Helping students to make the most of the primary literature

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Primary literature offers rich opportunities to teach students about science and hone their critical thinking skills, but students often struggle with reading scientific articles. I will describe what my students perceive as challenges in reading primary literature. I will also outline one approach to teaching critical engagement with the primary literature that included analysis of a paper with questionable data interpretation and two conflicting papers. In the workshop part, we will identify potential challenges in a paper you are planning to use or are already using in your course (please bring one such paper) and discuss how we can help students to overcome these challenges.

Ella Tour is an associate teaching professor in the Section of Cell and Developmental Biology at the University of California, San Diego. Dr. Tour earned her Ph.D. in Genetics from Hebrew University of Jerusalem. Her doctoral research was on the molecular mechanisms related to brain development. Dr. Tour then joined UC San Diego as a post-doctoral researcher, where she studied development in fruit flies. Her current research is on how to best support development of critical thinking skills in undergraduate science students. One major research area is on the impact of guided analysis of paper structure and experimental design on student critical thinking. Another focal area is on the development of methods to support quality scientific writing and decreasing instances of plagiarism.

Questions? Contact catalyst@fullerton.edu