

---

# Shedding New Light on Graphic Novel Collections: A Circulation and Collection Analysis Study in Six Middle School Libraries

**Karen W. Gavigan**  
*University of South Carolina, USA*

---

*Although there have been studies examining the circulation and use of graphic novels in public and academic libraries, there has yet to be a scientific study examining these variables in multiple school libraries. The purpose of this study was to gain a better understanding of middle school graphic novel collections, through the analysis of circulation data and interviews with librarians. Quantitative results reveal that graphic novel circulation represents a larger proportion of total circulation for the libraries examined, than their percentage of the collection would suggest. Analysis of the survey results reveals commonalities and differences between these graphic novel collections.*

## Introduction

Graphic novels have established themselves as a popular literary format with today's visually-literate youth; however, there are still some school librarians who are reticent to add graphic novels to their library collections. As stated in Publishers Weekly (May 2013), "Despite the circulation statistics, school libraries and adult collections are slowest in building graphic novel collections." (p.22). Additional studies examining graphic novels in school libraries are needed, in order to help school librarians recognize that graphic novels deserve a legitimate place in the curriculum, and in their library collections. One way that librarians can justify using graphic novels in schools is articulated in national guidelines such as the *Standards for the 21<sup>st</sup>-Century Learner* (AASL, 2007), which place an emphasis on using a variety of formats, like graphic novels, with students. Finally, with the importance that the Common Core State Standards (CCSS) place on using informational texts in a range of formats, many school librarians are recognizing the potential of graphic novels for helping students meet CCSS grade level standards (CCSS, 2010). As stated in *Wham! Teaching with Graphic Novels across the Curriculum* (Brozo, Moorman, & Meyer, 2014), the CCSS "invite the integration of graphic novels into the curriculum" (p. 9).

A greater understanding of the types of texts that are valued by adolescents is an important first step in increasing students' reading motivation and achievement. Therefore, it is important for librarians to understand the popularity and potential of graphic novels with young adults, as well as the characteristics of graphic novel collections in the school libraries that serve them. Building on existing research that supports the use of graphic novels in schools, and the CCSS and AASL standards, this study will shed new light on graphic novel collections in middle school libraries.

This multiple case study examined the circulation data and collection characteristics of graphic novel collections in six middle schools in two states in the United States (U.S). Middle schools in the U.S. traditionally include grades 6-8, ages 11 – 14. Library circulation records were analyzed in schools in South Carolina and North Carolina, through the use of the schools' Follett

Destiny circulation systems. Qualitative data regarding graphic novel collections were collected through the use of a survey instrument, and interviews, with the six school librarians at the participating schools. The purpose of this article is to provide school librarians with scientifically-based research that examines graphic novel circulation data and characteristics regarding graphic novel collections in middle school libraries.

### **Conceptual Framework**

This study is guided by a visual literacy perspective, which contends that, in addition to text, 21<sup>st</sup>-Century learners construct their knowledge and meaning through a variety of visual images. Visual literacy is defined as the complex act of learning using still or moving images (Frey & Fisher, 2008). Due to the large influence of television, advertising, and the Internet, today's adolescents are an extremely visual generation of multimedia learners. As Flynt and Brozo (2010) wrote, "Visual culture is a constant in students' daily lives" (p. 526). Furthermore, the AASL Standards state, "Multiple literacies, including digital, visual, textual, and technological, have now joined information literacy as crucial skills for this century" (AASL, 2007, p. 3).

Providing non-traditional texts through visual literacy formats, such as graphic novels, can engage students' interest in a subject. For example, literacy educators have found that graphic novels can be a motivating factor for helping readers achieve reading enjoyment and success (Botzakis, 2009; Crawford, 2004; Frey & Fisher, 2008; Gavigan, 2011; Lammano, 2007; Lyga & Lyga, 2004). Further, Krashen (2004) and other literacy theorists believe that when students select engaging reading materials, such as graphic novels, it can help them find their literary voices by choosing to read, rather than choosing not to read at all (Brozo, 2002; Ivey & Fisher, 2006; Smith & Wilhelm, 2002). Consequently, many literacy educators and theorists argue that visual literacy should be taught in today's schools in order to make the curriculum relevant to the lives of students (Alvermann & Xu, 2003; Ranker, 2007; Schwarz, 2002; Xu, Sawyer, & Zunich, 2005). In this evolving media age where visual literacies are becoming more dominant, there is a need for further research examining the role that graphic novels can play in students' literary lives.

## **Literature Review**

### ***Circulation Analysis Research***

Due to the current economy, many libraries have seen a reduction in their budgets, which makes it all the more important for librarians to use data to guide collection development decisions. An effective way to determine the degree to which the types of resources, such as graphic novels, are valued by patrons is through circulation analysis. One previous study on the use of circulation statistics described them as the "strongest single element (librarians) have on which to base decisions....to evaluate and fine tune their collections" (Knievel, Wicht, & Connaway, 2006, p. 37). Although circulation analysis studies conducted in academic and public libraries are well-represented in library literature (Pierce, 2003; Gray & Copeland, 2012; Knievel, Wicht, & Connaway, 2006; Luzius, 2004; Rose-Wiles, 2013), few circulation studies are available in the field of school librarianship. One study, described in *School Libraries Worldwide* (Enochs, 2010), provided an analysis of the poetry holdings of 72 elementary school libraries using circulation software. In her conclusion, Enoch's suggested that this collection analysis model be replicated to "make more precise decisions in relation to developing and managing the school library collection" (p. 78). Another school library study used data from a computerized circulation system to measure the use

of materials in a middle school library (Bertland, 1992). The study, like this graphic novel study, used the Relative Use Factor (RUF) to analyze the collection. The Relative Use Factor has been used in other studies (Aguilar, 1986; Lancaster, 1993; Ochola, 2003), and it was the method used to evaluate the six library collections examined in this study. Developed by George Bonn, and described in his article in *Library Trends* (1974), the RUF is the ratio of the percentage of circulations in a given subject area compared to the holding's percentage in the same subject area.

The literature regarding the circulation of graphic novels in libraries is well-represented with reports from librarians in a variety of fields (MacDonald, 2013). For example, Mike Pawuk, of the Cuyahoga County Public Library in Ohio, reported that, in 2011, graphic novels made up approximately 10% of his collection, but 35% of his total circulation. At Columbia University, librarian Karen Green states that, "Graphic novels are the most frequently requested material in our Ivy League request system" (p. 20). In this same *Publishers Weekly* article, Esther Keller, a school librarian in Brooklyn New York, reported that graphic novels make up 3% of her library's collection and 30% of its circulation. An earlier study revealed that public libraries had 25% increases in overall collection circulation after adding graphic novels to their collections (Miller, 2005). Further, Robin Brenner, Teen Librarian at the Brookline Public Library in Massachusetts, describes the following impressive circulation statistics for a graphic novel series in her collection, "*Case Closed*, as a series, has circulated over 1,200 times (with an average of 40 circulations per volume). In prose fiction, this number can't even be touched by the *Twilight* series (352 circulations, average 24 per volume)" (Brenner, 2009, p. 1).

There is little, if any, research reported in the literature examining the characteristics of graphic novel collections in middle school libraries; however, it can be beneficial for librarians to examine the graphic novel literature that depicts the format's increasing popularity, as well as the use of graphic novels in schools.

### **Graphic Novel Sales in North America**

Evidence of the explosive popularity of the graphic medium is revealed in Diamond Comic Distributer's report of the May, 2013 comic book and graphic novels sales to North American comic stores. The \$45.12 million in comics and graphic novel sales in May, 2013 represents an increase of 90% over the \$23.7 million in sales in May, 2003 (Miller, 2013). This "publishing storm" of graphic literature has heightened the awareness of the format, so that it is no longer predominantly viewed as an "underground art form" (Harris, 2008, p. 426).

### **Graphic Novels in K-12 Schools**

Flynt & Brozo write, "We must design instruction that reflects the mediasphere in which children and youth live" (2010, p. 528). There are currently a number of studies that document the benefits of using graphic novels for instructional purposes. For example, researchers have demonstrated that the illustrations in graphic novels can facilitate learning for students with varying learning styles and abilities. Graphic novels have been used successfully, curriculum-wide, with honor students, English Language Learners (ELL), struggling readers, and students with disabilities (Botzakis, 2009; Cary, 2004; Gavigan, 2011; Hammond, 2009; Krashen, 2004; Monnin, 2008; Mortimer, 2009; Liu, 2004; Rado, 2013; Smetana, Dara, Heidi, & Grisham, 2009). Additionally, some studies have shown that graphic novels appeal to readers regardless of their gender, socioeconomic status, cultures, and personalities (Gavigan, 2011; Moeller, 2011; Thompson, 2008).

For example, a study by Ujiei and Krashen (1996) found no difference in the amount of comic book reading done by middle-class and lower-income seventh-grade boys.

More recently, the January / February 2013 issue of *Knowledge Quest*, *Getting to Know Graphic Novels*, featured thirteen articles dealing with the use of graphic novels in classrooms and libraries. Further, school library journals such as *Library Media Connection* and *VOYA* include a regular column dedicated to graphic novels. Finally, librarians, and other educators and scholars, have published a number of monographs about the use of graphic novels in libraries and classrooms (Bakis, 2012; Cary, 2004; Brozo, Moorman, & Meyer, 2014; Fagan & Fagan, 2011; Fletcher-Spear, K., & Jenson-Benjamin, M., 2011; Gavigan & Tomasevich, 2011; Herald, 2011; Karp, 2012; Miller, 2005; Monnin, 2010; Monnin, 2013; Serchay, 2008; Weiner, Scott, Nyberg, Fee, & Goldsmith, F., 2010).

## Methodology

In order to better understand the characteristics of graphic novel collections, and their use in middle school libraries, the following research questions guided this study:

1. What does circulation data reveal about graphic novel collections in middle school libraries?
2. What are the ways in which graphic novels are selected, used, and promoted in middle school libraries?

The settings for this study were six public middle school libraries, three in South Carolina and three in North Carolina. The number of schools was selected because it provided adequate data and remained manageable for analysis. In order to determine if there were similar patterns across all types of schools, the schools were purposefully selected to vary in size, socio-economic status (SES), and geographic location within the two states. To ensure that the data collection methods were consistent, all six of the schools used Follett / Destiny automated circulation systems. A survey instrument was developed with the assistance of a statistician in the Statistical Consulting Lab at the University of South Carolina (USC), and pilot tested with school librarians. The feedback from the librarians indicated that the survey items were reliable and had a high level of content validity. Since the study was an interpretative multiple-case study, it utilized a mixed-methods approach to data collection and analysis, allowing for an in-depth study of the school library settings.

Both qualitative research and descriptive statistics were collected from the following sources:

- Circulation records of the graphic novels checked out from the six school libraries, during the 2011 – 2012 school year, were obtained from the library's automated circulation system
- Survey, results, field notes, and audiotapes obtained from interviews conducted with the participating librarians

The study took place at the end of the 2011-2012 academic year. The participating librarians in the study included six participating librarians, all of whom were female. The years of experience of the librarians ranged from two years to fourteen years. The participants received a list of questions regarding the circulation data required for the quantitative part of the study (Appendix A). The interview protocol (Appendix B) was used to facilitate face-to-face interviews with the librarians in their schools. These audio-taped interviews lasted approximately 20 – 40 minutes each.

## Limitations

Although the results of this study can provide beneficial data for librarians, there are limitations to the study's methodology. The duration of this study was limited to one academic year, which may be considered by many to be too brief of a period of time in terms of both quantitative and qualitative research. Also, the study was limited to six school libraries serving grades 6 – 12; therefore, findings may not generalize to other settings and grade levels. Further studies are needed to determine if these circulation and usage patterns apply to graphic novel collections in other middle school libraries.

## Findings and Analysis

### *Quantitative Findings*

In order to address the research questions guiding this study, the following data were collected:

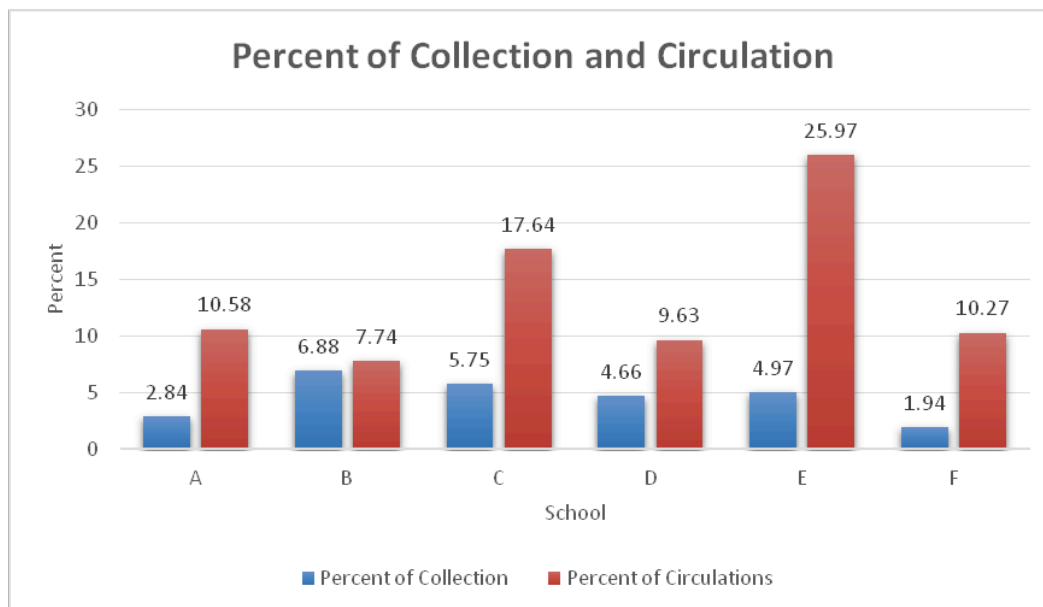
- Number of graphic novels in the library collection in relationship to the rest of the collection
- Circulation percentages of the graphic novel collection in relationship to the circulation percentages of the rest of the collection
- Lists of the top ten most highly-circulated graphic novels for each library

The following table, Table 1 lists the holdings and circulation statistics that were acquired from the six libraries. The table represents each school's total number of volumes in the collection, the total number of graphic novels in the collection, as well as the relationship between the circulation of the graphic novel collections to the overall circulation figures for the collections.

**Table 1: Library Holdings and Circulation Statistics**

Library	No. of Items	No. of Graphic Novels	Collection %	Total Circulations	Graphic Novel Circulations	Circulation %
Library A	13,396	380	2.84%	30,194	3,194	10.58%
Library B	5,789	398	6.88%	36,149	2,797	7.74%
Library C	12,341	709	5.75%	12,956	2,285	17.64%
Library D	9,867	460	4.66%	19,945	1,920	9.63%
Library E	21,535	1070	4.97%	57,633	14,965	25.97%
Library F	8,609	167	1.94%	12,108	1,244	10.27%

Figure 1 visually depicts the percentage of the libraries' graphic novel holdings in the collection in relationship to the percentage of the graphic novel circulations for the entire collection. For example, Library A's graphic novel collection represents 2.84 percent of the collection, and 10.58% of the collection's total circulation.

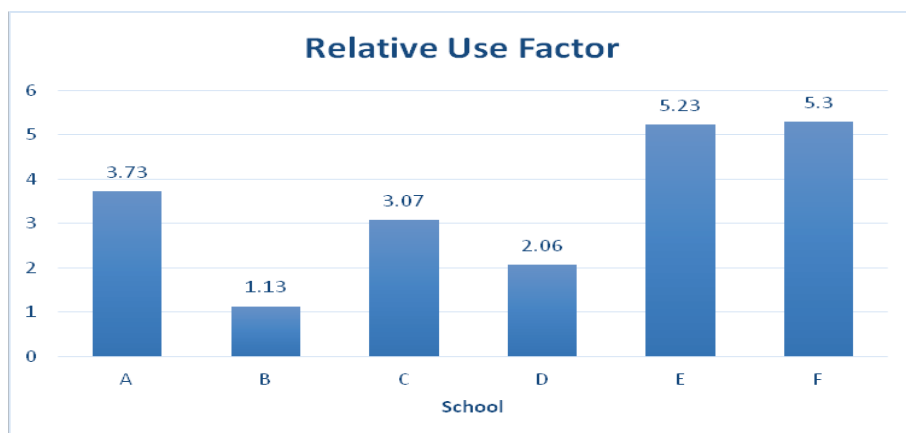


**Figure 1. Percentage of Graphic Novel Collection in Relation to Percentage of Graphic Novel Circulations**

The Relative Use Factor (RUF) was the method used in this study to evaluate library collections and their circulations. The RUF enables a librarian to measure the intensity of the use of an entire collection, or a specific collection such as graphic novels. The formula for the Relative Use Factor is depicted below:

$$\frac{\% \text{ of circulations of a particular collection}}{\% \text{ of holdings the particular collection represents}}$$

Bonn, developer of the RUF, calculated that the use factor would be 1.00 if the percentage of circulation and the percentage of holdings were identical (Ochola, 2003, p. 2). A Relative Use Factor greater than 1 implies that the percentage of the circulation is greater than the percentage of the collection. A high Relative Use Factor indicates a high demand for materials, and suggests that the collection lacks the strength to meet patron's requests for material. If a collection is overused, there is a lower probability that patrons will be able to locate titles from the collection on the shelf (Lancaster, 1993). Conversely, a Relative Use Factor lower than 1 suggests that the collection is being underutilized and may need weeding, or may contain books that are not relevant to students' needs. As presented in Figure 2, the RUF for the six libraries ranged from 1.13 – 5.30, an average RUF of 3.42.



**Figure 2. Relative Use Factor (RUF) for the Six Libraries**

In order to determine whether or not the RUF for the six schools was significantly different from 1, a one-sample-t-test was used. A one-sample-t-test is used to make inferences about how the value of a parameter relates to a specific value. In this study, the sample was the six schools from which data was obtained, and the parameter was the mean Relative Use Factor. Since a RUF greater than 1 implies that the percentage of the circulation is greater than the percentage of the collection, the hypothesized value that was tested was 1. The data were analyzed using the Statistical Package for the Social Sciences (SPSS), Version 22.0 statistical software. Table 2 provides descriptive statistics for the Relative Use Factor.

**Table 2. One Sample Statistics for the Relative Use Factor (RUF)**

	N	Mean	Std. Deviation	Std. Error Mean
Relative Use	6	3.42	1.68064	.68612

Table 3 presents the results of the t-test.

**Table 3. Results of the One-Sample T-Test**

	Test Value = 1		
	<i>t</i>	df	Sig. (2- tailed)
Relative Use Factor	3.527	5	.017

The column labeled “*t*” provides the test statistic of the *t*-test, while the column labeled “*df*” provides the degrees of freedom. The *p*-value of the *t*-test is given in the column labeled Sig. The *p*-value of 0.017 is smaller than the most commonly used level of significance (0.05), indicating a significant result. Therefore, the conclusion is that the average Relative Use Factor is significantly different from 1.

Additional circulation data identified the top ten circulating graphic novels for each of the participating school libraries. Table 6 lists these titles. The majority of the titles were series titles. Only four of the high-circulating titles were standalone titles, *Ghostopolis* (listed twice) (TenNapel, 2010), *Smile* (Telgemeier, 2010), *Stormbreaker* (Johnston, Horowitz, Damerum, Takasaki, & Horowitz, 2006), and *Bad Island* (TenNapel, Garner, Kenfield, Falco, Rau, & Saylor, 2011). Further, 34 of the titles on this list were manga volumes, whereas 26 of the titles were non-manga titles. The

data from this study aligns with a study by Robin Brenner (2009), in which she determined that the top circulating graphic novel titles for her public library collection, over a two year period, were 24 manga volumes, 4 superhero titles, and 1 comic series title. It is evident that graphic novel series titles, particularly manga titles, are extremely high-circulators in both school and public libraries.

**Table 6. Top 10 Graphic Novels Circulated**

Library A	Library B	Library C	Library D	Library E	Library F
1. Amulet. Book one, The Stone- keeper	1. Fruits Basket	1. Bone Volume 1	1. BB Explosion Vol 1	1. Smile Percy Jackson & the Olympians: Book 1: The Lightning Thief	1. Simpsons comics meltdown
2. Maximum Ride : [the manga. 4]	2. Magic Knight Ray Earth (Omnibus Vol. 1 – 3)	2. Bone Volume 4	2. Fruits Basket, Vol. 1	2. Percy Jackson & the Olympians: Book 1: The Lightning Thief	2. Maximum Ride : [the manga. 2]
3. Fullmetal alchemist. 7	3. Maximum Ride – the Manga - Vol. 1	3. Bone Volume 8	3. Maximum Ride (2)	3. Bone Book 2: The Great Cow Race	3. Storm- breaker
4. Fullmetal alchemist. 10	4. Warriors – 1 – the Lost Warrior	4. Bone Volume 7	4. Cirque du Freak, Vol 1	4. Maximum Ride #1	4. Twilight : the graphic novel. Volume 2
5. Kingdom hearts : chain of memories 1	5. Bone – No. 6 – Old Man's Cave	5. Bone Volume 3	5. Maximum Ride – 1	5. Maximum Ride #3	5. Cirque du Freak. Volume 1
6. Naruto. Vol. 28, Home- coming	6. Dragon Ball Z – Vol. 4	6. Bone Volume 2	6. Maximum Ride 3	6. Bone Book 6 Old Man's Cave	6. Death note : black edition. I
7. Fullmetal alchemist. 5	7. Bone – Vol. 5 – Rock Jaw, Master of the Eastern border	7. Bone Volume 6	7. Full Metal Alchemist – 3	7. Bone Book 9 Crown of Horns	7. Ghost- opolis
8. Fullmetal alchemist. 6	8. Maximum Ride – the Manga – Vol. 4	8. Bleach Volume 1	8. BB Explosion 2	8. Bone Book 1 Out of Boneville	8. The legend of Zelda. [Volume 4], Oracle of Seasons
9. Percy Jackson & the Olympians. Book one, The lightning thief : the graphic novel	9. Dragon Drive – Vol. 1, D-Break!	9. Bleach Volume 4	9. BB Explosion 3	9. Big Nate: From the Top	9. Bad island
10. Bone. [1], Out from Boneville	10. Ghost- opolis	10. Bleach Volume 9	10. Shoulder – a coffin Kuro 1	10. Bone Book 4 The Dragon- slayer	10. Cardcaptor Sakura. 1

### **Qualitative Findings**

Qualitative analysis of the six graphic novel collections was provided through survey results, field notes, and transcripts. The school librarians were asked a variety of questions to help establish baseline information about the commonalities and differences in the graphic novel collections in their libraries. Patterns and themes emerged from the coding of the data. Although this study yielded more data than can be thoroughly described in this article, listed below is a summary breakdown of several of the qualitative findings.

**Selecting and Ordering Graphic Novels.** The participating librarians used a variety of collection development resources, when selecting and ordering graphic novels. A summary of the use of these resources is provided below in Table 4, followed by a brief analysis.



**Table 4: Collection Development Resources**

Resources	Librarian A	Librarian B	Librarian C	Librarian D	Librarian E	Librarian F
Reviews in Professional Journals	X	X	X	X	X	X
Input from Students and Teachers	X	X	X	X	X	X
YALSA's Top Ten Graphic Novels for Teens			X	X	X	X
Blogs, Listservs, Websites about Graphic Novels			X	X	X	X
Browsing at a Bookstore or Comic Store	X		X		X	X
Junior Library Guild						X
Subscription Service						
Publishers' Review Programs						
Middle & Junior High Core Collection						

As indicated in the preceding table, all of the librarians used professional journals to help them determine which graphic novels to purchase. The journals that they listed included *Booklist* (Library E), *Library Media Connection* (Library E) and *School Library Journal* (SLJ) (Librarians B, E, and F). Librarians C and D use the Follett website to access professional review sources, since, as Librarian D stated, they “can’t afford to purchase professional journals.” All of the librarians said that the recommendations of graphic novel titles by their students and faculty played a significant role in their purchasing decisions. Librarians A and C both used student-generated “wish lists”. Librarian B used a Google form on her library website. Librarian E kept a dry erase board up year-round in her library with the question, “What graphic novels should we order for the library?” Librarian F used a program called Fresh Books, through which she and the English Language Arts (ELA) teacher took students to Barnes and Noble to select their favorite title (\$20 limit). Several of the titles the students selected were graphic novels. As suggested in previous studies (Nixon & Saunders, 2010; Tyler, Falci, Melvin, Epp, & Kreps, 2013), the fact that all six of the librarians used a patron-driven acquisition approach may have contributed to the high usage of the graphic novel collection. Four of the librarians (C, D, E, and F) used YALSA’s Top Graphic Novels for Teens’ Annual List, published by the Young Adult Library Services Association. The only librarian who

didn't use this list, Librarian B, stated that she was reluctant to use it "because it contained more high school than middle school titles, in my opinion." The librarians' use of the YALSA Top Graphic Novels for Teens' list, reviews by follow librarians in professional journals, listservs, websites, and blogs, suggests that the participating librarians also relied heavily on their library colleagues' expertise and opinions, regarding the purchase of graphic novels.

Four of the librarians used web-based resources. Library C, D, E, and F used a variety of tools including:

- State library organizations' listservs
- SLJ and Scholastic webinars on graphic novels
- Websites such as Good Comics for Kids, and No Flying No Tights
- Posts on LM-Net
- Blogs
- Vendor websites such as *First Second Books*

Four of the librarians (A, C, E, and F) said that they browsed at book stores, comic stores, or graphic novel vendor displays at conferences to learn about the latest graphic novel titles. Only one of the librarians (F) used the Junior Library Guild Subscription Service, and none of the librarians used the *Middle and Junior High Core Collection* (H.W. Wilson, n.d.), *Graphic Novels Core Collection* (H.W. Wilson, n.d.), or publishers' review programs.

**Cataloging, Shelving, and Marketing Graphic Novels.** With respect to cataloging graphic novels, five of the six librarians used the Dewey Decimal classification number, 741.5. The sixth librarian, from Library F, used the letters, GN, plus the first three letters of the author's last name. According to data regarding the Relative Use Factor, there did not appear to be a correlation between the use of the call numbers, 741.5 vs. GN, and the circulation statistics of the graphic novel collections.

Although all of the librarians attempted to keep the graphic novels together in one area of the shelves, several of them pointed out that cataloging and shelving decisions were sometimes vendor-driven, resulting in some titles being scattered throughout the collection. As one librarian stated, the call numbers of the books often "depended on the vendor, some have landed in biography and mythology." Another librarian commented that, "although 95% of her graphic novels come in as 741.5, some come in different areas - *Maus* (Spiegelman, 1986), in 940's and some folklore graphic novels come in as fiction." All of the librarians voiced their desire to provide easy access to graphic novels for their students. As one librarian stated, she keeps them all together, "...so that the kids will have access. I try to make it as easy for them as possible." Another librarian shelves her graphic novels in the reading area, "where they can see it and get to it, because it just didn't make sense to put it with anything else, because they're very high-interest." In addition, a combination of shelving strategies was used by each librarian, including placing the covers of the books facing out, placing identifying stickers on graphic novels, and creating rotating graphic novel displays. As a previous public library study demonstrated (Jones, McCandles, Kiblinger, Giles, & McCabe, 2011), there is an increase in the circulation of books when they are strategically located and highly visible, as they were in all of the participating libraries in this study.

**Characteristics of the Patrons Using Graphic Novels.** There was a range of similarities and differences regarding the types of patrons using the graphic novel collections. Table 5 describes the different types of patrons using graphic novels in the participating libraries.

**Table 5. Characteristics of Patrons Using the Graphic Novel Collections**

<b>Library A</b>	<b>Library B</b>	<b>Library C</b>	<b>Library D</b>	<b>Library E</b>	<b>Library F</b>
More struggling than avid readers	Equal no. of avid and struggling readers	Equal no. of avid and struggling readers	Equal no. of avid and struggling readers	Equal no. of avid and struggling readers	More avid readers
More males than females	Equal no. of males and females	More males than females	Equal no. of males and females	More male readers	More females than males
Few ESL students	Few ESL students	Few ESL students	Large no. of ESL students	Some ESL students	No ESL students at the school
Few special needs students	Several special needs students use them	Special needs students use them frequently	Special needs students	Special needs students. Special education teachers check them out	Special needs student
No classroom teachers	No classroom teachers	No classroom teachers	No classroom teachers	6 <sup>th</sup> grade ELA teachers check them several out for their non-fiction literature circles	No classroom teachers

Librarian B described the use of graphic novels by the English as a Second Language (ESL) students at her school, "...that is most of what they check out. Two students from China speak no English at all – most ESL is Spanish primary language. They love the graphic novels!" Librarian D said that her sixth-grade ESL inclusion class used the graphic novel collection "a lot." Further, both Librarians D and E described the popularity of graphic novels with students with special needs. Librarian D stated that these students "gravitate" towards them, while Librarian E reported that one of her special needs students comes in every other day to select a graphic novel for her Drop Everything and Read (DEAR) time. Since the types of patrons using graphic novels differed from school to school, no correlations could be made regarding the characteristics of the students using the graphic novel titles and the Relative Use Factors. However, the fact that so many different types of patrons were using the graphic novels aligns with studies and articles, showing that they are popular with all types of students (Gavigan, 2012; Griffith, 2010; Kan, 2013). In addition, the varying usage of graphic novels in three of the schools, further validates the belief that graphic novels can be used effectively with students with varying learning styles and abilities. For example, *Maus II* (Spiegelman, 1991) was used in the 8th grade Academically and Intellectually Gifted (AIG) class at Librarian D's school, as part of a 1940's social studies unit. Also, Librarian E collaborated with sixth grade ELA teachers to teach a writing lesson featuring comic elements and visual literacy skills. The students selected the main idea of a non-fiction article and drew their own interpretation of the article in a comic format, after completing a unit on graphic novels. The seventh-grade classes at this same school read *Yummy, The Last Days of a Southside Shorty* (Neri & DuBurke, 2010) and students then wrote a social issue paper about the book, using persuasive writing. At another school (Library F) sixth grade AIG students learned about

mythology, in their English Language Arts Classes, through the use of the graphic novels, *Zeus: King of the Gods* (O'Connor, 2010; , *Athena: Grey Eyed Goddess* (O'Connor, 2010).

## Discussion

The findings from this study allow librarians to better understand the popularity of graphic novels and their instructional potential in classrooms and libraries. School librarians can compare the circulation and use of their graphic novel collections with those of the school libraries presented in this study. Furthermore, the methodology used in this study can easily be replicated by school librarians. Analyzing circulation data, such as the Relative Use Factor, can help librarians gauge whether or not their collections have the capacity to meet students' demand for graphic novels. Furthermore, findings from this study can inform librarians' purchasing decisions during a time of shrinking library budgets. For example, the information regarding the top ten graphic novel titles can help librarians decide whether or not to purchase complete sets of manga, or acquire multiple copies of these popular volumes.

Data from the study can be shared with school stakeholders to support requests for library funding, or to provide an assessment of a library's holdings. Also, information regarding the Relative Use Factor can be used with pre-service school librarians to enhance their understanding of how to effectively collect and analyze circulation data from specific school library collections. Finally, with the release of the Common Core State Standards (CCSS), and their emphasis on using informational texts in a range of formats, librarians need additional studies, like this one, to guide them in their evaluations of existing graphic novel collections, and their plans for using them for instructional purposes.

## Conclusion

Despite the popularity of graphic novels with today's adolescents, there is currently little empirical research that documents their use in school library settings. There is a need for studies that examine the circulation and use of graphic novels in schools, as well as librarians' perspectives on related collection development issues. As Kaplan, Gurian, and Maehr (2002) stated, "when educational environments are facilitative of adolescents' needs, school can become a place where adolescents are motivated to learn" (p. 125). Students should have access to literature, like graphic novels, that will motivate them to read and help them become more proficient readers; therefore, school librarians need credible data to help them assess the popularity of this literary format, as well as the value of their graphic novel collections. Given the need for increased accountability in schools and libraries, empirical data, such as that obtained for this study, can be used to support the decision to develop, or expand, graphic novel collections. The findings from this study can help librarians worldwide make informed collection development decisions regarding the selection and use of graphic novels in their libraries and schools. Larger quantitative studies would be easily replicable in other grade level libraries, as well as in public and university libraries. Finally, it would be an interesting next-step to see if similar circulation and usage patterns pertaining to graphic novels exist across the United States and worldwide.

## References

- Alvermann, D. E., & Xu, S. H. ( November). Children's everyday literacies: Intersections of popular culture and language arts instruction. *Language Arts*. 81(2), 145-154.
- American Association of School Librarians (2007). *Standards for the 21<sup>st</sup>-Century learner*. Chicago, IL: American Association of School Librarian.
- Aguilar, W. (1986). The application of relative use and interlibrary demand in collection. *Collection Management*, 8(1), 15-24.

- Bakis, M. (2012). *The graphic novel classroom: Powerful teaching and learning with images*. Thousand Oaks, CA: Corwin Press.
- Berland, L. H. (1992). Circulation analysis as a tool for collection development. *School Library Media Quarterly*, 19, 2, 90-97.
- Bonn, G. S. (1974). Evaluation of the collection. *Library Trends* 22.
- Botzakis, S. (2009). Graphic novels in education: Cartoons, comprehension, and content knowledge. In D. Wooten, & B. Cullinan (Eds.), *Children's Literature in the Reading Program* (pp. 15-23). Newark, DE: International Reading Association.
- Brenner, R. (2009). Number crunching: How looking at graphic novel circulation statistics from many perspectives helps you know what's really flying off the shelves. *School Library Journal*. Retrieved from <http://blogs.slj.com/goodcomicsforkids/2009/11/21/number-crunching-how-looking-at-graphic-novel-circulation-statistics-from-many-perspectives-help-you-know-whats-really-flying-off-the-shelves/>
- Brozo, W.G. (2002). *To be a boy, to be a reader: Engaging teen and preteen boys in active literacy*. Newark, DE: International Reading Association.
- Brozo, W. G., Moorman, G. B., & Meyer, C. K. (2014). *Wham! Teaching with graphic novels across the curriculum*. New York, NY: Teachers College Press, Columbia University.
- Cary, S. (2004). *Going graphic: Comics at work in the multilingual classroom*. Portsmouth, N.H.: Heinemann.
- Crilley, M. (2009, October). Getting students to write using comics. *Teacher Librarian*, 37(1), 28-31.
- Common core state standards for English language arts (2010, June). *Common Core State Standards Initiative*. Retrieved from <http://www.corestandards.org/ELA-Literacy>.
- Crawford, P. & Weiner, S. (2012). *Using graphic novels with children and teens: A guide for teachers and librarians*. Jefferson City, MO: Graphix, an imprint of Scholastic.
- Enochs, E. L. (July 2010). Features of elementary school library poetry collections: A Collection analysis study. *School Libraries Worldwide*. 16(2), 64-79.
- Everhart, N. (1998). *Evaluating the school library media center: Analysis techniques and research practices*. Englewood, CO: Libraries Unlimited.
- Fagan, B. D., & Fagan, J. C. (2011). *Comic book collections for libraries*. Santa Barbara, California: Libraries Unlimited.
- Fletcher-Spear, K., & Jenson-Benjamin, M. (2011). *Library collections for teens: Manga and graphic novels*. Bowie, Maryland: E L Kurdlay Publishing.
- Flynt, E. S., & Brozo, W. (2010). Visual literacy and the content classroom: A question of now, not when. *Reading Teacher*, 63(6), 526-528.
- Frey, N., & Fisher, D. (2008). *Teaching visual literacy: Using comic books, graphic novels, anime, cartoons, and more to develop comprehension and thinking skills*. Thousand Oaks, CA: Corwin Press.
- Gavigan, K. W. (2011). More powerful than a locomotive: Using graphic novels to motivate struggling male adolescent readers. *Journal of Research on Libraries and Young Adults*, 1(3). Retrieved from <http://www.yalsa.ala.org/jrlya/category/volume-1-number-3-june-2011>
- Gavigan, K. W., & Tomasevich, M. (2011). *Connecting comics to curriculum: Strategies for grades 6-12*. Santa Barbara, CA: Libraries Unlimited.
- Gavigan, K. (2012 May / June). Sequentially SmART: Using Graphic Novels across the K-12 Curriculum. *Teacher Librarian*.
- Gray, D. J., & Copeland, A. J. (2012). E-Book versus print: A per-title cost and use comparison of a public library's popular titles. *Reference and User Services Quarterly*, 51(4), 334-339.
- Griffith, P. E. (2010). Graphic novels in the secondary classroom and school libraries. *Journal of Adolescent & Adult Literacy*, 54, 181-189.
- Hammond, H. (2009). *Graphic novels and multimodal literacy: A reader response study* (Doctoral dissertation). Available from Proquest Dissertation & Theses Full Text database. (UMI No. 3344687).
- Harris, V. J. (2008). Selecting books that children will want to read. *Reading Teacher*, 61(5), 426-430. doi:10.1598/RT.61.5.8
- Herald, N. (2011). *Graphic novels for young readers: A genre guide for ages 4-14*.

- H.W. Wilson Company. (n.d.). *Graphic novels core collection* (H.W. Wilson). Bronx, N.Y.: H.W. Wilson.
- Ivey, G. & Fisher, D. (2006). *Creating literacy-rich schools for adolescents*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Johnston, A., Horowitz, A., Damerum, K., Takasaki, Y., & Horowitz, A. (2006). *Stormbreaker: The Graphic novel*. New York: Philomel.
- Jones, D. Y., McCandless, M., Kiblinger, K., Giles, K., & McCabe, J. (2011). Simple marketing techniques and space planning to increase circulation. *Collection Management*, 36(2), 107-118.
- Kan, K. (2013). What kinds of kids read comics? *Knowledge Quest*, 41(3), 30-33.
- Knieval, J. E., Wicht, H., & Connaway, L. S. (January 01, 2006). Use of circulation statistics and interlibrary loan data in collection management. *College and Research Libraries*, 67, 1, 35 – 49.
- Krashen, S. (2004). *The power of reading: Insights from the research*. Second Edition. Portsmouth, NH: Libraries Unlimited.
- Krashen, S., & Ujiie, J. (1996). Is comic book reading harmful? Comic book reading, school achievement, and pleasure reading among seventh graders. *California School Library Association Journal*, 19, 27-28.
- Lammano, A. (2007). *Exploring the use of graphic novels in the classroom: Does exposure to non-traditional texts increase the reading comprehension skills and motivation of low-functioning adolescent readers?* (Doctoral dissertation). The Pennsylvania State University.
- Lancaster, F. W. (1993). *If you want to evaluate your library...* Champaign, IL: University of Illinois, Graduate School of Library and Information Science.
- Liu, J. (2004). Effects of comic strips on L2 learners' reading comprehension. *TESOL Quarterly*, 38, 225-243.
- Luzius, J. (January 01, 2004). A Look at circulation statistics. *Journal of Access Services*, 2(4), 15-22.
- Lyga, A. W. & Lyga, B. (2004). *Graphic novels in your media center: A definitive guide*. Westport, CT: Libraries Unlimited.
- MacDonald, H. (2013, May 6). How graphic novels became the hottest section of the library. Publishers Weekly. Retrieved from <http://www.publishersweekly.com/pw/by-topic/industry-news/libraries/article/57093-how-graphic-novels-became-the-hottest-section-in-the-library.html>
- Miller, J. J. (n.d.). *Comic Book Sales by Year*. Retrieved from <http://www.comichron.com/yearlycomicssales.html>
- Miller, J. J. (2013, June 10). May 2013 comics estimates: Dollar orders nearly double what they were 10 years ago [Web log post] Retrieved from <http://blog.comichron.com/2013/06/may-2013-comics-estimates-dollar-orders.html>
- Miller, Steve (2005). *Developing and promoting graphic novel collections*. New York: Neal-Schuman Publishers, Inc.
- Moeller, R. A. (2011). "Aren't these boy books?": High school students' readings of gender in graphic novels. *Journal of Adolescent & Adult Literacy*, 54(7), 476-484.
- Monnin, K. (2008). *Perceptions of new literacies with the graphic novel "Bone"*. (Doctoral Dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 3319049).
- Monnin, K. (2010). *Teaching graphic novels: Practical strategies for the secondary ELA classroom*. Gainesville, FL: Maupin House Pub.
- Monnin, K. (2013). *Teaching reading comprehension with graphic texts: An illustrated adventure*.
- Mortimer, S. R. (2009). *From picture to word in the world: A multimodal, cultural studies approach to teaching graphic novels in the English classroom*. (Doctoral Dissertation), Western Michigan University.
- Neri, G., & DuBurke, R. (2010). *Yummy: The Last days of a Southside shorty*. New York: Lee & Low Books.
- Nixon, J. M., & Saunders, S. (2010). A Study of circulation statistics of books on demand: A Decade of patron-driven collection development, Part 3. *Collection Management*, 35(3/4), 151-161.
- Ochola, J. N. (2003). Use of circulation statistics and interlibrary loan data in collection management. *Collection Management*, 27(1), 1-13.
- O'Connor, G. (2010). *Athena: Grey-eyed goddess*. New York: First Second.
- O'Connor, G. (2010). *Zeus: King of the gods*. New York: First Second.
- Pierce, J. B. (January 01, 2003). Picking the flowers in the "Fair Garden": The Circulation, non-circulation, and disappearance of young adult nonfiction materials. *School Libraries Worldwide*, 9(2), 62-72.

- Price, A., & Rowland, M. (n.d.). *Middle and junior high core collection*. New York: H.W. Wilson Co.
- Rado, D. (2013, January 6). Comic books in education? Schools embrace graphic novel as learning tool. *Denver Post*. Retrieved from <http://www.denverpost.com/>
- Ranker, J. (2007). Using comic books as read-alouds: Insights on reading instruction from an English as a second language classroom. *Reading Teacher*, 61, 296-305.
- Rose-Wiles, L. M. (2013). Are print books dead? An Investigation of book circulation at a mid-sized academic library. *Technical Services Quarterly*, 30(2), 129-152.
- Schwarz, G.E. (2002). Graphic novels for multiple literacies. *Journal of Adolescent & Adult Literacy*, 46(3), 262-265.
- Serchay, D. S. (2008). *The librarian's guide to graphic novels for children and tweens*. New York: Neal-Schuman Publishers.
- Smetana, L., Dara, O., Heidi, B., & Grisham, D. (2009). Using graphic novels in the high school classroom: Engaging deaf students with a new genre. *Journal of Adolescent & Adult Literacy*, 53, 228-240. DOI: 10.1598/JAAL.53.3.4
- Smith, M. W., & Wilhelm, J. D. (2002). *"Reading don't fix no Chevy's": Literacy in the lives of young men*. Portsmouth, N.H.: Heinemann.
- Spiegelman, A. (1986). *Maus: 1*. New York, NY: Pantheon Books.
- Spiegelman, A. (1991). *Maus II: A survivor's tale : and here my troubles began*. New York: Pantheon Books.
- Telgemeier, R. (2010). *Smile*. New York: Graphix.
- TenNapel, D. (2010). *Ghostopolis*. New York: Graphix/Scholastic.
- TenNapel, D., Garner, K., Kenfield, J., Falco, P., Rau, A., & Saylor, D. (2011). *Bad island*. New York, NY: Graphix.
- Tyler, D., Falci, C., Melvin, J., Epp, M., & Kreps, A. (2013). Patron-Driven acquisition and circulation at an academic library: interaction effects and circulation performance of print books acquired via librarians' orders, approval plans, and patrons' interlibrary loan requests. *Collection Management*, 38(1), 3-32.
- Ujiie, J., & Krashen, S. (1996). Comic book reading, reading enjoyment, and pleasure reading among middle class and chapter 1 middle school students. *Reading Improvement*, 33, 41-54.
- Weiner, R. G., Scott, R. W., Nyberg, A. K., Fee, W. T., & Goldsmith, F. (2010). *Graphic novels and comics in libraries and archives: Essays on readers, research, history and cataloging*. Jefferson, N.C: McFarland & Co.
- Xu, S.H., Sawyer, R.W., & Zunich, L.O., (2005). *Trading cards to comic strips: Popular culture texts and literacy learning in grades K-8*. Newark, DE: International Reading Association.

### **Author Note**

Karen W. Gavigan is an Assistant Professor at the University of South Carolina's School of Library and Information Science.

### **Acknowledgement**

The author gratefully acknowledges the help of Ms. Wilma Sims, Dr. John Grego, and students in the Statistics Department at the University of South Carolina, with the statistical analysis for this article.



**Appendix A. Quantitative Data for Graphic Novel Circulation Study**

1. What was the total number of books in your collection (fiction and nonfiction) this academic year? (Please do not include audiovisual materials, etc. in this number.)
2. What was the total number of graphic novels in your collection this academic year?
3. What percentage of the entire collection was your graphic novel collection this academic year?
4. What was the total number of circulations for your circulating book collection this academic year? (Please do not include audiovisual materials, etc. in this number.)
5. What was the total number of circulations for your graphic novel collection for this academic year?
6. What was the total circulation percentage of your graphic novels in relationship to the entire circulating book collection?
7. What were the Top 10 circulating graphic novel / manga titles in your school library this academic year?

**Appendix B. Conversational Interview Questions for Graphic Novel Circulation Study**

1. How do you shelve graphic novels in your collection?
  - a. Traditional order with spines facing out
  - b. Covers of the book facing out
  - c. Special displays in a case, or shelving area
  - d. Identifying stickers or labels
  - e. On shelving cart because they never make it to the shelf
  - f. A combination of the above – which ones?
2. How do you decide which graphic novel titles to order for your library?
  - a. Use reviews in professional journals – If so, please identify the review sources you use
  - b. Use the H.W. Wilson Core Collection
  - c. Use YALSA's Top Graphic Novels for Teens annual list
  - d. Junior Library Guild subscription service – middle school one
  - e. Examine titles hands on through a publisher's review program
  - f. Use student input
  - g. Use faculty input
  - h. Read blogs, listservs, or websites about graphic novels – if so, please identify them
  - i. Browse at a book store or comic book store
  - j. Profession
  - k. Combination of the above – which ones?
3. Do you currently have e-book or online / digital graphic novels? If so, how many?
4. How are your graphic novels processed?
  - a. Publishers / vendors process them as part of the order
  - b. Process them in-house
  - c. Combination of both – what percentage of each?
5. Do you have any bilingual graphic novels in your collection? If so, how many?  
What languages?
6. Do you see more avid readers or struggling readers using your graphic novel collection?
7. Do English Language Learners (ELL) use your graphic novel collection? If so, please elaborate.
8. Do Special Needs students use your graphic novel collection? If so, please elaborate.
9. Do you see more male students or female students using your graphic novel collection?
10. Do you have a graphic novel book club, manga club, or anime club at your school? If so, please describe.
11. Do you have any additional programming in your library based on graphic novels? If so, please elaborate.
12. Do you book talk graphic novels? If so, please elaborate.
13. Do your teachers check out graphic novels? If your teachers check out graphic novels, please describe how they use them in their classrooms.
14. Do you, or any of your teachers, assign a graphic novel(s) as part of an assignment? If so, please indicate which title(s) and describe the assignment(s).
15. Do you collaborate with teachers on lesson plans using graphic novels in the library or classroom? If so, please describe.
16. Do you include graphic novels on bibliographies and / or bookmarks? If so, please describe and / or provide samples.

17. Do you survey your students to see what kinds of graphic novels they are reading, either through a formal survey or show of hands? If so, please describe and / or provide samples.
18. Do you include information about graphic novels in your newsletter or library website? If so, please describe and / or provide samples.
19. Have you ever had any students/ parents / teachers/ administrators complain about graphic novels, or try to remove graphic novel titles from your collection? If so, please describe.
20. Do you have any additional comments that you would like to add regarding the use of graphic novels in your library / school?