

Trouble paying attention?

Social sciences dean and cognitive sciences professor Barbara Doshier awarded \$1.6 million to study attention processes and training for improved performance

Listening and learning, walking and working - the ability to concentrate underlies all that and more. A \$1.6 million grant from the National Institute of Mental Health to the UCI Department of Cognitive Sciences and USC's Department of Psychology will fund research that could lead to a better understanding of human concentration and suggest ways to improve it.

Barbara Doshier, UCI cognitive sciences professor and Social Sciences dean, leads a research team with collaborator Zhong-Lin Lu of the University of Southern California that will study normal attention processes in order to gain insights into attention deficits in those who exhibit abnormalities.

"Only a small fraction of the complex, visual information in the world can be fully processed for recognition and action," Doshier says. "Attention plays a critical role in selecting and enhancing relevant information and filtering out irrelevant information."

Using behavioral and computational testing, researchers will identify the processes individuals employ to filter and correctly process visual information within different environments. They will then test the effects of vision training as a possible method for improving performance of attention related tasks.

"Attention is a central cognitive function that is disrupted or altered in many mental health conditions, a primary example of which includes attention deficit disorder," Doshier says. She adds that altered attention functions also are secondary issues in schizophrenia and some forms of stress. "Understanding the distinct forms and processes of attention in control populations will improve our understanding of these deficits," she says.

The study, which coincides with Doshier's 2006 vision training grant from the National Eye Institute, began in July and will span a five year period.

Doshier received her bachelor's degree in psychology from the University of California, San Diego and her master's and doctorate degrees in experimental psychology from the University of Oregon. She was a professor of psychology at Columbia University for 15 years before she joined the faculty of UC Irvine in 1992. She is a fellow of the Society for Experimental Psychologists and the American Psychological Society.

