

Appendix B

Quality of Instruction

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Classroom Assessment Scoring System (CLASS)

What is CLASS?

The Classroom Assessment Scoring System (CLASS) is a classroom observation tool developed at the University of Virginia's Curry School of Education. It aims to provide a common lens and language focused on classroom interactions that encourage student learning.

CLASS observations break down the complex classroom environment to help educators focus on boosting the effectiveness of their interactions with learners of all ages. Observations rely on categorizing interactions within the CLASS framework.

The CLASS tool organizes teacher-student interactions into three broad domains: Emotional Support, Classroom Organization, and Instructional Support. The upper elementary and secondary tools include an additional domain, Student Engagement. Within all domains except Student Engagement, interactions are further organized into multiple dimensions. **Table 1** lists the domains and dimensions for each level.

Emotional Support: Students' social and emotional functioning in the classroom is increasingly recognized as an indicator of school readiness, a potential target for intervention, and even as a student outcome that might be governed by a set of standards similar to those for academic achievement. Students who are more motivated and connected to others are much more likely to establish positive trajectories of development in both social and academic domains. Teachers' abilities to support social and emotional functioning in the classroom are therefore central to ratings of effective classroom practices.

Classroom Organization: The classroom organization domain assesses a broad array of classroom processes related to the organization and management of students' behavior, time, and attention in the classroom. Classrooms function best and provide the most opportunities for learning when students are well-behaved, consistently have something to do, and are interested and engaged in learning tasks.

Instructional Support: The theoretical foundation for the instructional support domain is based on research on children's cognitive and language development. Thus the emphasis is on students' construction of usable knowledge, rather than rote memorization, and metacognition—or the awareness and understanding of one's thinking process. As a result, the instructional support domain does not make judgments about curriculum content; rather, it assesses the effectiveness of teachers' interactions with students that support cognitive and language development.

Student Engagement: Unlike other domains, student engagement focuses strictly on student functioning, and measures the overall engagement level of students in the classroom.

Table 1: CLASS Domains and Dimensions

Domain	Dimensions			
	Pre-K	Lower Elementary	Upper Elementary	Secondary
Emotional Support	Positive Climate Negative Climate Teacher Sensitivity Regard for Student Perspectives	Positive Climate Negative Climate Teacher Sensitivity Regard for Student Perspectives	Positive Climate Teacher Sensitivity Regard for Student Perspectives	Positive Climate Teacher Sensitivity Regard for Adolescent Perspectives
Classroom Organization	Behavior Management Productivity Instructional Learning Formats	Behavior Management Productivity Instructional Learning Formats	Behavior Management Productivity Negative Climate	Behavior Management Productivity Negative Climate
Instructional Support	Concept Development Quality of Feedback Language Modeling	Concept Development Quality of Feedback Language Modeling	Content Understanding Analysis and Inquiry Instructional Learning Formats Quality of Feedback Instructional Dialogue	Content Understanding Analysis and Inquiry Instructional Learning Formats Quality of Feedback Instructional Dialogue
Student Engagement	n/a	n/a	Student Engagement	Student Engagement

Based on research from the University of Virginia’s Curry School of Education and studied in thousands of classrooms nationwide, the CLASS

- focuses on effective teaching
- helps teachers recognize and understand the power of their interactions with students
- aligns with professional development tools
- works across age levels and subjects

CLASS-based professional development tools increase teacher effectiveness, and students in classrooms where teachers are observed to demonstrate and earn higher CLASS scores achieve at higher levels than their peers in classrooms with lower CLASS scores.¹

¹ Teachstone Inc. <http://www.teachstone.org/about-the-class/>

CLASS and Program Evaluation

APS conducts CLASS observations for all program evaluation reports, starting in the 2010-11 school year. In the fall of 2010, the Office of Planning and Evaluation recruited retired teachers and administrators to become certified CLASS observers. Certification is managed by the University of Virginia. Trainees undergo in-depth training to help them use the tool effectively in the field. An assessment is used to ensure that the observers have demonstrated reliability with the CLASS tool.

Each observation lasts approximately 30 minutes and observers are instructed to view either the beginning or end of a class. Ten additional minutes are provided for coding of the observation. Self-contained classrooms that serve ESOL/HILT students or students with a disability, as well as mainstream classrooms with ESOL/HILT students or students with a disability, are included.

CLASS Scores

CLASS dimensions are scored on a 7-point scale consisting of Low (1, 2), Mid (3, 4, 5), and High (6, 7) ranges. A score in the low range indicates an absence or lack of the behaviors associated with a given dimension, while a score in the high range indicates a high presence of such behaviors. Scores in the high range are desirable for all dimensions except for Negative Climate. With this dimension, the goal is a low score, or an absence of negativity.

Research Foundations of CLASS

The CLASS framework is derived from developmental theory and research suggesting that interactions between students and adults are the primary mechanism of child development and learning.

Elementary CLASS

Research provides evidence about the types of teacher-student interactions that promote positive social and academic development. The Classroom Assessment Scoring System™ (CLASS) provides a reliable, valid assessment of these interactions²

Selected studies demonstrate:

- Higher levels of instructional support are related to preschoolers' gains in pre-reading and math skills.³
- High levels of emotional support contribute to preschoolers' social competence in the kindergarten year.⁴
- High levels of emotional support are associated with growth in reading and math achievement from kindergarten through fifth grade.⁵
- High levels of classroom organization are associated with gains in first graders' literacy.⁶
- Kindergarten children are more engaged and exhibit greater self-control in classrooms offering more effective teacher-child interactions.⁷

² Karen LaParo, Robert Pianta, and Meghan Stuhlman, "Classroom Assessment Scoring System (CLASS): Findings from the Pre-K Year," *Elementary School Journal*, 104:5, pages 409-426.

³ Mashburn, Pianta, Hamre, Downer et al., *Child Development*, 79, pages 732-749.

⁴ Timothy Curby, Jennifer Locasale-Crouch, Timothy Konold, Robert Pianta, Carolee Howes, Margaret Burchinal et al., "The Relations of Observed Pre-K Classrooms Quality Profiles to Children's Academic Achievement and Social Competence," *Early Education and Development*, 19, pages 643-666.

⁵ Robert Pianta, Jay Belsky, Nathan Vandergrift, Renee Houts, Fred Morrison, and NICHD-ECCRN, "Classroom Effects on Children's Achievement Trajectories in Elementary School," *American Education Research Journal*, 49, pages 365-397.

⁶ Claire Cameron Ponitz, Sara Rimm-Kaufman, Laura Brock, and Lori Nathanson, "Contributions of gender, early school adjustment, and classroom organizational climate to first grade outcomes," *Elementary School Journal*, 110, 142-162.

Appendix B1

- First-grade children at risk for school failure perform on par with peers, both socially and academically, when exposed to classrooms with effective teacher-student interactions.⁸

Moreover, studies conducted in over 6,000 classrooms provide evidence that students in PK–5 classrooms with higher CLASS ratings realize greater gains in achievement and social skill development.⁹

Secondary CLASS

Research using the more recently developed secondary CLASS tool has shown that teachers' skills in establishing a positive emotional climate, their sensitivity to student needs, and their structuring of their classroom and lessons in ways that recognize adolescents' needs for a sense of autonomy and control, for an active role in their learning, and for opportunities for peer interaction were all associated with higher relative student gains in achievement.¹⁰

Alignment with APS Initiatives

Differentiation

The four domains measured by the CLASS are essential in effectively differentiated classrooms. In addition, dimensions such as teacher sensitivity, regard for student/adolescent perspectives, and instructional learning formats specifically address behaviors necessary for effective differentiation.

Teacher Evaluation (Danielson)

The CLASS tool is heavily aligned with Charlotte Danielson's Framework for Teaching¹¹, which sets forth standards for teaching behaviors in the areas of planning, instruction, classroom environment, and professional responsibility. Danielson's Levels of Performance rubrics are the foundation for all T-Scale staff evaluation in APS.

Cultural Competence

There is strong alignment between Gay's Exemplars of Culturally Responsive Behaviors¹² and classroom behaviors identified in the CLASS tool. The APS Council for Cultural Competence was established in 2003 to develop the framework for permanent, systemwide cultural competence activities including ongoing cultural competence training for all staff. Cultural competence is a set of attitudes, skills, behaviors, and policies that enable organizations and staff to work effectively in cross-cultural situations.

⁷ Sara Rimm-Kaufman, Timothy Curby, Kevin Grimm, Lori Nathanson and Laura Brock, "The Contribution of Children's Self-Regulation and Classroom Quality to Children's Adaptive Behavior in Kindergarten," *Developmental Psychology*, in-press. See also NICHD ECCRN, "A Day in Third Grade: A Large- Scale Study of Classroom Quality and Teacher and Student Behavior," *Elementary School Journal*, 105, pages 305-323.

⁸ Bridget Hamre and Robert Pianta, "Can Instructional and Emotional Support in First Grade Classrooms Make a Difference for Children At Risk of School Failure?" *Child Development*, 76, pages 949-967.

⁹ Website http://curry.virginia.edu/uploads/resourceLibrary/CLASS-MTP_PK-12_brief.pdf Center for Advanced Study of Teaching and Learning Charlottesville, Virginia, **Measuring and Improving Teacher-Student Interactions in PK-12 Settings to Enhance Students' Learning**

¹⁰ Joseph P. Allen, Anne Gregory, Amori Mikami, Janetta Lun, Bridget Hamre, and Robert C. Pianta, "Observations of Effective Teaching in Secondary School Classrooms: Predicting Student Achievement with the CLASS-S." Submitted.

¹¹ Charlotte Danielson (2007), *Enhancing Professional Practice: A Framework for Teaching*, Alexandria, VA: ASCD.

¹² Geneva Gay (2000). *Culturally Responsive Teaching: Theory, Research, & Practice*. New York: Teachers College Press.

SIOP

Many of the dimensions of the CLASS are aligned with components of the Sheltered instruction Observation Protocol (SIOP)¹³, an approach to teaching that promotes content-area learning and language development for English language learners. SIOP encourages teachers to adapt grade-level content lessons to the students' levels of English proficiency, while focusing on English language development to help students increase their proficiency in academic English.

¹³ Website <http://siop.pearson.com/about-siop>

Alignment of the Classroom Assessment Scoring System (CLASS) With APS Best Instructional Practices

Domain/ Dimension	Grades Observed	Description of CLASS Dimensions	Alignment with			
			Differentiation ¹	Responsive Education ²	Danielson ³	SIOp ⁴
Emotional Support						
Positive Climate	Pre-K - 12	Reflects the emotional connection and relationships among teachers and students, and the warmth, respect, and enjoyment communicated by verbal and non-verbal interactions.		X	X	
Teacher Sensitivity	Pre-K - 12	Encompasses the teacher's awareness and responsiveness to the academic, social-emotional, and developmental needs of individual students and the entire class. At the younger levels, it also includes the teacher's ability to consistently provide comfort, reassurance, and encouragement.	X	X	X	X
Regard for <i>Student/Adolescent</i> Perspective	Pre-K – 3	<i>Student:</i> At the younger levels, it captures the degree to which the teacher's interactions with students and classroom activities place an emphasis on students' interests, motivations, and points of view and encourage student responsibility and autonomy.	X	X	X	X
	4-12	<i>Adolescent:</i> At the older levels, it focuses on the extent to which the teacher is able to meet and capitalize on the social and developmental needs and goals of (pre)adolescents by providing opportunities for student autonomy and leadership. Also considered are the extent to which student ideas and opinions are valued and content is made useful and relevant to (pre)adolescents.	X	X	X	X
Classroom Organization						
Behavior Management	Pre-K - 12	Encompasses the teacher's use of clear behavioral expectations and effective methods to prevent and redirect misbehavior.		X	X	
Productivity	Pre-K - 12	Considers how well the teacher manages time and routines so that instructional time is maximized.			X	
Negative Climate ⁵	Pre-K - 12	Reflects the overall level of expressed negativity among teachers and students in the classroom; the frequency, quality, and intensity of teacher and student negativity are important to observe.		X	X	
Instructional Support						
Concept Development	Pre-K – 3	Measures the teacher's use of instructional discussions and activities to promote students' higher-order thinking skills and cognition and the teacher's focus on understanding rather than on rote instruction.	X		x	X

¹ Differentiation or differentiated instruction is an approach that recognizes that all students must master a common body of knowledge and skills, but each student learns a different way and needs an approach most appropriate to his or her learning needs. Differentiation relates to content (what students learn), process (how students learn), and product (how students demonstrate what they've learned). Students differ in readiness (prior mastery of knowledge, understandings, and skills), interest (curiosity and passion to know, understand, or do more), and how they prefer to learn (Tomlinson, 1999).

² Responsive education or culturally responsive teaching is a pedagogy that recognizes the importance of including students' cultural references in all aspects of learning (Ladson-Billings, 1994).

Alignment of the Classroom Assessment Scoring System (CLASS) With APS Best Instructional Practices

Domain/ Dimension	Grades Observed	Description of CLASS Dimensions	Alignment with			
			Differentiation ¹	Responsive Education ²	Danielson ³	SIOP ⁴
Content Understanding	4-12	Refers to both the depth of the lesson content and the approaches used to help students comprehend the framework, key ideas, and procedures in an academic discipline. At a high level, this refers to interactions among the teacher and students that lead to an integrated understanding of facts, skills, concepts, and principles.		X	X	X
Analysis and Inquiry	4-12	Assesses the degree to which the teacher facilitates students' use of higher-level thinking skills, such as analysis, problem solving, reasoning, and creation through the application of knowledge and skills. Opportunities for demonstrating metacognition, i.e. thinking about thinking, are also included.	X	X		X
Instructional Learning Formats ⁶	Pre-K - 12	Focuses on the ways in which the teacher maximizes students' interest and engagement in learning. This includes the teacher's use of interesting and engaging lessons and materials, active facilitation, and clarity of learning objectives.	X	X	X	X
Quality of Feedback	Pre-K - 12	Assesses the degree to which feedback expands and extends learning and understanding and encourages student participation. (At the secondary level, significant feedback may be provided by peers)		X	X	X
Language Modeling	Pre-K-3	Captures the quality and amount of the teacher's use of language-stimulation and language-facilitation techniques.			X	X
Instructional Dialogue	4-5	Captures the purposeful use of dialogue- structured, cumulative questioning and discussion which guide and prompt students- to facilitate students' understanding of content and language development. The extent to which these dialogues are distributed across all students in the class and across the class period is important to this rating.			X	X
Student Engagement	4-12	Intended to capture the degree to which all students in the class are focused and participating in the learning activity presented or facilitated by the teacher. The difference between passive engagement and active engagement is of note in this rating.		X	X	X

³ Danielson's Domains of Teaching Responsibility frame the APS teacher evaluation process and are based on Charlotte Danielson's Enhancing Professional Practice. The domains are the areas in which T-Scale employees are evaluated and are the foundation for Best Instructional Practices. For classroom based teachers they include: Planning and Preparation, Classroom Environment, Instruction and Professional Responsibilities. For non-classroom-based teachers the domains are: Planning and Preparation, Environment, Delivery of Service, and Professional Responsibilities.

⁴ Sheltered instruction Observation Protocol (SIOP) is an approach to teaching that promotes content-area learning and language development for English language learners. Teachers adapt grade-level content lessons to the students' levels of English proficiency, while focusing on English language development to help students increase their proficiency in academic English.

⁵ This dimension falls under the Emotional Support domain at the pre-K and lower elementary levels.

⁶ This dimension falls under the Classroom Organization domain at the pre-K and lower elementary levels.

CLASS Domain and Dimension Scores

The Classroom Assessment Scoring System (CLASS) is an observation tool developed at the University of Virginia’s Curry School of Education and managed by Teachstone. It is designed to help analyze the interactions between teachers and their students in order to boost the effectiveness of teaching and learning. Research shows that students in classrooms where teachers earn higher CLASS scores achieve at higher levels than their peers in classrooms with lower CLASS scores¹.

The CLASS tool organizes teacher-student interactions into three broad domains: **Emotional Support**, **Classroom Organization**, and **Instructional Support**. The upper elementary (grades 4–5) and secondary tool include a fourth domain: **Student Engagement**. Dimensions are scored on a 7-point scale consisting of Low (1, 2), Mid (3, 4, 5), and High (6, 7) ranges.

CLASS observations were conducted in visual art and music classrooms throughout the 2016-17 school year at all grade levels. Observers conducted one 30-minute observation for each observed teacher.

Table 1 shows the percentage of teachers observed by level and arts discipline. Secondary results include both middle school and high school observations.

Table 1: Sample Size of CLASS observations

Teacher Group	Number of Teachers	Number of Observations	Percent Observed	Margin of Error (95% Confidence Level)
Elementary Visual Art Teachers	44	43	98%	2.3
Elementary Music Teachers	45	42	93%	3.9
Secondary Visual Art Teachers	27	23	85%	8.0
Secondary Choral Teachers	8	8	100%	0
Secondary Instrumental Teachers	16	16	100%	0
Secondary Theater Teachers	10	10	100%	0

Several CLASS dimensions are associated with **differentiation**. These dimensions are listed in **Table 2**, along with indicators associated with each dimension.

¹ Observations of effective teacher-student interactions in secondary school classrooms: predicting student achievement with the classroom assessment scoring system – Secondary (<http://files.eric.ed.gov/fulltext/ED556047.pdf>)

Table 2: Indicators Associated with CLASS Dimensions Relevant to Differentiation²

CLASS Dimension	Indicators
Teacher Sensitivity	<ul style="list-style-type: none"> • Awareness • Responsiveness to academic and social/emotional needs • Effectiveness in addressing problems • Student comfort
Regard for Student/Adolescent Perspectives	<ul style="list-style-type: none"> • Flexibility and student/adolescent focus • Connections to current life (upper elementary and secondary) • Support for autonomy and leadership • Meaningful peer interactions (upper elementary and secondary) • Student expression (lower elementary) • (Lack of) Restriction of movement (lower elementary)
Instructional Learning Formats	<ul style="list-style-type: none"> • Learning targets/organization • Variety of modalities, strategies, and materials • Active facilitation • Effective engagement
Concept Development (Lower Elementary)	<ul style="list-style-type: none"> • Analysis and Reasoning • Creating • Integration • Connections to the Real World
Analysis and Inquiry (Upper Elementary and Secondary)	<ul style="list-style-type: none"> • Facilitation of higher-order thinking • Opportunities for novel application • Metacognition

When interpreting CLASS results, Teachstone advises that typically, half a point to a point difference is considered to be **educationally significant**; in other words, a difference that would impact outcomes for students³.

² CLASS Dimensions Guides (2014). Teachstone Training, LLC.

³ Teachstone, personal communication, June 13, 2014 and January 5, 2016

Elementary CLASS Scores

Figure 1: Average Art and Music Lower Elementary CLASS Scores

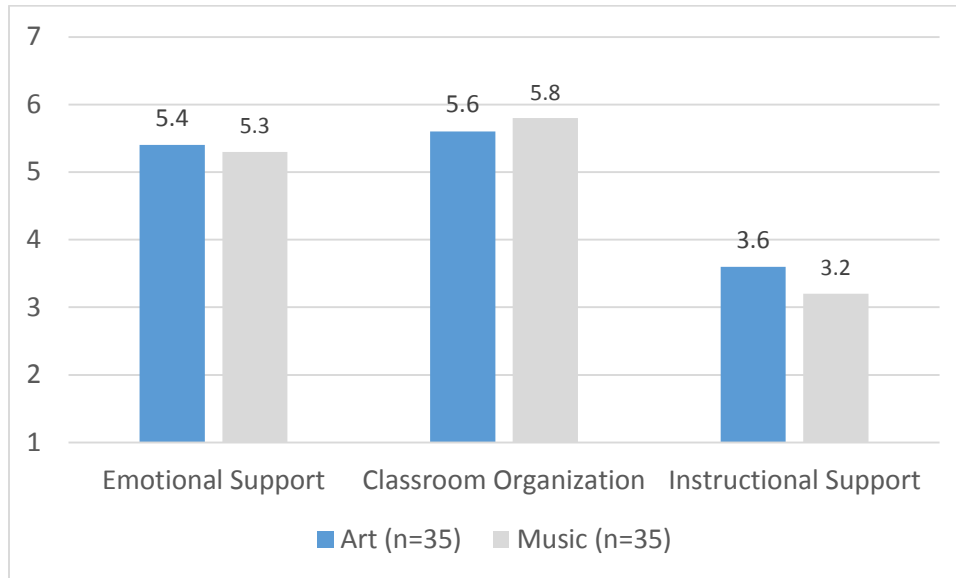


Table 3: CLASS Domain and Dimension Scores for Lower Elementary Art Classes

Average Domain and Dimension Scores	Lower Elementary		
	N	Mean	Std. Deviation
Emotional Support	35	5.4	0.6
Positive Climate	35	5.3	0.8
Negative Climate ⁴	35	1.1	0.4
Teacher Sensitivity	35	5.3	0.9
Regard for Adolescent Perspectives	35	4.2	0.9
Classroom Organization	35	5.6	0.9
Behavior Management	35	5.4	1.2
Productivity	35	6.0	1.0
Instructional Learning Formats	35	5.5	1.0

⁴ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Average Domain and Dimension Scores	Lower Elementary		
	N	Mean	Std. Deviation
Instructional Support	35	3.6	0.6
Concept Development	35	3.5	0.9
Quality of Feedback	35	3.5	1.1
Language Modeling	35	3.8	0.9

Table 4: CLASS Domain and Dimension Scores for Lower Elementary Music Classes

Average Domain and Dimension Scores	Lower Elementary		
	N	Mean	Std. Deviation
Emotional Support	35	5.3	0.7
Positive Climate	35	5.4	1.0
Negative Climate ⁵	35	1.3	1.0
Teacher Sensitivity	35	5.2	0.9
Regard for Adolescent Perspectives	35	3.7	0.9
Classroom Organization	35	5.8	0.9
Behavior Management	35	5.4	1.2
Productivity	35	6.1	1.1
Instructional Learning Formats	35	5.7	0.8
Instructional Support	35	3.2	0.8
Concept Development	35	2.9	1.0
Quality of Feedback	35	3.1	1.0
Language Modeling	35	3.5	1.2

⁵ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Figure 2: Average Art and Music Upper Elementary CLASS Scores

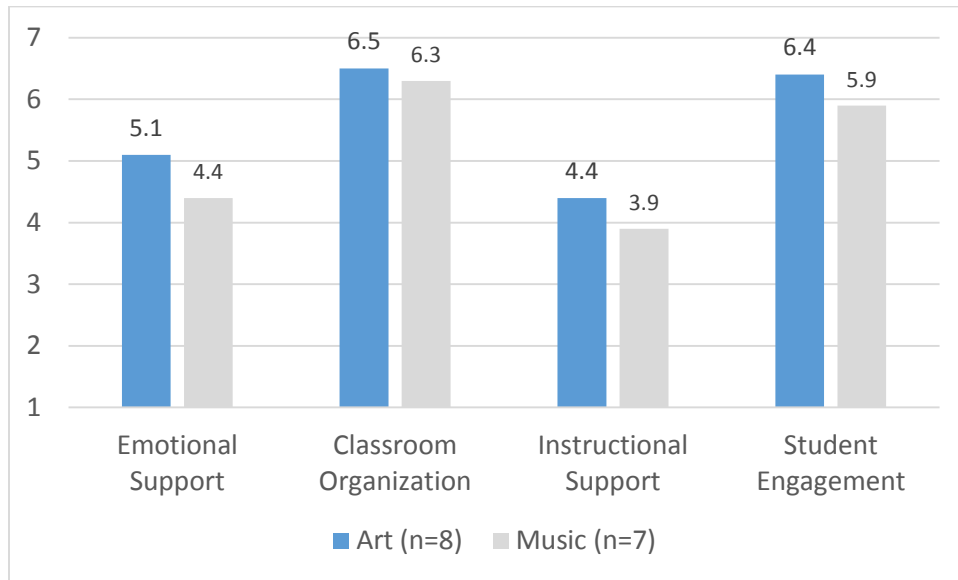


Table 5: CLASS Domain and Dimension Scores for Upper Elementary Art Classes

Average Domain and Dimension Scores	Upper Elementary		
	N	Mean	Std. Deviation
Emotional Support	8	5.1	0.6
Positive Climate	8	5.5	0.8
Teacher Sensitivity	8	6.0	1.1
Regard for Student Perspectives	8	3.9	0.8
Classroom Organization	8	6.5	0.5
Behavior Management	8	6.0	1.1
Productivity	8	6.5	0.5
Negative Climate ⁶	8	1.0	0.0
Instructional Support	8	4.4	0.4

⁶ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Average Domain and Dimension Scores	Upper Elementary		
	N	Mean	Std. Deviation
Instructional Learning Formats	8	5.8	0.9
Content Understanding	8	5.3	0.5
Analysis and Inquiry	8	3.1	0.8
Quality of Feedback	8	3.9	0.6
Instructional Dialogue	8	3.8	0.7
Student Engagement	8	6.4	0.7

Table 6: CLASS Domain and Dimension Scores for Upper Elementary Music Classes

Average Domain and Dimension Scores	Upper Elementary		
	N	Mean	Std. Deviation
Emotional Support	7	4.4	0.8
Positive Climate	7	4.9	0.9
Teacher Sensitivity	7	5.3	1.0
Regard for Student Perspectives	7	3.1	1.2
Classroom Organization	7	6.3	0.6
Behavior Management	7	5.9	1.1
Productivity	7	6.3	1.0
Negative Climate ⁷	7	1.1	0.4
Instructional Support	7	3.9	0.7
Instructional Learning Formats	7	5.3	0.8

⁷ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Average Domain and Dimension Scores	Upper Elementary		
	N	Mean	Std. Deviation
Content Understanding	7	5.0	0.6
Analysis and Inquiry	7	2.3	1.1
Quality of Feedback	7	3.7	1.0
Instructional Dialogue	7	3.1	1.1
Student Engagement	7	5.9	0.7

Secondary CLASS Scores

Figure 3: Average Art, Choral, Music and Theater Secondary CLASS Scores

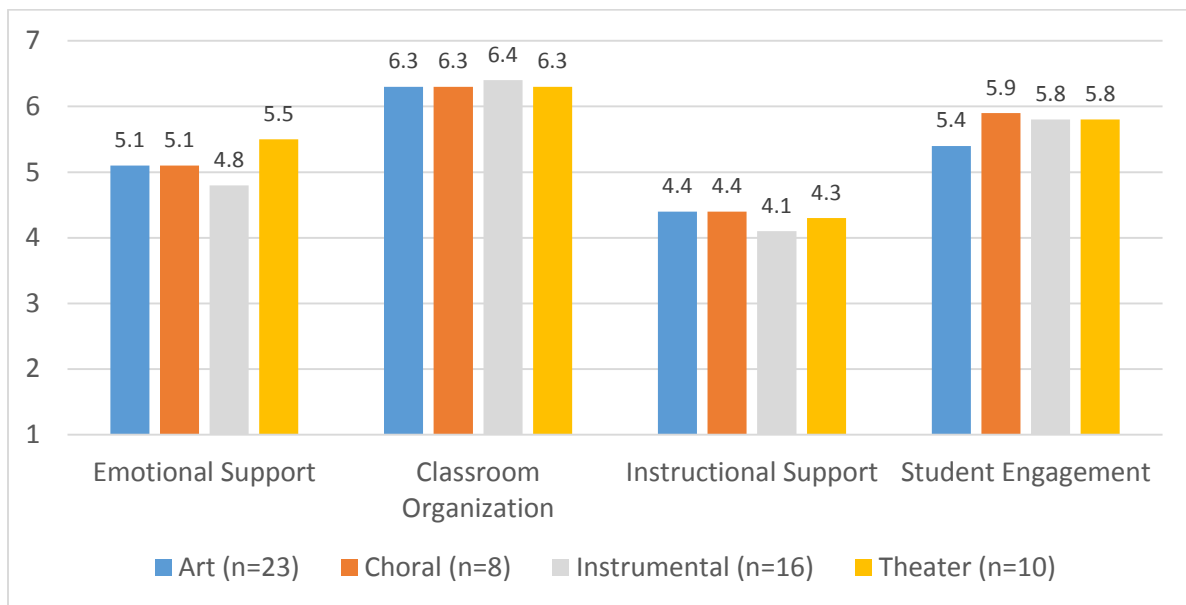


Table 7: CLASS Domain and Dimension Scores for Secondary Art Classes

Average Domain and Dimension Scores	Secondary		
	N	Mean	Std. Deviation
Emotional Support	23	5.1	0.7
Positive Climate	23	5.3	0.9
Teacher Sensitivity	23	5.3	0.9
Regard for Adolescent Perspectives	23	4.6	0.9
Classroom Organization	23	6.3	0.6
Behavior Management	23	5.9	1.1
Productivity	23	6.1	0.8
Negative Climate ⁸	23	1.0	0.2
Instructional Support	23	4.4	0.7
Instructional Learning Formats	23	5.4	1.1
Content Understanding	23	5.0	1.0
Analysis and Inquiry	23	3.9	1.4
Quality of Feedback	23	4.1	1.1
Instructional Dialogue	23	3.7	0.9
Student Engagement	23	5.4	0.9

⁸ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Table 8: CLASS Domain and Dimension Scores for Secondary Choral Classes

Average Domain and Dimension Scores	Secondary		
	N	Mean	Std. Deviation
Emotional Support	8	5.1	1.0
Positive Climate	8	5.6	0.9
Teacher Sensitivity	8	5.5	1.2
Regard for Adolescent Perspectives	8	4.1	1.4
Classroom Organization	8	6.3	0.6
Behavior Management	8	5.8	1.2
Productivity	8	6.3	0.7
Negative Climate ⁹	8	1.0	0.0
Instructional Support	8	4.4	0.7
Instructional Learning Formats	8	5.9	1.1
Content Understanding	8	5.3	0.7
Analysis and Inquiry	8	2.4	0.9
Quality of Feedback	8	4.0	1.3
Instructional Dialogue	8	4.3	1.7
Student Engagement	8	5.9	1.0

⁹ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Table 9: CLASS Domain and Dimension Scores for Secondary Instrumental Classes

Average Domain and Dimension Scores	Secondary		
	N	Mean	Std. Deviation
Emotional Support	16	4.8	0.7
Positive Climate	16	5.4	0.8
Teacher Sensitivity	16	5.5	1.0
Regard for Adolescent Perspectives	16	3.4	1.2
Classroom Organization	16	6.4	0.8
Behavior Management	16	6.1	1.1
Productivity	16	6.2	1.1
Negative Climate ¹⁰	16	1.1	0.3
Instructional Support	16	4.1	0.6
Instructional Learning Formats	16	5.8	1.0
Content Understanding	16	5.4	0.7
Analysis and Inquiry	16	2.1	1.0
Quality of Feedback	16	3.8	0.8
Instructional Dialogue	16	3.3	1.3
Student Engagement	16	5.8	1.0

¹⁰ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.

Table 10: CLASS Domain and Dimension Scores for Secondary Theater Classes

Average Domain and Dimension Scores	Secondary		
	N	Mean	Std. Deviation
Emotional Support	10	5.5	0.7
Positive Climate	10	5.7	0.7
Teacher Sensitivity	10	5.6	0.8
Regard for Adolescent Perspectives	10	5.3	1.3
Classroom Organization	10	6.3	0.6
Behavior Management	10	5.7	0.8
Productivity	10	6.1	1.0
Negative Climate ¹¹	10	1.0	0.0
Instructional Support	10	4.3	0.8
Instructional Learning Formats	10	5.8	0.9
Content Understanding	10	5.2	1.0
Analysis and Inquiry	10	2.9	1.4
Quality of Feedback	10	3.6	1.3
Instructional Dialogue	10	3.9	1.5
Student Engagement	10	5.8	1.0

¹¹ A lower score is desirable for the Negative Climate Dimension. The Negative Climate score is reversed when calculating the Classroom Organization Domain score.