

Correlation and Predictive Nature of Reading Screeners to Smarter Balanced Overall ELA RIT Scores

Based on 2014-15 administration of Screeners and Smarter Balanced in the Tigard-Tualatin School District.

Outcome Benchmark: Level 3 on Smarter Balanced English Language Arts Overall Score.

		Screener	Benchmark	n	Correlation	Sensitivity	Specificity	PPV	NPV
3rd	Fall	DIBELS Composite	220	891	0.64	0.84	0.59	0.74	0.73
	Winter	DIBELS Composite	285	906	0.67	0.83	0.61	0.75	0.73
	Spring	DIBELS Composite	330	935	0.69	0.87	0.58	0.74	0.78
4th	Fall	DIBELS Composite	290	891	0.73	0.87	0.65	0.80	0.76
	Winter	DIBELS Composite	330	897	0.74	0.91	0.60	0.78	0.80
	Spring	DIBELS Composite	391	911	0.72	0.91	0.58	0.77	0.80
5th	Fall	DIBELS Composite	357	872	0.71	0.87	0.65	0.78	0.78
	Winter	DIBELS Composite	372	880	0.72	0.90	0.60	0.76	0.81
	Spring	DIBELS Composite	415	895	0.70	0.87	0.60	0.75	0.76
6th	Fall	DIBELS Composite	344	878	0.67	0.98	0.27	0.61	0.91
	Winter	DIBELS Composite	358	878	0.67	0.95	0.43	0.65	0.89
	Spring	DIBELS Composite	380	901	0.66	0.96	0.31	0.61	0.88
7th	Fall	MAZE	29	876	0.62	0.84	0.57	0.73	0.72
	Winter	MAZE	29	854	0.66	0.79	0.70	0.79	0.69
	Spring	MAZE	33	871	0.61	0.79	0.61	0.75	0.66
8th	Fall	MAZE	27	876	0.63	0.89	0.52	0.70	0.78
	Winter	MAZE	22	907	0.61	0.89	0.54	0.71	0.79
	Spring	MAZE	29	879	0.66	0.87	0.55	0.71	0.77

n			Number of students with both a screener and a summative assessment score
Correlation			Degree to which two sets of numbers are related. When two assessments have a strong correlation it's an indicator that the results of one test can be used to predict the outcomes of the other test.
Sensitivity		True Positive Rate	Ability of the screener to correctly identify student who will pass the summative assessment
Specificity		True Negative Rate	Ability of the screener to correctly identify students who will not pass the summative assessment
PPV		Positive Predictive Value	Probability that students who pass the screener will also pass the summative assessment
NPV		Negative Predictive Value	Probability that students who do not pass the screener will also not pass the summative assessment

Correlation	Description of Relationship
1.0	Perfect
.70 to .99	Very strong
.40 to .69	Strong
.30 to .39	Moderate
.20 to .29	Weak
.00 to .19	None to Negligible