### Interactive computer-based simulations for enhancing the teaching and assessment of psychological research and statistics

**Title of Material**
Interactive computer-based simulations for enhancing the teaching and assessment of psychological research and statistics

**Author(s)**
David Neumann

**Description/Aim**
APAC guidelines state that a core graduate attribute is knowledge of Research Methods in Psychology. Psychology programs thus have courses in research and statistics. However, social science students have negative attitudes and low motivation towards statistics and this predicts poor achievement. To address such problems, the following interactive computer-based simulations have been developed. The simulations let students see concepts “in action” and give them hands-on experience in manipulating data and seeing its effects in real time.

**Benefits of Resource**
The exercises are interactive, require students to combine their declarative knowledge of statistics with their experiences in working with the simulations, and allow students to assess their understanding while also obtaining feedback.

**Issues for Consideration**
The interactives are on-line and web-based. This requires Internet access and compatibility between the user software (web browser) and the programming codes used in the interactives (Java and/or Flash).

**Approximate Duration**
20 minutes per interactive exercise

**Primary Content/Process Topic**
Research Methods and Statistics

**Other Categories**
Graphing qualitative and quantitative data; scatterplots and correlation; sampling bias; sampling distribution of the mean; confidence intervals; hypothesis testing.

**Intended student level**
Undergraduate – Introductory

**Type of Material**
Simulated learning environment

**Format of Material**
HTML file and source code

**Further Information Contact** (email only)
D.Neumann@griffith.edu.au

**Review Requested**
Yes
| Evaluative Data Included
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<th>(E.g. Student evaluation, comments etc.)</th>
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<td>Evaluations have been conducted and reported in the following articles:</td>
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