



THE TOOLBOX

A Teaching and Learning Resource for Instructors

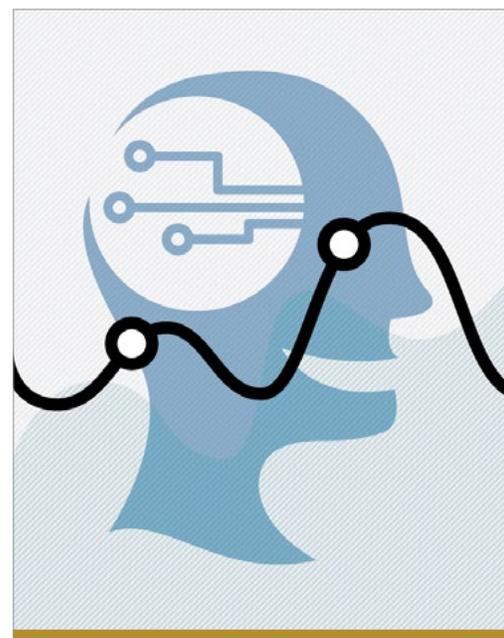
USE DIGITAL COMMUNICATION TOOLS TO SPEAK THROUGH INFOGRAPHICS

Words and graphics share a rich history of combining to communicate information, dating back to images on cave walls and the ancient Egyptian hieroglyphs (Visually, n.d.). In more recent times, William Playfair, in his book *The Commercial and Political Atlas* (1786), introduced bar charts and graphs to communicate through imagery. The proliferation of digital technology has only enhanced opportunities for using images to augment text. One fast-growing strategy for doing this is the *infographic*, defined as graphic design that “... combines data visualizations, illustrations, text, and images together into a format that tells a complete story” (Krum, 2014, p. 6). The term is actually a blend of the words *information* and *graphics*.

Consider, for example, how news media frequently show a map of the United States containing “red” and “blue” states to show political leanings. Through such images, we can draw a number of conclusions about a vast amount of information with a quick glance.

Most of today’s college students have lived their entire lives in a digitally rich environment, supported by smartphones, tablets, and laptops as pathways of access to countless websites, social media tools, and subscription-based streaming services, where data visualizations are common. Exploratory research suggests that comprehension and retention of course-related content are enhanced when faculty use infographics as learning tools (Gallagher et al., 2017). Dunlap and Lowenthal (2016) explored features of infographics that were of greatest value to students. While faculty may be interested in the quality of information communicated, the authors found that students were more interested in other, more visceral elements (e.g., information that excites, holds users’ attention, tells a story, or shares a provocative idea).

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“

A picture is worth ten thousand words.

”

— Fred R. Barnard,
Printers’ Ink,
 March 10, 1927

The availability of templates that allow users to simply embed content that serves their purposes has greatly aided the process of infographic creation. McGuire (2018) identifies nine categories of infographics and best practices for their use (see “More Resources” textbox, page 4, for a link to this excellent summary):

- » **Statistical**, focusing on data (e.g., comparing the popularity of various fast-food restaurants);
- » **Informational**, containing discrete topics and text-based explanations (e.g., organized text content that intentionally uses icons and color blocks to separate various components);
- » **Process**, delineating the steps necessary to complete a task (e.g., the sequential elements for building a website);
- » **Timelines** (e.g., key events in the history of the rock band Def Leppard);
- » **Geographic** (e.g., maps, charts, locations);
- » **Comparison** (e.g., win/loss and postseason records of Major League Baseball teams);
- » **Hierarchical**, demonstrating the relative strength or influence of varied components (e.g., Maslow’s hierarchy of needs);
- » **Lists** (e.g., the functional purposes of various glands in the human body); and
- » **Résumé** (e.g., depictions of an individual’s training and experiences).

Web-based tools that can help with creating infographics are available for free or at a low cost. The websites included in the “More Resources” textbox (p. 4) were selected based on their cost and ease of use. Faculty seeking infographics to use in their teaching should consider sampling these to determine which product(s) suit their intended purposes best.

Applying Infographics to Teaching

Consider using infographics in your teaching in two key ways: (a) as a faculty-developed learning resource for students or (b) as a student-developed resource or assignment.

- » **Faculty-created infographics.** Faculty can greatly enhance their message (i.e., content they want students to know) by selecting the best medium (i.e., a compelling and engaging infographic) and leveraging the power of infographics in two ways:
 - » **Provide links to currently available, web-based infographics**—The Internet has thousands of infographics available on almost any topic imaginable. Simply “Google it,” then do some exploring to find those compatible with course learning outcomes and content. Embed links for your chosen infographics in your learning management system for students to use in your courses.
 - » **Develop your own unique collection of infographics specifically designed for your course**—To begin, try out some of the free, online infographic tools listed under “More Resources” (p. 4).

RESOURCES FOR THE STUDENT EXPERIENCE



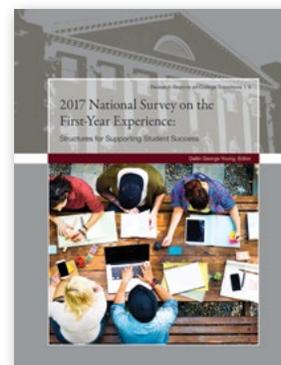
From Disability to Diversity: College Success for Students with Learning Disabilities, ADHD, and Autism Spectrum Disorder

By Lynne C. Shea, Linda Hecker, and Adam R. Lalor

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ISBN 978-1-942072-29-4
(2019) 144 pages. **\$30.00**

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(2019) 144 pages. **\$23.99**

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ISBN 978-1-942072-31-7
(2019) **\$95.00**



2017 National Survey on the First-Year Experience: Structures for Supporting Student Success

Edited by Dallin George Young

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ISBN 978-1-942072-32-4
(Available May 2019) 150 pages. **\$25.00**

WWW.NRCPUBS.COM

- » **Student-created infographics.** There is also value in helping our students learn to develop their own infographics. This skill pays benefits in both the short term (i.e., course-based content learning) and the long term (i.e., application in future employment settings). Faculty can help students engage with infographics in several ways:
 - » Assign topics to individuals or small groups. Then, ask students to create an infographic that they will later share with the class as a study aid.
 - » As practice, help your students become good consumers of infographics. Provide samples and ask them to summarize the message put forth by the developer. As a second step, discuss the choices, color, design, images, and text in the sample infographics and how they contribute to communicating the story embedded within.
 - » After students finish an assigned research project, ask them to take what they have learned and translate that content into an infographic format.
 - » For an assignment, require students to create an infographic and post their work in the learning management system. As a formative task, students can then give one another feedback. Afterward, they can revise and submit their final product for faculty assessment. This process helps students sharpen their skills in selecting and arranging text and images in infographics.

Faculty should remember two caveats when requiring student-developed infographics:

1. It is important that faculty know how to use the chosen infographic tool. They should be able to assist students in learning the process and also serve as a resource to troubleshoot problems that may arise.
2. Faculty should inform students of the criteria that will be used to assess the quality of their infographics. A sample rubric is included on page 5.

Consider the possibilities of connecting your students with infographics!

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ONLINE COURSES

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Playfair, W. (1786). *The commercial and political atlas: Representing, by means of stained copper-plate charts, the exports, imports, and general trade of England, at a single view*. Farmington Hills, MI: Thomson Gale.

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More Resources

Background

These resources offer insight into the purpose of infographics and design considerations.

- » [The Power of Infographics: Using Pictures to Communicate and Connect to Your Audiences by Mark Smiciklas](#)
- » [An Interactive Timeline of the Most Iconic Infographics](#)
- » [The top 9 types of infographics and when to use them](#)

Tools for Making Infographics

Here are some tools to consider. Faculty can choose between the free and pay versions, depending on the level of projected use and whether students or faculty will use them.

- » [Snappa Infographic Maker](#)
Basic version free; for-work version \$15 monthly
- » [Infogram](#)
Basic version free; pro version from \$19 monthly
- » [Piktochart](#)
Basic version free; lite version \$15 monthly
- » [Venngage](#)
Basic version free; premium version \$19 monthly
- » [Visme](#)
Basic version free; standard version \$14 monthly; complete version \$25 monthly

Submission Guidelines for The Toolbox

For complete guidelines and issue dates, see www.sc.edu/fye/toolbox/

Audience: *Toolbox* readers include full-time and adjunct faculty; academic advisors; and administrators focused on faculty development, teaching and learning, academic success, and the first college year.

Style: Articles, tables, figures, and references should adhere to APA (American Psychological Association) style.

Length: Original articles should be no longer than 1,500 words. The editor reserves the right to edit submissions for length.

You can also submit your article online by using our [submission form](#).

Please address all questions and submissions to:

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About The Toolbox

The Toolbox is an online professional development newsletter offering innovative, learner-centered strategies for empowering college students to achieve greater success. The newsletter is published six times a year by the National Resource Center for The First-Year Experience and Students in Transition at the University of South Carolina.

The online subscription is free. To register for newsletter alerts and access back issues, please visit www.sc.edu/fye/toolbox.

Publication Staff

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Graphic Designer: Andi Breeland

Assistant Director for Publications: Tracy L. Skipper

Rubric for Assessing Quality of Infographics

Element	Excellent	Good	Fair	Poor
<i>Main idea</i>	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear, but supporting information is general.	Main idea is somewhat clear, but there is a need for more supporting information.	Main idea is not clear. There is a seemingly random collection of information.
<i>Awareness of audience</i>	Strong awareness of audience in the design. Students can clearly explain why they felt the chosen vocabulary, audio, and graphics fit the target audience.	Some awareness of audience in the design. Students can partially explain why they felt the chosen vocabulary, audio, and graphics fit the target audience.	Some awareness of audience in the design. Students find it difficult to explain how the chosen vocabulary, audio, and graphics fit the target audience.	Limited awareness of the needs and interests of the target audience.
<i>Images / graphics</i>	Images or graphics create a distinct atmosphere or tone that matches different parts of the story. The images may communicate symbolism and/or metaphors.	Images or graphics create an atmosphere or tone that matches some parts of the story. The images may communicate symbolism and/or metaphors.	An attempt was made to use images or graphics to create an atmosphere or tone, but it needs more work. Image choice is logical.	Little or no attempt to use images or graphics to create an appropriate atmosphere or tone.
<i>Economy</i>	Message is communicated with exactly the right amount of detail throughout. It seems neither too short nor too long.	Message of the composition is typically good, though it seems to drag somewhat or need slightly more detail in one or two sections.	Message seems to need more editing. It is noticeably too long or too short in more than one section.	Message needs extensive editing. It is too long or too short to be interesting.
<i>Spelling & proofreading</i>	No spelling errors in the infographic.	No more than one spelling error in the infographic.	No more than three spelling errors in the infographic.	Four or more spelling errors in the infographic.
<i>Attractiveness & organization</i>	Infographic has exceptionally attractive formatting and well-organized information.	Infographic has attractive formatting and well-organized information.	Infographic has well-organized information.	Infographic's formatting and organization of material are confusing to the reader.
<i>Balance</i>	Graphics go well with the text. There is a good mix of text and graphics.	Graphics go well with the text, but there are so many that they distract from the text.	Graphics go well with the text, but there are too few, and the infographic seems text-heavy.	Graphics do not go with the accompanying text or appear to be randomly chosen.