

## Study: Brain Training Can be a Life Saver at Work, Literally

(San Francisco) – In a first of its kind study, computerized brain training was found to improve workplace performance among electric power line workers, where an error not only can knock out a section of the grid, but also can be fatal. The brain training studied was from [Posit Science](#), maker of [BrainHQ online brain exercises and assessments](#), which have shown a wide array of benefits in more than 150 journal articles.

Because of the risk of worker injury or death and enormous cost to the grid (and associated homes and businesses) of an outage, power line workers really are not allowed to make errors. However, any human endeavor involves risk of error, and while infrequent, errors with large consequences do occur.

The [new study has published in \*Professional Safety\*](#), a peer-reviewed journal of the American Society of Safety Professionals. The two-part study examined the impact of training with BrainHQ exercises on both error risk and actual error incidence.

The researchers recruited 43 power line workers (all male and average age 38.8) and assigned them to either (1) a BrainHQ training group asked to complete 30 minutes of training, three times per week, for eight weeks (a total of 12 hours) or (2) to a control group.

The primary risk outcome measure was the Sustained Attention to Response Task (SART) assessment, used as a measure of error risk that differed from the training. All participants were tested at the beginning and end of the eight-week period. The researchers found the intervention group did significantly better than the control at the SART risk measure after training.

This first part of the study, showing a reduction in error risk from training, was completed four years ago. Since then, the researchers tracked data on workplace incidents. They found a significant difference between the two groups in being error-free over the four-year period — with 62.5% of the trained group being error-free, compared to 15.8% of the control. They also reported, on an odds-ratio basis, that members of the control group were nearly nine times more likely to be involved in an incident than those who trained.

The independent researchers from Power of Learning (a safety industry consultant), Rush University, and University of Minnesota wrote: “The significance of these results demonstrates that it is possible to increase sustained attention ability in electric power line installers through cognitive training.”

“This is an important demonstration of benefits BrainHQ training can deliver in real-world situations,” said [Dr. Henry Mahncke](#), CEO of Posit Science. “Prior studies have shown BrainHQ exercises help with better performance at complex real-world tasks, perhaps most notably in safer driving and in reductions in fall risk. BrainHQ exercises emphasizing perceptual speed and accuracy are now used by a number of forward-looking enterprises to improve productivity and safety; however, this is the first published workplace study. We expect more will follow this year.”

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