Connected Worlds: Statistical Literacy in Art, Science, Public Health, and Social Issues

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How can educators train students to be more thoughtful about statistical claims encountered in public discourses? This presentation will highlight "10 Quantitative Reasoning Questions at the Ready" that the author encourages students to use to evaluate basic statistical material. These questions help students think knowledgeably about quantitative information both found and missing in arguments. The talk will describe an approach to teaching these questions that demonstrates the relevance of statistical literacy to examples drawn from the media and across academic fields, including the arts and sciences. This approach also promotes the principled use of quantitative information in the presentation of effective written arguments. The talk concludes with a review of evidence evaluating this educational method.

Key Words: Education, quantitative reasoning, critical thinking, principled argument