

Spatial cognition researchers will connect through grant-funded virtual institute (/news/2012-11-08/newcombe-nsf-grant)

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Nora Newcombe, James H. Glackin Distinguished Faculty Fellow and professor of psychology at Temple University.

The **Spatial Intelligence and Learning Center** (<http://www.spatiallearning.org>) (SILC), headquartered at Temple, has been awarded a \$300,000 grant from the **National Science Foundation** (<http://www.nsf.gov>) to form the **Thematic Network in Spatial Cognition** (<http://www.spatiallearning.org/index.php/savi-thematic-network-in-spatial-cognition>) (TNSC), a virtual institute that will connect researchers from around the world in support of advancing the study of spatial cognition.

"The overall aim of TNSC is to establish spatial cognition as an enduring scientific field," said Nora Newcombe, the James H. Glackin Distinguished Faculty Fellow and professor of psychology at Temple and the principal investigator of SILC.

Spatial cognition is central to many human activities, including navigation and scientific and mathematical thinking. Research on spatial cognition draws on many disciplines, including cognitive science, computer science, geography, information science, neuroscience, linguistics, psychometrics and robotics. Its findings have relevance for education in science, technology, engineering and mathematics, as well as education in a wide range of professional fields, including medicine and dentistry, urban planning and traffic modeling and architecture and

design.

But, says Newcombe, despite the fact that these different disciplines address common problems, they often use different terminology and different research methods — which can hinder communication and interdisciplinary collaboration.

"Currently, the study of spatial cognition is fractured and far-flung," she said. "We think that bringing these researchers together to speak the same language will lead to exciting theoretical and translational research directions."

With this in mind, TNSC will support scholarly exchanges, lab visits, a series of thematic conferences and a summer school to provide common training for junior researchers at a crucial phase in their professional development. The focus for the first thematic conference, scheduled for December 2012, is Spatial Thinking Across the College Curriculum.

According to Newcombe, the ultimate aim of TNSC will be to hold a regular, international scholarly conference on Spatial Cognition and to establish a recognized scholarly journal that will be central to the field.

The grant is part of the NSF's **Science Across Virtual Institutes** (http://www.nsf.gov/news/specia_reports/savi/index.jsp) (SAVI), an effort to motivate collaboration among scientists and educators around the globe to spur scientific discovery.

"SAVI will serve as a catalyst for new, well-coordinated, and structured collaborations under one umbrella," said Subra Suresh, director of NSF. "It is my hope that SAVI will create new opportunities for NSF-funded scientists to collaborate across institutional, national, disciplinary and cultural barriers."

"This is an exciting opportunity for collaboration on global scale," said Newcombe. "It acknowledges that science is international, and it provides researchers with new ways to exchange ideas, share findings and work together to solve problems that will have real-world impact."

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