

## Critical reading and writing (CRW) in first year psychology: Mass screening and targeted assistance

Jacquelyn Cranney, School of Psychology, Gwyn Jones and Sue Starfield, Learning Centre, Sue Morris, Learning and Teaching @ UNSW, Kristy Martire, National Drug and Alcohol Research Centre, Ben Newell and Kwan Wong, School of Psychology, The University of New South Wales, Sydney, Australia

j.cranney@unsw.edu.au gwyn.jones@unsw.edu.au s.starfield@unsw.edu.au  
sue.morris@unsw.edu.au k.martire@unsw.edu.au ben.newell@unsw.edu.au k.wong@unsw.edu.au

**Abstract:** Many beginning students struggle with their university study because their high-school experience did not yield the basic or academic literacy skills essential to tertiary learning activities. A diagnostic program was designed to identify and assist students in developing psychology-specific academic literacy skills in the large Introductory Psychology 1A course at The University of New South Wales. In an early lecture period, all students were required to make a written response to a text passage (CRW test). This test required them to take and argue a position. Trained assessors marked their responses according to a number of criteria that ranged from spelling and grammar to the logic of their argument (the position taken was irrelevant). The bottom-scoring 50 students were then contacted and offered special tutorials to assist them with writing their laboratory report. Following these, a second CRW test was offered to the assisted group of students as well as to a control group of students (a second chance to make up percentage points). Students who participated in the tutorials showed improvement on some, but not all, assessment criteria. The implications of these findings are discussed in terms of discipline- vs. non-discipline-specific assessment criteria, and in terms of a cost-benefit analysis of the exercise.

## Seeing is understanding: the use of online prelaboratory exercises to enhance learning in Zoology practicals

Susan M. Jones and Ashley Edwards School of Zoology, and Natalie Brown, Centre for the Advancement of Learning and Teaching, University of Tasmania, Australia  
S.M.Jones@utas.edu.au Ashley.Edwards@utas.edu.au Natalie.Brown@utas.edu.au

**Abstract:** Cognitive load theory suggests that a student's learning will be inhibited if 'the instructional materials overwhelm a learner's cognitive resources' (Cook 2006, p.1076): the less prior knowledge a learner has, the more susceptible they are to overload. Cognitive load theory provides the basis for a number of instructional design rules. These include the use of multiple representations, and the use of dual mode presentations (e.g. verbal plus visual).

In our first year Zoology practical classes, we have observed that many students have difficulty visualising what they will do in class from reading a set of written instructions. Thus they are less well prepared, and less able to take full advantage of the learning experiences offered by the practical exercises. When that exercise involves a dissection, there are ethical implications (ANZCCART 2005). We therefore prepared a series of prelaboratory exercises to support each of our dissection-based practical classes. These are PowerPoint shows illustrating the procedure for each stage of the dissection, with written comments and questions designed to highlight key learning concepts: they are loaded into our online learning site the week before the relevant practical.

To gauge the impact of this initiative, we surveyed our students before releasing the first prelaboratory, and in the penultimate week of semester. The surveys were designed to elicit information on how well-prepared they feel for their classes, and what type of preparation they do: 68% commented that they 'like to see or be shown what I have to do'. We also sought feedback from the demonstrators about the types of questions being asked by the students to gauge the effectiveness of the prelaboratories in helping the students conceptualise what they would be doing in class. Preliminary analysis suggests that the prelaboratories were enthusiastically embraced by the students, and that there may be enhanced learning outcomes.

### References

- ANZCCART (2005) Ethical guidelines for students using animals or animal tissues for educational purposes. <http://www.adelaide.edu.au/ANZCCART/resources/>.
- Cook, M.P. (2006) Visual representations in science education: the influence of prior knowledge and cognitive load on instructional design principles. *Science Education*, 90(6): 1073-1091. DOI 10.1002/sce.20164.