

director of a psychology department subject pool (Carlson). While these co-authors will not be presenting, they will help prepare the slides and are co-authors of the book that will be given to attendees.

Ritter is also familiar with tutorials in general because he served as the first co-chair of tutorials at the Cognitive Science Conference in 1999. Since then he has served as tutorial chair or co-chair at the Cognitive Science Conference (2001, 2002, 2004, 2005), and at the International Conference on Cognitive Modeling (2004, 2006, 2007, 2009, 2010, 2012), and was the co-chair of the 2011 HCI Consortium Workshop, which was made up exclusively of tutorials on ways of knowing in HCI. In addition, he gave a tutorial on Soar at HCI International when it was in Japan and two invited lectures in Japan, has hosted a Japanese visitor, and published a paper in Japanese (Ritter, 2009).

This tutorial has been given at the *Behavior Representation in Modeling and Simulation (BRIMS 2012)* conference. The tutorial will be slightly modified for attendees at the Cognitive Science Conference by making it less practitioner/industry oriented, and making it more oriented for Asian and European researchers and for computer scientists. This will mean changing a few slides to represent problems more frequently found in academia than in industry, and assuming slightly different research questions are being asked, for example, a greater emphasis on cognitive science studies and less on controlled observation for product design.

(IV) Why it is appropriate to have a tutorial in the proposed area?

Practical skills on how to run studies are well known and well taught skills in psychology departments, but often not well known outside of psychology departments. Yet, in cognitive science, if the field believes in building computational models and gathering data to test those models (or starting the other way 'round, or having non-psychologists gather data), for example, work by Morita and colleagues (Morita, Miwa, Kojima, & Ritter, 2011), then how to gather that data is an important skill for every cognitive scientist, no matter their home discipline or outlook.

There are few teaching materials on the practical details on how to run studies, which this tutorial starts to address. So, this tutorial covers an established but not well documented or often formally taught common technique. The tutorial and related book will show that there are important aspects of this technique, and we would argue that without training these aspects are not well known to researchers outside of psychology, and put the resulting researchers and research done by those not trained at risk for failure, interpretable results, or incorrect results.

(V) The likely audience for the tutorial.

Earlier versions of the material have been used in teaching graduate courses at Carleton University (cognitive science, Canada), U. of Connecticut (human factors, US), Florida Institute of Technology (HCI), U. of Texas at Houston

(medical informatics), Middlesex U. (HCI, UK), Georgia Tech (industrial engineering), and at Penn State (information sciences and HCI). So, we believe that is accessible and useful to undergraduate and graduate students who are working with human participant studies, but are outside of psychology departments.

So, the likely audience for the tutorial are students and researchers outside of psychology departments who are running studies with humans in cognitive science, HCI, and related disciplines. It will also be useful to researchers in industry who are interested in running safer, more efficient, more controlled experiments.

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