do his job. Other students, such as Sean began reading page 5 by reading the title, "Inside the Four Flights." The first panel contained an image of multiple people. The main characters were in the foreground of the picture, while others were busy walking in the background. Sean made the inference, "Um, we have some angry Muslims." This was an inference and a connection to prior knowledge because the text did not state the nationality of the characters. Sean used the behavior, finger-pointing, to show to which characters he was referring to. Finger-pointing was significant because Sean wanted to show that he was referring to a specific image because there were a variety of other characters on the same page. It is important to note to whom he was referring because his analysis of the specific image aided his reading comprehension. While Sean pointed to the photograph and made an inference about the character's nationality, another student made a similar inference, but drew from a previous text.

Brett, the student categorized as low scoring on the HSPA, read everything on the page. He struggled with some of the vocabulary, but sounded it out. He added a few "ums" as he read, but made sure he read everything on the page. He emphasized the word, "other" when referring to "other Arab nationals." He read the sound words and used character voices in his reading of page 5. This behavior was similar to when Brett began reading the text--he reads everything, but rarely stopped to question the text.

Each student continued to read the page by reading the additional narration on the outside of the panel, "…and change the history of this nation." After students read this narration, they continued to read the next panel, which was located under the first panel. These panels were aligned with the left side of the page. Many students used character voices while reading the word bubble, "Pillow, anyone?" (Figure 6). The students read the words in the word bubbles because they were the first feature in the text box. Furthermore, students were inclined to read the word bubbles because the reading of each page as driven by the images. In these cases, the word bubbles were in direct connection with the images of the characters, and therefore, it would have been impossible to over look the word bubbles.

Another argument for reading the word bubbles is that readers are conditioned to read the content underneath titles, and therefore, there was no exception to skipping words that are part of the main content. The image of the flight attendant asking this question had the students reading in a high-pitched voice, one that they believed would be representative of the blonde-haired airline attendant. The voice intonation used by the students demonstrated their understanding of the word bubble text feature. Students were also making inferences of how the character would sound based on her job function and

her appearance in the picture. This was evident because all of the students who used a character voice when reading the word bubble spoke using a similar high-pitched voice. This finding was further exemplified when students read the next word bubble on the page, "Hold it there, Sir!" spoken by an airport security guard. In this case, students used a deeper and sterner tone when reading the word bubble. Students were again making an inference as to how this character would sound based on his job function and his appearance in the picture.

The students' ability to recognize shifts of tone enhanced reading ability. Students were also able to make these inferences because they connected to prior knowledge and personal experience. Inference making demonstrated the ability to think more deeply when adding depth to each character. When a student used a high-pitched tone, for example, the student was using the features of the page (the picture of the flight attendant) to understand the content. In addition, when students noted the stern voice of the security officer, the students were using the text features (the picture of the security officer) to understand the significance of the content.

In another instance, when the security guard stated, "Hold it there, Sir," the metal detector was shown to buzz. The buzzing noise was represented using the sound word, "BZZT!" Most students read the sound word aloud. Laura, Sean and Brett each read the sound word. This was representative of most of the research participants encounters with sound words. The students used the sound words because they were in larger, bolder, more colorful type than the rest of the page. Mixing explanative words with images guided the readers to making meaning of the text(Mayer, 2006). The sound words, accompanied by an explanation mark, exemplified the importance of the sound word.

Furthermore, the sound words added an additional layer to the text—the sounds one might hear if the graphic novel were live. The sound words also broke up the monotony of reading a traditional text, and because the sound words were so bold, they were difficult to skip over, and perhaps held the readers interest.

Students continued to read page 5 with fluency as they proceeded through the next few panels. As students read fluently, the most attention was paid to the text narration, "No such problem was encountered by four Arab nationals who boarded United Flight 93. A Boeing 767 heading for San Francisco from Newark International Airport in New Jersey at 8 O'clock." Sean made a connection to personal experience when he said, "Woah. Damn. New Jersey." This reaction to recognizing the proximity of the attacks made him stop reading for a moment. He clearly did not know that the attacks happened so close to home. At this moment, he made meaning of the text because he recognized the fact that the attacks happened so close to home. The think-aloud data showed that he had gained new knowledge and made meaning of the text.

The reason students may have given specific attention to this line is because of their proximity to Newark International Airport. For the students in the study, Newark International Airport is only 20 miles away from home. The sentence, "September 11, 2001, was a day of unprecedented shock and suffering in the history of the United States," and to this date, is the most traumatic event close to home that has occurred in their lifetime. Again, at this point in their learning, students may have some prior knowledge of the events of September 11, but not all the details which is evident throughout their questioning of the text.

Double-paged (pages 6-7). Due to the varying text features on this page,

students continued to enact a variety of reading strategies: explanation, inference, color,

character voices, reading with perceived fluency, and opinion. Although students who

read with fluency continued to read pages 6 and 7 at similar speeds, most students made a

critical reading error. As students read with perceived fluency, they read page 6 left to

right and top to bottom and then read page 7 left to right and top to bottom, as they would

normally read a text. Because students were reading quickly and not picking up on the

error, this behavior demonstrated that students may have read the words on the page and

looked at the pictures but not really understood the text. For example, all the students

read the times on each time line, but they did not notice or comment that the times were

not in numeric order. For example, a student read "7:59" at the top of page 6 and then,

when reading the page incorrectly by moving onto the next time line on page 6,

reads"7:58" without noticing that the time was a minute earlier than the first time. In my

experience of teaching seniors, I have found that many times readers do not read the titles

of pages. They usually skim the titles and read the main content. Even though assessing

the text is a reading strategy that good readers employ before reading (Presley, 2006), in

this case, students needed to analyze the text structure and thus "construct global

representations of the text" to understand the page better (Pressley & Gaskins, 2006,

p.101).

Therefore, the format of pages 6-7 impeded students' understanding of how to

read the graphic novel. Although the illustrators attempted to guide the reading of the

page with the insertion of the white line spanning across the two pages, this was not

enough to enact correct reading fluency. The readers of this text needed more than just

the white line to separate the four story lines. They needed an additional feature that

provided an extension from pages 6-7. The extension needed to be something that

integrated an object, word, or idea from one page (page 6) to the next page (page 7).

Laura did not notice the issue right away. Instead, she began reading the page as

previously characterized. Laura read the white box at the top of the page. She held the

middle of the book with her hand. She scanned the pages by looking back and forth . The

video recording clearly showed her looking back and forth on both pages before making a

commitment. She scanned the page again and said, "Oh, okay" and then continued to

read the correct way. It was obvious that the reading pattern was not immediately

apparent because this was the only time she took her time as she read.

Sean came the closest to realizing something important about the times shown on

the white lines. He shared his opinion when he said, "That's crazy five terrorists can do

this before they got off the ground." In this case, Sean was paying attention to a specific

text feature—the times posted on each timeline. Although he reads the times correctly

and recognized that the times were descending, he did not yet understand that the

timeline was supposed to be read across the two pages. He was getting close to

understanding there was an issue, but the explanatory words were not paired well enough

with the images to allow the student to understand the page (Mayer, 2006). Page 6 did

not include any information about the terrorists attacking the planes because page 6 told

the story of each plane either just taking off or idling in the terminal (various times

between 7:59am – 8:10am). Page 7 told the story of each plane at later times. When

saying, "that's crazy," Sean inserted his personal opinion about the terrorists' ability to

do so much damage "before they got off the ground." Sean was probably making the

comments because he was getting frustrated with understanding everything done wrong on the day of the attacks. Again, the students reading this graphic novel had specific, close to home, memories of the events because they were in grade school at the time the events occurred.

Describing continued to be the reading strategy students enacted most frequently. Although Sean incorrectly read pages 6 and 7 with perceived fluency, he described what he thought he was reading. He said, "we have airplanes" and made an inference that these must be the four flights discussed earlier.

Brett read the title at the top of the page. Through observation of Brett's finger-tracing, I was able to see that Brett was reading page 6 completely before reading page 7. At the same time, I noticed that he did not look back and forth across the two pages before reading. He focused on all the words on page 6 before even considering that pages 6 and 7 could be linked together. It was not clear why he made the shift in reading, but in the middle of the page (two of four panels down), Brett began to read the page correctly. He continued to finger-trace as he read. I also noticed he looked at page 6 and then page 7 as he read.

Again, there were two features that were used to support readability: the white lines across pages 6 and 7, and the text box at the top that stated, "What follows is a timeline." Although the students read the text box at the top, no one commented on the white lines that were intended to separate the events of the four airplanes.

Students may have read pages 6 and 7 incorrectly for various reasons. First, students read pages 2-5 as single pages with unique text features. Therefore, pages 6 and 7 were the first pages that were to be read differently from previous pages. Another

reason students might have read the pages incorrectly was because there were no specific

text features that changed between the two pages. When looking carefully at the fold of

the book between pages 6 and 7, there was a clear differentiation between the content.

For example, the story of flight 11 ended with narration and text bubbles on page 6 but

started with a picture of attackers on page 7. There was no reason why a reader would

see the two pieces connecting. The story of flight 175 had narration near the fold on page

6 and blank black space on page 7 near the fold. The story of flight 77 had a picture on

page 6 and a blank black space on page 7. Lastly, the yellow panel was the length of

page 6, while page 7 included a small text box. If there were text features that connected

the two pages over the book fold, in addition to the horizontal white lines, students may

have read the pages correctly, as demonstrated by their reading of pages 8-9.

   Double-paged (pages 8-9). Due to the varying text features on these two pages,

students continued to enact a variety of reading strategies and employed various

behaviors: explanation, character voices, and reading with perceived fluency, opinions,

and connections to prior knowledge. Students who had read with perceived fluency

continued to read pages 7 and 8 at similar speeds and made a critical repair in their

reading when they recognized the correct way to read the page.

   The text features were not enough to support reading. There are a variety of

reasons why students were able to read pages 8-9 correctly after reading pages 6-7

incorrectly. First, pages 6-7 were in a new double-paged format, whereas, pages 8-9

continued the format set up on the previous two pages. Therefore the students

experienced a format that they have seen before. While pages 6-7 lacked a specific text

feature linking the two pages, pages 8-9 shared a picture of an airplane on the fold

(Figure 11). It would not make sense for a student to read the word bubble on page 8

located at the back of the airplane and then continue down the page instead of moving the

reading across to page 9 where another word bubble was located at the front of the plane.

Students may have read pages 6 and 7 incorrectly for various reasons. However, when

looking carefully at the fold of the book between pages 8 and 9, there was a clear

connection among the content.

 Although the photograph of the airplane supported reading by reinforcing the

horizontal timeline, some students continued to read the page incorrectly. A reason the

students read the page incorrectly was because they did not read the titles on the left side

of page 8. For example, Laura continued to read at a pace similar to the pace she read

pages 6-7. At the beginning of the page, Laura did not stop to add any additional

insights. It was not until she was near the bottom of the page when she started to think

about the context. "There were cell phones already?" She was thinking about the context

of the story and when the story took place. To her, the events of September 11 seem to

have occurred a long time ago. The reason for this was perhaps because the students

were in elementary school at the time when the historical event occurred. It is important

for students to question the text as they read, but Laura did not give herself the break she

needed earlier on the page to do so (Hagaman et al., 2010).

 When Sean recognized the format of the text, he stated, "Oh, I didn't realize that

it goes row to row like that. I thought it was like a book, but whatever." Here, Sean paid

attention to two particular text features: the double page and the formatting of a row.

Although Sean recognized this change, like all other students who figured out the format

of the page later, he did not go back to read the misread pages 6-7. Sean's statement, "I

thought it was like a book," suggested that books are usually read one page at a time

(read all of page 8 and then read page 9). Lastly, his comment, "but whatever,"

suggested that he did not care that he made the mistake and this was reinforced by his

continuation of reading without going back and fixing his mistakes.

Conversely, Brett, who had scored the lowest on the HSPA assessment, employed

the most reading strategy behaviors when reading the page correctly. He read all the

words on the page, including the titles. He stumbled on some of the vocabulary,

specifically, the proper nouns, but sounded out the words slowly. When he made such

mistakes, he cleared his voice with "ah." He continued to read the page correctly. After

reading one story across the two pages, Brett took a quick pause to stretch before he

continuing to read. Brett, who read the pages correctly, had trouble with vocabulary and

the words, but no trouble with reading the graphic novel. His use of finger-tracing

guided his reading.

Literature Circle Case Study

This section includes a narrative of how students interacted with the particular

forms and features of the text in a small group setting. The small group setting allows

students to be mutually supportive and provides a context for elaboration, inference, and

joint meaning making. The focal students include those with HSPA scores in each of the

achievement categories. This section first addresses the forms and features of some of

the key passages students read. Then, it includes a description of the strategies the

students used to interact with the page. Specifically, the reading comprehension

strategies they used and which behaviors they enacted are described. Finally, this section

explores how students engaged in deeper levels of thinking when working in small groups than when reading individually.

Even though the class used structured literature circles in class, and even though the directions offered suggestions on how to organize a literature circle, students formed group roles and norms naturally in their literature circles. One of three groups naturally took turns reading by page, and two groups had a single reader for the duration of the session. The case study that follows is an example of a literature circle in which one student predominately read the text while all students engaged with the graphic novel independently and expressed their thoughts verbally in the small group. The three students represented in the following narrative were chosen because they offered a large amount of interpretation and analysis of each page as they read. Thus the group offered substantial data for the analysis. Furthermore, the students represented the range of reading abilities based on HSPA scores from low, middle, and high groups.

Each literature circle group was comprised of students from each of the three HSPA score ranges to account for a variety of learners, and also, to create a well-balanced group. Although students were not asked specifically, this group of students, Literature Circle 3, included some students with prior experience reading graphic novels. However, all students had recently read *The 9/11 Report* to page 9 individually during their think-aloud. The literature circle groups were asked to continue reading the text, starting with page 10 and ending with page 17.

Students read pages 10-11. Pages 10 and 11 were to be read horizontally from left to right starting with page 10. This format was the same as pages 6-7 and pages 8-9 that had been read individually. The features of the pages included a black background,

horizontal white lines above and below panels to designate a timeline, a vertical white

line with titles of flight numbers, times, text boxes with narration, narration outside

panels of pictures, and word bubbles. Similar to pages 6-7, there was a text box with the

words to introduce the page. The text box was important because pages 10-11 included a

"special note" about the timeline of events. The thick white lines on the page took the

form of a table with the events of each flight across each of the four rows. Unlike pages

6-9, the four flight titles "Flight 11," "Flight 175," "Flight 77," and "Flight 93" were not

present on the pages. The absence of the flight numbers with the replicated format of the

pages suggested that these four segments followed the same timeline (Table 12 and

Figure 12). Pages 13-17 had all the same features as the previous pages except with one

distinctive difference; the stories of each plane were not told in linear timelines. The

story of each plane was told within a quadrant on the page. Table 14 contains an analysis

of the pages, and Figures 13-17 show reproductions of the pages.

Table 14.

Pages 10-17 Analysis

Page(s)	Text Features	Reading Strategies
10-11; 12-13; 14-15; 16-17	Double page	Sound word
	Horizontal white lines (pages 10-11 only)	Opinion
		Character Voice
	Quadrant lines (pages 11-17)	Inference
	Time of events	Prior Knowledge
	Narration	Text reference
	Text boxes with narration	Text Features (Format)
	Narration outside picture panels	Explanation
	Word bubbles	Character voice
	Different colored shading	Questioning about the text feature
		Questioning about the content
		Finger pointing

The four participants, Brett, Taylor, Melissa, and Parker sat in a circle. Each student held a copy of the text. Parker, who scored the highest on the Language Arts section of the HSPA in this group, started the conversation by saying, "I'll read," and essentially became the leader of the group. The other participants were Brett, who represents the low HSPA score group; Taylor, who represented the upper-middle HSPA group, and Melissa who also represented the high HSPA score group.

The findings indicated that students, of varying Language Arts proficiency levels, supported one another in reading comprehension in small group settings. For example, each time a student made a reading error, another student corrected the error until the student read again with fluency. One instance was when Melissa pointed suggested that Parker was reading "out of order," but Parker replied, "It's okay, because they are separate stories." Each time a student commented about the text (this is usually an opinion), another student would add to that opinion in support of what was said

Parker began reading page 10 with fluency. There was a pivotal moment in Parker's reading and understanding of graphic novels. He started to read the page incorrectly, in the same manner that many students read pages 6-7 and 8-9, but when he jumped to the next panel on page 10 instead of reading across to page 11, Parker managed to only say the first word of the panel, "Minutes," before two of his peers, Melissa and Brett, offered assistance.

What follows is an analysis of student behaviors when reading graphic novels. The behaviors, which three of the four students used, were being taught to the reader, Parker. Melissa used "finger pointing in peer discussion" while saying, "Don't you read it across?" Melissa took her index finger and pointed to the beginning of page 10 and then traced her finger across the two pages to show Parker how to read the text. As she did this, Brett reaffirmed Melissa's statement, and used "finger pointing in peer discussion in the same way. Brett said, "Yeah. In this book, you have to read it across." Parker responded, "Oh" and heeded their advice. In this case, Melissa's use of gestures enhance Parker's ability to read correctly. The gestures aided reading comprehension in connection with navigating the challenging textual features of the page. Parker did not hesitate to begin reading again without even reflecting on how he must have read the previous 4 pages incorrectly. Brett, who scored significantly lower on the HSPA than the other students, understood how to read the comic well. This may be attributed to his prior experience reading graphic novels; however, his experience reading graphic novels was comparable to Melissa's, both of whom are avid comic book readers.

Parker continued reading the second line. At this time, the students confronted the sound word, "Whoom." Taylor casually stated, "I think a most effective sound word

would be people screaming." Here, students engaged with an important reading strategy—providing an opinion about the text. However, what this group started to do and continued to do throughout the reading was comment on the author's purpose and author's choice. This higher-order thinking engaged the students not only in the content, but also in the context in which the story was written. The ability to not only understand the content, but to extend from the content is required of students by the Common Core Standards and is assessed on the HSPA. Parker added to Taylor's comment by providing the group with a sound of a cry, "Wahhh," which elicited smiles among the group.

In a similar manner, Parker used character voices when reading the dialogue. Again, he made inferences about the characters. Parker read the words in the word bubbles. The word bubble was an additional layer to the features of the text. Furthermore, Parker was inclined to read the word bubbles because the reading of each page was driven by the images. In these cases, the word bubbles were in direct connection with the images of the characters, and therefore, it would have been impossible to overlook the words. He used a female voice when reading the woman's word bubble, similar to the voice he, and many other students, used when voicing the female flight attendant. As in the think-alouds, the use of character voices was an inferencing reading strategy.

Parker read the text, which stated the pilots had an error in communication. Melissa stated, "You know, they are kind of bad at their job," to which Parker replied, "Yeah. They all suck." This was a case of the students adding their opinion. At this point in the text, the students were learning that the country was not prepared for the attacks on September 11. The text then read, "The hijackers attacked flight 93 at 9:28

while traveling 35,000 feet above eastern Ohio. There were four of them. While the

other hijacked plans had five. The probably fifth would-be hijacker had been denied

entry by a suspicious immigration official in Florida." Melissa replied, "Well, we finally

got one out of like how many?" Taylor and Parker chuckled. The students clearly knew

this was not funny, but their sarcastic comments and chuckles implied that they were well

aware that security needed to be tightened.

The students read page 12. This was where the format of the text changed from

four horizontal segments to quadrants across the two pages. The students also came

across the next large sound word, "BLAMM!" Parker repeated the word, "BLAMM,"

and said "BLAMM is the sound effect of choice" for emphasis, with his tone insinuating

that there was something wrong with this. Taylor stated, "This is sort of insulting."

Parker replied, "It's almost like they are so insulting that they are trying not to be

insulting to the people. It's like not make a 9/11 joke, but it's a giant 9/11 joke." Taylor

said, "I am picturing the hokey Batman song" to which Parker sang, "Da Na Nana Na Na

Batman!" Taylor replied, "That's exactly what I was thinking." The sarcasm was

evident in the room among Melissa, Taylor, and Parker, but seemed lost on Brett who did

not add much to the conversation. The students were aware that their jokes may have

been inappropriate because the text was of somber events. Parker looked around and

said, "We are all horrible." However, the students were making meaning, connecting to

prior knowledge, adding opinion, and engaging in conversations around the text, thus

demonstrating the type of reading comprehension that is necessary to meet the state

standards. In this way, the HSPA scoring rubric (Figure 3), which requires students to

make "insightful connections" and the standards (Table 2), which states students should

"make a judgment or form a conclusion," were discussed in the literature circle more often than in the individual think alouds.

Parker was again confronted with a name of a person in the reading. He slowed down his normal pace of reading with fluency when approaching the word. At this time, Melissa pronounced the word for him, and he repeated it after her. Parker continued to repeat the same reading behavior when he saw dialogue balloons. This time, the dialogue was attached to a male with a serious look on his face. Therefore, Parker spoke in a deeper, more serious tone when reading his words. The students then looked closely at the picture and noticed the expression on a woman's face. This was one of the first times the students commented on the pictures. Melissa said, "Look at this girl's face." Brett and Parker mimicked this face while Melissa and Taylor laughed.

The students turned to pages 16-17. They were now familiar with the format, so the reading procedures changed slightly. For example, instead of simply reading the narration, Parker started explaining what he saw on the page. He said, "There is a picture of the tower burning. You see it right there." He used finger pointing to point to the image to which he was referring. He continued reading down page 14 instead of across to page 15 because the upper right quadrant of page 15 was blank. Therefore, he continued to read in the proper order. Even in this short time, students learned enough about each other that they did not need to read everything out loud and seemed to focus on what was between the lines, thus demonstrating an understanding of the format of the text. In this instance, Parker continued to use character voices to represent the characters paired with word bubbles. After the first line, the students commented on the word bubble, "It looks like everyone is running up to first class. I've got to go." They asked a

content related question: "Is that a joke?" Then, they start making inferences such as the

following: (a) maybe there is a fight breaking out; (b) maybe he is a security person, (c)

maybe that is why Sid Jacobson and Ernie Colon wrote it, referring to the cover of the

text. Again, the students were questioning the intent of the author. The artwork clearly

showed the sense of urgency on the character's face who said, "I've got to go." That

sense of urgency had the students questioning the shift in content as evidenced by their

conversation relating to author's purpose. Because the students did not know who this

character was, they questioned the purpose of the outburst. This contrasted with

instances when students clearly knew the purpose of a character and matched the image

with a character voice.

The students turned to pages 16 and 17. The large sound word, "R-

RRUMBLE…" appeared. Parker read, "Rumble" and followed the reading with,

"Rumble. That was the sound effect of choice. These are some horrible onomatopoeias."

Melissa said, "Really?" and Brett said, "Wow," while Taylor shook her head. Again, the

students were commenting on the sound effects and the author's choice of sound words

by adding opinion. The students' opinions were important because it was their way of

connecting to the text. Again, the students were not discussing the meaning of the text;

rather, they were adding their own opinion, which is characteristic of good readers

(Wolfe & Goldman, 2010). At the same time, students were demonstrating another facet

of what good readers do—they were stopping to think about the ideas and restating the

content (Pressley & Gaskins, 2006). The next page contained the sound word,

"FLAMM!" Parker said, "FLAMM. And the sound effect of choice was FLAMM." No

one commented this time.

Melissa pointed out that Parker skipped a panel. She asked, "10:28am. Did you read that part?" Parker replied, "No, but that's okay because they are all different flights." Therefore, the quadrants signified the ability to read the contents in any order, whereas the horizontal lines did not offer that same affordance.

The reading ended on page 17. Peter read the line aloud and then pointed to the line saying, "That line really pisses me off. This one right here: "The number of lives lost that day was 2,973, the largest loss of life ever on American social as a result of a hostile attack." He pointed to the line, and stated, "This is the 'white man's' loss of life." Again, offering his opinion, but this time it was more sophisticated. He was upset that the phrase "white man" was used to refer to all those who lost their lives on September 11, 2001. He implied that "this soil" belongs to people of all races, and not only "the white man."

Figure 13. Pages 10-11.

Figure 14. Pages 12-13.

Figure 15. Pages 14-15

Figure 16. Pages 16-17.

Conclusion

This chapter highlighted how students engaged with graphic novels independently and in small group settings. In both the think-alouds and the literature circles, students tended to evaluate the text more often than engage with other reading strategies or behaviors. According to Pressley and Gaskins (2006), good readers evaluate the text before they read. This was important because the ability to evaluate a text correlates directly to the Common Core Standards (2010), which state students must, "delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiently of the evidence" (Integration of Knowledge and Ideas section, standard RI.11-12.8).

The think-aloud data provided evidence that students enjoyed explanatory explanations and making connections to the text (Wolfe & Goldman, 2005). Part of the

"elaborative processing" (p.481) involved the ability to self-explain when reading a text. It was evident that students were able to self-explain as they read graphic novels as evidenced by think-aloud data.

The literature circles were guided by peer-monitoring through the reading. Although the student with the highest HSPA score initiated the reading, it was the other students in the group, including the student with the lowest HSPA score, who helped guide the reader through the process. One of the most common behaviors was finger-pointing, which allowed students to provide the reader and peers with directions on how to read the page correctly. Finger-pointing behavior was also used to denote a specific text point to discuss, especially with the sound words. On the other hand, finger-tracing, which was often used by students with low HSPA scores, only showed that students followed the pages, but did not show that they understood the pages because they continued to read the double-paged pages in the incorrect order.

An area of growth between the individual think-alouds and the literature circles was the students' ability to make inferences in the literature circles. In the literature circle, discussion evolved much further from the text than the think-alouds alone provided. The students were able to quickly fix reading errors, whereas, in the think-alouds, many students continued to read the page incorrectly. The literature circles provided the students an opportunity to explore the forms and features of the text, and even create arguments about how to read the page in different orders.

In examining the behaviors students enacted while reading graphic novels, the findings suggested that the text features affected the way students read the texts. The textual features students paid attention to included font size, color, sound words, and

format. The findings of the dissertation study suggested that students read the large print

titles on the page, yet neglected to read smaller print items such as subtitles when the

subtitle was paired with a picture. In such cases, students simply read the pictures instead

of the titles. Color played a factor primarily in reference to the background color of the

page. Although students noticed the background color (all black), this did not help

students understand that two pages were to be read together. Sound words were read

aloud with emphasize demonstrating students understanding of the type of text they were

reading. In addition, and most importantly, many students incorrectly read pages 6-7 and

8-9, the two sets of pages that were read together. Students did not notice the features of

a double-page reading and subsequently, many students misread the text without making

corrections. The layout of the double-paged pages violated the readers' natural

inclination to read left to right and up and down. Although students noticed they had

read the page wrong, they did not go back to re-read the misread pages.

Other student reading behaviors were also pertinent to the research findings.

Students frequently described what they saw on the page rather than read word for word.

These findings indicated that graphic novels could be read and understood without

reading all the words. Furthermore, the findings demonstrated that text features were

important cues for students. Even though the students did not read all the names on a

particular page of the text, they understood the gist of the story. The findings, therefore,

demonstrated the connection of how words and pictures work together when reading

graphic novels. Other features of the text, such as character voices, demonstrated that

students made use of the pictures, words, and features when reading. The students were

able to make inferences about a character's voice based on the paired image. All of these

strategies came from students' prior knowledge. Description occurred most frequently

when a student was describing a page, but "connections to self" occurred most frequently

when a student was referring to the context of the content. These findings again showed

that students were proficient in verbalizing their connections to the text and beyond the

text, even though this is not shown on state assessments.

Lastly, students "read with fluency" when segments of words were strung

together. Students were less likely to read with fluency when the page was filled with

more images than words. The greater number of words allowed students to read each

page at a quicker pace. Students who slowed their reading and asked themselves

questions in the think-aloud read the pages of the text correctly. The same occurred in

the literature circles—students stopped at multiple segments, as they chose, and provided

more insightful commentary.

CHAPTER 6: DISCUSSION

Understanding the reading strategies activated while reading graphic novels will provide educators with a fundamental understanding of how graphic novels can be used in the classroom instruction. This study explored the processes students used when reading a combination of words and pictures. An understanding of how students think while reading will enable teachers to provide more thoughtful and purposeful instruction. On a local level, the dissertation study has provided the individual high school with data that will help its teachers align lessons to student needs and preferences. An extension to this research is an understanding that "non-traditional" school texts (e.g. graphic novels) can be used to explore reading strategies and student behavior in addition to traditional texts. Ultimately, in order to prepare students for a multi-modal literacy world, students should engage with a variety of texts.

The dissertation study explored how students approach reading graphic novels in two contexts: individually and in small groups. I explained why students might have chosen specific reading approaches in both strategies. I subsequently grouped each strategy in a reading strategy category and found connections between the types of reading strategies used when reading graphic novels and reading comprehension scores on state assessments. I found that reading strategies should be adaptive to the features of the text. In addition, students should first preview the text before choosing reading strategies.

One goal of this research was to build on Krinsky's (2012) study in the same classroom environment. Krinsky argued, "its not just the text or the instructor that makes a multi-literacies pedagogy possible, but a combination of both." The dissertation study

did not examine the instructor's pedagogy; full attention was paid to what students did before specific-text instruction. The dissertation study enforced Krinsky's finding that "graphic novels may necessitate a different kind of instruction model – such as multiliteracies pedagogy – in which to provide readers with well matched strategies to scaffold them as they make their way through the text" (p.130). The findings suggest that a range of strategies should be taught prior to reading individual texts. Graphic novels are only one of many genres of multi-modal texts. In addition, other 21st Century texts are multimodal, using a combination of words and images to convey messages. Using multimedia pedagogy with graphic novels is one way to prepare students to engage in a world full of multimodal literacy, thus easing the transition toward 21st Century texts. Pre-reading strategy instruction was used in the study; however, the findings indicate that students explored a variety of their own reading strategies as they read independently and developed their own set of reading procedures in the small group literature circles.

Krinsky's (2012) findings suggested that teachers should be trained in teaching graphic novels. A goal of my study was to find out what students do as they read graphic novels so that teachers can tailor instruction to these strategies. The findings suggest that students are capable of adapting previously taught reading strategies and exploring graphic novels in small group instruction. Based on the findings, I have rewritten the curriculum for *The 9/11 Report* graphic novel unit (Appendix).

Challenges of Reading Graphic Novels

As evidenced through the think-aloud data, and as corrected by students in the literature circles, students only made one major reading error when reading *The 9/11 Report*; they did not read the doubled pages correctly (pages 6-7 and 8-9). At the same

time, students demonstrated understanding of the reading in the think-alouds when they engaged with a variety of adapted reading strategies. The errors they made did not seem to interfere with their overall understanding of the text.

The think-aloud data explored the reading comprehension strategies students used as they read graphic novels. In addition, the think-aloud video captured student behavior when reading the graphic novel. More importantly, the think-aloud data allowed me to examine where students enacted the various reading comprehension strategies and student behaviors during reading. As suggested, students struggled with the format of the text. There must be something the authors could have done to make these more intuitive to read. For example, the authors could have eliminated the page numbers at the bottom of each page; in doing so, students may see both pages as being a cohesive whole. An additional reading cue would be to have images span the course of two pages. In doing so, the reader would naturally read the entire two pages from left to right because their eye would naturally follow the continuation of the image to the next page. This textual feature was evident on pages 8-9.

After studying the codes further and applying the coded data to my understanding of the form and features of the page, there are specific reading strategies and behaviors that I suggest students use when reading *The 9/11 Report*. In addition, there are some pages that I would suggest the authors of the text change in order to make the text more intuitive to read. First, there is not enough context on the first two pages of the text. Those pages only include two pictures and a chapter title for students to understand what they are reading. This was evidenced by students skimming over the page. They only read the titles, and stated, "Oh, this looks interesting," rather than commenting deeper on

the content. One suggestion for this page is to include a combination of words and pictures (Mayer, 1997).

Students worked well with the page that included multiple text boxes with narration and dialogue as their fluent reading made apparent. This finding reinforces the notion that words and pictures should be used to guide the reader. Next, none of the participants read the page with pictures and captions in its entirely. Therefore, the images of the terrorists and their names proved to be unimportant information to the high school student reading the page. As evidenced in the think-aloud data, it was enough for the students to read the titles and subtitles on the page, but they did not need to know the names of all the terrorists to feel comfortable enough to begin reading the next page.

Pages with multiple panels of narration and dialogue offered the students a multitude of opportunities to explore various reading strategies. Because page 5 included multiple, short panels, students were able to take their time reading the page. In addition, students stopped after many of the panels to ask questions and make evaluations of the text. The short segments of text may have helped the students navigate the reading more effectively (Crabtree et al., 2010). This may aid in text-readability. Pages 6-7 and 8-9 were problem areas for most students even though most students did not notice the error. The problem arose from the challenge of breaking conventional reading patterns (reading from left to right and up and down). However, finger tracing and reading the titles helped students read these pages correctly. Taking a break and asking questions also seemed to guide readers throughout the reading of these pages (Hagaman et al., 2010).

English readers are conditioned to read from left to right on single-pages. The most challenging feature of the graphic novel was the pages that were to be read together

(pages 6-7, pages 8-9, and pages 10-11). Although the text states, "the following is a timeline," and the illustration includes the white line to separate the story of each of the four planes, the information was not enough for readers to understand how to read the page. Instead, many students read the way they are used to reading—from left to right and top to bottom of a single page. Additional textual features, such as narration or an image connecting the two pages across the centerfold, would give readers additional reading ability support.

Even though some students eventually recognized reading pattern errors during literature circle discussions, the students did not go back to the text to re-read the incorrectly read pages. Therefore, the timeline was not an effective device in organizing the information of the four flights. A more direct approach would be to organize the text by flight. The four stories of the four flights could have been told individually in the text. Since changing the text is not an option, teachers can help prepare their students to read new genres of text in prior to reading. One suggestion would be to teach *Understanding Comics* in small groups. Although *Understanding Comics* is a graphic novel, it does not veer as far from the normal features of traditional texts students are used to reading. In reading *Understanding Comics*, students will be able to interact with a graphic novel that teaches readers how to navigate graphic novels. In addition, teachers should study the text forms and features of a variety of texts. In small group discussions, students could have conversations about the form of the text separate from the content. In doing such, students would be able to learn more about the format of the text without worrying about the content. In other words, teachers must prepare students to deal with text features that violate English readers normal systems for reading texts.

Commonly Used Reading Strategies

The findings showed that students naturally used reading comprehension strategies related to the Common Core Standards: (a) central idea or theme, (b) details from the text, (c) inferring, (d) vocabulary in context, (e) text organization, (f) purpose for reading, (g) make a judgment or draw a conclusion, and (h) literary elements. Students naturally engaged with each of the reading standards as they read the text. Furthermore, students who scored higher on the HSPA assessment used higher-order reading strategies, thus demonstrating the connection between reading comprehension strategies and reading comprehension articulation. The students who scored lower on the HSPA assessment exhibited physical engagement with the text (e.g. finger-pointing and finger tracing) but verbalized their thoughts less often than higher level readers. The lower skilled readers have similar experiences reading graphic novels that they have with other texts. Specific reading strategy instruction should be adapted for these students with additional scaffolds to match the text format. In addition, educators should find ways to help struggling readers gain confidence in reading aloud. This finding addresses the problem that schools are required to teach in alignment with the Common Core Standards. In order to score well on the HSPA, students must be able to make inferences, which students did as they read (specifically, when embedded within some of the other reading strategies, such as use of character voices). The state test results suggest that students are not doing this. The Common Core Standards also require students to explain, connect to personal experiences, and make inferences. The use of these strategies while reading graphic novels demonstrates that students are capable of doing these things.

Implications for Practice

Understanding the reading comprehension strategies and student behaviors activated while reading graphic novels provides educators with a fundamental understanding of how graphic novels can be used in the classroom instruction. The research explored the cognitive and metacognitive processes of students' understanding of reading a combination of words and pictures. An understanding of how students think while reading enables teachers to provide more thoughtful and purposeful instruction. On a local level, this study provides the individual high school with data that will help its teachers align lessons to student needs and preferences. An extension to this research is an understanding that "non-traditional" school texts (e.g. graphic novels) can be used to explore reading comprehension strategies.

The dissertation findings indicate that students are able to make connections to and beyond the text, and the findings challenge the results of reading standardized test scores that suggest students are unable to make these connections. As such, the findings therefore suggest that students may not be able to articulate in writing their connections to the text. A low score on the HSPA may not mean that students are unable to make the expected connections. Therefore, it might be necessary to restructure the assessments. Krinsky (2012) suggests that teachers should "receive training on how to develop and impart appropriate literacy strategies so that the material is rendered accessible and comprehensible to students" (p.137). The dissertation study suggests that examining one's own pedagogy and studying the underlying issues closely are beneficial to learning how to develop a more effective curriculum (Appendix).

Curriculum is always changing. Students continue to have difficulty reading complex texts. To address this problem of practice, upon completion of the unit, I started to analyze how students interacted with the texts in my classroom in order to better understand what I can do to help my students comprehend graphic novels. Since teaching *The 9/11 Report,* students read additional graphic novels. I took some of my findings and modified my instruction based on the analysis from my research. Specifically, I revised the curriculum (Appendix). I learned that students already engage in a variety of reading strategies, and more specifically, graphic novels should be read in groups of varying reading level ability. When reading independently, high level students exhibited more of a range of reading comprehension strategies; however, in the small groups, low level students were able to help higher level students understand the forms and features of the text. Here, in the small groups, the low level students engaged more deeply with the text than when reading independently. The low level students supported the reading of the high level students, yet when lower level students read independently, they didn't exhibit the same range of verbalizations.

Students support one another in their reading of graphic novels. Therefore, graphic novels should not be read silently and independently in class. Rather, they should be read in small groups to help students (especially those with low-range HSPA scores) make higher-level thinking connections (e.g. inferences). According to the state standards, students need to build from scaffolding toward independent reading. The literature circles provide the much-needed scaffold for complex texts. A cursory review of the literature circles suggests all students were engaged in the reading. When reading the graphic novel in the literature circle, all students were following the reading as

evidenced by their behaviors (e.g. finger-pointing and finger tracing) and reading

strategies (e.g. inferring, explaining). Students produced the most discussion around the

sound words in the literature circles (e.g. opinion, inference, explanation). When reading

sound words, low, middle, and high students took the sound words seriously enough to

role play as they read them aloud. In addition, the standards require teachers to use

complex texts as measured by levels of meaning, structure, language conventionality and

clarity, and knowledge demands (Common Core Standards, 2010). Therefore, as

designed, the in-class learning environment should follow the Almasi et al.'s (2006) and

Ehren's (2009) models to include authentic literature, explicit instruction of multiple

reading strategies, opportunities to discuss thinking, and introduction to tools, including

adaptive reading strategies.

Curriculum Development

Curriculum needs to be designed to meet the needs of the readers. Because the

format of the graphic novel differs from traditional texts, teachers should adapt their

instruction to include specific analysis of the text features. Teachers should also model a

variety of reading comprehension strategies and behaviors that fit the needs of their

students (Ehren, 2009). Based on the findings of the dissertation research, I updated my

curriculum guide (Appendix). The major shift in curriculum was independent reading to

small group reading. Previously, students read the text at home or independently in class.

Occasionally, we read the text aloud in whole group instruction. However, upon

completion of this study, students are asked to work in small groups to promote deeper

understanding of the text. The assessments also changed. Instead of blogging and short,

open-ended responses, assessments for this course are now aligned to the Common Core

Standards with specific emphasis on questions relating to reading comprehension strategies. Each question is coded by reading strategy and/or Common Core Standard. As indicated by the curriculum guide (Appendix), there are multiple days designated to specific reading strategy instruction. Along with specific instruction on text features, additional opportunities for peer-reading opportunities should be created in the classroom.

These findings also suggest that students can support one another more in reading in small groups than when reading individually. The support of a classmate is sometimes more effective than the text features that were drawn as the intended support. Scaffolds, including text-specific reading strategy instruction and support provided by student-lead literature circles may assist in promoting deeper understanding of graphic novels (Blum et al., 2002). For example, in peer groups, students assist one another in understanding the direction of the reading. Another student can teach the features of the text that are confusing to one student. The students should work in mixed-ability groups when reading graphic novels. The mixed ability groups can empower students as they read because each student has the opportunity to make reading decisions (Blum et al., 2002). In addition, students are able to speak freely and comfortably about the content of the text, playing off of individual strengths as readers. As the results show, students of varying HSPA score ranges engage with different reading comprehension strategies. Students will ultimately benefit from working with students who have a variety of skill levels when reading graphic novels.

Behaviors As a Teacher Tool

The behaviors such as finger pointing, finger pointing in peer discussion, and finger tracing, are cues teachers can follow to make inferences about students' understanding of a text. Teachers can see these gestures from across the room; therefore, while working with one group of students, the teacher can ascertain how students are working in other small groups and individually. When a student uses finger tracing, for example, the teacher can determine if the student is reading the page correctly, and then make a reading repair suggestion. Retracing over and over is an indication of students making connections and having difficulty. However, finger tracing can also indicate that students are reading in the intended pattern of the book. Being able to recognize the behaviors will help teachers assist students in their reading as they attempt to make meaning.

Implications for Policy

The state of New Jersey is currently undergoing a number changes within the educational system. First, teachers will be evaluated under a new teacher evaluation model that has been chosen by individual schools. These new evaluation models will be implemented in September 2013. The school in which this study was situated chose to adopt the Danielson (2013) model of teacher evaluation. Within the Danielson model as well as other teacher evaluation models, teachers are evaluated based on their students' performance on state assessments. Teachers who choose to teach graphic novels must "think outside the box" when interacting with the curriculum (Krinsky, 2012). This may seem daunting to a teacher whose career is contingent on the academic success of students on a standardized test. However, the results of the dissertation research show

students are able to make text-to-self connections, text-to-world connections, make

inferences, and draw conclusions through discussion of the material. Therefore, the state

assessments should not rely solely on written responses, but rather, verbal articulations of

read material when assessing reading comprehension. The results of the dissertation

study clearly indicate that the results on the state assessment of "partially proficient" and

"low literacy scores" may not be true indicators of what students understand as they read.

Recommendations for Future Research

The dissertation study explored what students do as they read graphic novels.

With a foundation of understanding of how students read graphic novels, which text and

graphical features are affordances, and which text features are constraints, an extension to

the research is to study how a teacher approaches the curriculum. For example, it may be

beneficial for a teacher to teach these text-specific strategies to see whether students'

understanding graphic novels is enhanced. Future research should examine how reading

strategies become more adaptive and transfer to different genres of text. Although I

introduced my students to a variety of reading strategies prior to reading *The 9/11 Report*,

students found their own ways to read the graphic novel. In addition, even though I

provided the students with practice and constructs for using literature circles, students

naturally formed their own roles when reading the graphic novel in small groups.

A follow-up research study would look at how students performed on post-

reading assessments of graphic novels. One phase of the study could evaluate how

students perform on a written assessment. A second phase could evaluate how students

perform on a performance or oral post-reading assessment. Both assessments would be

scored using the same holistic scoring rubric. Findings might suggest whether students are being fairly assessed on written standardized tests.

It appears that the group setting helped support comprehension in two ways: (a) students assisted one another in reading repairs, and (b) students developed deeper inferences. However, I cannot rule out the fact that when students read in small groups, they had prior experience reading the text independently. Therefore, a follow-up research study could explore how students read and understand graphic novels in small groups and individually, having the students work in the small groups work first. Where students made reading repairs in the literature circles, findings may show that students would make these repairs individually when exposed to the literature circle first.

The dissertation study demonstrated that the Common Core Standards can be addressed through the use of graphic novels. The study sought to discover what reading strategies students use when reading graphic novels and which reading behaviors they employ. This approached differed from interventionist studies that instruct students to use a particular strategy or routine. The dissertation study, therefore, allowed students to explore the text freely, thereby allowing me to capture how students naturally engage with graphic novels. In addition, the study suggests that students make valid inferences when reading graphic novels. Inferring, an essential skill that students must have to earn the highest score on the open-ended HSPA rubric, can be developed through peer-lead discussions in small literature circles. The literature circles offer students opportunities to take ownership in their learning experiences and deepen their thinking in peer discussion. Additionally, the complex nature of the graphic novel offers students more opportunities to discuss text features. The research findings can help future educators

connect to the Common Core Standards in a way that motivates students to read in an

authentic student-lead learning environment.

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APPENDIX: *THE 9/11 REPORT* CURRICULUM

Unit title: The 9/11 Report and In the Shadow of No Towers
Unit summary: Historical events (such as the events of 9/11) can be told in a variety of genres, including graphic novels, and can be told from distinctly different point-of-views. **Primary interdisciplinary connections:** U.S. History **21st Century Themes:** Global Awareness, Civic Literacy

Learning Targets
Common Core Standards: 3.11-12.LC Grade 12 CPI 05.A 3.11-12.LC Grade 12 CPI 05.B 3.11-12.RIA Grade 12 CPI 02 3.11-12.RIB Grade 12 CPI 06 3.11-12.WA Grade 12 CPI 01.A 3.11-12.WA Grade 12 CPI 01.B 3.11-12.WA Grade 12 CPI 01.C 3.11-12.WA Grade 12 CPI 01.D 3.11-12.WA Grade 12 CPI 02.A 3.11-12.WA Grade 12 CPI 02.B 3.11-12.WA Grade 12 CPI 02.C 3.11-12.WA Grade 12 CPI 02.D 3.11-12.WA Grade 12 CPI 02.E 3.11-12.WA Grade 12 CPI 02.F 3.11-12.WB Grade 12 CPI 05 3.11-12.WB Grade 12 CPI 06 3.11-12.WC Grade 12 CPI 07 3.11-12.WC Grade 12 CPI 08 3.11-12.WC Grade 12 CPI 09.A 3.11-12.WD Grade 12 CPI 10 3.11-12.SLA Grade 12 CPI 01.B 3.11-12.SLA Grade 12 CPI 01.C 3.11-12.SLA Grade 12 CPI 01.D 3.11-12.SLB Grade 12 CPI 05

	Content Statements:
1	Graphic Novels
2	The News/Media
3	The Events of 9/11
4	Point-of-View

Big Idea: Historical events (such as the events of 9/11) can be told in a variety of genres, including graphic novels, and can be told from distinctly different point-of-views.

Unit Essential Questions	Unit Enduring Understandings
- How has America responded to the events of 9/11? - How do graphic novels piece together information from the media? - What is the impact the visual has on interpretation?	- The events surrounding 9/11 - Serious events can be represented graphically and artistically to convey a meaning - Graphic novels are texts which can carry meaning similar to other publications

Unit Learning Targets
Students will…

- Synthesize content from several sources on a single idea/concept
- Compare and contrast through written and verbal expression the cultural context in which the works were generated and its relationship to meaning.
- Compare and contrast themes, conflicts and stylistic devices across texts.
- Demonstrate understanding of the following **literary devices**:
In Medias Res
Irony
Motif
Reversal
Tragic Hero

- Apply knowledge of the following **grammar techniques**:
Subject/Verb and Pronoun Antecedent Agreement
Sound Sentences – Correcting Sentence Fragments and Run-ons
Purpose and Use of Semicolons and Colons

- Demonstrate mastery of the following **writing tasks**:
Compare/Contrast Essay (9/11 Report & in the Shadow of No Towers

Evidence of Learning
Summative Assessment: The 9/11 Report and In the Shadow of No Towers Compare/Contrast Essay (to be submitted to Turnitin.com)
Formative Assessments: 1. Two reading comprehension assessments linked to NJ PARRC 2. Reaction papers – One page reaction papers submitted to Turnitin.com 3. Active, student-lead class discussion 4. Literary device assessments through creative writing prompts 5. Open-ended responses posted to student blogs 6. Grammar assessments during mini-lessons 7. Teacher observation 8. "Do-Nows" & "Do-Afters"

Lesson Plans	
Activities	*Timeframe*
1. Introduction to the 9/11 Report & In the Shadow of No Towers (1 day)	10 Weeks
2. Praising Art Spielgelman nonfiction article (2 days)	
3. Graphic Novel Vocabulary and Reading Strategies Introduction (1 day)	
4. Graphic Novel Reading Strategies (Story Map & Image Window (3 days)	
5. Graphic Novel Reading Strategies (Stair Step) (2 days)	
6. Graphic Novel Reading Strategies Written Response (1 day)	
7. Graphic Novel Reading Strategies (Nonfiction Collaborative Journey) (1 day)	
8. Graphic Novels and Media Literacy (3 days)	
9. Graphic Novels and Literary Analysis (3 days)	
10. Graphic Novels Response (1 day)	
11. Graphic Novels Close Reading (7 days)	
12. Graphic Novels (Think Aloud and Read Aloud) (2 days)	
13. Graphic Novels Research Activity (3 days)	
14. Graphic Novels Media Literacy Reporting (2 days)	
15. In the Shadow of No Towers & The 9/11 Report Compare/Contrast Essay Instruction and Writing with Revisions and Reflection (5 days)	
16. Two in-class formative assessments (2 days)	
17. Grammar Mini-Lessons (3 days)	

18. Literary Device Lessons (2 days)	
Teacher Resources	*Teacher Note*
• Teacher-created materials – PowerPoint • Teacher website with resources under the tab labeled <u>In the Shadow of No Towers</u> & <u>The 9/11 Report</u> • Class set of texts (<u>In the Shadow of No Towers</u> & <u>The 9/11 Report</u>") • Photocopies of reading strategy notes and worksheets for understanding comics	Students will be able to access my website daily at school and home to access all course materials. At the same time, students will have photocopies of the reading strategy worksheets from the onset of the unit for daily reading activities.