Q0: for ITLANG, keep countries that administered English (which includes the US)?

Q1: how many education systems administered TIMSS in multiple languages? How many of them include English? What’s the sample size in these groups? % of missing values? What’s the official language in those education systems?

Q1.1: do the same for “lang at home”: how many education systems administered TIMSS in multiple languages? How many of them include English? What’s the sample size in these groups? % of missing values? What’s the official language in those education systems?

A1: look at the education system list in TIMSS 2011 and 2015; and Wikipedia

Q2: percentage/(math/sci) achievement by language at home

what is the percentage distribution of students who speak the test language at home (asbg03: how often do you speak <lang of test> at home) in each education system? How is the math/sci performance different by these student groups?

A2: mmat ~ asbg03; ssci ~ asbg03

Q2.1: percentage/(math/sci) achievement by language of testing

Q3: percentage/(math/sci) achievement by language at home & by language of testing

What is the

Q4: use itlang to predicting (math/sci) achievement controlling for