



# Using Brain Waves to Improve Computer Learning Tools

## OVERVIEW

Current adaptive learning tools lack insights into a student available to human tutors. We aim to *close the loop* between a computer tutor and the student with objective measures of their cognitive state. This innovation leverages recent neuroscience research and advances in wearable EEG sensing.

Our technology can potentially supplement classroom learning or test prep with a scalable tool that reaches the efficacy of a human tutor.

## RESEARCH

Phase I: NSF-funded pilot study with 9<sup>th</sup> grade biology students (2015)

Team: Collaboration between QUASAR, Inc. (San Diego), a research firm specializing in bioelectric measurement technologies, experts from the University of Memphis and the University of Norte Dame in intelligent tutoring systems and affective computing, and staff & students of Whitney High School.



Prototype electroencephalography (EEG) headset



Real-time measurements

*Seeking Phase II partners – educational content providers, schools and tutoring centers*

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