Teaching Math Effectively: Insights from LSAY and PISA on Primary Teacher Proficiency

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The aim of the project was to understand the performance of primary school teachers in Australia in mathematics, utilising the Longitudinal Surveys of Australian Youth (LSAY) and Programme for International Student Assessment (PISA) datasets. `Intsvy` and `rrepest` were used to determine accurate summary statistics.

3.0.1 The Data

The analysis required data which retained the demographic information from LSAY with the corresponding PISA scores for each observation. To achieve this, LSAY data post 2003 was used as participants were recruited from schools that also took part in the PISA. These years included: 2003, 2006, 2009 and 2015.

In the dataset each row represented a student, and each column had demographical data encoded into variable names, PISA scores and weights.

A dummy data frame was created for better understanding:

STIDSTD	SECTOR	SEX	PV1MATH	PV2MATH	ST38Q03	ST38Q04	ST38Q05	w_fstr1
1	1	2	451.5653	428.8553	5	2	1	0.6478319
1	1	1	543.8882	547.4991	3	3	5	1.2499045
5	2	2	492.9003	411.0369	5	5	3	0.9916833
2	2	2	553.7823	500.2811	4	4	3	0.5845606
1	2	2	425.3132	526.2942	5	4	3	1.4205048
1	1	1	549.9214	566.4462	3	5	4	0.7684911
1	2	2	513.1621	543.4855	1	1	2	0.5919332
3	2	2	558.7676	582.4670	2	5	2	1.0281326
5	2	2	570.5679	596.1875	2	1	4	1.0690611
3	2	2	595.9080	561.0390	2	5	3	1.3767494

4 Results

5 Discussion

6 Conclusion