

Brain irony: It needs to shut down sometimes to promote thinking

It turns out that a little bit of disconnect goes a long way in learning motor tasks, according to a study published online in the journal [Nature Neuroscience](#).

The findings could lend insight into why children learn some tasks faster than adults, and could point toward ways to help adults learn faster and to make classrooms more conducive to learning, according to the authors.

Brain researchers at UC Santa Barbara repeatedly scanned the brains of volunteers as they spent several weeks practicing and learning six 10-note sequences. Then they looked at the evolution of how certain “modules” appeared to work together or became disengaged from each other.

Not surprisingly, motor and visual modules did a lot of talking to each other, as slow sight-reading eventually became speed-playing. Subjects recruited other regions of the brain to work out the problem too. That was true for fast learners and slow learners, according to the study.

But what appeared to set the fast learners apart from the slow learners was how soon they let go of those other parts of the brain, particularly areas that have to do with strategies and problem solving.

“Any athlete will tell you this: If you’re competent at something and you start thinking about it, especially at a detailed level, you’re just dead in the water,” said UC Santa Barbara systems neuroscientist Scott Grafton, who has puzzled over motor learning for two decades. “Golfers talk about this all the time. It’s OK for practice, but not for performance conditions.”

Read full, original article: [Brain knows how to stop thinking, start learning](#)