Interim and Standardized Test Performance Analysis, SY 23-24

Summary:

- We explored performance on district-created interims (English Language Arts (ELA) and math; fall, midyear, and spring) and on the end of year state-standardized test
- Performance on interims and the standardized test were highly correlated, with an average of r = .70 across the three interims
- Correlations between interims and the standardized test ranged from about r = .36 to r = .81 across schools
- While performance varied across grades, correlations between interims and the standardized test remained stable across grade levels

Some names and data have been redacted to maintain anonymity

Report Background

The district made big changes to their interim strategy last school year. In the 23-24 school year, district-run schools used district-created interims unless they opted out of them. District teams want to understand if district-created interims set students up well for the state standardized test. If interim performance is correlated with standardized test performance, school staff can use interim results to better help students prepare for the standardized test.

Research Questions

Is the level of difficulty comparable between district-created interims and the standardized test?

Is interim performance correlated with standardized test performance?

How do schools compare to each other on district-created interims and standardized test performance?

Data and Methodology

We collected data on interim and standardized test performance for grades 3-8 during the 23-24 school year. 80 schools chose to administer district-created interims. 76 of those schools had performance data for at least 10 students. We compared performance in district interim math to standardized test performance for ELA and math by looking at performance levels, percent of students who scored proficient or above, and the correlation between interim and standardized test performance. We also explored performance at the school level to understand which schools beat the odds with higher standardized test performance compared to interim performance, and which schools underperformed by having higher interim performance compared to standardized test performance.

Findings

Performance levels

Standardized test and interim performance are scored on 5 levels (1 = did not yet meet expectations, 2 = partially met expectations, 3 = approached expectations, 4 = met expectations, 5 = exceeded expectations). We calculated the number of students who scored within each performance level on both assessments. We then compared student performance on interims to performance on the standardized test . See tables 1a and 1b. Students were likely to score at the same performance level on the standardized test as the level they scored on the interims or within one performance level (e.g. a student who scored a 4 on interims were most likely to score a 4 on the standardized test followed by a 3 or 5).

Table 1a & 1b. Table 1a shows fall midyear and spring ELA interim and spring ELA standardized test scores. Table 1b shows the same for the math assessments. The tables show the number of students within each performance level on interims (fall, midyear, and spring) and standardized test. Darker shades of green indicate more students within each cell compared to the others.

Percent Proficient and Correlations

To compare performance on interims and the standardized test, we calculated the percent of students who scored proficient or above (a 4 or 5) on both assessments. On the ELA assessments, more students scored proficient on the standardized test than on the interims. On math assessments, more students scored proficient on interims than the standardized test.

We also calculated the correlation between students' performance levels on interims and the standardized test. Interim and standardized test performance were highly correlated, r = .68 on average for ELA and r = .72 on average for math.

Table 2. District-level interim and standardized test performance. Percent of students who scored proficient on interims and the standardized test. Percent proficient was lower on interims than on standardized test for ELA, but higher for interims than standardized test for math. Interim performance was highly correlated with standardized test performance for ELA and math and across the three interims.

		Percent Proficient			
Measure	**Semester**	**Interims**	**standardized test**	**correlation**	**Student count**
ELA	Fall	26%	40%	0.67	14270
ELA	Midyear	38%	39%	0.70	14621
ELA	Spring	39%	39%	0.68	13633
Math	Fall	44%	33%	0.70	13889
Math	Midyear	40%	32%	0.74	14323
Math	Spring	42%	32%	0.72	13491

School-level Proficiency Data

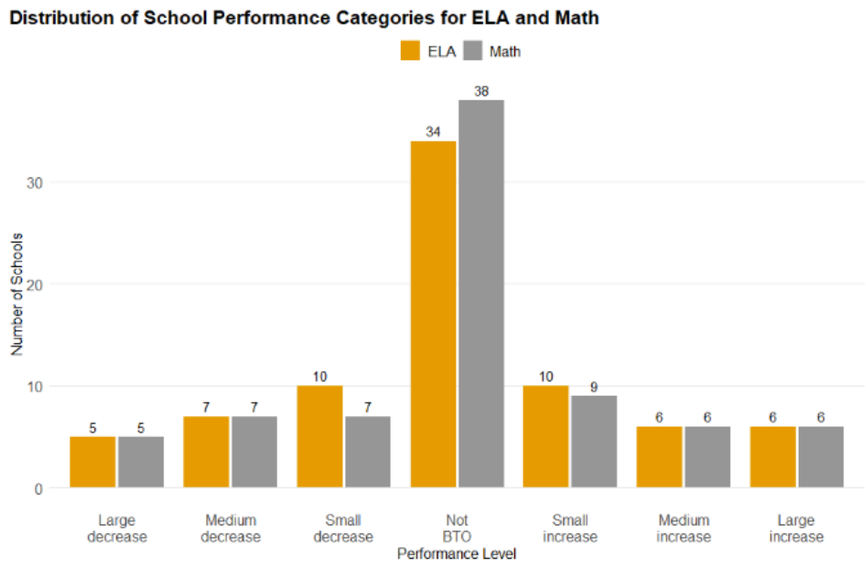
School-level proficiency data for all schools can be found in **this spreadsheet**. Correlations ranged from about r = .36 to r = .81 across schools.

We conducted a multi-level model that estimated standardized test performance based on student and school characteristics. The model accounted for student demographics, size of school, and interim performance

We then compared estimates of standardized test performance for each school to schools' actual standardized test performance.

Schools whose actual standardized test performance was higher than the estimate based on demographics and interim performance beat the odds. Schools whose actual standardized test performance was lower than the estimate underperformed. Schools are ranked on a percentile from the estimate.

Figure 1. Schools' standardized test outcomes as related to their estimated performance in the model. Schools with increases beat the odds in comparison to their estimated performance. Schools with decreases underperformed in comparison to their estimated performance.



Grade-level Data

Despite differences in performance, the correlations between interims and standardized test performance were similar across grade levels and grade bands (3-5 and 6-8), averaging around r = .70. See table 3 for grade band data.

Table 3. Performance and correlation data by grade bands where lower is grades 3-5 and upper is grades 6-8.

			Percent Proficient			
Measure	Semester	Grade Bands	Interims	standardized test	correlation	Student Counts
ELA	F	3-5	25%	38%	0.70	8477
ELA	F	6-8	29%	43%	0.63	5793
ELA	M	3-5	35%	37%	0.72	8694
ELA	M	6-8	42%	42%	0.67	5927
ELA	S	3-5	34%	37%	0.66	7867
ELA	S	6-8	47%	42%	0.70	5766
Math	F	3-5	40%	35%	0.75	7973
Math	F	6-8	51%	31%	0.69	5916
Math	M	3-5	40%	34%	0.77	8285
Math	M	6-8	40%	31%	0.70	6038
Math	S	3-5	43%	33%	0.72	7915
Math	S	6-8	40%	30%	0.71	5576

Recommendations

The large correlation between interims and standardized test performance is encouraging, indicating that interim performance is likely a good predictor of standardized test performance. That the correlation is not perfect (r = 0.70 as opposed to r = 1.0) is also encouraging because it indicates that there is still room for students to grow and for interventions before standardized test administration.

Interim administration varied across schools not just because some schools opted to administer different interim assessments, but even schools who opted to administer district-created interims varied in how they

administered interims (number of students who completed interims, constructed response completion). Given that interim and standardized test are highly correlated, this data can be shown to schools to stress the importance of interim administration.