

Psychologists searching for public participants for research project into navigation

May 13 2019, by Andrew Merrington



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A groundbreaking study into the cognitive basis of our spatial navigation and sense of direction is searching for volunteers to take part in a series

of trials.

Around 200 volunteers are being sought for ExSpaND (Exploring Spatial Navigational Differences), a three-year project led by the University that will look to provide an understanding of individual differences in our navigational abilities.

The project, which has been funded by a £355,000 grant from the Economic and Social Research Council, is being run in conjunction with University College London, the University of Westminster, and City, University of London. It will go on to test new methods of assisting people who experience difficulties with wayfinding, in both typical adults and individuals with conditions that impair their navigation.

Dr. Alastair Smith, Associate Professor in the School of Psychology at Plymouth, is leading the project. He said, "Whether we are retracing the steps on our daily commute, or exploring a place for the first time, spatial navigation is fundamental to our lives. Although it can sometimes seem effortless, this skill requires a complex synthesis of psychological functions, including our ability to perceive the world around us, focus on the useful features within it, and to successfully remember that information to assist future journeys. It is perhaps no surprise, therefore, that [difficulty](#) with these things can take a toll on people's quality of life, wellbeing and employability. What's more, while many of us experience difficulty at some point in our lives, there are some people who experience lifelong impairment, and they rarely have their needs recognised or met."

The researchers will be working with a sample of adults with hydrocephalus, a common condition associated with an excess of fluid on the brain. With the assistance of staff at the Chelsea and Westminster Spina Bifida and Hydrocephalus Clinic, and the charity Shine, this cohort will undertake a battery of experimental tasks in the laboratory

and real world, testing a broad range of navigational abilities.

The second group, of around 200 typical adults, will complete the same tasks. The third stage will see the development of some new cognitive methods to assist people who experience difficulties, which will be tested by those members of both groups that had the greatest difficulty with the tests.

"No such methods exist currently, and while much effort is being devoted to navigational aids based upon GPS guidance, psychological research has shown this might actually impair navigational performance," says Dr. Smith.

If you are interested in taking part in this research, and are aged 18—65, then email tara.zaksaite@plymouth.ac.uk. To improve the team's understanding of differences in [navigational skills](#), participants will be invited to play a game called Sea Hero Quest and fill out a short questionnaire. This game is played on an iPad or a personal mobile device.

To register, applicants must complete a consent form, download the game, play the selected ten levels, email their data to the researcher, and fill out the short questionnaire online.

Provided by University of Plymouth

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