The Effect of Language Status on Immediate Post-concussion Assessment and Cognitive Testing (ImPACT) Performance

Management of return-to-play decisions after sports-related concussions has relied on the use of computerized neurocognitive tests, including the Immediate Post-concussion Assessment and Cognitive Testing (ImPACT). ImPACT is argued to provide objective markers of cognitive functioning (Verbal Memory, Visual Memory, Reaction Time, Processing Speed, Impulse Control) to determine whether the athlete is still symptomatic. One factor that might influence ImPACT performance, and its clinical utility, is the language status of the test-taker. If an individual is not a native-English speaker, s/he might perform worse specifically on verbal tests, including Verbal Memory. In contrast, if an individual is multilingual, s/he might be expected to perform better than monolinguals on tests involving inhibition and task-switching, including Impulse Control. The current study tested Purdue undergraduate students on ImPACT and examined performance as a function of language status. The results have implications for the clinical application of ImPACT with diverse samples.