**2019-2020 Psychology UQ Summer Research Project Description**

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| **Project title:** | **Effects of perceived mental effort on electrical brain response** |
| **Project duration:** | * 10 weeks * 20-30 hours/week |
| **Position/s available** | 1 |
| **Description:** | Based on previous research on perceived ability and effort mobilization, this project has as main goal to understand the role of ability in the context of effort mobilization. So far, Wright (Wright & Dill, 1993; Wright, Wadley, Pharr, & Butler, 1994) showed that the manipulation of perceived ability through feedback or samples selection impacted subjective task demand which in turn determined effort mobilization in agreement with Brehm and Self’s (1969) theory: effort mobilization should increase proportionally as a function of task demand, as long as success is possible and justified. However, these manipulations might induce controlled processes that have been previously reported to render effects on effort-mobilization difficult to predict. This is explained because participants become aware of the experimental variables which can change the automatic processes that are at stake. Admitting this, we plan to use Transcranial Direct Current Stimulation, a novel technique which has been proven to increase performance during mental concentration tasks, to manipulate implicitly the task ability of our participants. Using tDCS will permit to manipulate ability with restricted knowledge of the experimental manipulation and prevent controlled processes. |
| **Expected outcomes and deliverables:** | Students will gain experience in setting up electrophysiological experimentation and carrying out data recordings. They will be asked to produce an oral presentation at the end of their project. |
| **Suitable for:** | This project is open to applications from students interested in physiological psychology and cognitive neuroscience. Students who have completed their BSc would benefit most from the position. |
| **Primary Supervisor:** | Alan Pegna |
| **Further info:** | Please contact [a.pegna@uq.edu.au](mailto:a.pegna@uq.edu.au) for further information. |