

ZMATH 2015d.00823

Finch, Sue; Gordon, Ian

The development of a first course in statistical literacy for undergraduates.

MacGillivray, Helen (ed.) et al., Topics from Australian conferences on teaching statistics. OZCOTS 2008–2012. New York, NY: Springer (ISBN 978-1-4939-0602-4/hbk; 978-1-4939-0603-1/ebook). Springer Proceedings in Mathematics & Statistics 81, 73–98 (2014).

Summary: We describe the development of a statistical literacy subject suitable for undergraduate students from any discipline. Dispositions and fundamental ideas in thinking statistically as a cognizant consumer of media and research reports are identified from the literature. Using this framework, we describe how learning is embedded in a rich context of a diverse range of real-world problems. We illustrate the importance of visual representations in teaching fundamental ideas, including those about variability and statistical modelling, without assuming a strong mathematical background. The development of statistical dispositions is supported by modelling a statistician’s enquiring approach to a question informed by data, structured practice at this approach, and checklists and tips to prompt scepticism.

Classification: K45 K75 K85 K95 D35

Keywords: statistical literacy; critical thinking; statistical graphics

doi:10.1007/978-1-4939-0603-1_6