



The Marzano Causal Teacher Evaluation Model
Alignment to the Ohio Standards for the Teaching
Profession

*Exclusive partners with Dr. Robert J. Marzano
for the Causal Teacher Evaluation Model*

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Preface

Federal initiatives (e.g. Race to the Top) and state legislation call for rigorous, transparent, and fair evaluation systems that differentiate teacher effectiveness based on student achievement as described by value-added models. Subsequently, there is an increased need for a teacher evaluation model that also includes a comprehensive, robust, and research-based description of teacher effectiveness that can measure the effectiveness of teachers using observation protocols, classroom artifacts, portfolios, student work, and professional growth plans.

The goal of an effective evaluation system is for teachers to incrementally increase their expertise in teaching year to year and, therefore, incrementally increase their ability to raise student learning gains year to year. Dr. Marzano's Causal Teacher Evaluation Model (*herein referred to as the Marzano Teacher Evaluation Model*) is based on his acclaimed Art and Science of Teaching framework, which defines instructional strategies identified by research to increase student learning gains. The Marzano Teacher Evaluation Model closely aligns with state teaching standards through the development of clear criteria for success and a student data module that ties student achievement to teacher evaluation using data closest to the classroom.

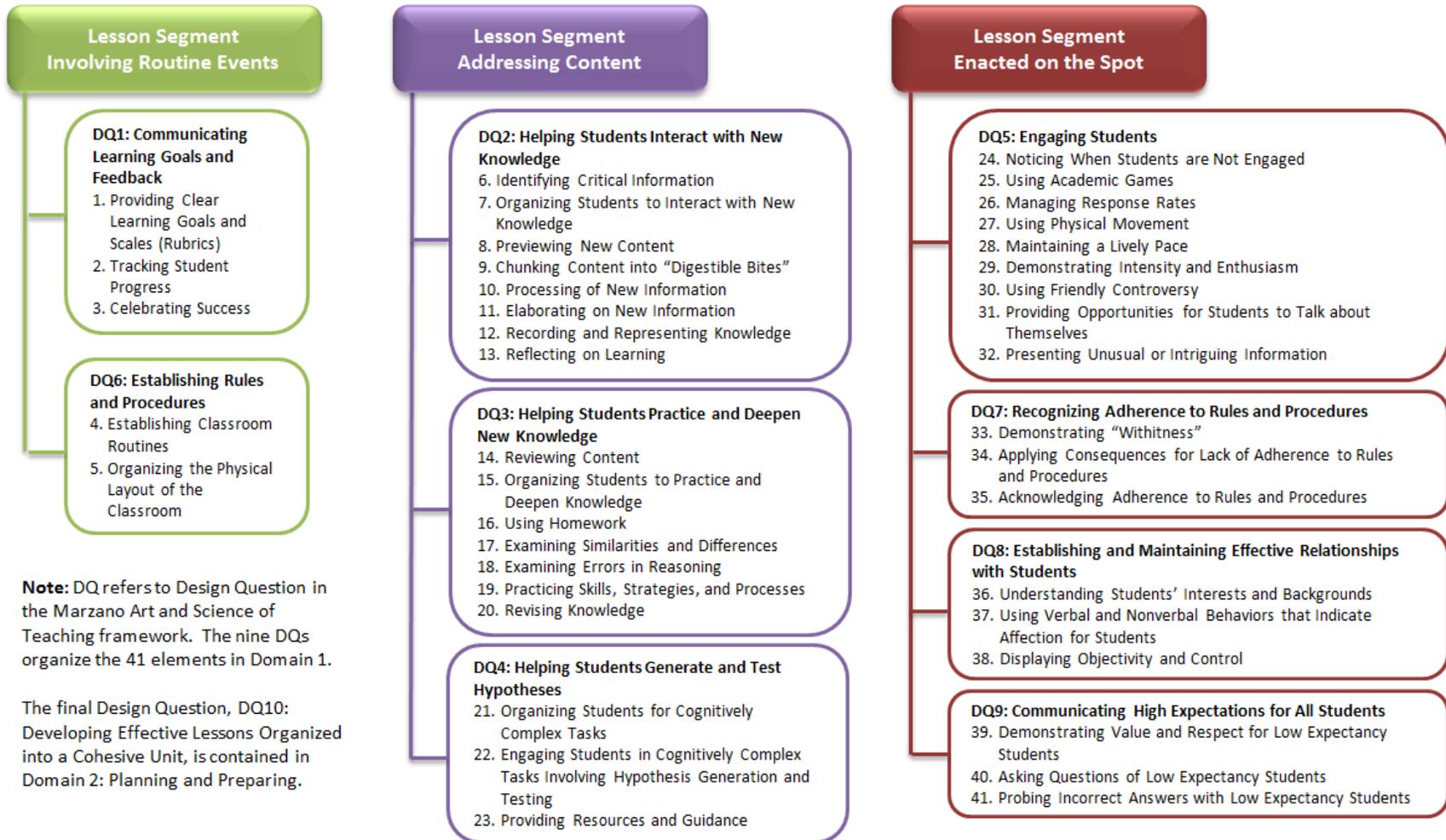
The Ohio Standards for the Teaching Profession¹ broadly describe what teachers need to know and be able to do, while the Marzano Teacher Evaluation Model provides a means for teachers to translate the standards into their daily practice.

¹ Source: Ohio Educator Standards Board, *Standards for Ohio Educators: Teachers| Principals| Professional Development*, (October 2005).

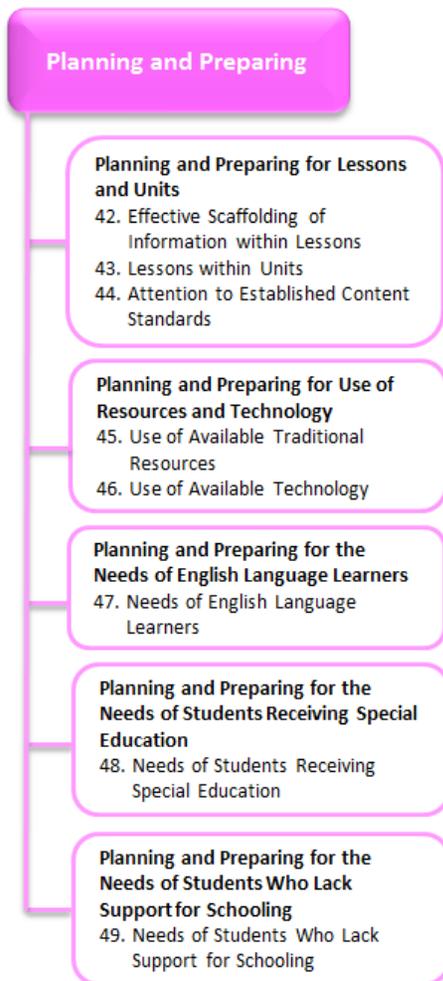
Marzano Causal Teacher Evaluation Model Map of Domains 1-4

Domain 1: Classroom Strategies and Behaviors

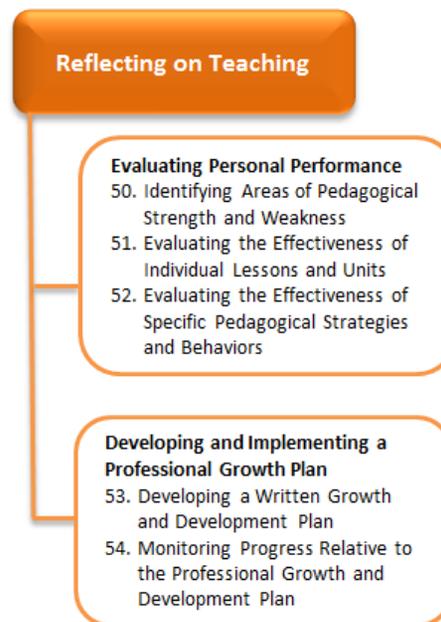
Domain 1 is based on the Art and Science of Teaching Framework and identifies the 41 elements or instructional categories that happen in the classroom. The 41 instructional categories are organized into 9 Design Questions (DQs) and further grouped into 3 Lesson Segments to define the Observation and Feedback Protocol.



Domain 2: Planning and Preparing



Domain 3: Reflecting on Teaching



Domain 4: Collegiality and Professionalism



The Marzano Teacher Evaluation Model Alignment to the Ohio Standards for the Teaching Profession

Marzano Causal Evaluation Model Domains 1, 2, 3, and 4	Ohio Standards for the Teaching Profession
DOMAIN 1: CLASSROOM STRATEGIES AND BEHAVIORS	
I. Routine Segments	
Design Question #1: What will I do to establish and communicate learning goals, track student progress, and celebrate success?	
1. Providing clear learning goals and scales (rubrics)	Element 3.5 Element 4.1 Element 4.3
2. Tracking student progress	Element 3.1 Element 3.2 Element 3.3 Element 3.5
3. Celebrating success	Element 3.4 Element 3.5
Design Question #6: What will I do to establish and maintain classroom rules and procedures?	
4. Establishing classroom rules and procedures	Element 5.1 Element 5.2 Element 5.5
5. Organizing the physical layout of the classroom	Element 5.2 Element 5.5
II. Content Segments	
Design Question #2: What will I do to help students effectively interact with new knowledge?	
6. Identifying critical information	Element 1.1
7. Organizing students to interact with new knowledge	Element 2.1
8. Previewing new content	Element 2.2
9. Chunking content into “digestible bites”	Element 2.3
10. Processing new information	Element 2.4
11. Elaborating on new information	Element 2.5
12. Recording and representing knowledge	Element 4.4
13. Reflecting on learning	Element 4.5 Element 4.6 Element 4.7
Design Question #3: What will I do to help student practice and deepen their understanding of new knowledge?	
14. Reviewing content	Element 1.1
15. Organizing students to practice and deepen knowledge	Element 2.1
16. Using homework	Element 2.2
17. Examining similarities and differences	Element 2.3
18. Examining errors in reasoning	Element 2.4
19. Practicing skills, strategies, and processes	Element 2.5
20. Revising knowledge	Element 4.4 Element 4.5 Element 4.6

Marzano Causal Evaluation Model Domains 1, 2, 3, and 4	Ohio Standards for the Teaching Profession
	Element 4.7
Design Question #4: What will I do to help students generate and test hypotheses about new knowledge?	
21. Organizing students for cognitively complex tasks	Element 1.1
22. Engaging students in cognitively complex tasks involving hypothesis generation and testing	Element 2.1 Element 2.2
23. Providing resources and guidance	Element 2.4 Element 2.5 Element 4.4 Element 4.5 Element 4.6 Element 4.7
III. Segments Enacted on the Spot	
Design Question #5: What will I do to engage students?	
24. Noticing when students are not engaged	Element 1.1 Element 1.2 Element 1.3 Element 4.2 Element 5.3 Element 5.5
25. Using academic games	Element 1.1 Element 1.2 Element 2.1 Element 2.2 Element 2.4 Element 2.5
26. Managing response rates	Element 1.1 Element 1.2 Element 1.3 Element 1.5 Element 3.2 Element 3.3 Element 4.2 Element 4.3
27. Using physical movement	Element 1.1
28. Maintaining a lively pace	Element 1.2
29. Demonstrating intensity and enthusiasm	Element 4.2
30. Using friendly controversy	Element 4.4
31. Providing opportunities for students to talk about themselves	Element 4.5
32. Presenting unusual or intriguing information	Element 4.6
Design Question #7: What will I do to recognize and acknowledge adherence or lack of adherence to rules and procedures?	
33. Demonstrating “withitness”	Element 5.5
34. Applying consequences for lack of adherence to rules and procedures	
35. Acknowledging adherence to rules and procedures	
Design Question #8: What will I do to establish and maintain effective relationships	

Marzano Causal Evaluation Model Domains 1, 2, 3, and 4	Ohio Standards for the Teaching Profession
with students?	
36. Understanding students' interests and background	Element 1.4 Element 4.2 Element 4.4 Element 4.5
37. Using verbal and nonverbal behaviors that indicate affection for students	Element 5.1 Element 5.2 Element 5.5
38. Displaying objectivity and control	Element 5.1 Element 5.2 Element 5.5
Design Question #9: What will I do to communicate high expectations for all students?	
39. Demonstrating value and respect for low expectancy students	Element 1.3
40. Asking questions of low expectancy students	Element 1.4
41. Probing incorrect answers with low expectancy students	Element 4.5 Element 5.1 Element 5.2 Element 5.3 Element 5.4 Element 5.5
DOMAIN 2: PLANNING AND PREPARING	
I. Planning and Preparing for Lessons and Units	
42. Planning and preparing for effective scaffolding of information within lessons	Element 1.1 Element 1.2 Element 1.5 Element 2.1 Element 4.4
43. Planning and preparing for lessons within units that progress toward a deep understanding and transfer of content	Element 1.1 Element 2.1 Element 2.3 Element 2.4 Element 4.4
44. Planning and preparing for appropriate attention to established content standards	Element 1.1 Element 1.2 Element 1.5 Element 2.1 Element 2.2 Element 2.3 Element 4.1 Element 4.4
II. Planning and Preparing for Use of Materials and Technology	
45. Planning and preparing for the use of available traditional resources for upcoming units and lessons (e.g. manipulatives or video tapes)	Element 4.7
46. Planning for the use of available technology such as interactive white boards, voting technologies and one-to-one computer	
III. Planning and Preparing for the Needs of English Language Learners	
47. Planning and preparing for the needs of English language learners	Element 1.3 Element 1.4

Marzano Causal Evaluation Model Domains 1, 2, 3, and 4	Ohio Standards for the Teaching Profession
	Element 1.5
IV. Planning and Preparing for the Needs of Students Receiving Special Education	
48. Planning and preparing for the needs of students receiving special education	Element 1.3 Element 1.5
V. Planning and Preparing for the Needs of Students Who Lack Support for Schooling	
49. Planning and preparing for the needs of students who come from home environments that offer little support for schooling	Element 1.3 Element 1.5
DOMAIN 3: REFLECTING ON TEACHING	
I. Evaluating Personal Performance	
50. Identifying specific areas of pedagogical strength and weakness	Element 7.2
51. Evaluating the effectiveness of individual lessons and units	Element 3.3
52. Evaluating the effectiveness of specific pedagogical strategies and behaviors across different categories of students (e.g.. different socio-economic groups or different ethnic groups)	Element 1.4
II. Developing and Implementing a Professional Growth Plan	
53. Developing a written growth and development plan	Not Evident
54. Monitoring progress relative to the professional growth plan	Not Evident
DOMAIN 4: COLLEGIALITY AND PROFESSIONALISM	
I. Promoting a Positive Environment	
55. Promoting positive interactions about colleagues	Element 6.1 Element 6.3
56. Promoting positive interactions about students	Element 3.4 Element 4.3 Element 5.5 Element 6.1 Element 6.2 Element 6.4
II. Promoting Exchange of Ideas and Strategies	
57. Seeking mentorship for areas of need or interest	Element 7.2 Element 7.3
58. Mentoring other teachers and sharing ideas and strategies	Element 7.2 Element 7.3
III. Promoting District and School Development	
59. Adhering to district and school rules and procedures	Element 7.1
60. Participating in district and school initiatives	Element 7.2 Element 7.3

Ohio Standards for the Teaching Profession

Standard 1: Students

Teachers understand student learning and development and respect the diversity of the students they teach.

- Element 1.1: Teachers display knowledge of how students learn and of the developmental characteristics of age groups.
- Element 1.2: Teachers understand what students know and are able to do and use this knowledge to meet the needs of all students.
- Element 1.3: Teachers expect that all students will achieve to their full potential.
- Element 1.4: Teachers model respect for students' diverse cultures, language skills, and experiences.
- Element 1.5: Teachers recognize characteristics of gifted students, students with disabilities and at-risk students in order to assist in appropriate identification, instruction, and intervention.

Standard 2: Content

Teachers know and understand the content area for which they have instructional responsibility.

- Element 2.1: Teachers know the content they teach and use their knowledge of content-area concepts, assumptions, and skills to plan instruction.
- Element 2.2: Teachers understand and use content-specific instructional strategies to effectively teach the central concepts and skills of the discipline.
- Element 2.3: Teachers understand school and district curriculum priorities and the Ohio academic content standards.
- Element 2.4: Teachers understand the relationship of knowledge within the discipline to other content areas.
- Element 2.5: Teachers connect content to relevant life experiences and career opportunities.

Standard 3: Assessment

Teachers understand and use varied assessments to inform instruction, evaluate, and ensure student learning.

- Element 3.1: Teachers are knowledgeable about assessment types, their purposes, and the data they generate.
- Element 3.2: Teachers select, develop, and use a variety of diagnostic, formative, and summative assessments.
- Element 3.3: Teachers analyze data to monitor student progress and learning, and to plan, differentiate and modify instruction.
- Element 3.4: Teachers collaborate and communicate student progress with students, parents, and colleagues.
- Element 3.5: Teachers involve learners in self-assessment and goal setting to address gaps between performance and potential.

Standard 4: Instruction

Teachers plan and deliver effective instruction that advances the learning of each individual student.

- Element 4.1: Teachers align their instructional goals and activities with school and district priorities and Ohio's academic content standards.
- Element 4.2: Teachers use information about students' learning and performance to plan and deliver instruction that will close the achievement gap.
- Element 4.3: Teachers communicate clear learning goals and explicitly link learning activities to those defined goals.
- Element 4.4: Teachers apply knowledge of how students think and learn to instructional design and delivery.
- Element 4.5: Teachers differentiate instruction to support the learning needs of all students, including students identified as gifted, students with disabilities and at-risk students.
- Element 4.6: Teachers create and select activities that are designed to help students develop as independent learners and complex problem-solvers.
- Element 4.7: Teachers use resources effectively, including technology, to enhance student learning.

Standard 5: Learning Environment

Teachers create learning environments that promote high levels of learning and achievement for all students.

- Element 5.1: Teachers treat all students fairly and establish an environment that is respectful, supportive, and caring.
- Element 5.2: Teachers create an environment that is physically and emotionally safe.
- Element 5.3: Teachers motivate students to work productively and assume responsibility for their own learning.
- Element 5.4: Teachers create learning situations in which students work independently, collaboratively and/or as a whole class.
- Element 5.5: Teachers maintain an environment that is conducive to learning for all students.

Standard 6: Collaboration and Communication

Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning.

- Element 6.1: Teachers communicate clearly and effectively.
- Element 6.2: Teachers share responsibility with parents and caregivers to support student learning, emotional and physical development, and mental health.
- Element 6.3: Teachers collaborate effectively with other teachers, administrators, and school and district staff.
- Element 6.4: Teachers collaborate effectively with the local community and community agencies, when and where appropriate, to promote a positive environment for student learning.

Standard 7: Professional Responsibility and Growth

Teachers assume responsibility for professional growth, performance, and involvement as an individual and as a member of a learning community.

- Element 7.1: Teachers understand, uphold, and follow professional ethics, policies, and legal codes of professional conduct.
- Element 7.2: Teachers take responsibility for engaging in continuous, purposeful professional development.
- Element 7.3: Teachers are agents of change who seek opportunities to positively impact teaching quality, school improvements, and student achievement.

Research Base and Validation Studies on the Marzano Causal Teacher Evaluation Model, April 2011

The Marzano Causal Teacher Evaluation Model² (Marzano Teacher Evaluation Model) is based on a number of previous, related works that include: *What Works in Schools* (Marzano, 2003), *Classroom Instruction that Works* (Marzano, Pickering, & Pollock, 2001), *Classroom Management that Works* (Marzano, Pickering, & Marzano, 2003), *Classroom Assessment and Grading that Work* (Marzano, 2006), *The Art and Science of Teaching* (Marzano, 2007), *Effective Supervision: Supporting the Art and Science of Teaching* (Marzano, Frontier, & Livingston, 2011). Each of these works was generated from a synthesis of the research and theory. Thus the model can be considered an aggregation of the research on those elements that have traditionally been shown to correlate with student academic achievement. The model includes four domains:

- Domain 1: Classroom Strategies and Behaviors
- Domain 2: Preparing and Planning
- Domain 3: Reflecting on Teaching
- Domain 4: Collegiality and Professionalism

The four domains include 60 elements: 41 elements in Domain 1, eight elements in Domain 2, five elements in Domain 3 and six elements in Domain 4. For a detailed discussion of these elements see *Effective Supervision: Supporting the Art and Science of Teaching* (Marzano, Frontier, & Livingston, 2011).

Domain 1 contains 41 elements (5 + 18 + 18); **Domain 2** contains eight elements (3 + 2 + 3); **Domain 3** contains five elements (3 + 2); and **Domain 4** contains six elements (2 + 2 + 2). Given that 41 of the 60 elements in the model are from Domain 1, the clear emphasis in the Marzano model is what occurs in the classroom—the strategies and behaviors teachers use to enhance student achievement. This emphasis differentiates it from some other teacher evaluation models.

Teacher status and growth can be assessed in each component of the model in a manner that is consistent with the Standards for Ohio Educators: Teachers | Principals | Professional Development guidelines and the requirements of Race to the Top initiative.

The Research Base from which the Model was Developed

Each of the works cited above from which the Marzano Teacher Evaluation Model was developed report substantial research on the elements they address. For example, *The Art and Science of Teaching* includes more than 25 tables reporting the research on the various elements of Domain 1. These tables report the findings from meta-analytic studies and the average effect sizes computed in these studies. In all, more than 5,000 studies (i.e., effect sizes) are covered in the tables representing research over the last five decades. The same can be said for the other titles listed above. Thus, one can say that the model was initially based on thousands of studies that span multiple decades and these studies were chronicled and catalogued in books that have been widely disseminated in the United States. Specifically, more than 2,000,000 copies of the books cited above have been purchased and disseminated to K-12 educators across the United States.

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Experimental/Control Studies

Perhaps one of the more unique aspects of the research on the Marzano Teacher Evaluation Model is that a growing number of experimental/control studies have been conducted by practicing teachers on the effectiveness of specific strategies in their classrooms. This is unusual in the sense that these studies are designed to establish a direct causal link between elements of the model and student achievement. Studies that use correlation analysis techniques (see next section) can establish a link between elements of a model and student achievement; however, causality cannot be easily inferred. Other evaluation models currently used throughout the country only have correlational data regarding the relationship between their elements and student achievement.

To date, more than 300 experimental/control studies have been conducted. Those studies involved more than 14,000 students and 300 teachers across 38 schools in 14 districts. The average effect size for strategies addressed in the studies was .42, with some studies reporting effect sizes of 2.00 and higher. An average effect size of .42 is associated with a 16 percentile point gain in student achievement. Stated differently: on the average, when teachers used the classroom strategies and behaviors in the Marzano Teacher Evaluation Model, their typical student achievement increased by 16 percentile points. However, greater gains (i.e., those associated with an effect size of 2.00) can be realized if specific strategies are used in specific ways.

Correlational Studies

As mentioned above, correlational studies are the most common approach to examining the validity of an evaluation model. Such studies have been and continue to be conducted, on various elements of the Marzano Teacher Evaluation Model. For example, a study was recently conducted in Oklahoma as a part of an examination of elements related to student achievement in K-12 schools (see *What Works in Oklahoma Schools: Phase I Report* and *What Works in Oklahoma Schools: Phase II Report*, by Marzano Research Laboratory, 2010 and 2011 respectively). Those studies involved 61 schools, 117 teachers and more than 13,000 K-12 students. Collectively, those reports indicate positive relationships with various elements of the Marzano Teacher Evaluation Model across the domains. Specific emphasis was placed on Domain 1, particularly in the Phase II report. Using state mathematics and reading test data, 96% of the 82 correlations (i.e., 41 correlations for mathematics and 41 for reading) were found to be positive with some as high as .40 and greater. A .40 correlation translates to an effect size (i.e., standardized mean difference) of .87 which is associated with a 31 percentile point gain in student achievement. These studies also aggregated data across the nine design questions in Domain 1. All correlations were positive for this aggregated data. Seven of those correlations ranged from .33 to .40. These correlations translate into effect sizes of .70 and higher. High correlations such as these were also reported for the total number of Domain 1 strategies teachers used in a school. Specifically, the number of Domain 1 strategies teachers used in school had a .35 correlation with reaching proficiency and a .26 correlation with mathematics proficiency.

Technology Studies

Another unique aspect of the research conducted on the Marzano Teacher Evaluation Model is that its effects have been examined in the context of technology. For example, a two-year study was conducted in part to determine the relationship between selected elements from Domain 1 and the effectiveness of interactive whiteboards in enhancing student achievement (see *Final Report: A Second Year Evaluation Study of Promethean ActivClassroom*, Haystead and Marzano, 2010). In all, 131 experimental/control studies were conducted across the spectrum of grade levels. Selected elements of

Domain 1 were correlated with the effect sizes for use of the interactive whiteboards. All correlations for Domain 1 elements were positive with some as high as .70. This implies that the effectiveness of the interactive whiteboards as used in these 131 studies was greatly enhanced by the use of Domain 1 strategies.

Summary

In summary, the Marzano Teacher Evaluation Model was designed using literally thousands of studies conducted over the past five decades and published in books that have been widely used by K-12 educators. In addition, experimental/control studies have been conducted that establish a more direct causal linkage with enhanced student achievement that can be made with other types of data analysis. Correlation studies, the more typical approach to examining the viability of a model, have also been conducted and indicate positive correlations between the elements of the model and student mathematics and reading achievement. Finally, the Marzano Teacher Evaluation Model has been studied as to its effects on the use of technology (e.g., interactive whiteboards) and found to be highly correlated with the effectiveness of that technology.

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