

## Date & Time

28 September 2018 (Friday) @ 3.15 pm

## Venue

Al-Farabi Seminar Room,  
Second Floor, INSPEM

## Presenter

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Laboratory of Statistical and  
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## Topic

**RStudio: DOES IT ENGAGE STUDENTS  
IN THEIR STATISTICS LEARNING**

## Abstract

The aim of this paper was to determine students' statistics engagement level in an experiential statistics learning process with RStudio (an open-source statistical package) in a Malaysian public university. A descriptive quasi-experimental with control group design was employed. This study was conducted on 50 first year students enrolled in various non-mathematics/statistics oriented fields of study. The students were equally assigned to the experimental (used RStudio) and control (did not use RStudio) groups respectively. Descriptive analysis showed that experimental group students had higher students' engagement than control group students. It also indicated that students' engagement of experimental group students was high, while that of control group students was moderate. Independent samples t-tests revealed there were significant differences in all components of students' engagement (behaviour engagement, emotion engagement, cognitive engagement and social engagement) and overall students' engagement between students in both groups. Moreover, the mean differences between both groups were also statistically significant and favourable to experimental group. These findings implied that integration of RStudio exerted positive effects on students' engagement in statistics classroom. Essentially, integration of RStudio in introductory statistics course has proven to be beneficial and significant to substantially improve students' engagement to learn and to perform better in statistics course.