

Value Added and Teacher Evaluation Rubric Correlations for Tulsa Public Schools, 2010-2011 School Year

The Value Added Research Center at the University of Wisconsin performed correlation analysis on Tulsa Public Schools' teacher evaluation scores and value added scores for the 2010-2011 school year as a validity check for both measures. Value-added scores were provided by VARC's project with the District, and were identified by teacher ID, grade, and subject. Teacher evaluation scores, based on the District's evaluation rubric, were provided by the school district and were identified by teacher ID. The evaluation scores contained the score for each individual item on the evaluation rubric. Value-added scores were merged with teacher evaluation scores by teacher ID.

The value-added file contained 1255 teacher/grade/subject value-added scores and the evaluation rubric file contained 2274 teacher/grade/subject evaluation scores. The greater number of evaluation score results is due to the limited number of grade/subject combinations that are associated with a state exam. After merging, the file contained value-added and evaluation scores for 729 teacher/grade/subject combinations. There are several reasons why the merged sample is smaller than either of the individual measures. For example, a teacher might teach multiple grades and subjects that are associated with value-added scores, but might have only been evaluated in some of those grade/subject combinations. Unmerged evaluations are assumed to be missing at random with respect to the relationship with the other metric, so missing evaluations will not bias the results, but will reduce the precision of the correlations due to reduced sample size.

After merging, value-added scores and evaluation scores were correlated by grade and subject. Class-size was used as a weight for correlations to reflect the increased precision of value-added scores for larger class sizes. After correlating at the grade/subject level, correlations were summarized using a weighted average by number of teachers across grades and subjects. Individual grades/subject level correlations are sometimes imprecise due to low sample sizes, so the results summarized across grade and subject were reported.

The overall correlation between value-added and teacher evaluation scores using the Tulsa evaluation rubric, averaged across grades and subjects, is 0.23. This correlation is consistent with past correlational studies of prominent national models that measured the relationship between value-added scores and teacher observation scores, such as the 2010 study by Kane et. al. using Cincinnati data¹. The full set of Tulsa's correlations is included in the attached spreadsheet.

¹ Kane, T. J., Taylor, E. S., Tyler, J. H., & Wooten, A. L. (2010). Identifying effective classroom practices using student achievement data. NBER working paper no. 15803. Cambridge, MA: National Bureau of Economic Research.

Tulsa Model Correlations by Indicator Practice Across Content Areas and Grade Levels

Content Area	Level: Elementary/ Middle or High School	N	Overall weighted average	Preparation: Plans for delivery of the lesson	Discipline: Clearly defines expected student behavior	Climate: Enforces orderly behavior throughout the school	Climate: Follows procedures to protect student safety	Lesson Plans: Develops daily lesson plans to achieve identified objectives	Assessment Patterns: Administers fair and objective-based assessments	Involves All Learners: Engages learners in active learning 80% or more of the time	Involves All Learners: Uses teaching strategies to address learning styles / multiple intelligences	Involves All Learners: Asks critical thinking questions and uses questioning techniques	Involves All Learners: Uses language that increases student awareness of learning	Involves All Learners: Requires participation of all students	Explains Content: Teaches the objectives through a variety of methods	Explains Directions: Clearly states directions that relate to the learning objectives	Models: Demonstrates the desired skill or process	Monitors: Moves around the room during guided practice
Math	E / M	174	0.33	0.35	0.28	0.22	0.11	0.28	0.36	0.31	0.30	0.29	0.18	0.26	0.24	0.25	0.24	0.35
Reading	E / M	187	0.15	0.21	0.20	0.02	0.05	0.13	0.12	0.15	0.16	0.19	0.19	0.15	0.09	0.13	0.18	0.03
Science	E / M	77	0.27	0.08	0.18	0.31	0.30	0.21	0.18	0.10	0.20	0.18	0.13	0.32	0.23	0.11	0.11	0.22
Social Studies	E / M	80	0.27	0.15	0.22	-0.12	0.21	0.20	0.13	0.19	0.05	0.37	0.28	0.29	0.20	0.20	0.31	0.35
Writing	E / M	86	0.01	0.10	0.10	-0.12	0.08	0.13	-0.04	0.02	0.23	0.10	0.04	0.13	0.05	0.25	0.02	0.00
English	HS	38	0.29	0.06	0.05	0.33	0.42	0.29	0.42	0.23	0.46	0.27	0.04	0.07	0.57	0.05	-0.03	0.19
Math	HS	49	0.39	0.39	0.38	0.44	0.29	0.19	0.35	0.20	0.42	0.27	0.43	0.17	0.36	0.50	0.32	0.28
Science	HS	18	0.36	0.47	0.18	0.02	0.21	0.39	0.25	0.51	0.35	0.75	0.25	0.32	0.30	0.20	0.11	0.19
Social Studies	HS	16	0.42	0.54	0.48	0.49	0.17	0.29	0.28	0.51	0.52	0.35	0.49	0.25	0.46	0.27	0.52	0.54
Math Overall		223	0.34	0.36	0.30	0.27	0.15	0.26	0.36	0.28	0.33	0.29	0.24	0.24	0.27	0.30	0.26	0.33
Reading / English Overall		225	0.17	0.19	0.18	0.07	0.11	0.15	0.17	0.16	0.21	0.20	0.16	0.14	0.17	0.12	0.14	0.05
Elementary / Middle Overall		608	0.21	0.21	0.20	0.07	0.12	0.19	0.17	0.17	0.19	0.23	0.17	0.21	0.16	0.18	0.18	0.18
High School Overall		121	0.36	0.32	0.26	0.35	0.30	0.27	0.35	0.30	0.43	0.35	0.29	0.17	0.43	0.29	0.20	0.27
Overall		729	0.23	0.22	0.21	0.12	0.15	0.20	0.20	0.19	0.23	0.25	0.19	0.21	0.20	0.20	0.18	0.20

Tulsa Model Correlations by Indicator Practice Across Content Areas and Grade Levels

Monitors: Uses different types of student response techniques	Monitors: Uses appropriate wait-time in questioning	Adjusts Based Upon Monitoring: Reinforces student effort with feedback	Adjusts Based Upon Monitoring: Has students to track effort / achievement	Adjusts Based Upon Monitoring: Provides feedback on instructional involvements	Adjusts Based Upon Monitoring: Responds to students' answers appropriately	Adjusts Based Upon Monitoring: Responds to students' questions appropriately	Adjusts Based Upon Monitoring: Primarily provides constructive feedback	Adjusts Based Upon Monitoring: Re-teaches unmastered content in different ways	Establishes Closure: Summarizes or teaches students to summarize new learning	Establishes Closure: Assesses mastery to determine if independent practice is appropriate	Student Achievement: Uses data to modify instruction and guide intervention strategies	Student Achievement: Recognizes student progress and achievement regularly	Student Achievement: Consistently adheres to IEPs and modifies assessments as needed	Professional Growth: Develops professionally to continuously improve instruction	Effective Communications: Interacts with families in a positive and professional manner	Effective Communications: Uses effective communication skills with students	Effective Communications: Collaborates with peers	Leadership: Engages in service to the school	Leadership: Participates in school and district projects	Leadership: Engages in service to the profession	Leadership: Advocates for students
0.28	0.20	0.25	0.29	0.34	0.25	0.21	0.33	0.26	0.24	0.30	0.28	0.21	0.09	0.09	0.11	0.21	0.15	0.24	0.20	0.13	0.13
0.08	0.15	0.07	0.05	0.11	0.17	0.17	0.17	0.13	-0.02	0.03	0.01	0.17	0.08	-0.05	0.08	0.21	0.02	0.03	-0.04	-0.06	0.02
0.37	0.01	0.17	0.23	0.23	0.18	0.21	0.21	0.15	0.00	0.03	0.22	0.34	-0.07	0.18	0.22	0.29	0.25	0.24	0.28	0.17	0.31
0.10	0.15	0.28	0.04	0.14	0.36	0.30	0.10	0.12	0.17	0.25	0.10	0.18	0.17	0.26	0.19	0.20	0.30	0.20	-0.03	0.08	0.22
0.09	0.13	0.02	-0.11	-0.12	-0.04	0.08	0.05	0.15	0.10	-0.06	-0.03	0.08	0.02	-0.23	-0.09	0.01	-0.16	-0.16	-0.25	-0.25	-0.13
0.32	0.21	0.27	0.23	0.13	0.08	0.25	0.09	0.18	0.15	0.16	0.14	0.21	-0.02	0.30	0.28	-0.02	0.19	0.40	0.41	0.41	0.38
0.35	0.27	0.17	0.27	0.31	0.38	0.33	0.34	0.21	0.44	0.17	0.39	0.38	0.33	0.18	0.19	0.11	0.43	0.21	0.12	0.34	0.22
0.49	0.23	0.47	0.27	0.44	0.17	0.64	0.17	0.45	0.52	0.17	0.55	0.23	0.19	0.14	0.13	0.07	0.40	0.15	0.01	-0.28	0.31
0.23	0.48	0.28	0.27	0.26	0.28	0.28	0.25	0.27	0.27	0.21	0.26	0.26	0.46	0.50	0.34	0.31	0.49	0.48	0.49	0.27	0.27
0.30	0.22	0.23	0.29	0.33	0.28	0.24	0.33	0.25	0.29	0.27	0.30	0.25	0.13	0.11	0.13	0.19	0.21	0.23	0.18	0.18	0.15
0.12	0.16	0.10	0.08	0.12	0.15	0.18	0.16	0.14	0.01	0.06	0.03	0.18	0.07	0.01	0.11	0.17	0.05	0.09	0.03	0.02	0.08
0.17	0.14	0.16	0.12	0.16	0.18	0.18	0.19	0.17	0.10	0.12	0.12	0.19	0.07	0.03	0.10	0.19	0.10	0.12	0.04	0.01	0.09
0.34	0.28	0.26	0.26	0.26	0.24	0.35	0.22	0.24	0.34	0.17	0.32	0.29	0.20	0.25	0.23	0.09	0.36	0.30	0.24	0.26	0.29
0.20	0.16	0.17	0.14	0.18	0.19	0.21	0.20	0.18	0.14	0.13	0.15	0.21	0.09	0.07	0.12	0.17	0.15	0.15	0.07	0.06	0.12