Enhancing graphic presentation skills in the first year of higher education: an interactive online learning tool

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Overview

Graphics (diagrams, maps, images and tables) are the medium by which data and information are presented in a concise and clear manner, and are invaluable in academic writing (Dominiczak & McFall, 2003). However, graphics will generally only communicate information successfully if they are designed, presented, and incorporated into a document according to a set of key principles (Tufte, 2001). The problem identified by the project team was that first-year students generally lack the knowledge and skills required to implement graphic presentation principles, and that these skills were often not acquired adequately or consistently in later years of study. A new interactive on-line learning tool was developed to address this issue in a flexible and engaging manner.

Description of learning tool

The *Graphic Presentation Tutorial (GPT)* has been developed as a web-based module to enable flexible access for all students. It uses a variety of activities and questions to engage the user. It targets the common graphic presentation errors made by students and its key topics include: when to use graphics instead of words; when to use graphs or tables; which type of graph to use for different types of data; how to effectively reference and incorporate graphics in the text; how to make graphics clear, comprehensible and consistent with design conventions; and to clarify that, in academic writing, graphics are used to display information and not simply to enhance aesthetic appeal. The *GPT* was piloted in Semester 1, 2011 with over 250 first-year students in the School of Geography, Planning and Environmental Management (GPEM). After initial testing and evaluation the learning tool will be made available to all students in GPEM and other Schools in the university and more widely across the higher education sector. A comprehensive evaluation process is underway to improve the tutorial and enhance its effectiveness and relevance.

Expected outcomes

By providing first-year students with a clear understanding of the skills and expectations for effective graphic presentation in academic writing, a more consistent and higher quality standard of graphic presentation will be attained across the student body. Students who complete the *GPT* will also have an improved ability to read, interpret, and critically analyse graphics in published works. The poster will demonstrate key features and attributes of the learning tool, provide visual examples of its style and user-interface, and outline the expected outcomes of the tutorial. A demonstration will be provided during the poster session.

References

Dominiczak, M. H., & McFall, K. (2003). Writing: visuals are another story. *Nature, 424,* 128. doi:10.1038/424128a

Tufte, E. R. (2001). *The Visual Display of Quantitative Information* (2nd ed.). Cheshire, CT: Graphics Press.

1

Enhancing graphic presentation skills in the first year of higher education: an interactive online learning tool, poster.