**Human  
The effect of different sleep durations on math test performance**

* Factor Variable: sleep duration (4hours, 7 hours, 10hours)  
  <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770743>
* Quantitative Covariates: participants' age, math skill, health condition; test duration, daily caffeine consumption amount.
* Response Variable: Math test score

The effect of coffee consumption on attention performance

* Factor Variable: drink type (coffee: contain caffeine, water: no caffeine)
* Quantitative Covariates: caffeine sensitivity, attention performance history, time of the day, sleep duration
* Response Variable: attention test performance (test score, reaction time)

**Effects of dietary habits on academic performance/mental tasks**

* Factor Variable: dietary habit (healthy, unhealthy diet, fasting)
* Quantitative Covariates: historical performance, time of the day, participant age
* Response Variable: test performance (test scores, problem-solving test results)

**Correlation between academic performance and mental health**

* Factor Variable: mental health status (high stress, moderate stress, low stress)
* Quantitative Covariates: sleep duration, daily caffeine amount, age, gender
* Response Variable: Academic task performance (math test, reaction times, etc.)

**Impact of study habits on final exam performance**

* Factor Variable: constant (study regularly), cramming (study only near test or exam), minimal (study infrequently)
* Quantitative Covariates: attendance rate, sleep duration, health condition
* Response Variable:

**Impact of height on running speed**

* Factor Variable: height (short <160, medium 160-180, tall >180)
* Quantitative Covariates: training type (sprint training, endurance training, no training), age, fitness level
* Response Variable: running speed

**Non-human**

**Impact of oil type on frying time of potatoes**

* Factor Variable: oil type (olive, vegetable, sunflower, coconut)
* Quantitative Covariates: oil temperature, potato thickness, weight of potato, cooking equipment.
* Response Variable: frying time

**Factors affecting carbonation loss in soda drinks**

* Factor Variable: surface area exposed to air (small opening, regular size with standard glass, open tray), temperature, container type
* Quantitative Covariates: volume of soda, agitation level (shaken 0 times, once, etc.)
* Response Variable: time to carbonation loss

**Factors affecting chocolate solidification tim**e

* Factor Variable: temperature (freezer -10, refrigerated 0-5, room temperature 20-25, warm environment 35-40)
* Quantitative Covariates: chocolate type (milk chocolate, dark chocolate, white chocolate), container material (silicone mold, glass bowl), initial chocolate volume
* Response Variable: solidification time