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# Getting graphic: Exploring the inferential thinking skills that are required to comprehend graphic novels

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## Abstract

The purpose of this study was to explore the extent to which graphic novels require inferential thinking skills for comprehension in grades 3-8. The questions asked in this study were: 1. What aspects of content in graphic novel texts require inferential thinking for reader comprehension? 2. What aspects of mood or tone in graphic novel texts require inferential thinking for reader comprehension?

# GETTING GRAPHIC: EXPLORING THE INFERENTIAL THINKING SKILLS THAT ARE REQUIRED TO COMPREHEND GRAPHIC NOVELS

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by

Angela Brauns

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THAT ARE REQUIRED TO COMPREHEND GRAPHIC NOVELS

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ABSTRACT

The purpose of this study was to explore the extent to which graphic novels require inferential thinking skills for comprehension in grades 3-8. The questions asked in this study were:

1. What aspects of content in graphic novel texts require inferential thinking for reader comprehension?

2. What aspects of mood or tone in graphic novel texts require inferential thinking for reader comprehension?

Qualitative content analysis was applied in this study and allowed for close examination and exploration of this topic. The researcher randomly chose twelve novels from the Association for Library Service to Children's (2012) core collection of graphic novels. Each graphic novel was analyzed for exemplary instances of inferential thinking required to make meaning of the text to answer the research questions and recorded in a table. Through this exploration of graphic novels, the researcher was able to determine the necessity of inferential thinking in the understanding of text in the areas of character, plot, and mood in each graphic novel chosen for this study.

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# CHAPTER 1

# INTRODUCTION



## What is a Graphic Novel?

One of the most important clarifications to make, according to David Serchay (2008), is that graphic novels are a book format, not a genre. Fiction genres, including romance, mystery, fantasy, and history, can be found in graphic novels. Increasingly, nonfiction can also be found in this format. Author Gail de Vos defines graphic novels as "bound books, fiction and non-fiction which are created in the comic book format and are issued an ISBN" (as cited in Serchay, 2008, p. 11). Graphic novels are complete stories told using sequential art, or a series of pictures. It is this use of pictures and words that

give some educators and parents the idea that graphic novels are easy, when in fact, reading a high-quality graphic novel can be complex.

> Three intertwined, but overlapping, phenomena occur while reading a comic: Closure, the mind's ability to make incomplete pictures complete and to fill in incomplete images. Narrative density, the amount of information a single panel can convey. Finally, what comics guru Will Eisner (1985) called amplification. Eisner's amplification referred to the use of words to enhance the narrative flow of symbols (pictures), in an educational or literacy sense, pictures and words scaffold one another to aid overall comprehension. (Little, para. 2)

## Growing Popularity of the Graphic Novel

Popularity of graphic novels has grown in recent years. USA Today reported that the comic book and graphic novel industry had one of its strongest years in 2012 (Colton, Geddes & Truitt, 2012). Teacher librarians are purchasing more graphic novels than ever to build their library collections to meet the demands of their readers. By providing patrons with diverse reading materials, including graphic novels, the teacher librarian can satisfy the reading needs of many students.

## Problem Statement

Though graphic novels have grown in popularity with children, young adults, and teacher librarians, many educators and parents are still reluctant to consider this format as proper reading material. Some feel that "graphic novels are merely "picture books for older kids" and that the visual element simply makes it a reading shortcut and lowers comprehension" (Karp, 2012, p. 8). Many feel that graphic novels do not require critical reading skills to gain meaning from text that traditional literature does.

## Justification

### Common Core State Standards

Contrary to this belief, graphic novels are listed amongst other reading materials for students in the Common Core for grades 6-12 (Tomasevich, 2013). The Common Core State Standards Initiative (2010) provides standards that students are expected to learn at each grade level. This helps parents and teachers know how they can help their students be prepared with the knowledge and skills necessary to be college and career ready. When one looks at the standards provided by the Common Core, it becomes apparent that graphic novels can be used either paired with traditional novels or alone to teach specific skills. Below are examples taken from the English Language Arts Standards for sixth grade:

CCSS.ELA-Literacy.RL.6.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-Literacy.RL.6.3 Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.

CCSS.ELA-Literacy.RL.6.5 Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.

CCSS.ELA-Literacy.RL.6.6 Explain how an author develops the point of view of the narrator or speaker in a text.

CCSS.ELA-Literacy.RL.6.9 Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of

their approaches to similar themes and topics (Common Core State Standards Initiative, 2010).

**American Association of School Librarians**

According to the American Association of School Librarians "the degree to which students can read and understand text in all formats (e.g., picture, video, print) and all contexts is a key indicator of success in school and in life" (AASL, 2007, para. 1). Today's students live in a digital world where they must be able to read and understand information delivered in various formats. We must help our students become critical readers of textual, visual and digital media in order to make inferences and gain meaning.

**Inference**

Understanding graphic novels requires many critical reading skills. Those skills include "the ability to understand a sequence of events, interpret characters' nonverbal gestures, discern the story's plot, and make inferences" (Lyga, 2006, para. 4). To make an inference, readers must take information the author gives them and combine it with their prior knowledge, or information they already possess. The ability to draw on prior knowledge of the world and make predictions about what might happen is an important skill for reading (Nash, 2011).

As teachers help their students search for books in our libraries, it is not uncommon to hear them tell a student that the graphic novel they have chosen is not a "good fit" book. Some educators don't see graphic novels as real reading, and others misinterpret the word "graphic" as inappropriate (Moeller, 2013). Tomasevich (2013) cites research that has demonstrated that graphic novels promote literacy and help build reading skills with reluctant readers, English Language Learners, children of varying

ability levels, and boys. Additionally, she asserts that graphic novels' rich, complex plots and narrative structures can be satisfying to advanced readers, too. The more students read various formats, the more background knowledge they will gain, and the better they will be able to infer meaning from the text.

**Deficiencies**

Though graphic novels are becoming more prominent in our school libraries and even in some classrooms for instructional purposes, close analysis of graphic novels to explore reading skills required for comprehension has not been undertaken.

**Purpose Statement**

The purpose of this study was to explore the extent to which graphic novels require inferential thinking skills for comprehension in grades 3-8.

**Research Questions**

1. What aspects of content in graphic novel texts require inferential thinking for reader comprehension?

2. What aspects of mood or tone in graphic novel texts require inferential thinking for reader comprehension?

# CHAPTER 2

# REVIEW OF LITERATURE

The purpose of this study was to explore inferential thinking skills for comprehension in grades 3-8. Research related to this issue falls into three categories: graphic novels, visual literacy, and inferential thinking for reading comprehension. The following studies provided a foundation for further study into graphic novels and the skills that are required to make meaning from them.

## Graphic Novels

Moeller (2008) sought to examine the perceived gender differences in graphic novel preference for high school students as well as if graphic novels are seen as legitimate curricular material for use in the classroom in the eyes of these students. This qualitative study included 15 students who were asked to read three separate graphic novels. The eight girls and seven boys took part in gender-specific focus groups and individual interviews to discuss each graphic novel read. Some of these students were familiar with and had read graphic novels prior to this experience while the others had not read a graphic novel before. Data was collected during the focus groups, individual interviews, and from field notes taken during observation.

From the analyzed data, Moeller (2008) concluded that the participants enjoyed reading the graphic novels and did not perceive them as "boy books" after reading them. The researcher found that while most of the students found reading graphic novels an enjoyable experience and suitable for school, they struggled with recognizing graphic novels as legitimate curricular material.

Monnin (2008) was also interested in the perceptions of graphic novels. Monnin investigated the perceptions one teacher and one student had as they read with image literacies in the same graphic novel. The participants were selected because of their interest in in-and-out-of-school literacies and image literacies like graphic novels. The student in this study was also labeled as a struggling reader and identified himself as someone who has difficulty reading textbooks in school. In this multi-case, qualitative study, the two participants were interviewed separately before, during, and after reading the selected graphic novel. Monnin suggested that each of the two participants keep a journal while reading the graphic novel and were encouraged to follow the same before-during-and-after format. The interviews allowed for deep meaning in regards to the individual perceptions of each participant. The journals complemented the interviews as well as allowed the participants more ownership and time to reflect on their thoughts and perceptions.

Once Monnin (2008) analyzed the data from the interviews and journals, she concluded that image literacies in the graphic novel can be read on multiple levels and that graphic novels are valuable new media age literacy, especially for struggling readers.

Working with struggling readers was the focus of a third study. Lamanno (2007) examined the effectiveness of small group reading intervention with high school students who had been labeled and diagnosed with severe reading problems. The researcher explored whether graphic novels had an impact on students' motivation for reading. The majority of the students in this study had been diagnosed with mental retardation or a type of learning disability. The students were chosen from two different high schools of comparable size and population from the same school district.

Using a single-subject, multiple baseline research design, Lamanno (2007) split the students into groups of similar reading abilities. The students were pre and post-tested for specific reading skills and given a questionnaire regarding reading motivation. During the course of the study, graphic novels were used to instruct students using reading interventions that have been shown to increase comprehension skills.

Although students expressed interest and positive feelings toward graphic novels and felt the pictures helped them to better comprehend the text, the results indicated that, in general, graphic novels were not successful in helping students with severe reading difficulties. The data also reflected that graphic novels did not help to motivate students to read more. Lamanno (2007) noted that although the study was voluntary, she did not rate these students as highly motivated. Knowing that this study was voluntary, it was not clear whether the level of increased motivation did not occur due to the ages of the participants, their lack of reading abilities, or both.

### Visual Literacy

Students' visual literacy is their ability to make meaning from graphics, including but not limited to pictures, graphs, and maps. Norman (2011) sought to determine if there was a relationship between graphical reading processes in informational text and students' overall comprehension.

Thirty male and female students in second grade were randomly selected from five different elementary schools. Students were chosen to ensure diversity of ethnicities, socio-economic statuses, and differing ranges of reading abilities from low to high.

Using verbal protocols, Norman (2011) prompted students to think aloud while reading the selected nonfiction passages as they came to and studied a graphic that

accompanied the text. The participants also provided retellings of the text at the end of the passage as well as answered comprehension questions. After Norman analyzed the collected data, she determined that students who looked at the graphics along with other methods allowed students to have an increased level of comprehension of the informational text.

Thomas (2010) was also interested in the same relationship between text and illustrations. Using picture books and informational story books, the researcher explored how this relationship influenced children's understanding of the text. This qualitative case study included a small sample size of six students in second grade who were enrolled in a Department of Defense school based in Europe. These students were considered at or above grade level and consisted of two girls and four boys.

At the beginning of the study, students were introduced and instructed in basic art elements. This was done to build students' awareness and vocabulary of illustrations to aid in their retellings of the stories. During the study, the researcher read aloud the stories to the students as a group and as she did so, used the think-aloud method to model to students the importance of pausing at pictures and using them to better understand the text. Students were then paired up and read the stories together.

Through observations of students' reading and retelling of the texts, during group and paired discussion, and through individual interviews, Thomas (2010) discovered that all students in this study demonstrated textual/visual understanding of picture books and information picture books. She noted, however, the importance of introduction and instruction in the classroom of textual story elements, the elements of art and the relationship of visual literacy and the reading process to make greater meaning of text.

Robertson (2007) was most interested in the teaching of visual literacy. Through survey research, she explored teachers' attitudes toward visual literacy and their understanding and implementation of teaching visual literacy to their secondary students. Robertson conducted her research with English/language arts teachers across a three-county area in central Kansas. The high school teachers were selected from schools that most closely represented the average size of the majority of high schools in the state.

Analysis of the survey information indicated that teachers felt they had little to no training in visual literacy instruction and found it less important than teaching traditional literacy.

### Inferential Thinking for Reading Comprehension

As stated in the previous chapter, to make an inference, readers must take information that the author gives them and combine it with their prior knowledge, or information they already possess. Quirk (2002) investigated whether inferences were being drawn by students of various grades and skills while reading nonfiction texts. In this study, 64 second graders and 78 third graders were selected to participate. The students were from economically disadvantaged urban schools in Georgia and New Jersey.

Students read six-sentence passages from science expository text. After the students finished the passage, an unrelated word, an associated word, or an inference word was presented to them. If the children read the word quickly and accurately and also answered the knowledge base question accurately for that passage, then it was assumed that he/she made the correct inference during the reading of the text.

Quirk (2002) concluded that regardless of skill or age level, inferences were not being made during reading by these second and third grade students. Despite this, the researcher noted that there was a slight indication that some students were relatively close to making the correct inference.

Wagner (2006) was also interested in the inferential thinking skills of elementary students. The researcher conducted a study to establish if inferencing abilities are apparent in students at the third, fourth, and fifth grade levels. She also sought to determine if students' overall inferential thinking abilities show a pattern in relation to their ages and skill levels.

Students in third, fourth, and fifth grades from a rural elementary school were asked to participate. Of these students, 47 students received parental consent to participate in the study. Two non-fiction and two fiction passages were read aloud to each student. During the reading, the examiner asked the participants targeted questions to determine if an inference was occurring (Wagner, 2006). The examiner evaluated each student on his/her inferential thinking abilities by his/her overall response and scores on inference ability and clue selection.

Results indicated that inferential thinking abilities increase at each grade level. Fifth graders' abilities to inference were greater than those of the lower grade levels in this study. It was also concluded that non-fiction and fiction texts affect students' abilities to infer. Wagner (2006) noted that prior knowledge of non-fiction text can impact how well a student infers.

**Summary**

While the studies included in this literature review differed in purpose and findings, they built a foundation for further study into graphic novels and the extent to which they require inferential thinking skills to comprehend them.

As graphic novels grow in popularity, research is beginning to emerge on their use in the classroom and with students of various reading abilities. Moeller (2008) concluded that participants enjoyed reading graphic novels and felt they were not gender specific but had difficulty seeing them as legitimate curricular material. Lommano (2007) also found that the participants in her study expressed interest and positive feelings toward graphic novels. However, the students with severe reading difficulties were not motivated to read more with the use of graphic novels, nor were they successful in helping students with reading comprehension. Conversely, Monnin (2008) found that graphic novels are valuable new age media literacy, especially for struggling readers.

Like the images in graphic novels, graphics in other reading materials are intended to help readers comprehend what they read. Norman (2011) found students have a better overall understanding of text when certain processes are used for reading graphics in informational text. Thomas (2010) was also interested in how the relationship of text and illustration in both narrative and expository texts help students to make meaning. She found that students demonstrated textual/visual understanding of the illustrated texts used in the study. Thomas also ascertained from the findings that teaching of these skills is an important aspect of students' abilities for textual/visual understanding.

Teaching visual literacy and the attitudes of teachers toward visual literacy was the focus of the study by Robertson (2007). She found that although state standards

emphasize non-print materials, teachers felt they had little to no training in visual literacy and they found it secondary to print literacy.

Students' abilities to infer while reading are important skills and aid in comprehension of text. While Quirk (2002) found that second and third grade students were unable to make inferences while reading, Wagner (2006) concluded that inferential thinking was apparent in third, fourth, and fifth grade students and that the ability to infer increased at each grade level.

The culmination of all the studies examined in this literature review demonstrate that reading graphic novels can in some instances increase students' comprehension in both non-fiction and fiction text. This review of the literature indicated that the complexity of reading graphic novels is yet to be fully examined and understood.

**CHAPTER 3**

**METHODOLOGY**

Regardless of the growing popularity of graphic novels amongst children, young adults and teacher librarians, many educators feel that graphic novels do not require critical reading skills to gain meaning from text that traditional literature entails. Through this study, the researcher explored the extent to which graphic novels require inferential thinking skills for comprehension in grades 3-8.

**Research Design**

Qualitative content analysis was applied in this study. Zhang and Wildemuth (2009) explained that this research method "involves a process designed to condense raw data into categories or themes based on valid inference and interpretation" (p. 309). Qualitative content analysis allowed close examination and exploration of this topic. A limitation was researcher subjective interpretation. According to Zhang and Wildemuth, "Qualitative research is fundamentally interpretive, and interpretation represents your personal and theoretical understanding of the phenomenon under study" (p. 313).

**Procedures**

**Data Sources**

The Association for Library Service to Children (2012), a division of the American Library Association, provides a core collection of graphic novels for librarians to use when building or maintaining a graphic novel collection. The graphic novels were chosen by the Quicklists Consulting Committee because they are well-reviewed and widely recommended. The researcher chose six books from the third through fifth grade list and

six books from the sixth through eighth grade list. The graphic novels were chosen randomly from those on the core list that were available to the researcher.

**Data Collection**

The researcher examined each graphic novel performing a close reading of the text and illustrations. The researcher looked for exemplary examples of inferential thinking required to make meaning of the text. As the researcher identified instances of drawing inference, each was recorded. The researcher used constant comparison to ensure that texts read early in the study fit the patterns and codes revealed throughout the examination of the texts.

**Data Analysis**

Zhang and Wildemuth (2009) explained that analysis can begin during the early stages of data collection because data are constantly compared throughout the examination of the texts as categories emerge. For this study, the researcher clustered and organized the exemplars by the coding scheme that emerges from the examination of the texts. The findings of this study provided insight into the cognitive complexity to fully comprehend graphic novels.

**CHAPTER 4**

**RESULTS**

The researcher conducted a qualitative content analysis to explore the extent to which graphic novels require inferential thinking skills for comprehension in grades 3-8. Twelve novels were randomly chosen from the Association for Library Service to Children's (2012) core collection of graphic novels. The list of books chosen is provided in Appendix A.

**Findings**

Each graphic novel was analyzed for exemplary instances of inferential thinking required to make meaning of the text to answer the following research questions:

1. What aspects of content in graphic novel texts require inferential thinking for reader comprehension?

2. What aspects of mood or tone in graphic novel texts require inferential thinking for reader comprehension?

A table was created to report the book title, a description of the panel that required inferential thinking to make meaning of the text, and the aspect of content with which the inference was associated.

According to Lyga (2006), graphic novels require many critical reading skills, including the ability to make inferences. The data confirmed the need of inferential thinking to make meaning of the text in the areas of character, plot, and mood by the reader. The majority of instances required the reader to use both pictures and words to make meaning of the text. The following table summarizes that data.

Table 1

*Examples of Inferential Thinking in Graphic Novels*

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Anya's Ghost* | In a series of panels, Anya is walking to the bus stop. She looks up and notices a boy waving. She first has a shocked look on her face. Then she gives an awkward half smile and starts to wave. In the next panel, a very pretty blond girl comes up from behind her. Anya's eyes get big and her mouth opens slightly. The girl walks up to the boy and they hug. Then Anya lowers her head and puts her hand to her head. She has a frown, and she is blushing. p. 6-7 | Anya feels embarrassed that she mistook the boy waving to his girlfriend for waving to her. She is sad that he is not interested in her. | Anya likes the boy, but he already has a girlfriend. | | C, P |
| | In the first panel, Anya has a scowl on her face. In the dialog balloon, she says, "You little Monster! What are you doing leaving your toys here? Mom could've broken her neck!!" In the next panel, he swears to her that he didn't leave them there, that he had been looking for them all day. There is a dawning of understanding on Anya's face, and she tells him she believes him. p. 176 | | Anya realized the ghost left the toys on the stairs and is trying to hurt her family. | | P |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *The Arrival* | In a series of panels, there is a close-up of the man's family in a picture. It widens out to show his bowl with him spooning something out of it. Then it widens the shot out more to show him sitting eating. It continues to widen out and eventually shows him in the port hole of a ship. Finally all you see is the ship in the ocean. You can no longer see the lights from the port holes of the individual cabins. p. 14 | The man feels very small and alone on his voyage. | | There is an overwhelming and lonely feeling. | C, M |
| | A series of panels shows the man as he tries to communicate to someone. He looks confused and in one panel he puts his hand to his ear. In the next one, he scratches his head. He is using hand gestures. He holds up a picture of his family. In the last two panels, he puts his head in his hand and then looks away. p. 29 | The man feels frustrated, confused, and helpless. | The man does not speak the language of the country he has traveled to. | | C, P |
| | The man's family has finally joined him in their new country. The room is filled with art and items like vases and bowls. The family is sitting at the table together eating and they are smiling. The father is handing the little girl something and holding up three fingers. p. 109 | The man is happy his family is with him and is enjoying teaching them things about their new, strange world. | | The mood is happy… the room has taken on a cheerful tone. | C, M |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Babymouse: Queen of the World* | Babymouse has her bag clutched tightly and says to herself, "Okay... be cool..." As Felicia walks by, she starts rambling (the dialog bubble is filled with random sentences that ramble on). The following panel shows her being trampled by a group of girls who are all vying for Felicia's attention. The last panel shows a disheveled Babymouse standing with her back to the reader, footprints on her back. The reader sees the back of all the girls talking (dialog bubbles say, "blah, blah, blah", and Babymouse gives a sigh. p. 18-19 | Babymouse is intimidated by Felicia but wants to be her friend. | Felicia is popular and has a "clique" of friends, but Babymouse does not fit in. | | C, P |
| | Babymouse is walking down the hall, head down, and clutching her books tightly. Behind her down the hall girls are jumping with pink envelopes in their hands. In front of her hands are being held out with more pink envelopes. The panel caption says, "It seemed like everyone was invited to the slumber party." p. 39 | Babymouse feels sad and left out that "everyone" has been invited to Felicia's party but her. | | The mood has taken on a depressed or sad tone | C, M |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Coraline* | In a series of panels, Coraline shops with her mom and sees a pair of bright green gloves. She tells her mom that she likes them a lot. Her mom tells her no. She then explains to her mom that nobody has gloves like these and she could be the only one at school with them. In the next panel, the caption says that her mother ignored her and you see Coraline scowling with her arms crossed. There is a squiggly line above her head. p. 25 | Coraline is angry that her mom will not listen to her or understand why she wants the green gloves. | | | C |
| | Coraline stands in a messy room with various furniture and household items. The caption reads, "These things- even the thing in the cellar- were illusions made by the other mother, who could not create but only twist, and copy and distort things that already existed." The second panel reads, "Then she remembered the snow globe the other mother had placed on the mantelpiece, and she wondered…" A thought balloon says, "Why?" The caption goes on, "For the mantelpiece in Coraline's world was quite bare." "And as soon as she had asked herself the question, she knew the answer." p. 131 | | Coraline has figured out that her parents are trapped in the snow globe. | | P |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Drama* | In panels prior to this, you see Callie, Matt and Greg walking home from school together. Greg asks Callie if they can talk… alone. Matt walks off irritated. In this series of panels, you see Callie fluffing her hair and doing the "breath test" when Greg turns away. They sit down on a park bench, and Greg tells Callie that his girlfriend broke up with him. She excitedly (smiles with wide eyes) says, "She did?!" In the next panel she looks panicked (mouth cringed and sweat beads above her head) and says, "Er, I mean… she did?" p. 6-7 | Callie likes Greg and is excited he is single. | | | C |
| | Greg and Callie are facing each other on the park bench. In the first two panels, the sky is light blue. In the third panel, they bring their faces closer and the sky turns pink. In the last panel, they kiss and the sky behind them is a dark pink. p. 10 | | | The mood is romantic. | M |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Giants Beware* | In panels prior to this, you see Gaston hiding behind Claudette when faced with bullies and other situations. In this panel you see the shadow of Claudette with her arm around her younger brother, Gaston. He tells Claudette he was scared by a story being told by an elder in their village, and he asks Claudette not to tell their father. In the next panel you see two burley men working in a blacksmith's shop. Their father is telling the other man, "Lady Lucy could hammer stronger than that!" In an inset you see Claudette reassuring Gaston and telling him she won't tell their poppa. p. 18 | Gaston is afraid of disappointing his father (a blacksmith who formerly fought monsters) because he is not as tough or brave as his sister Claudette. | | | C |
| | Claudette and Gaston's father is talking about how he would be still slaying monsters if he hadn't lost his best sword. Gaston tells his father he'll make his father a new one once he teaches him the blacksmith's art. His father responds, "You can't be a sword maker if you're afraid of swords, boy." In the next panel you see Gaston with a sad face, eyes big and sad, with a word bubble that says, "gulp." p. 23-24 | Gaston is sad because he wants to learn how to be a blacksmith. | Gaston wants to be a blacksmith like his father, but because he is not a fighter like Claudette, his father does not think he is capable. | | C, P |

| | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| | In the scene, Claudette sits at the table with her father and father's helper from a distance. Gaston is walking off with his head down and a sad face. p. 24 | | | The mood turns sad-muted colors and the distance from the characters give it a lonely feeling. | M |
| *Hyperactive* | First, the teacher is at the front of the room lecturing. Next, Joey has his head in his hands, a very bored look on his face. The word bubble behind him has a portion of the teacher's lecture going on and on. p.8 | Joey is completely bored with the lecture his teacher is giving. | | | C |
| | In the first panel you see Joey. He says to himself, "Five more minutes???" Panels follow with clocks ticking off 5 minutes. On each clock the "Tick" gets bigger. p. 9 | | | Although the clock is moving forward, time feels as though it is standing still. | M |
| *Into the Volcano* | Duffy and Sumo (brothers) are in class. The teacher tells them they need to report to the principal's office. In the next panel, the boys are at the very end of a long hallway. The colors are muted and the brothers look very small. p. 5 | | | There is a feeling of dread as they walk, what seems like a very long hallway, to the principal's office. | M |
| | A series of panels show Sumo lying in bed. In each panel, his eyes are open but the lighting in the plane and in the window behind him changes from dark to light to lighter. p. 11 | Sumo is nervous about the trip and can't sleep. He stays awake all night and into the morning. He doesn't want to go. | | | C |

| Book Title | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| *Knights of the Lunch Table* | Artie's sister, who is not very nice to him, reminds him at the last minute as the school bus is pulling up that he has forgotten to take out the trash. Artie tells her not to let the bus leave without him. She replies, "I wouldn't dream of it." She has a sneer on her face. P. 7 | | Artie's sister has no intention of telling the bus driver to wait and he is going to miss the bus. | | P |
| | Artie has been assigned to a locker at school that he's been told can't be opened and might be haunted. In this panel he is standing in front of the locker with his back to the reader. It is looming large before him. p. 48 | Artie feels intimidated and fearful. | | There is a feeling of intimidation and fear. | C, M |
| *Page by Paige* | Paige is sitting on a rock in the middle of a pond with a sketch book in her lap. There are picture frames floating near her. The caption says, "Without them, I'll just have to rely on myself. And this sketchbook. And some pencils. And a LOT of erasers. I am a redheaded island." p. 21 | Paige feels all alone in her new town without her friends. | | The mood is lonely and a little sad. | C, M |

| | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| | In a series of panels, the reader sees Paige sitting at a desk with a sketchbook in her hand. The first panel's caption says, "Okay, just draw." In the second panel, the sketchbook is larger and the caption reads, "Something." Then in the third panel, the sketchbook is huge, and she has a distraught look on her face. The caption says, "Anything!" p. 24 | | | The sketchbook getting larger creates an overwhelming feeling. | M |
| *To Dance: A Ballerina's Graphic Novel* | The page is titled "Audition" and it shows a series of panels with Siena at the end of a hallway walking toward a door. She has sweat beads around her head and in the thought bubbles, the reader sees her dancing before a panel of judges. The judges show the scores. The scores are not good. p. 13 | Sienna is very nervous about her audition and fears that she will not perform well. | | | C |
| | In a series of three panels with a red back ground, you see Sienna's parents fighting. Sienna is trying to cover her ears. In the last panel is a close-up of Sienna's face and she is crying. The caption reads, "Meanwhile Mom and Dad were divorcing," and "There was no peace at home." p. 44 | Sienna can't stand to hear her parents fighting and tries to block the sounds out. It makes her sad they are divorcing. | | The red background gives it a heated/angry tone. The last panel where Sienna is crying switches the mood to sad. | C, M |

| | Description of the Panel(s) | Inference about the character (C)? | Inference about the plot (P)? | Inference about the mood (M) or tone? | Code |
|---|---|---|---|---|---|
| | Mr. Balanchine, the founder of the School of American Ballet (SAB) died. In a series of three panels you see empty rooms and empty hallways in the SAB. The colors are muted and gray in color. p. 51 | | | A very sad or depressed mood. | M |
| *The Storm in the Barn* | In a series of panels, the reader sees Jack's father working on a car. Jack is trying to help. Jack keeps asking if he can help or fetch something from town for his father. His father keeps telling him no and finally says, "Look, just … just go find your baby sister. Keep an eye on her." Jack walks away with his shoulders slumped and his head down. His father continues to work. p. 40-41 | Jack wants so badly to be a help to his father, to help out on the farm. He is sad and disappointed that his father doesn't want or need his help. | | | C |
| | In a series of panels, Jack's sister is telling him about the wizard in Oz. Jack wants to know if the wizard was hiding out in Oz. His sister tells him that she didn't think so, that she thinks he wanted to be special and powerful. In the following panel, Jack says, "I guess he wasn't much use at home in Kansas." He has a sad look on his face, and his sister looks at him with a concerned look on her face. p.66-67 | Jack is relating to the wizard. He doesn't feel like he is much use to anyone and he feels badly about it. | | | C |

Instances of drawing inference are found readily in the texts examined. In each of the graphic novels chosen for this study, reader comprehension was dependent upon the ability to make inferences to understand character's emotion and motive. In more than half of those instances, the reader needs to interpret both pictures and words to make the inference. In *The Storm in the Barn,* the reader must not only combine the words and the pictures to make an inference, but also connect that information with events from earlier in the book. In a series of panels, Jack's sister tells him about the wizard in Oz. When his sister explains that the wizard stayed in Oz because he wanted to feel special and powerful, Jack says with a solemn look on his face, "I guess he wasn't much use at home in Kansas," (Phelan, 2009, p. 67). His sister looks at him with a concerned look on her face. The reader must connect this information with evidence from earlier in the book to infer that Jack is making a connection to the wizard and doesn't feel like he is much use to anyone around home and feels badly about that.

In *Anya's Ghost*, the reader must discern the pictures alone. In a series of panels, Anya is walking to the bus stop. She looks up and notices a boy waving. She first has a shocked look on her face. Then she gives an awkward half smile and starts to wave back to him. In the next panel, a very pretty blond girl comes up from behind her. Anya's eyes get big and her mouth opens slightly. The girl walks up to the boy and they hug. Then Anya lowers her head and puts her hand to her head. She has a frown on her face, and she is blushing. The reader must infer that Anya feels embarrassed that she mistook the boy waving to his girlfriend for waving to her. She also feels badly that he is not interested in her. The ability of the reader to use the character's nonverbal gestures in this series of

panels was essential to infer and comprehend the meaning of the character's emotions and motives.

Comprehension of plot also demanded inferential thinking. In six of the novels chosen for this study, the researcher noted instances of inferences related directly to the plot of the story. In *The Arrival,* a wordless graphic novel, a series of panels shows the man as he tries to communicate to someone. He looks confused, and in one panel, he puts his hand to his ear. In the next one, he scratches his head, and then continues to use hand gestures to communicate. He holds up a picture of his family, and in the last two panels, he puts his head in his hand, and looks away. The reader infers that the man does not speak the language of the country he has traveled to and is having difficulty communicating. The reader is also able to infer that the character of the story is feeling frustrated, confused, and helpless.

Another example of inferential thinking for comprehension of plot is in the graphic novel *Coraline*. Coraline stands in a messy room with various furniture and household items. The caption reads, "These things- even the thing in the cellar- were illusions made by the other mother, who could not create but only twist, and copy and distort things that already existed." The second panel reads, "Then she remembered the snow globe the other mother had placed on the mantelpiece, and she wondered…" A thought balloon says, "Why?" The caption continues on to say, "For the mantelpiece in Coraline's world was quite bare." "And as soon as she had asked herself the question, she knew the answer" (Russell, 2008, p. 131). Coraline visualizes the mantelpiece in both homes while she makes the comparison. The reader infers from both the text and illustrations that Coraline has figured out that her parents are trapped in the snow globe.

In addition to character and plot, there were aspects of mood or tone in more than half of the graphic novels chosen by this researcher that required inferential thinking for reader comprehension. In *Drama*, Greg and Callie are facing each other on the park bench. In the first two panels, the sky is light blue. In the third panel, they bring their faces closer and the sky turns pink. In the last panel, they kiss and the sky behind them is a dark pink. The use of changing colors in each panel helps the reader infer that the mood has turned romantic.

Similarly, in *To Dance: A Ballerina's Graphic Novel*, the use of colors help set the tone of the book and also helps the reader make an inference about the mood. Mr. Balanchine, the founder of the School of American Ballet (SAB) died. In a series of three panels you see empty rooms and empty hallways in the SAB. The colors are muted and gray in color. The gray colors and empty rooms help the reader infer that the mood is sad and lonely.

## Summary

Through exploration of graphic novels, the researcher was able to determine the necessity of inferential thinking in the understanding of text in the areas of character, plot, and mood. Graphic novels require a reader to infer not only from printed text, but also illustrations which include the use of color. The ability to interpret a character's nonverbal gestures to determine a character's motivations and emotions was essential. Mood was created with the use of colors, illustrations, and sometimes words.

This study demonstrates that graphic novels require readers to use higher order reading skills to make meaning of text. Graphic novels can be a tool that teacher

librarians and classroom educators use to teach making inferences and other reading

skills.

## CHAPTER 5

## CONCLUSION AND RECOMMENDATIONS

### Problem

This study sought to dispel the belief that graphic novels do not require critical reading skills to gain meaning from text that traditional literature does. The purpose of this study was to explore the extent to which graphic novels require inferential thinking skills in grades 3-8.

### Conclusion

The researcher found that every graphic novel chosen for this study required the ability to infer meaning from both text and illustrations in the areas of character, plot, and mood. While most of the examples of inferential thinking recorded in the table required both the discernment of printed text and illustrations, there were instances where just the illustrations were needed to make an inference. The ability of the reader to combine text and illustrations, understand the characters' nonverbal gestures, and understand sequence of events was essential to the comprehension of the text when making inferences.

This study helps to support the use of graphic novels when teaching higher order thinking skills, and inferencing in particular. The American Association of School Librarians (2007) *Standards for the 21st-Century Learner* states that students should be able to "read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning" (Standard 1.1.6). Graphic novels could be used as texts when teaching this skill in the classroom and library.

Readers' advisory is an opportune time for teacher librarians to suggest the use of graphic novels to improve inferential thinking skills. Graphic novels are not the typical format that students and/or teachers think of when searching for books to improve these skills. As mentioned above, it is vital that students read from a variety of formats.

## Recommendations

This study focused on the inferential thinking required to make meaning of text in the areas of character, plot, and mood. Twelve novels were randomly chosen from the Association for Library Service to Children's (2012) core collection of graphic novels. Six of the novels were chosen from the grades 3-5 list and six more from the grades 6-8 list. This research could be broadened to include a larger selection of graphic novels or to include grades 9-12. Future studies could also focus on specific genres. For example, would historical fiction graphic novels require more background knowledge of the reader to make inferences to comprehend the text? Additionally, a researcher could broaden the study to look at other reading comprehension skills including, but not limited to vocabulary. Continued close analysis of graphic novels to explore reading skills required for comprehension is recommended by this researcher.

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APPENDIX A

LIST OF GRAPHIC NOVELS

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