Graphic Novels in Education

Walk into any bookstore and you’ll likely see a group of children and young adults in the graphic novel section. Part of the appeal of graphic novels lies in their “underground” (and therefore forbidden) reputation. Another part of the appeal lies in the sophisticated story lines and the development of complex characters (Izawa, 2002). Unlike some American comic books that feature a superhero with fixed and exaggerated attributes, many graphic novels include a subtext of universal themes about ethical and moral dilemmas. They allow us to differentiate instruction and provide universal access to the curriculum. We’ll focus on defining graphic novels, why they can be useful in classroom instruction, and then how they might be used in the mathematics classroom.

What are Graphic Novels?
Graphic novels, as they are known in Western countries, are inspired by Japanese manga (comics) and anime (animation). Anime style is most commonly recognizable in its use of large-eye characters with oversized heads. Japanese manga, rendered in black and white and printed on newsprint, are read by children and adults and include many topics, although science fiction mechas (robots) dominate the field. The topics of these works are surprisingly similar to the Western young adult fiction. A large portion of the market is shojo, comic books designed to appeal to girls. A popular shojo character that appears in the United States is the Sailor Moon series, featuring a resourceful Japanese schoolgirl. Shonen manga is designed primarily for boys and usually consists of action stories. Teachers may recognize shonen manga in Yu-Gi-Oh! and other such cards collected and traded by many American youth. Many manga are published in serial form and together can be as many as 750 pages in length.

Why Use Graphic Novels in the Classroom?
Graphic novels are amazingly diverse, both in terms of their content and usefulness. For example, Gorman (2002) notes that graphic novels are exactly what teens are looking for—they are motivating, engaging, challenging, and interesting. Schwartz (2002, 2004) believes that graphic novels are engaging because they allow for teachers to enter the youth culture and students are encouraged to bring their “out of school” experiences into the classroom.

Graphic novels have been used effectively with students with disabilities, students who struggle with schooling, and English learners (Cary, 2004; Frey & Fisher, 2004). One of the theories behind the use of graphic novels for students who struggle with school focuses on the fact that the graphic novel presents complex ideas in an interesting and engaging way while reducing the text difficulty. As a result, all students can thoughtfully discuss the content at hand. As Weiner (2003) noted, “Graphic novels have found their way into the classroom, as teachers are realizing their usefulness as literacy tools. After a study of graphic novels, researchers concluded that the average graphic novel introduced readers to twice as many words as the average children’s book. This realization has reinforced the idea that the comics format is a good way to impart information” (p. 61).
How Can I Use Graphic Novels in Mathematics?

Graphic novels can be used to build students’ background knowledge, preview learning, motivate them to focus on content, provide a different access route for information, and allow for review and checking for understanding.

1) Previewing content. You can use a graphic novel as a way to activate background and prior knowledge. For example, you may display a graphic novel on the overhead projector and discuss it with the class. Using a think-aloud to discuss the content with the class, you might provide students with advance information that they will learn later. Alternatively, you may display the graphic novel and invite students, in pairs or groups, to share their thinking with one another.

2) Summarizing information. Another possible use of graphic novels involves summarizing information. Like oral retellings in which students synthesize what they know, written summaries require that students organize information. Teachers can use these summaries to determine students’ level of understanding. Students can discuss the graphic novel with a small group and then create their summaries. Alternatively, students can summarize the graphic novel and then compare and contrast theirs with a peer, noting differences and similarities.

3) Content Review. Graphic novels can be used for review of content. While there are many reasons to review content—such as preparing for a test—graphic novels are especially useful for providing students with a review of past chapters. You can use a graphic novel from a previous chapter to review the major concepts and skills.

4) Analysis. Graphic novels often illustrate a specific point or major idea from the content being studied. In the analysis approach, students read the graphic novel from the point of view of trying to determine the main idea. This approach is particularly useful after students have been introduced to the content. Encouraging students to pose questions about the graphic novel will help them uncover the main points. For example:
   - What does this graphic novel tell me about the topic?
   - What procedures does it help me learn?
   - How can I use the actions and thoughts of the characters to understand mathematics?

5) Problem Solving. Characters in graphic novels confront conflicts and solve them. Accordingly, students can approximate the procedures, behaviors, and skills from the characters as they solve mathematics problems. You can have students think about and discuss the very specific ways that the characters do this. This meta-cognitive approach will increase the likelihood that students will try out problem solving on their own.

6) Visualizing. Perhaps most obviously, graphic novels are visual representations of ideas. Inviting students to create their own graphic novels in which they visualize the content will help them learn. They can use a comic book style to illustrate a point from the book, especially a point they found confusing. They can use dialogue or let the illustrations alone tell the story. Another option would be to use multimedia. Students could take pictures and make a computer presentation, make a video, or create a song to represent content.

As you introduce graphic novels to your class, you may discover more ways to use them to engage your students. I hope you enjoy the graphic novels that are integrated into this book and welcome you into the exciting and engaging world of sequential visual art!

References


Douglas Fisher, Ph.D., is an Associate Professor in the College of Education, Department of Teacher Education at San Diego State University where he teaches classes in English language development and literacy. His background includes adolescent literacy and instructional strategies for diverse student needs. He currently serves as the Director of Professional Development for the City Heights Educational Pilot. He is an author on the Macmillan/McGraw-Hill Treasures reading program.