Upper Elementary CLASS™

Classroom Assessment Scoring System™

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Upper Elementary Manual

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About the Authors

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Dean Pianta has authored or co-authored more than 200 articles and 45 chapters and has edited, authored, or co-authored 10 books. He has been a principal investigator on several major research and training grants totaling over $50 million. He also served as Editor of the Journal of School Psychology. A nationally recognized expert in both early childhood education and K-12 teaching and learning, Pianta regularly consults with federal agencies, foundations, and universities. Dr. Pianta received a B.S. and an M.A. in Special Education from the University of Connecticut and a Ph.D. in Psychology from the University of Minnesota. Pianta began his career as a special education teacher and joined the Curry faculty in 1986.

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1 Introduction

Effective interactions between teachers and students are essential for promoting long-term school success across grades preK-12. The Classroom Assessment Scoring System™ (CLASS™) offers an evidence-based approach to defining and measuring effective interactions in classrooms.

This manual provides: 1) an overview of the theoretical and empirical foundations of the CLASS measure at all levels; 2) a summary of the procedures for using the Upper Elementary CLASS measure; 3) detailed descriptions and examples for each dimension that will be used in observing and scoring in upper elementary classrooms; and 4) technical information on the Upper Elementary CLASS measure

Theoretical and Empirical Foundations of the CLASS Measure

The CLASS dimensions are based on developmental theory and research suggesting that interactions between students and adults are the primary mechanism of student development and learning. The CLASS dimensions are based on *interactions* of teachers and students in the classroom; scoring for any dimension is not determined by the presence of materials, the physical environment or safety, or the adoption of a specific curriculum. The CLASS measure assesses the quality of teachers' social and instructional interactions with students as well as the intentionality and productivity evident in classroom settings. This distinction between *observed interactions* and physical materials or reported use of curriculum is important because in most school settings materials and curricula are usually prevalent and fairly well organized. The CLASS measure focuses on what teachers *do* with the materials they have and on the *interactions* they have with students.

Developmental theory and research provides strong support for the idea that it is the daily interactions that children and adolescents have with adults and peers that drive learning and development (Bronfenbrenner & Morris, 1998). A recent review of effective math programs in middle and high school provides support for an approach to understanding classrooms' influence that focuses on teacher-student interactions. Slavin, Lake, and Groff (2009) reviewed evidence on 100 math interventions and determined that those focusing on daily interactions between teachers and students had stronger effects than did programs that focused solely on curricula and/or technology. This is in contrast to much of the current focus in middle and high schools on standards and curriculum (e.g., Confrey, 2006).

The CLASS measure was developed based on an extensive literature review as well as on scales used in large-scale classroom observation studies. The dimensions were derived from the review of constructs assessed in classroom observation instruments used in educational research, focus groups, and extensive piloting.

At the broadest level, interactions between teachers and students can be grouped into three domains: **Emotional Support, Classroom Organization,** and **Instructional Support.** Each of these domains is measured by several more specific dimensions of teacher-student interactions. Table 1 provides an overview of these domains and the dimensions within each domain as assessed by the Upper Elementary CLASS measure. It is important to note that the broad domains of the CLASS tool are

measured across all grade levels, but the individual dimensions that comprise those domains vary to provide a context-specific and developmentally-sensitive metric for each age group.

Table 1 Overview of CLASS domains and dimensions

	Emotional Support	Classroom Organization	Instructional Support
Dimensions	Positive Climate Teacher Sensitivity Regard for Student Perspectives	Behavior Management Productivity Negative Climate	Instructional Learning Formats Content Understanding Analysis and Inquiry Quality of Feedback Instructional Dialogue

Upper Elementary CLASS Domains and Dimensions

Emotional Support

Students' social and emotional functioning in the classroom is increasingly recognized as an indicator of school success (cites), a potential target for intervention (Greenberg, Weissberg & O'Brien, 2003; Zins, Bloodworth, Weissberg & Walberg, 2004) and even a student outcome that might be governed by a set of standards similar to those for academic achievement (Illinois State Board of Education, 2004). The dimensions of teacher-student interactions assessed within the Emotional Support domain are based on decades of research demonstrating that relational supports and connections, autonomy and competence, and relevance are critical to school success (Allen, Hauser, Bell & O'Connor, 1994a; Allen, Kuperminc, Philliber & Herre 1994b; Allen, Marsh, McFarland, McElhaney, Land, Jodi et al., 2002, Ryan & Deci, 2000). Schools that successfully engage students "promote a sense of belonging by personalizing instruction, showing an interest in students' lives, and creating a supportive, caring social environment." (National Research Council, 2004)

The dimensions included under Emotional Support on the Upper Elementary CLASS measure are

- *Positive Climate*: the enjoyment and emotional connection that teachers have with students, as well as the nature of peer interactions;
- *Teacher Sensitivity:* the level of teachers' responsiveness to the academic and social/ emotional needs and levels of individual students; and
- *Regard for Student Perspectives:* the degree to which teachers meet and capitalize upon the social and developmental needs and goals of students for decision-making and autonomy, relevance, having their opinions valued, and meaningful interactions with peers.

The classroom interactions measured by these dimensions have been shown to relate to positive outcomes for elementary and secondary students, such as engagement in school, the quality of relationships, academic achievement, and more positive academic attitudes (Bryk, Lee & Holland, 1993; Crosnoe, Kirkpatrick-Johnson & Elder, 2004; Gilman & Anderman, 2006; Roeser, Eccles & Sameroff, 1998; Deci & Ryan, 2007). A strong student-teacher relationship is one key to positive academic performance, increased school motivation, and positive behavioral outcomes (Roeser et al., 1998; Skinner, Zimmer-Gembeck & Connell, 1998); students achieve more in challenging yet supportive environments in which they feel a positive connection (Cothrane, Kulinna & Grarrahy, 2003; Eccles, 2004; Gentry, Gable & Rizza, 2002; Resnick, Bearman, Blum, Bauman, Harris, Jones,

et al. 1997). Students who describe relationships with teachers as unsatisfying and unmotivating also report decreased levels of engagement in school (Roeser, Eccles & Sameroff, 1998). Peer relationships and cooperation are also of vital importance to elementary and secondary students and need to be built into classroom interactions in meaningful and productive ways (Crosnoe, Cavanaugh & Elder, 2003; Slavin, Madden, Dolan, Wasik, Ross, Smith et al., 1996). Teacher sensitivity to student concerns, interests, and cultures is important, as is the teacher's recognition of the students' need for autonomy and decision making with sufficient support to achieve a sense of control and mastery. For example, providing students with meaningful choices within the classroom has been shown to increase engagement (Allen et al., 1994b; Anderman & Midgley, 1998). A mismatch between the students' need for greater autonomy and the teacher's exercise of control has been shown to result in decreased student learning (Eccles, Wigfield & Schiefele, 1998). In other words, inattention to students' perspectives diminishes opportunity for student growth.

Classroom Organization

Classroom Organization is a broad domain of classroom processes related to the organization and management of students' behavior, time, and attention in the classroom (Emmer & Strough, 2001). Classrooms function best, and provide the most opportunities to learn, when students are well-behaved, consistently have things to do, and are interested and engaged in learning tasks. The theoretical underpinnings of this domain include work by developmental psychologists interested in children's self-regulatory skills (Blair, 2003; Raver, 2004), ecological psychologists examining the extent to which these skills are determined by various setting and interactive contexts (Kounin, 1970), and constructivist theories on engaging students in learning (Bowman & Stott, 1994; Bruner, 1996; Rogoff, 1990; Vygotsky, 1978). The term self-regulated learning (Schunk, 2005; Sperling, Howard & Staley, 2004) is often used to refer to the regulatory skills in classrooms and is defined as "an active constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment" (Pintrich, 2000, p. 453). Importantly, as emphasized by Pintrich (2000), in work by ecological psychologists (e.g., Kounin, 1970), and numerous process-product researchers (Anderson, Evertson & Emmer, 1980; Emmer & Strough, 2001; Sanford & Evertson, 1981; Soar & Soar, 1979), the development and expression of these regulatory skills is highly dependent upon the classroom environment. At the simplest level, this work suggests that students develop better self-regulatory habits in well-regulated classroom environments.

The Upper Elementary CLASS framework suggests three dimensions of this classroom-level regulation:

- *Behavior Management*: how well teachers encourage positive behaviors and monitor, prevent and redirect misbehavior

- *Productivity:* how well the classroom runs with respect to routines, how well students understand the routines and the degree to which teachers provide activities and directions so that maximum time can be spent in learning activities

- *Negative Climate*: the level of expressed negativity such as anger, hostility, aggression, or disrespect exhibited by teachers and/or students in the classroom

Classrooms that are effectively managed tend to have students who make greater academic progress (Good & Grouws, 1977; Soar & Soar, 1979) and intervention studies provide evidence that teachers who adopt these positive behavior management practices after training are more likely than teachers in control groups to have students who are engaged and learning (Emmer & Strough, 2001; Evertson, Emmer, Sanford & Clements, 1983; Evertson & Harris, 1999). Middle and secondary classroom teachers who are effective classroom managers provide predictability and reduce complexity, allowing

students the chance to focus on learning (Wang, Haertel & Walberg, 1993-1994; Weinstein, 2007); the establishment of a comfortable and orderly classroom promotes student engagement and leads to higher academic achievement (Woolfolk, Hoy & Weinstein, 2006).

Early work by process-product researchers also focused attention on the importance of *time* management, providing consistent evidence that students are most engaged in productive classrooms and that this engagement, in turn, is directly associated with student learning (Brophy & Evertson, 1976; Coker, Medley & Soar, 1980; Fisher et al., 1980; Good & Grouws, 1977; Stallings, 1975; Stallings, Cory, Fairweather & Neels, 1978). In fact, in their review of teacher behavior and student achievement, Brophy and Good (1986) conclude that the link between the *quantity* of time spent on instruction and student achievement was the most consistently replicated finding of process-product researchers. Classrooms and lessons tend to run smoothly when students are explicitly taught routines and procedures (Leinhardt, Weidman & Hammond, 1987; Weinstein, 2007).

Instructional Support

The theoretical foundation for the conceptualization of instructional supports for the Upper Elementary CLASS measure comes primarily from research on students' cognitive and language development (e.g., Catts, Fey, Zhang, & Tomblin, 2001; Taylor, Pearson, Peterson, & Rodriguez, 2003). This literature highlights the distinction between simply learning facts and gaining "usable knowledge" which is built upon learning how facts are interconnected, organized, and conditioned upon one another (Mayer, 2002). Consistent with Piagetian theory (Wadsworth, 1996), the National Research Council (2005) has summarized teaching strategies related to instructional support that enhance learning, including: consistent, process-oriented feedback, focus on higher-order thinking skills, and presentation of new content within a broader, meaningful context.

The Upper Elementary CLASS measure has five dimensions that focus on instructional support provided in the classroom:

- *Instructional Learning Formats:* how teachers engage students in and facilitate activities so that learning opportunities are maximized

- *Content Understanding:* what teachers emphasize and approaches used to help students understand both the broad framework and key ideas in an academic discipline

- *Analysis and Inquiry*: how teachers promote higher-order thinking skills (e.g., analysis and integration of information, hypothesis testing, metacognition) and provide opportunities for application in novel contexts

- *Quality of Feedback*: how teachers extend and expand students' learning through their responses and participation in activities

- *Instructional Dialogue:* how teachers use structured, cumulative questioning and discussion to guide and prompt students' understanding of content

The strategies teachers use to enhance students' engagement in instructional content are important. Effective teachers attend to providing variety and novelty in modes of presentation and types of activities (Cotton, 2000; Wenglinsky, 2000). Yair (2000), for example, found that students in Grades 6-12 demonstrated low engagement during lectures, but higher levels of engagement when participating in more active classroom activities (e.g., labs, groups).

There is a great deal of knowledge about how to teach students to learn and develop new skills most effectively. Effective teachers present new material in small steps (Rosenshine, 1995), review relevant

previous learning and prerequisite skills and knowledge (Ausubel, 1960; Bransford et al., 2000; Rosenshine, 1995), and guide student performance through modeling, numerous examples, and opportunities for extensive practice, both supervised and independent (Rosenshine, 1995; Swanson, Hoskyn & Lee, 1999). Supervised practice of procedures and skills builds towards automaticity, thereby freeing up cognitive space for deeper understanding (Bransford et al., 2000). Additionally, we know that experts think about "big ideas." Teachers, therefore, need to organize instruction within a framework that builds towards the big ideas within an academic discipline, but that is fully supported by a strong base of factual knowledge and skills (Bransford et al., 2000). Effective teachers teach subject matter in depth, providing many examples in which the same concept is at work and in which similarities and differences are explicitly addressed (Bransford et al., 2000; Marzano, Pickering & Pollock, 2001). Further, students learn better when new information is tied to students' background knowledge and real world examples (Bransford, et al, 2000; Marzano, 2004) and multiple perspectives are presented (Hooper & Rieber, 1995).

Effective teachers also tap into the natural problem-solving abilities and curiosity of students by providing them with opportunities to solve ill-defined problems (Davidson & Sternberg, 2003), apply learning to real world and novel contexts (Bransford et al., 2000), and utilize higher-order thinking skills (Marzano, Pickering & Pollock 2001; Wenglinsky, 2002) and metacognitive processes (Bransford et al., 2000; Pressley & El-Dinary, 1993). To accomplish this, exemplary teaching requires teachers to possess both a deep knowledge of content and deep pedagogical content knowledge, as well as flexibility in their presentation and utilization of this knowledge (Bransford et al., 2000).

High quality feedback also serves to enhance student learning either by bridging the gap between a student's current level and the target goal (e.g., scaffolding and hints) and/or by "pushing" the student to think or process information in greater depth (e.g., explaining or answering additional questions). Effective feedback is immediate, contingent, corrective and/or specific, and tied to natural settings (Brophy, 1981; Butler, 1987; Kulik & Kulik, 1988); Marzano et al., 2001; Swanson et al., 1999). Such feedback serves to control frustration (Wood, Bruner & Ross, 1976; Rogoff, 1990), increase interest and motivation (Butler, 1987) and effort (Good & Brophy, 2008), and promote learning and higher-order thinking.

Finally, a large body of work demonstrates that students learn more when they are engaged in deep and meaningful conversations about content (Wolfe & Alexander, 2008). This literature highlights the importance of building a shared dialogue, in contrast to the more typically-seen classroom conversation patterns in which teachers ask a question, students respond, and teachers ask follow-up questions (Sinclar & Coulthard, 1975). Alexander (2004) also carefully distinguishes more casual instructional conversations from dialogues that are "characterized by purposeful questioning and chaining of ideas into 'coherent lines of thinking and inquiry'" (Wolfe & Alexander, 2008, p. 8).

Student Engagement

In most research conducted with the CLASS measure, the focus is on the classroom and teacher-level supports available to students. However, it is important to observe student behavior as well.

The Upper Elementary CLASS measure provides one global measure of student functioning:

- *Student Engagement:* the overall engagement level of students in the classroom

Although there is significant overlap with the Instructional Learning Formats dimension, Student Engagement focuses only on students while Instructional Learning Formats focuses on what the teacher is doing to promote student engagement.

According to the 2004 report of the National Research Council titled “Engaging Schools: Fostering High School Students’ Motivation to Learn,” positive educational conditions (including classroom and school climate, classroom organization, and high quality instruction) lead to positive student beliefs about their own competence, changes in values and goals, and improved social connections. These factors, in turn, lead to increased levels of academic engagement, motivation, and ultimately to improved academic achievement.

2 Observing Classrooms with the Upper Elementary CLASS Measure

Below we describe the recommended procedure for using the Upper Elementary CLASS measure in live observation. We also briefly describe ways to use the Upper Elementary CLASS measure to code from videotape and variations in observational strategies when the observer wants the scores to be focused on one teacher, rather than the classroom. These procedures may be adapted to fit the individual needs of a project, but any adaptation should keep the following principle in mind.

- Maximizing the number of observations will increase reliability of measurement.

Unlike discrete behavioral coding, the Upper Elementary CLASS measure requires the observer to derive a score for each dimension based upon the degree to which certain behavioral, emotional, and physical markers are present and indicative of the extent to which that dimension is characteristic of that classroom, rated from 1 (minimally characteristic) to 7 (highly characteristic). Each *cycle* of observation is about 25 minutes in length, consisting of a 15-minute period in which the observer is watching classroom interactions (mostly focused on the teacher) and taking notes, followed by a 10-minute period for recording codes. To complete the ratings, the observer must make *judgments* based upon the range of, frequency, intention, and emotional tone of interpersonal and individual behavior during the observation time. Observers learn to make these judgments consistently through initial training and certification as well as ongoing calibration supports.

General Live Observation Procedure

The CLASS Observation Cycle

The observation time requires the observer to watch, without interruption, activity in the classroom for a period of 15 minutes. During this time the observer will be watching the 'who, what, and how' of everything that is happening at the classroom level, with particular attention to the teachers' instructional interactions and behaviors.

The Observation Sheet (see Appendix) has space next to each dimension for the observer to jot down notes to help her assign a final rating score at the end of the observation cycle. Notes must be taken for each dimension during every observation cycle. These notes form the basis for coding. The notes help observers make judgments about codes. Notes should reflect the key elements of the dimension and not extraneous information. Note-taking typically helps the coder focus on the key aspects of the interaction they are watching. While the Upper Elementary CLASS measure does require considerable inference on the part of the coder when assigning scores, it is important that ratings can be substantiated on the basis of directly observed behaviors.

At the end of the 15 minutes of dedicated observation and note-taking, the observer will derive numerical ratings for all of the Upper Elementary CLASS dimensions. These ratings are based upon the observer's knowledge of the dimension definitions, markers, and the written notes the observer

has made during the entire observation window for each dimension. After assigning ratings, the observer begins a new Upper Elementary CLASS cycle.

It is generally recommended that the observation record contain descriptive information regarding the classroom at the beginning of each cycle. Depending on individual project needs, this might include information such as the number of students, the number of adults, class name (e.g., Algebra I, US History), class level (e.g., standard, honors, AP), and subject of current lesson (e.g., solving equations with two unknowns, Reconstruction).

Deciding on Numbers of Cycles and Lessons

Decisions about how many observation cycles to complete will depend upon the goals of the project for which the Upper Elementary CLASS measure is being used. For example, if it is being used in a research study focused on understanding the classroom interactions that are associated with a student's development, observations may be conducted across multiple classrooms which the student attends. If, on the other hand, the Upper Elementary CLASS measure is being used to obtain estimates of an individual teacher's effectiveness it is important to observe multiple lessons and ideally to observe across multiple class sections. We provide general recommendations below. More detailed guidance regarding observational procedures can be obtained through consultation with Teachstone.

Observing in a single classroom

For observations in which students remain in the same classroom for most of the day, the entire CLASS observation will start at the beginning of the school day and continue throughout the morning, for a period of approximately 2 to 3 hours. Prior to the observation, the observer will discuss the morning schedule with the teacher, agree upon the start and stop times of the observation period, and plan to maximize the number of 25-minute cycles that can be obtained during that time. Observation starts at the time the school day begins and coding proceeds, using the 25-minute cycle (15 observe, 10 record), until the end of the morning. A minimum of 4 cycles should be obtained.

Observing a single lesson

It is expected that in 90-minute blocks, three cycles of the Upper Elementary CLASS measure can be completed; it is possible that two cycles can be completed during 45-minute class periods.

The number of classroom sessions or lessons that are observed depends on the goals of the project, but in general we recommend scoring at least four sessions or lessons across a year or any time period about which one wants to draw conclusions.

Classrooms with More than One Teacher/Adult

If there are multiple adults in a classroom, weight their behaviors according to the number of students with whom they are working, the amount of time they spend with students, and their responsibility for the activities.

The Upper Elementary CLASS dimensions are intended to reflect the value of the classroom environment for all the students in the class, or in other words, the typical or average student in the class. They do not target a single student, nor do they target only a single adult, but instead are intended to capture the resources presented to students in this setting. When more than one adult is present in a classroom, the school observers must be clear about how to weigh their judgments. The primary teacher is that teacher/adult who is ultimately responsible for everything that happens in the classroom. In most cases, this teacher will be the one leading the interaction being viewed and will be the focus of the codes.

In many classrooms, however, there will be another adult—often a paid teacher's aide, a parent volunteer, or another teacher. In such cases, observers must use their judgments to decide how to balance their observation time and the resulting codes. The primary principle to remember is that the Upper Elementary CLASS measure reflects the experiences of the typical or average student in the class. If most of the students are working under the direction of one adult, and a few students are working with another adult, the observer should code the teacher working with most students. If students are working in small groups with a separate adult leading each group, the observer should spend time watching each group and code the "average" of these cross-group experiences over the whole 15 minutes, across the groups. If the teacher is in complete lead of the activity while the second adult is making copies, code the teacher leading the activity. If the second adult is "floating" in the group while the teacher is leading, the codes should be based primarily on the lead teacher's behavior. If the second adult has complete responsibility for a period of time while the teacher sits at her desk or is otherwise engaged apart from the students, code the second adult's behavior.

The Upper Elementary CLASS codes are based upon the behavior of all the adults in the room during a given cycle. In classrooms with multiple adults we assume that the primary teacher orchestrates and sanctions all adult interactions with students. Additional adults act as her proxies and help maintain the classroom climate in terms of the amount of allowable contact with and between students, academic support to the students, and the amount of control exercised in the classroom.

For some professional development, evaluation, and research purposes there may be interest in obtaining ratings that reflect a single teacher, rather than the classroom. In most cases, we still recommend that observers follow the general procedures described above. The main classroom teacher is responsible for directing students' experiences in the classroom and thus information about the interactions students have with other adults may be important. However, it is possible for the observer to derive ratings for a single teacher by attending to and scoring only the teacher of interest. Most of the other recommendations made in the general observation procedures section apply to this use of the Upper Elementary CLASS measure.

Rules for What to Observe and Terminating a Cycle

For the most part, observers watch and code nearly all activities that take place in the classroom. In many cases, observers may follow the students and teacher outside to code an activity (such as a walk or a science discovery lesson). This would be less likely at the upper grade levels although it is possible that classes could be conducted outside.

There will also be times, planned and unplanned, when observers must terminate observations due to certain circumstances. At the upper elementary level, observers stop observing, and hence do not assign codes, when the students leave the classroom at the end of the period or for some other reason (fire drill, assembly). Ratings are assigned to the Upper Elementary CLASS codes based on observations up to that point as long as 8 minutes has transpired.

If the observer must terminate the observation cycle before 8 minutes, the next observation window must begin once the activity fits the eligible observation description above. For example, if the same students enter the classroom following a change of subjects or lunch, the next observation begins with their return and the transition to the next activity. It is fine, and may in fact be desirable, to observe during the transition back to the room. If a different group of students returns to the classroom following a break, the observer will most likely want to begin a new cycle. It is important to remember that classroom dynamics are often very different across different groups of students, class levels (standard, honors), and subjects.

Challenges for the Observer

Remaining Objective

Over the course of a complete visit, the observer must guard against injecting external explanations for what takes place within the classroom. Remaining true to the individual dimensions is very important. For example, the observer may be tempted to make allowances for such factors as the time of day, class size, or evidence of behavior problems. Thoughts, such as "The teacher must be tired considering it's the last period of the day and she has all these tough kids," that can be used to make adjustments to ratings must not be considered in coding. The dimension and its markers remain stable. The numerical ratings change.

When assigning qualitative codes it is also imperative to base codes on the written descriptions of the dimensions. Observers should not adjust their codes upward or downward based upon any information other than what they observed in the classroom. There is a tendency to inflate ratings positively because observers take the perspective of the teacher. "Oh, she didn't really mean to do that. She just didn't see who really was at fault." Or, "He would have taught the lesson better if the overhead projector had been working properly. I've had things like that happen lots of times. He didn't really mean to be so negative." Or, "I'm sure she covered that material effectively when it was first introduced." Perspective-taking such as this may cause the observer to adjust the codes to compensate for or explain more positively what takes place at any given time in the classroom. This should be minimized as much as possible. Additionally, the observer should be careful not to adjust ratings based solely on the activity provided for an individual student. For example, if the teacher is conducting a rote lesson and asks one good Content Understanding question, the coder should not adjust the score significantly higher for this because "she did as much as she could with this lesson." The descriptions of dimensions within the manual should always be the basis of scores.

Remaining objective is very important. Observers sometimes develop initial impressions of teachers and look for evidence confirming these initial impressions. This often leads observers to miss important behaviors that may disconfirm these impressions. It sometimes helps, a few minutes into the observation, to make a conscious effort to look for disconfirming evidence. Also, when reviewing notes prior to scoring, if all the notes reflect one end of the dimension it may be helpful to spend a minute reading through the other end of the dimension to prompt thoughts about unrecorded behaviors. Observers must also guard against weighting behaviors that occur near the end of an observation period too heavily. For example, an instance of teacher frustration that occurs as the cycle is ending should not significantly color the observer's overall rating of Negative Climate.

Independence of Cycles

Another challenge for the observer is to rate dimensions accurately without regard to how they were scored in previous cycles. Each cycle is independent of the others. There is not necessarily any expectation or need for change. Similarly, there is no expectation or need for stability. Any pattern in the ratings across time should occur naturally and must be external to the observer's manipulation. Most times, there may be little change within one lesson or across lessons with the same teacher in the same classroom. The observer may have a sense of responsibility for this apparent redundancy or even think at times that he or she is just giving the same ratings over and over again. There is no expectation that the ratings need to vary from cycle to cycle in order to be accurate or to document that the observer is not in what might feel like "a response bias." There is, in fact, no expectation for an average teacher in one classroom to change greatly across the morning. Changes, if any, are more likely to occur when students experience different class groupings, different teachers, different subject materials, and different classrooms, or across different students in different schools.

Weighing Single Incidents

Care should be taken not to allow a single incident to be given too much weight in an overall rating. Specific behaviors that are markers for the different dimensions are noted and contribute to the rating, but it must be remembered that the rating characterizes the overall classroom. The observer must make sure to mentally review the entire observation segment, making certain that ratings do indeed reflect its entirety. For example, a classroom should not receive a rating of 1 for Productivity if the teacher takes a brief moment to look for a book or has a brief conversation at the door with another adult. Because of these moments, this teacher should not receive a 7, but the Productivity during the entire segment must be evaluated and considered in the rating.

Long Descriptions

The descriptions provide highlights of what characterizes the different levels of ratings but are not all necessary for a rating. For all the dimensions, we have included examples in the form of statements. Remember that these are only examples and everything in the examples does not have to be true. In addition, events and situations may occur in classrooms that are not in the examples that may make the descriptor true. Avoid thinking about all the other things a teacher might have done; remain focused on what was done.

Independence of Dimensions

The dimensions are intended to be analytically distinct, although overlap is apparent, and each dimension should be rated independently of the others**.** It is often the case that an individual incident in a classroom may contribute to the scoring on several dimensions, but each dimension should be rated independently. It is important for observers to remain objective and guard against gaining an overall picture of a teacher and then spending the observation period looking for confirmation of that overall picture, rather than looking for objective evidence of each dimension throughout the observation.

Seeking Perfection

The high end markers for each dimension reflect good teaching practice; however, to score in the high range a classroom does not have to be perfect. There may be one or two things that are less than ideal in a given observation, but if the overall classroom experience is characterized by the markers at the high end the classroom should be scored that way. This is often a problem for observers using the Upper Elementary CLASS measure as a professional development tool. Thus, it should be noted that a teacher may still benefit from discussion of her practice in a particular area even when her classroom receives a high score on that dimension.

In some instances, it is possible to code one or more dimensions at a high level even when a teacher is not actively engaged with the students. For example, a teacher may present an activity that requires the students to work cooperatively to find a solution to a difficult problem. The teacher steps back and the students are expected to reach resolution without her input. This observation period might receive a high rating on many dimensions including Analysis & Problem Solving (students engaged in problem solving and higher order analysis of a problem that is meaningful to them), Positive Climate (students are respectful of each other and cooperative within a group), Productivity (good use is made of the allotted time), Quality of Feedback (students provide feedback to each other that asks for explanations, encourages alternative solutions, etc.) and Student Engagement (all students are actively engaged in the activity). It must be considered that the teacher's involvement in the activity itself may be minimal as long as she has set the stage and parameters for the students' involvement.

Videotape Observation Procedure

The Upper Elementary CLASS measure has been validated for use in coding videotapes of classrooms (Allen et al., 2011; Kane & Staiger, 2012). Videotape may be completed by teachers or by outsiders. The general procedures described above should be followed as much as possible. Here, the biggest concern is the degree to which the videotape adequately captures visual and auditory information on classroom interactions. We make the following recommendations about getting videotape with good video and audio quality:

- Particularly during whole and small group time, you may use digital video cameras that adequately capture sound without having to have a microphone on the teacher. In some cases, however, such as large classrooms, group work, or when the teacher moves around a lot or engages in quiet one-on-one interactions with students, it may be hard to hear the teacher over the "hum" of the classroom. In such instances, it is recommended that the teacher wear a microphone. Experiment with a few options before collecting a lot of videotape. Most modern computers come with software that allows for easy importation of digital video.
- Make sure the teacher (or visitor) has introduced the idea of taping to students prior to the first videotaping. They should tell the students why they are videotaping and let the students share any concerns they may have about the process. Although students sometimes "act up" for the camera initially, most quickly forget that it is there. Appropriate consents should be obtained from all involved parties, including teacher, students, and parents/guardians.
- Start the video prior to the beginning of a lesson and run the videotape during the transition from one activity to another. Often these non-lesson times provide interesting moments to watch and discuss.
- Use tripods and place the camera in such a way that you can clearly see the teacher and most of the students. Often setting up the camera to the side so that you can see the facial expressions of teachers and students is most helpful. Move the tripod as needed but try not to use handheld video as the picture tends to end up being fairly shaky.
- In the case of group work, focus video on the main teacher but occasionally pan the video out to capture the experiences of other students for several minutes at a time.

Scoring

Scoring within Each Cycle

Upper Elementary CLASS scoring should be completed immediately after each 20-minute observation cycle using the Observation Sheet (see Appendix). Observers should give a score for each dimension using a 7-point range. The dimension descriptions in Chapter 3 provide a thorough description of each dimension at the Low (1, 2), Mid (3, 4, 5), and High (6, 7) ranges. Observers should carefully review the dimension descriptions and make judgments based on the following chart:

Low		Mid			High	
1	**2**	**3**	**4**	**5**	**6**	**7**
The low-range description fits the classroom/ teacher very well. All, or almost all, relevant indicators in the low range are present.	The low-range description mostly fits the classroom/ teacher but there are one or two indicators that are in the mid range.	The mid-range description mostly fits the classroom/ teacher but there are one or two indicators in the low range.	The mid-range description fits the classroom/ teacher very well. All, or almost all, relevant indicators in the mid range are present	The mid-range description mostly fits the classroom/ teacher but there are one or two indicators in the high range.	The high-range description mostly fits the classroom/ teacher but there are one or two indicators in the mid range.	The high-range description fits the classroom/ teacher very well. All, or almost all, relevant indicators in the high range are present.

It is important to note that although the above table provides a general scoring guideline, the Upper Elementary CLASS measure is not a checklist and observers should view the dimensions as holistic descriptions of classrooms that fall in the low, mid, or high range. In general, the most important components of dimensions are described first. It is not necessary to see indicators of all markers to score in that range. For example, within Positive Climate it is possible for a classroom to score in the high end in the absence of the last indicator, a teacher showing interest is students' lives outside of the classroom. If, however, there are no indications of positive teacher-student relationships, the first indicator, the classroom would be unlikely to score in the high range.

Judgments about the appropriate score should be based upon a careful review of each dimension and the specific behaviors observed that are related to the indicators of that dimension. We recommend that observers new to the Upper Elementary CLASS measure use the full low, mid, high descriptions provided in the manual to make judgments about scores. As they become very familiar with these descriptions they may use the overview pages for scoring purposes. **Due to the highly inferential nature of the Upper Elementary CLASS measure, scores should never be given without referring to the manual.** In addition, because of the interactive nature of classrooms, training is required. During these trainings observers learn to relate the examples given in the manual to actual classroom interactions. Training on master-coded videos provides invaluable experience and helps users of the Upper Elementary CLASS measure learn, for example, how much Content Understanding is enough to score a 7. More information on training is available at www.teachstone.com.

Compositing Scores across Cycles

The way scores are composited depends in part on the observation procedures in use. In general, we recommend averaging scores across cycles to arrive at a single score for each dimension across the observation period.

Obtaining Domain Scores

The Upper Elementary CLASS measure can be further analyzed by calculating composite scores for each of the three major domains discussed above: Emotional Support, Classroom Organization, and Instructional Support. To derive these composites simply average dimension scores across each corresponding domain:

Emotional Support—Positive Climate, Teacher Sensitivity, Regard for Student Perspectives

Classroom Organization—Behavior Management, Productivity, Negative Climate (reversed)

Instructional Support—Instructional Learning Formats, Content Understanding, Analysis and Inquiry, Quality of Feedback, Instructional Dialogue

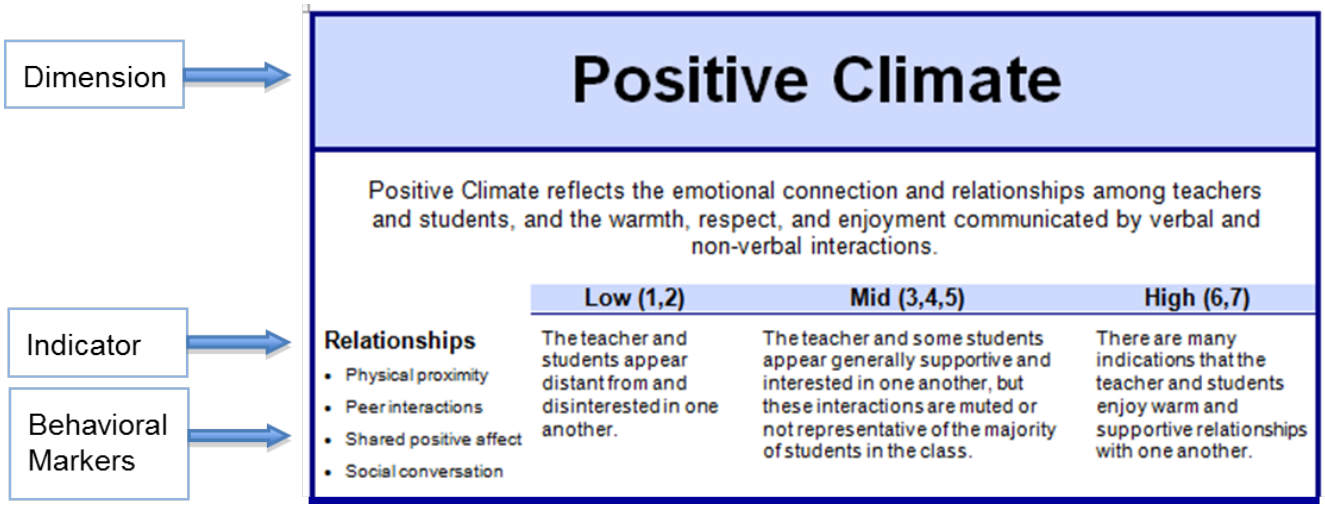
Overall CLASS Score—Create an average of all dimension scores with Negative Climate reversed.

3 CLASS Dimensions

This chapter provides a brief section on the manual's organization and a comprehensive description of each of the Upper Elementary CLASS dimensions.

Manual Organization

At the broadest level, the Upper Elementary CLASS measure divides classroom interactions into three major *domains* (Emotional Support, Classroom Organization, and Instructional Support). Within each of these domains there are multiple *dimensions* (Positive Climate, Teacher Sensitivity, etc.) that focus on different features of effective teacher-student interactions in each respective domain. Each of these dimensions includes a set of *indicators* of effective interactions. The indicators of each dimension are then further defined by specific, observable *behavioral markers* that provide clear examples of how teacher-student interactions can be assessed in the classroom.



Each of the UE CLASS dimensions is described in the following ways. The first or face page gives an overview of the dimension, followed by long descriptions of what the indicators look like at the low, mid, and high range. Additionally, classroom examples for each behavioral marker are included after the narrative pages.

1. **Face Page**: This page provides an overall description of the dimension and indicators at the low, mid and high range of the scale. Observers should use this page to become familiar with dimensions but should refer to the long descriptions for scoring purposes.
2. **Long Descriptions**: These pages provide extensive discussion and examples of each of the dimension indicators at the low, mid, and high range.
3. **Classroom Examples**: These pages include examples for each behavioral marker of the dimension.

New users of the Upper Elementary CLASS measure should review this section thoroughly. We also highly recommend that observers refer to this section of the manual when scoring.[1] It is helpful to read the face page first and make an initial judgment about whether the classroom falls in the low, mid, or high range. Then, turn to the relevant (low, mid, high) section and carefully read the description. If the description seems to fit, score according to the guidelines in the previous chapter. If the description doesn't quite fit, read over the other sections accordingly before scoring.

[1] Placing tabs on the face page of each dimension facilitates easy access during scoring.

EMOTIONAL SUPPORT

Positive Climate

Positive Climate reflects the emotional connection and relationships among teachers and students, and the warmth, respect, and enjoyment communicated by verbal and non-verbal interactions.

Teacher Sensitivity

Teacher Sensitivity reflects the teacher's timely responsiveness to the academic, social/emotional, behavioral developmental needs of individual students and the entire class, and the way these factors impact students' classroom experiences.

Regard for Student Perspectives

This dimension focuses on the extent to which the teacher is able to meet and capitalize on the social and developmental needs and goals of students 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 students.

CLASSROOM ORGANIZATION

Behavior Management

Behavior Management encompasses the teacher's use of effective methods to encourage desirable behavior and prevent and redirect misbehavior.

Productivity

Productivity considers how well the teacher manages time and routines so that instructional time is maximized. This dimension captures the degree to which instructional time is effectively managed and down time is minimized for students; it is not a code about student engagement or about the quality of instruction or activities.

Negative Climate

Negative Climate reflects the overall level of negativity among teachers and students in the class; the frequency, quality, and intensity of teacher and student negativity are important to observe.

INSTRUCTIONAL SUPPORT

Instructional Learning Formats

Instructional Learning Formats focuses on the ways in which the teacher maximizes student engagement in learning through clear presentation of material, active facilitation, and the provision of interesting and engaging lessons and materials.

Content Understanding

Content Understanding refers to both the depth of 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.

Analysis and Inquiry

Analysis and Inquiry assesses the degree to which the teacher facilitates students' use of higher level thinking skills through the application of knowledge and skills. Opportunities for demonstrating metacognition—thinking about thinking—are also included.

Quality of Feedback

Quality of Feedback assesses the degree to which feedback expands and extends learning and understanding and encourages student participation. In upper elementary classrooms, significant feedback may also be provided by peers. Regardless of the source, the focus here should be on the nature of the feedback provided and the extent to which it "pushes" learning.

Instructional Dialogue

Instructional Dialogue captures the purposeful use of cumulative content-focused discussion among teachers and students, with the teacher supporting students to chain ideas together in ways that lead to a deeper understanding of content. Students take an active role in these dialogues and both the teacher and students use strategies that facilitate extended dialogue

Student Engagement

Student Engagement captures 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.

Positive Climate

Positive Climate reflects the emotional connection and relationships among teachers and students, and the warmth, respect, and enjoyment communicated by verbal and non-verbal interactions.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Relationships • Physical proximity • Peer interactions • Shared positive affect • Social conversation	The teacher and students appear distant from and disinterested in one another.	The teacher and some students appear generally supportive and interested in one another, but these interactions are muted or not representative of the majority of students in the class.	There are many indications that the teacher and students enjoy warm and supportive relationships with one another.
Positive affect • Smiling • Laughter • Enthusiasm	The teacher and students display flat affect and do not appear to enjoy their time in the class.	The teacher and students demonstrate some indications of genuine positive affect; however, these displays may be brief, muted, or not characteristic of the majority of students in the class.	There are frequent genuine displays of positive affect among the teacher and students.
Positive communications • Positive comments • Positive expectations	The teacher and students rarely provide positive comments or indicate positive expectations of one another.	The teacher and students sometimes provide positive comments or indicate positive expectations of one another; however, these communications may be brief, somewhat perfunctory, or not observed among the majority of students in the class.	There are frequent positive communications among the teacher and students.
Respect • Respectful language • Use of each other's names • Warm, calm voice • Listening to each other • Cooperation	The teacher and students rarely, if ever, demonstrate respect for one another.	The teacher and students sometimes demonstrate respect for one another; however, these interactions are not consistently observed across time or students.	The teacher and students consistently demonstrate respect for one another.

LOW Positive Climate (1,2)

The teacher and students appear distant from and disinterested in one another. The teacher and students do not appear to be connected to one another in any meaningful way, and there are few, if any, instances of shared enjoyment among the teacher and students. The teacher remains distant and infrequently is in physical proximity to the students. Students do not appear interested in spending time with one another and appear uncomfortable with physical proximity to one another. They rarely seek out opportunities to interact with one another and often choose to work alone when given the choice. There is little evidence that students are interested in extending themselves to one another if one of their peers is upset, frustrated, or confused. The teacher and students do not engage in shared positive affect. If the teacher laughs or makes a joke, the students fail to respond with laughter or smiling. Similarly, the students may be excited, laughing, or joking with one another and the teacher either ignores these exchanges or asks them to stop while expressing displeasure (frowning, rolling eyes, etc.). The teacher and students rarely communicate interest in each other's lives outside of school. There are few examples of the teacher engaging in social conversations with students. The teacher asks few or no questions about the personal experiences of students. There is little evidence that the teacher or students are interested in one another outside of class.

The teacher and students display flat affect and seldom appear to enjoy their time in the class. At the low end of Positive Climate, the teacher and students appear to be going through the motions. They rarely seem interested in what they are doing and appear to get little pleasure in their interactions with one another. Rarely do you see examples of smiling and laughter between the teacher and students and among the students. The teacher and student affect is flat and may at times be tense or uncomfortable. There is a notable lack of enthusiasm and enjoyment in the interactions among the teacher and students.

The teacher and students rarely provide positive comments or indicate positive expectations of one another. The teacher rarely provides positive comments or praise to students, or if she does so, the praise appears unauthentic. Unauthentic praise is visible in classes in which a teacher may say, "nice job" over and over but in a flat tone of voice and irrespective of the task, or when a teacher's praise consistently fails to illicit any response from students. Students rarely provide positive comments to their peers. There is little evidence of supportive feedback and positive expectations for student achievement and behavior.

The teacher and students rarely, if ever, demonstrate respect for one another. There is little evidence of respectful communication between the teacher and the students, such as "please" or "thank you" or referring to one another by name. During discussions or conversations, the teacher's and students' tone of voice does not communicate that they value one another. The teacher and students demonstrate a lack of respect for one another by not listening to one another. There are clear indications that students in this class are not cooperative and are rarely seen sharing materials or resolving problems together.

MID Positive Climate (3,4,5)

The teacher and some students appear generally supportive and interested in one another, but these interactions are muted or not representative of the majority of students in the class. The teacher and students appear connected to one another in some ways and the teacher and students at times appear to enjoy their interactions, but the connection may not be a close one or involve the majority of students. The teacher is sometimes in physical proximity to the students, but at other times appears distant and unapproachable. There are times when the students appear to enjoy spending time together and appear comfortable with physical proximity to one another. There is some evidence that students seek out opportunities to interact with one another when opportunities arise. Students may work together to help peers reach social and academic goals when asked, but do not do so spontaneously. The teacher's and students' positive affect is sometimes related. There are examples of shared laughter and excitement among the teacher and students. The teacher makes some attempt to use physical or verbal affection in interactions with students but the positive affect is not always accepted or returned. The teacher and students communicate some interest in each other's lives outside of school. The teacher and students engage in some social conversation, such as asking, "How did you do in the track meet on Saturday?" or "How did the dance decorations look?" At times these exchanges may appear perfunctory with the teacher or student asking the question but not really listening to the response or asking follow-up questions. The teacher and students sometimes express interest through social conversation, but at other times appear less genuinely interested in each other's lives.

The teacher and students demonstrate some indications of genuine positive affect; however, these displays may be brief, muted, or not characteristic of the majority of students in the class. At times the class feels like a warm and pleasant learning environment with some examples of joint smiling and laughter between or among the teacher and students. At other times, the teacher's and/or students' affect may be flat. There are times when the teacher's and students' affect may reflect genuine enthusiasm for or enjoyment in each other and class activities; at other times the teacher and students appear to be less genuinely interested.

The teacher and students sometimes provide positive comments or indicate positive expectations of one another; however, these communications may be brief, somewhat perfunctory, or not observed among the majority of students in the class. The teacher sometimes responds to students' efforts and participation in activities and lessons with positive comments, but on other occasions the responses are perfunctory and less sincere. At times students will demonstrate similar positive comments to one another. There is some evidence that the teacher communicates positive expectations for students, but at other times this is absent.

The teacher and students sometimes demonstrate respect for one another; however, these interactions are not consistently observed across time or students. There are times when the teacher and students use respectful language ("please," "excuse me") and refer to one another by name. In some conversations and exchanges, the teacher and students respond to one another in warm and calm voices; at other times there is less evidence of this. Most interactions are respectful, and teachers and students listen to each other when speaking. There are examples of student cooperation where students can be seen helping peers reach social and academic goals when asked, but they do not do this consistently or spontaneously.

HIGH Positive Climate (6,7)

There are many indications that the teacher and students enjoy warm and supportive relationships with one another. There is strong evidence of an emotional connection among the teacher and students, and the teacher and students clearly enjoy being with one another. The teacher is often in physical proximity to the students. Students appear interested in spending time with one another and appear comfortable with physical proximity to one another. They may actively seek out opportunities to interact with one another and work together when given the opportunity (e.g., during group projects). Students appear to be interested in helping one another and show concern and desire to help if one of their peers is upset, frustrated, or confused.[2] Teacher and student affect is shared such that when the students show excitement and enthusiasm, so does the teacher, and the teacher smiles and laughs with the students. If a teacher makes an attempt at physical contact (putting an arm around a student, patting a student on the back) or provides verbal support ("You are working really hard today," or "I like the way you are thinking!") that positive affect is generally returned and/or accepted. The teacher and students communicate interest in each other's lives outside of school. The teacher has social conversations with students, asking them questions about what is going on in their lives outside of class. The teacher appears genuinely interested in student responses, as evidenced by behaviors such as looking at the student, asking follow-up questions, and using an interested tone of voice. Similar levels of interest are shown when students have social conversations with one another.

There are frequent genuine displays of positive affect among the teacher and students. At the high end of Positive Climate, the class feels like a warm and pleasant place to be with many examples of smiling and laughter between the teacher and students or among the students. The atmosphere exudes enjoyment and positive energy. Students and the teacher appear to be enthusiastic and to enjoy class activities.

There are frequent positive communications among the teacher and students. The teacher freely responds to students' efforts and participation in activities and lessons with positive comments such as, "What a great idea! Did everyone hear what James said just now?" or "Wow, you guys are working together really well on that project." Students may also spontaneously make these types of positive comments to one another. The teacher also communicates positive expectations for students such as saying, "I know you are going to do a great job on this," or "You are really a talented writer and I know you will write something quite interesting."

The teacher and students consistently demonstrate respect for one another. The teacher and students use language that communicates respect, such as "please," "thank-you," and "you're welcome," and frequently refer to one another by name. When speaking to one another, the students and teacher consistently have warm and calm voices. Teachers and students also indicate respect for one another by listening to each other. The students in this class are cooperative, sharing materials and working together to solve problems that arise.

[2] A class may be coded at the high end of Positive Climate without observing positive connections between peers if there aren't opportunities for peer interaction during the observation period, as may be the case if the teacher is involved in whole group instruction during the whole period. However, to be scored in the high range in this case there must be clear evidence of the other markers of Positive Climate and observers should note that even within these whole group lessons students appear comfortable with one another (smiling, etc.).

POSITIVE CLIMATE
CLASSROOM EXAMPLES

Relationships	**Low**	**High**
Physical proximity	Teacher stands up at the blackboard and does not circulate around the room as students work on their math packets.	Teacher begins conversation with a student by leaning in or kneeling down to create greater proximity.
Peer interactions	Even though the teacher tells the students that they may work together on their worksheets, the students opt to work by themselves and do not talk to each other.	Students talk to one another as they work on their lab experiment.
Shared positive affect	Although the students are excited about making posters for the upcoming student council elections, the teacher displays no interest, even though one of the students in the class is running for student council president.	Teacher and students smile and laugh together Teacher and students laugh together when they realize that the teacher has written 2009 for the date instead of 2010.
Social conversation	Teacher and students do not engage in social conversations. When the students start talking about the upcoming field trip, the teacher does not join in and tells them to stop.	On Monday morning, the teacher and students talk about what they did over the weekend. Teacher stops Jenny to congratulate her on her placement at the National History Day competition and asks her to tell her about her submission.
Positive affect	**Low**	**High**
Smiling	Teacher and students rarely smile at one another.	Teachers and students frequently share smiles.
Laughter	Laughter is rarely heard.	Teachers and students freely laugh and enjoy each other's company.

Enthusiasm	Teacher and students have a flat affect. There is a notable lack of enthusiasm about their daily activities.	Teachers and students frequently display enthusiasm about their daily activities. For example, students may excitedly enter the classroom and ask if they can start planning their projects on Civil War.
Positive communications	**Low**	**High**
Positive comments	Teacher rarely makes positive comments to the students. When a student excitedly shows the teacher that he has finally figured out how to do long division, the teacher looks at him blankly and says, "That's nice" in a flat tone of voice.	"I see lots of improvements in your graphs! Every day they go up!" "You guys are really getting great at answering these kinds of questions!" "Thank you for getting your materials ready so quickly."
Positive expectations	When the students express concern about how well they will do on the state test, the teacher says, "Yeah. It's pretty hard."	"I know you have been having some trouble figuring out how to find the area of a triangle, but you have been working hard and I know you're going to get it."
Respect	**Low**	**High**
Respectful language	The teacher watches as one student goes out of her way to help another, but does not say anything to the first student.	Teacher calls students by name and uses respectful language such as "please," "thank you," and "bless you."
Use of each other's names	Teacher does not call students by name. When a student raises his or her hand, the teacher nods her head and says, "Yes."	"Addie, can you please come up to the board and show the others how you worked that problem?"
Warm, calm voice	The teacher and students communicate with each other without warmth.	Some of the students tell the teacher that they are a little worried about taking the state end of year exam. The teacher encourages them in a warm, calm voice and reminds them that they have been working hard all year.
Listening to each other	While one student is up in the front reading from the textbook, instead of paying attention, other students talk to one another.	Students listen when their peers are speaking.

Cooperation	When a student asks another if she can borrow a ruler, the student says, “No, you were supposed to bring your own ruler.”	Students share their compasses as they work on measuring circles. When asked to work on a group project, students jointly decide who will take on each role.

Teacher Sensitivity

Teacher Sensitivity reflects the teacher's timely responsiveness to the academic, social/emotional, behavioral, and developmental needs of individual students and the entire class.[3]

	Low (1,2)	Mid (3,4,5)	High (6,7)
Awareness • Checks in with students • Anticipates problems • Notices difficulties	The teacher rarely monitors students for cues and/or consistently fails to notice when students need extra support or assistance.	The teacher sometimes monitors students for cues and notices when students need extra support or assistance, but there are times when this does not happen.	The teacher consistently monitors students for cues and notices when students need extra support or assistance.
Responsiveness to academic and social/emotional needs and cues • Individualized support • Reassurance and assistance • Adjusts pacing/wait time as needed • Re-engagement • Acknowledgement of emotions and out of class factors • Timely response	The teacher is unresponsive to, and/or dismissive of, students' academic and social/emotional needs and cues for support.	The teacher is sometimes responsive to students' academic and social/emotional needs and cues for support, but this responsiveness may be brief or not observed across the observation or across students.	The teacher is consistently responsive to students' academic and social/emotional needs and cues for support.
Effectiveness in addressing problems • Student issues/questions resolved • Follow up	The teacher is ineffective at helping students, allowing student problems and/or confusion to persist.	The teacher generally attempts to help students who need assistance, but these attempts are not consistently effective at addressing problems.	The teacher is consistently effective in addressing students' questions, concerns, and problems as observed by resolution.
Student comfort • Seek support and guidance • Take risks • Participate freely	Students rarely seek support, share their ideas with, or respond to questions from the teacher.	Students sometimes seek support, share their ideas with, or respond to questions from the teacher; however these types of interactions are not consistent or not observed across the majority of students.	Students consistently appear comfortable seeking support from, sharing their ideas with, and responding freely to the teacher.

[3] At times there are very few problems in a classroom, and it can be more difficult to judge Teacher Sensitivity in these contexts. However, in order for the segment to be scored in the high range, teachers need to demonstrate that they are actively working to be aware of student's potential academic or social needs. Observers should attend to even minor signs of difficulties as opportunities for teachers to demonstrate responsiveness and effectiveness. However, if the teacher demonstrates a high degree of awareness, it is possible to score Teacher Sensitivity in the high range if no problems or difficulties arise during the observation.

LOW Teacher Sensitivity (1,2)

The teacher rarely monitors students for cues and/or consistently fails to notice when students need extra support or assistance. At the low end, the teacher rarely checks in with students; he is not an active monitor of student cues for support. The teacher may not move around the classroom or otherwise get in a position where he can see what most students are doing during individual or small group work. The teacher fails to anticipate individual students' academic and social/emotional needs and appears unaware of the different abilities and interests of students in the class. The teacher may indicate a lack of awareness of students' needs by speaking "over their heads" or by providing activities that are either too difficult or too easy. The teacher may not notice that a student is struggling to understand a lesson or appears upset or anxious. A student may raise her hand or stand waiting for a long time in order to get the teacher's attention. In some instances, a student may not succeed in getting teacher attention at all and may eventually give up and sometimes resort to inappropriate behavior to gain the teacher's attention. Students in this class are frequently disengaged, frustrated, or confused without any teacher awareness to their problems.

The teacher is unresponsive to, and/or dismissive of students' academic and social/emotional needs and cues for support. There are few, if any, indications that a teacher is responsive to individual needs both for students who may be struggling and those in need of additional challenges. At the low end, the teacher fails to respond to students in a supportive and understanding manner, and does not provide appropriate direction, assistance, or reassurance. This may also be observed as unresponsiveness to the whole class, such as if the teacher fails to adjust the way she is teaching because the students don't seem to understand; she may fail to adjust pacing of instruction and interactions in a way that appears consistent with what the students need to understand a concept, participate in the lesson, and/or complete an assignment. The teacher does not adjust the wait time after a question is posed or a task is assigned in order to give students sufficient time to process the information. The teacher does not modify the language or activities to match the students' level of understanding. The teacher does not take any steps to help re-engage students who are not fully participating in group discussions or individual projects. The teacher does not acknowledge students' feelings, whether they are positive or negative and does not consider outside factors (e.g., other school assignments, big social events, or individual personal experiences) as may be needed. The teacher at the low end does not usually respond to students in a timely manner and may not call on students who have their hands raised.

The teacher is ineffective at helping students, allowing student problems and/or confusion to persist. At the low end, the teacher seems "out of touch" with what students need to such a degree that even when he tries to help them, these attempts fail to resolve students' problems effectively. Ineffectiveness at meeting students' needs is often observed when a student must repeatedly approach the teacher for help because the real problem has not been resolved. The teacher at the low end rarely, if ever, follows up with students who have experienced difficulty.

Students rarely seek support, share their ideas with, or respond to questions from the teacher. Students in classes characterized by low Teacher Sensitivity often have learned that the teacher is not a source of support or guidance and may not seek him/her out when they are having a hard time or need assistance. Because the teacher has not created a place where it is safe to offer ideas or take risks, students may not feel comfortable responding when a teacher asks questions, particularly more difficult or higher level thinking questions. This is observed when students are hesitant to raise their hands and do not freely share their ideas.

MID Teacher Sensitivity (3,4,5)

The teacher sometimes monitors students for cues and notices when students need extra support or assistance, but there are times when this does not happen. In the mid range, there may be evidence that the teacher "checks in" with the class as a whole and/or with individual students. There is some indication that the teacher is aware of individual and group behaviors and anticipates problems. The teacher may display a mix of times when she is more and less aware of the needs of individual students: at times the teacher is very clued into students' academic needs, but unaware of emotional needs; alternatively, the teacher may be attuned to emotional needs and less so to academic difficulties. She may not always notice when a student is struggling to understand a lesson or appears upset or anxious. The teacher may notice a problem and attempt to deal with it, but not notice that the "resolution" did not work and that the problem is escalating. Students who seek assistance are generally attended to, but there may be extended wait times.

The teacher is sometimes responsive to students' academic and social/emotional needs and cues for support, but this responsiveness may be brief or not observed across the observation or across students. The teacher shows some indications that he is responsive to individual needs both for students who may be struggling and those in need of additional challenges. In the mid range, the teacher may notice that a student is having difficulty, and then may or may not respond to students in a supportive and understanding manner, sometimes providing appropriate direction, assistance, and reassurance. This may be observed when students approach the teacher with questions or problems, but the teacher may not give the student his full attention. There are times when the teacher inappropriately ignores students and fails to elaborate on comments or concerns. He may be very responsive to a small group of students, but ignores problems of other individual students and misses opportunities to address academic or social/emotional situations in which students are having difficulties. The teacher may sometimes appropriately pace activities and discussions in a way that meets students' needs, but at other times he may not. The teacher may not adjust the wait time after a question is posed or a task is assigned in order to give students sufficient time to process the information. The teacher may use language which the students can understand, but he may not consistently do so. The teacher may sometimes take steps to help re-engage students who are not fully participating in group discussions or individual projects. This teacher, at times, may allow emotional expression, but at other times, particularly with negative emotion, may be unresponsive to students' feelings. The teacher may take into account outside factors (e.g., other school assignments, big social events, or individual personal experiences) as needed. The teacher in the mid range may not consistently respond to students in a timely manner and may not always call on students who have their hands raised.

The teacher generally attempts to help students who need assistance, but these attempts are not consistently effective at addressing problems. The teacher will usually assist students and attempt to make certain that they have the support that is necessary to resolve problems, although the teacher may not always realize that these questions are symptomatic of a larger problem, and she may be less effective in responding to the underlying issues, questions, or problems. This teacher may or may not follow through to ensure that student concerns have been successfully addressed.

Students sometimes seek support, share their ideas with, or respond to questions from the teacher; however, these types of interactions are not consistent or not observed across the majority of students. Some students seek out the teacher for support and guidance, but others do not. The class appears to be a safe place for most students, allowing for some risk in academic and social settings. When the teacher asks questions, some students respond or raise their hands. In small and group activities, some students appear to offer their ideas and suggestions to the teacher and group, but others appear more hesitant to do so.

HIGH Teacher Sensitivity (6,7)

The teacher consistently monitors students for cues and notices when students need extra support or assistance. At the high end, the teacher goes out of her way to notice and check in with students; she is an active monitor of student cues. The teacher anticipates problems and plans accordingly. The teacher is so well attuned to the students that she is able to predict when they are going to have problems academically, socially, and behaviorally. The teacher notices when a student is struggling to understand a lesson or appears upset or anxious. She notices when students are not engaged in a task, whether it be a whole group conversation or small group/individual work. Even when working with a small group of students, the teacher indicates awareness of what is happening in other parts of the classroom.

The teacher is consistently responsive to students' academic and social/emotional needs and cues for support. There are many indications that a teacher is responsive to individual needs both for students who may be struggling and those in need of additional challenges. After noticing that a student is having difficulty, the sensitive teacher responds to students in a supportive and understanding manner providing appropriate direction, assistance, and reassurance. This may also be observed as responsiveness to the whole class, such as if the teacher adjusts the way she is teaching something because the students don't seem to understand. During social problems, such as when a teacher notices that two students are upset with one another, the teacher makes him/herself available to students, offering understanding and support. The teacher adjusts pacing during instruction and interactions in a way that appears consistent with what the students need to understand the concept, participate in the lesson, and/or complete an assignment. This includes adjusting the wait time after a question is posed or a task is assigned in order to give students sufficient time to process the information. The teacher uses language which the students can understand and to which they can respond. The teacher also takes steps to help re-engage students who are not fully participating in group discussions or individual projects. The teacher may purposefully call on a student who is not paying attention to get him/her re-engaged. The teacher acknowledges students' feelings, whether they are positive or negative and makes a point to consider outside factors (e.g., other school assignments, big social events, or individual personal experiences) as may be needed. The teacher calls on students who have their hands raised and usually responds to students in a timely manner.

The teacher is consistently effective in addressing students' questions, concerns, and problems as observed by resolution. Effectiveness of a teacher's response is apparent as students seem to be helped after interactions with the teacher and do not keep having to seek help because their problem hasn't really been addressed. The teacher at the high end also follows up frequently with students who have experienced difficulty, making sure that the assistance provided has effectively met their needs.

Students consistently appear comfortable seeking support from, sharing their ideas with, and responding freely to the teacher. Students clearly see the teacher as a source of support and he serves as a reliable resource for them in the classroom. Students seek out the teacher for support and assistance, both academically and socially. This consistent pattern of responsiveness on the part of the teacher allows students to take risks, emotionally and academically. This is observed when students freely share their ideas and make attempts to answer even the most difficult questions.

TEACHER SENSITIVITY
CLASSROOM EXAMPLES

Awareness	**Low**	**High**
Checks in with students	The teacher stays at her desk during student work time and does not check in to see how the students are doing with the activity.	As students are working on math problems, the teacher walks around the room and checks for understanding. During work time, the teacher scans the room and responds to raised hands in a timely manner.
Anticipates problems	The teacher does not notice that several of the students cannot see the flip chart where she is writing.	"Jason, will you come up and demonstrate how to do the problem? Lorraine and Jamal weren't here yesterday and it would help them if you could show them how the problem is done."
Notices difficulties	The teacher fails to notice that one student has her hand up for most of the silent work time.	The teacher is reading out loud to the students and stops to make sure that they understand what "bliss" and "perplexed" mean.
Responsiveness to academic and social/emotional needs and cues	**Low**	**High**
Individualized support	When students are working on a set of math equations, a student raises his hand to ask for help. Rather than offering him support, the teacher tells him to wait until she goes over the problems with the whole class. The entire lesson is taught in a manner that is directed towards the entire class, without students receiving any differentiated support.	The teacher notices that Myron is upset so she goes over to Myron and quietly talks to him about the problem. The teacher is going around the room asking the students to answer a question. Eli asks if he can think about his response and the teacher calls on another student and then comes back to Eli in a few moments.
Reassurance and assistance	When a student asks a question about the current activity, the teacher says, "Try to figure it out on your own, we have to move on now."	"James, I see that you're having trouble with these problems. Let's meet during the planning period tomorrow; we can figure it out together."

Adjusts pacing/wait time as needed	The teacher moves on with the lesson even though it is clear that some of the students do not understand the content.	The teacher notices that not all of the students are finished working their math problem, so she waits a few minutes before calling on someone to give the answer
Re-engagement	The teacher sees that Jillian has her head down and is asleep instead of doing her work, but decides that it is not worth the hassle to try to get her back on task.	The teacher notices a student who is not paying attention, walks over to him, and asks him a question to help focus his attention.
Acknowledgement of emotions and out of class factors	When the students ask the teacher if she can move the unit test because it is the same day as their state achievement test, the teacher refuses.	A student says he can't complete his project over the weekend because his grandmother is coming to visit. The teacher tells him not to worry about it because she will give them extra time in class on Monday.
Timely response	During silent reading, the teacher continues to work on her lesson plan for the next class and fails to respond to students who raise their hands to ask for help.	The teacher quickly and consistently responds to students who raise their hands to ask for assistance. If she cannot get to a student immediately, she reassures him that she will be there in just a moment.
Effectiveness in addressing problems	**Low**	**High**
Student issues/questions resolved	Several students come up to the teacher to ask for clarification about the assignment. Despite these attempts to figure out the activity, the students still do not understand her explanation.	A student says he is confused and teacher immediately goes over to help him. After a little help, the student shows he understands what to do by continuing to add details to the body of his essay.
Follow up	A group of students come up to the teacher's desk to ask for help with graphing. Once they go back to their desks to do their work, the teacher does not follow up to see if they understood how to do it.	After explaining how to convert decimals to fractions, the teacher goes over to a student who seemed confused and checks to see if he understood how to work the problem.

Student comfort	Low	High
Seek support and guidance	Students do not approach the teacher with their questions, but instead rely on their peers to assist them.	During silent work time, a student comes to the teacher's desk and asks if she is doing her work correctly.
Take risks	Students are not willing to answer questions if they are not certain of the answer.	A student volunteers to answer a question even though she is not certain of the answer: "I'm not sure this is right, but I think…"
Participate freely	When the teacher asks for a volunteer to go up to the board and show the class how to diagram a sentence, all of the students look away and no one raises his or her hand.	Students volunteer to go up to the board and demonstrate how they found the answer to a math problem.

Regard for Student Perspectives

Regard for Student Perspectives captures the degree to which the teacher is able to meet and capitalize on the social and developmental needs and goals of students 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 students.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Flexibility and student focus • Shows flexibility • Follows students' leads • Encourages student ideas and opinions	The teacher rigidly provides all of the structure for the class and rarely follows students' leads or encourages student ideas and opinions.	The teacher provides structure for the class, but at times is flexible, follows students' leads, and/or encourages student ideas and opinions.	The teacher is flexible and consistently follows students' leads and encourages student ideas and opinions.
Connections to current life • Connects content to student life • Communicates usefulness	Material is not meaningfully connected to current experiences of students and information about how or why the material is of value to students is not presented.	Material is sometimes meaningfully connected to the current experiences of students and sometimes makes salient how or why the material is of value to students.	Material is meaningfully connected to the experience of students and is presented in such a way that students understand how or why it is of value to them.
Support for autonomy and leadership • Allows choice • Chances for leadership • Gives students responsibility • Relaxed structure for movement	Students infrequently have meaningful choices within lessons and are rarely provided with opportunities for leadership or responsibility.	Students have some choices within lessons and are given occasional opportunities for leadership or responsibility; however, these opportunities may be somewhat controlled by the teacher.	Students are provided with meaningful choices within lessons and are given authentic opportunities for leadership and responsibility.
Meaningful peer interactions • Peer sharing and group work	The teacher discourages peer-peer interactions that are meaningful within the context of the lesson.	The teacher provides some opportunities for peer-peer interactions, but they are somewhat superficial in nature.	The teacher promotes opportunities for peer-peer interactions that are meaningful and serve an integral role within the lesson.

LOW Regard for Student Perspectives (1,2)

The teacher rigidly provides all of the structure for the class and rarely follows students' leads or encourages student ideas and opinions. At the low end, the teacher rarely looks for opportunities to involve students in a meaningful, formative way within the classroom. Activities and lessons are inconsistent with students' interests and provide few opportunities for students to share their ideas. The teacher appears uninterested in understanding how the students "see the world" and in getting them to express these thoughts. During instruction, the teacher goes through lessons without asking questions or prompting for students' thoughts and ideas. Students who respond to a question with other than the expected answer are dismissed; questions or comments that are not clearly related to the correct answer are ignored. The teacher rigidly adheres to an agenda or plan at the expense of learning opportunities, students' interest, and spontaneous "teachable moments."

Material is not meaningfully connected to current experiences of students and information about how or why the material is of value to students is not made explicit. The content and instruction in this classroom appear largely based on the teacher's agenda. The teacher makes no effort to situate the required content in the current and future experiences of students and rarely connects content to current student culture (e.g., popular music, television programs, video games, etc.) or particular developmental issues of students. Further, the content and instruction are presented devoid of how they might be of value to the student. The lesson may be totally based on the text, curriculum guide, and/or standards, and the teacher makes no attempt to explain the value of working toward content mastery.

Students infrequently have meaningful choices within lessons and are rarely provided with opportunities for leadership or responsibility. Activities, instruction, and interactions in this class are teacher driven. The teacher rarely, if ever, provides opportunities within the lesson for students to assert their autonomy. Students rarely have choices of or within assignments and must complete tasks in a very rigid and prescribed way. Students rarely have opportunities to take responsibility for their own learning or for the community of learners; the teacher controls activities for the students. The teacher may also control all materials very tightly so that students have to ask the teacher's permission every time they want to use something, rather than having the responsibility to access materials on their own. Students are rarely given any specific roles, jobs, or opportunities for leadership in the classroom, or if they do have jobs, they are so heavily managed by the teacher that they do not have much chance to feel any actual responsibility. The teacher needlessly requires permission for movement or frequently reminds students that they must stay seated and quiet, even at times when this does not appear necessary.

The teacher discourages peer-peer interactions that are meaningful within the context of the lesson. The teacher rarely, if ever, allows students to interact constructively with one another. The teacher does not give students a chance to act as mentors or role models for one another. There is either no opportunity for small group work, or if it occurs, the teacher insists that students work very quietly within the classroom without recognizing that effective group work necessitates a certain level of "constructive noise." Peer conversation within the context of the lesson or activity is discouraged by the teacher.

MID Regard for Student Perspectives (3,4,5)

The teacher provides structure for the class, but at times is flexible, follows student leads, and/or encourages student ideas and opinions. The class may seem moderately teacher-regimented, but some consideration is given to student ideas and opinions. At times students may be moved through activities and lessons following the teacher's plan and pace rather than the interests and understanding of the students; at other times the teacher may be more responsive to students' ideas and opinions and may go with the flow of their ideas. This teacher may listen to students' comments, but then fail to integrate them into the ensuing discussion/debate. In the mid range, the teacher may appear interested in students' opinions but then continue to ask other students in search of a "right" answer or one that agrees with the teacher's opinion.

Material is sometimes meaningfully connected to the current experiences of students and sometimes makes salient how or why the material is of value to students. The teacher in this classroom gives some consideration to making the material relevant and of value to students. The teacher attempts to relate required content to the experiences and daily lives of students, but the analogies may not be well developed. The teacher may address aspects of the future relevance to the students, but he may select examples that are not likely to connect with their interests or motivations. The teacher sometimes connects content to current student culture (e.g., popular music, television programs, video games, etc.) or particular developmental issues of students. While the lesson in this class may be based on the text, curriculum guide, and/or standards, the teacher makes an attempt to explain the value of working toward content mastery and makes an effort to situate the required content in the current and future experiences of students. This connection may be implicit and take the form of role play or authentic instruction (e.g. designing an experiment like a real scientist).

Students have some choices within lessons and are given occasional opportunities for leadership or responsibility; however, these opportunities may be somewhat controlled by the teacher. In the mid-range, the teacher does not fully foster student autonomy, but the students do have some choices of or within assignments and in how they complete tasks. Jobs or responsibilities within the classroom may be designed or managed by the teacher in such a way that students' ability to take true responsibility is limited. In discussions, the teacher is in control and assumes the role of "leader." There may brief opportunities for students to assume some degree of leadership, such as when students work in groups. In the mid range, the teacher sometimes requires students to be quiet and remain seated or request permission for movement, but for some periods of time students may move about freely, eat snacks, get up as needed, rearrange desks, etc. This freedom of movement is not to be confused with chaos, but is freedom of movement which students can have while not interfering with their own or others' learning.

There are some opportunities for peer-peer interactions, but they are somewhat superficial in nature. The teacher sometimes encourages or allows students to interact constructively with one another and will occasionally offer opportunities for peer interactions, but usually for short periods and sometimes in a superficial way. In the mid range teachers may also allow significant peer interaction, but these interactions are primarily social, rather than instructional, in nature. The teacher gives students a chance to act as mentors or role models for one another, but at times, when students are working with peers, their interactions may not truly add meaning to the lesson; this may result when students do not take advantage of opportunities for meaningful peer interaction. Peer conversations are sometimes encouraged within the context of the lesson or activity, but at other times the teacher does not promote, and may even prohibit, constructive peer conversations.

HIGH Regard for Student Perspectives (6,7)

The teacher is flexible and consistently follows student ideas and opinions. Activities and lessons provide ample opportunities for students to share their ideas. The teacher appears genuinely interested in understanding how the students "see the world" and in getting them to express these thoughts. The teacher does not rigidly adhere to an agenda or plan at the expense of learning opportunities and students' interest in activities. The teacher is flexible and attentive to students' responses and uses these responses in the lesson. Going with the flow of students' ideas does not distract from the lesson, but allows the teacher to incorporate students' interests, ideas, and opinions into the lesson goals.

Material is meaningfully connected to the experiences of students and is presented in such a way that students understand how or why it is of value to them. The content and instruction in this classroom meets the needs and interests of the students in the class. The teacher at the high end consistently connects content to students' experiences, to current student culture (e.g., popular music, television programs, video games, etc.), and/or to particular developmental issues of students. The teacher also consistently explains the usefulness of mastering specific content and skills. Students have a deep understanding of how or why the information and/or skills being presented are important and the teacher situates the required content in the current and future experiences of students.

Students are provided with meaningful choices within lessons and are given authentic opportunities for leadership and responsibility. At the high end of Regard for Student Perspectives, the teacher makes appropriate decisions enabling students to be as autonomous as they can be within a given activity. Students may have choice in assignments, classroom organizational tasks, and working individually or in a group. Students have genuine responsibility in the classroom (planning special events, assisting with classroom procedures, etc.). In this class, students appear to be given opportunities to assume responsibility for their own learning or leadership for the community of learners. At times when these responsibilities are managed by the teacher, it is done in such a way that does not limit students' ability to take true responsibility. At the high end, students are consistently allowed freedom of movement throughout the lesson or activity. This freedom of movement does not result in chaos, but rather is appropriate movement that does not interfere with learning. For example, students are allowed to move as needed to gather supplies, rearrange desks for group work, etc.

There are opportunities for peer-peer interactions that are meaningful and serve an integral role within the lesson. The teacher structures the lesson and/or activities to promote constructive peer interactions that facilitate students' learning. The teacher fosters interactions that promote academic over strictly social exchanges. During discussions and group work, students talk openly with one another in a free exchange, give and take of ideas, which does not revolve around the teacher. At the high end, student talk may predominate or be equal to teacher talk.

REGARD FOR STUDENT PERSPECTIVES CLASSROOM EXAMPLES

Flexibility and student focus	**Low**	**High**
Shows flexibility	The teacher does not deviate from her lesson plan even when students are excited about a particular aspect of the lesson and want to talk about it in more depth.	A teacher introduces a novel unit by having students generate a list of novels they would like to read.
Follows students' leads	During a science lesson about erosion a student asks if erosion was a factor in the Dust Bowl. The teacher replies that they aren't talking about the Dust Bowl today.	As the teacher demonstrates how to convert fractions into mixed numbers, Samuel notes that his father taught him a neat way to check the accuracy of his work. The teacher asks him to come up to the board and demonstrate the strategy for the rest of the class.
Encourages student ideas and opinions	During a lesson on fractions, the teacher provides no opportunities for the students to share where they see fractions in their daily lives.	After teaching a lesson on fractions, the teacher asks students to share their ideas about how they can use this knowledge in their daily lives.
Connections to current life	**Low**	**High**
Connects content to student life	The teacher does not connect content to students' current lives. For example, when talking about solar energy, the teacher fails to point out that the new downtown mall has solar panels.	During a discussion about recent technological advances, the teacher asks students to think about how their lives would be different without the internet, cell phones, and texting.
Communicates usefulness	When the students are working on percentages, the teacher fails to show how understanding this concept will help them know the cost of an item on sale.	The teacher introduces the skill of estimation by having students complete a restaurant menu activity. She explains that this will help them when they go to restaurants in the future because they will be able to estimate the cost of their meal before they order.

Support for autonomy & leadership	**Low**	**High**
Allows choice	Students do not get to select their books for their independent reading projects. Instead, the teacher assigns them books to read based on what she thinks the students would like.	The teacher explains the activities that are available to help students understand their unit on light and asks, “Who would like to be in the group that is using mirrors to learn about how light refracts?” The teacher gives students wide latitude in how they may complete their project on foreign countries. She tells them that they can do a poster, a PowerPoint presentation, or write a paper.
Chances for leadership	Students tell the teacher that they would like to organize a coat drive for the homeless shelter and the teacher says that she does not think that is a good idea.	The teacher allows the students to plan the exhibit of their photography projects.
Gives students responsibility	The teacher tells students that they are going to brainstorm ideas for their projects, but then provides all of the ideas herself.	The teacher calls Allie up to have her demonstrate part of the lab experiment. After the students move into their small groups, they choose which roles they will pay in their groups: leader/facilitator, recorder, presenter, and materials manager.
Relaxed structure for movement	There is no evidence that students are free to move around the classroom. The teacher insists that students raise their hands for permission to move even if they just want to sharpen their pencils.	Students are free to get up and move around the room. They may even leave to go to the water fountain or restroom.
Meaningful peer interactions	**Low**	**High**
Peer Sharing and Group Work	Students are required to complete their work independently and are not given a venue for sharing.	The teacher encourages students to talk to each other about the passage in the book they just read.

Behavior Management

Behavior Management encompasses the teacher's use of effective methods to encourage desirable behavior and prevent and redirect misbehavior.[4, 5]

	Low (1,2)	Mid (3,4,5)	High (6,7)
Clear expectations • Explicit • Consistent • Students know what to do	Behavior expectations for students in this class are absent, unclear, or very inconsistently enforced.	There may be some evidence of rules or expectations for student behavior, but these rules may be inconsistently enforced or appear difficult for some students to understand and follow.	Rules and behavioral expectations are clearly stated or understood by everyone in the class.
Proactive • Monitoring • Anticipation of problem behavior • Proximity • Attention to the positive • Low reactivity	The teacher is reactive to behavioral issues and monitoring is absent or ineffective.	The teacher uses a mix of proactive and reactive approaches to behavioral issues; the teacher sometimes monitors but at other times misses early indicators of problems.	The teacher is consistently proactive and monitors effectively to prevent problem behaviors from developing.
Effective redirection of misbehavior • Uses subtle cues to redirect • Peer redirection and problem solving • Problems resolved • Little time lost	The teacher either ignores or uses ineffective methods to redirect misbehavior before it escalates. As a result, misbehavior continues and/or escalates and results in significant loss of instructional time.	The teacher uses a mix of effective and ineffective strategies to redirect misbehaviors and as a result, some instructional time is lost.	The teacher consistently uses effective strategies to redirect misbehavior and behavior management does not result in loss of instructional time.
Student behavior • Meets expectations • Little aggression or defiance • Compliance with teacher • Absence of chaos	Multiple students are defiant, there is frequent misbehavior, and/or the classroom is characterized by chaos.	There are periodic episodes of misbehavior in the class, but these episodes are brief and limited to a small number of students.	Students are compliant and there are few, if any, instances of student misbehavior.

[4] Behavior Management is often defined very broadly to include strategies teachers use to keep students engaged as a means of preventing misbehavior. The Upper Elementary CLASS Behavior Management dimension focuses on the prevention of more active misbehavior; a teacher's use of strategies to engage students is captured in Instructional Learning Formats.

[5] At the high end of Behavior Management you may not see explicit evidence of some teacher behaviors, such as proactive strategies and effective redirection, because behavior is so well managed. If there is no evidence of student misbehavior, it is assumed that effective behavioral strategies are in place and a classroom may score in the high range.

LOW Behavior Management (1,2)

Behavior expectations for students in this class are absent, unclear, or very inconsistently enforced. At the beginning of activities, the teacher in the low Behavior Management classroom typically fails to explicitly tell students what will be expected of them. The teacher may inconsistently enforce rules, sometimes getting angry when students talk out of turn, while at other times allowing a great deal of chaos. The teacher may also be observed to be giving constant reminders to students about their behavior, (e.g., "Pay attention," or "You need to turn around and face me.") rather than communicating expectations more clearly. These classes also may have several adults with very different behavioral expectations leading to inconsistent communication about and enforcement of rules. Students in these classrooms have a hard time knowing what kinds of behavior are acceptable and this confusion can lead to more behavioral problems.

The teacher is reactive to behavioral issues and monitoring is absent or ineffective. The teacher seems one step behind in the classroom, reacting to, rather than proactively preventing, misbehavior. The teacher does not effectively monitor the classroom for situations which may lead to behavior problems. A lack of monitoring is evident when the teacher appears to focus on only one area of the classroom, ignoring either minor or major behavioral problems. At the low end, the teacher may only seem interested in getting through the lesson, without paying attention to students' behavior. The teacher may be sitting at her desk and not paying any attention to what is going on in the classroom, and may fail to anticipate situations that are likely to lead to behavior problems. The teacher does not use proximity to students and fails to note positive examples of behavior.

The teacher either ignores or uses ineffective methods to redirect misbehavior before it escalates. As a result, misbehavior continues and/or escalates and results in a significant loss of instructional time. In this class, minor incidents of misbehavior may be ignored, or the teacher uses ineffective or inappropriate methods of redirection such as simply telling a student to "Stop it!" or "I need your help." These statements give the students no information about what they are doing that they need to stop or how they might moderate their behavior to conform to the teacher's wishes. Typically, these kinds of statements are ineffective in changing behavior. Peers also fail to provide one another with subtle cues to redirect behavior, and students fail to work out problems on their own. At the low end, behavior problems escalate, rather than de-escalate, and behavior management takes significant time away from other activities. The time taken away from activities may be an accumulation of many small incidents that, over the course of the observation, significantly interrupt the class, or may be a major incident that takes the teacher away from the lesson or activity for a significant amount of time.

Multiple students are defiant, there is frequent misbehavior, and/or the classroom is characterized by chaos. The students frequently engage in inappropriate behavior, aggression, and defiance. This may include hitting one another, leaving the classroom without permission, talking out of turn, using inappropriate language, or using materials inappropriately. The class may appear quite chaotic, or there may be an accumulation of small misbehaviors in the interactions of students with one another or with the teacher over the course of the observation. To be scored in the low range, classes do not need to have a majority of students misbehaving. Rather, they may have a few students whose disruptions interfere with the learning environment significantly or many students engaged in low level misbehavior, such as talking to peers when they are supposed to be listening to the teacher.

MID Behavior Management (3,4,5)

***There may be some evidence of rules or expectations for student behavior, but these rules may be inconsistently enforced or appear difficult for some students to understand and follow*.** At the mid range of Behavior Management, teachers are not always explicit about behavioral expectations. At times, the students appear to know the classroom rules, but at other times rules are either unclear or inconsistently enforced. For example, the teacher might tell students they need to raise their hands before answering, but then allow students to call out freely. The teacher might again assert the rule and/or get perturbed if too many students are talking at once, and students are not respectfully listening to their peers. Included in the mid range are cases where the lead teacher appears to have fairly consistent rules, but the students spend substantial time with assistants or collaborating teachers where rules are less consistently enforced, leading to more student misbehavior. There are times when the teacher can be observed giving reminders to students about their behavior. In the mid range, at times students appear to know acceptable behavior, but at other times there is confusion that leads to student misbehavior.

The teacher uses a mix of proactive and reactive approaches to behavioral issues; the teacher sometimes monitors but at other times misses early indicators of problems. Sometimes this teacher takes steps to prevent misbehavior, but at other times she is much less proactive. There may be periods when she is closely monitoring, such as during a whole group lesson, but the level of monitoring may decline as students transition to individual or small group work. This teacher may appear to anticipate potential problems in one area of the classroom but may be less aware of what is happening in other areas. The teacher may make use of physical proximity, but may not note positive examples of behavior, for example. She may reinforce desired behavior at times, but may not do so consistently.

The teacher uses a mix of effective and ineffective strategies to redirect misbehaviors and as a result, some instructional time is lost. In the mid range, some of the behavior management strategies that the teacher employs are successful, and some are less successful. There are times when the teacher may be successful in using subtle cues (such as eye-contact or using the student's name) to assist students in getting back on task, but at other times these attempts may be less effective. Sometime students try to settle their own disputes appropriately, but at other times they may need the teacher to resolve problems. In the mid range, there may be long periods when the teacher seems to be effectively managing behavior and resolving behavioral problems, but there may be times when student misbehavior takes substantial time away from what the teacher is trying to accomplish during instruction.

There are periodic episodes of misbehavior in the classroom, but these episodes are brief and limited to a small number of students. At times, the students appear to be able to meet expectations for behavior, but at other times, they engage in inappropriate behavior, ranging from minor disruptions to aggression and defiance. There may be short periods of chaos, lasting more than a minute or two but not extending throughout the observation. There may be only a small group of students who engage in less significant misbehavior such as not paying attention or talking to peers when they are supposed to be listening, but most of the students are well-behaved over the course of the observation.

HIGH Behavior Management (6,7)

Note: At the high end of Behavior Management you may not see explicit evidence of some teacher behaviors, such as proactive strategies and effective redirection because behavior is so well managed. If there is no evidence of student misbehavior, it is assumed that effective behavioral strategies are in place and a class may score in the high range.

Rules and behavioral expectations are clearly stated or understood by everyone in the class. In this class, the rules and expectations for behavior are clearly stated and/or understood by all members of the classroom community. These same rules are enforced in a consistent and predictable manner by all adults in the classroom. The teacher may quickly review expectations at the beginning of an activity or lesson, or the teacher may not need to review classroom rules as evidenced by all students demonstrating appropriate behavior. There is no confusion by students regarding rules and behavioral expectations.

The teacher is consistently proactive and monitors effectively to prevent problem behaviors from developing. The teacher consistently appears to be one step ahead of problems in the classroom, and he is characterized by a proactive versus a reactive response to a variety of situations. The teacher monitors the classroom and intervenes before problems occur, and he is aware of students in all areas of the classroom, even when working with an individual student or small group. During individual work, the teacher walks around the classroom to reinforce students' on-task behavior. This teacher also anticipates and avoids setting up situations in the classroom that may cause behavioral problems. Similarly, this teacher uses proximity to students and notes positive examples of behavior.

The teacher consistently uses effective strategies to redirect misbehavior and behavior management does not result in a loss of instructional time. At the high end, teachers use effective subtle means of redirecting students including, but not limited to: eye-contact; touch; gesture; physical proximity; asking a question about the current activity; specifying the desired behavior; and/or specifically using the student's name. Peers may provide one another with subtle cues to redirect behavior, as well. The teacher may encourage students to try to settle disputes on their own first. Problems, if they occur at all, are resolved quickly and effectively. Teachers using effective behavior management spend very little time actually managing behavioral problems because they are able to prevent many problems. This may be observed in a teacher who only has to give a quick prompt to a student in order to redirect. There is no escalation of undesirable behavior.

***Students are compliant, and there are few, if any, instances of student misbehavior*.** It is important to note that at the high end teachers may have established such clear routines and behavioral structure in the classroom that they are not observed actually doing any behavior management. Good behavior management that has been established in the classroom may be observed in the actions of the students who meet expectations for their behavior and conduct themselves in an appropriate manner without many reminders about rules and expectations. Any chaos that is observed, as students enter the room for example, is very brief. At the high end, there may be no observed instances of misbehavior and an absence of aggression and defiance.

BEHAVIOR MANAGEMENT
CLASSROOM EXAMPLES

Clear expectations	**Low**	**High**
Explicit	"Shhhh. That is not what you are supposed to be doing." "John, you need to act right."	"All eyes should be up here on me." "Please leave your textbooks at your desks and move to your lab stations quietly." "Before we get started, I am going to go through all of the rules with you so everyone is straight on what they need to do."
Consistent	Sometimes the teacher makes students raise their hands before they speak and at other times she lets them call out.	The teacher consistently enforces the class rules.
Students know what to do	The teacher has to frequently remind students to raise their hands before they share in the discussion.	Students understand and follow behavioral expectations. The teacher does not need to remind students about the classroom rules throughout the segment (i.e., raise their hands before speaking, share materials with others in their groups, use respectful language).
Proactive	**Low**	**High**
Monitoring	The teacher sits at her seat and completes paperwork while students work on their projects, thereby missing two students arguing in the back of the classroom.	The teacher walks over and quietly takes a notebook from a girl who is twirling it around on the top of her desk. Even though she is working with a small group of students at a table, the teacher notices that the students in one of the centers are getting loud and reminds them to use their '6- inch voices'.
Anticipation of problem behavior	The teacher doesn't anticipate that students will have a hard time sharing the materials during the lab experiment. As a result, two students argue about who gets to perform each part of the experiment.	Before students begin a mime activity, the teacher anticipates misbehavior and asks students to name the behavioral expectations for small group work.
Proximity	The teacher does not stay in close physical proximity.	The teacher walks around the room to monitor student behavior during group work.

Attention to the positive	The teacher does not call attention to positive behavior. When the students engage in unacceptable behavior, the teacher calls them out for their behavior by saying, “This behavior is unacceptable.”	“Thank you for putting all of your lab materials away. I really appreciate your help.”
Low reactivity	When students begin talking in line, the teacher comes over and sternly says, “That’s it, both of you are receiving detention.” The teacher says, “Shh, stop talking” throughout the segment.	In the middle of a lesson, it is announced over the PA system that school will be dismissed early due to inclement weather. The students start to cheer. The teacher lets them cheer for a moment and then says, “Please be sure to write down the homework assignment before gathering your books.”
Effective redirection of misbehavior	**Low**	**High**
Use of subtle cues to redirect	The teacher’s cues to redirect behavior are not subtle. She says, “Hey! You need to stop what you are doing and pay attention.”	The teacher notices that Ethan is distracted by something that is happening outside of the room. She walks over and stands near Ethan to help him refocus.
Peer redirection and problem solving	Two students argue about the best approach to solving a problem the teacher has assigned them to do. The students continue to argue long after the other groups have started to work.	When two students both want to be the discussion leader for their small group, they talk about it for a moment and agree on the solution to their problem.
Problems resolved	One student is wandering around the room while she is supposed to be working on her Jamestown project. The teacher asks her to get back to work. The student continues to wander and begins to disrupt other students.	The teacher notices that two students are disrupting their group’s activity. She approaches the students and asks what she can do to help them get back to work. The students explain that the directions are confusing. The teacher clarifies the directions and the group gets back to work.
Little time lost	The teacher frequently has to redirect two students who are talking socially. This results in the teacher spending more time managing behavior than providing instruction to students.	Redirections are brief and efficient. The teacher only needs to give one quick reminder for students to get back on task.

Student behavior	Low	High
Meets expectations	The students in this classroom frequently engage in inappropriate behavior, such as leaving the classroom without permission, talking out of turn, or using inappropriate language.	Student behavior consistently meets the teacher's expectations.
Little aggression or defiance	When the teacher asks a student to sit back in his seat, the student glares at the teacher and storms off.	Students interact with one another and with the teacher in a respectful manner. There is no evidence of aggression or defiance.
Compliance with teacher	A teacher reminds a student that he needs to get the hall pass before leaving the classroom. The student ignores the teacher and leaves without one.	The teacher reminds a student to raise his hand next time before he would like to share. The student apologizes and raises his hand when he wants to share again in the next few minutes.
Absence of chaos	The classroom is very chaotic. Students are frequently leaving the room without permission, talking out of turn, using inappropriate language, or using materials inappropriately.	The class runs smoothly and there is little to no chaos. The classroom is calm and students are following behavioral expectations.

Productivity

Productivity considers how well the teacher manages time and routines so that instructional time is maximized. This dimension captures the degree to which instructional time is effectively managed and down time is minimized for students; it is not a code about student engagement or about the quality of instruction or activities.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Maximizing learning time[6] • Tasks provided • Disruptions minimized • Choice when finished • Effective completion of managerial tasks	The teacher provides few or no tasks for students and/or there are frequent, lengthy disruptions that leave minimal time for learning.	Most of the time there are tasks for students, but learning time is sometimes limited by disruptions and/or inefficient completion of management tasks.	The teacher consistently provides tasks for students, effectively completes managerial tasks, and minimizes disruptions so that time for learning is maximized.
Routines • Students know what to do • Clear instructions • Little wandering	The class is disorganized and students do not know what to do.	Some routines are clearly in place, but there are also times of uncertainty and disorganization.	The class resembles a "well-oiled machine" where everybody knows what is expected and how to go about doing it.
Transitions[7] • Little wasted time • Redirection to task when necessary • Time cues provided	Students spend a significant amount of time in transition and teachers do little to facilitate more efficient transitions.	Students spend more time than is necessary in transitions and teachers are inconsistent in their facilitation of more efficient transitions.	Students transition from one lesson or activity to another in an efficient and smooth manner.
Preparation • Materials ready and accessible • Knows lessons	The teacher is not prepared for activities and/or lesson.	The teacher is mostly prepared for activities and/or lesson but takes some time away from instruction for last minute preparation.	The teacher is fully prepared for activities and/or lessons.

[6] Although pacing is typically scored under Instructional Learning Formats, it can affect Productivity scores when the pacing is so slow that students spend a great deal of time waiting with nothing to do.

[7] Transitions can occur even when moving from one activity to another; it does not need to be from one full lesson to the next. However, the observer still may not see a transition during the segment. If there is no transition, this indicator should not be weighed into the scoring.

LOW Productivity (1,2)

The teacher provides few or no tasks for students and/or there are frequent, lengthy disruptions that leave minimal time for learning. The provision of opportunities for learning is minimal or non-existent in classes at the low end of Productivity. Students may spend a lot of time sitting around waiting for the teacher to give an assignment. Or students might wait for a long time for the teacher to arrive, for the teacher to attend to managerial tasks (e.g., attendance, collecting homework), or while the teacher engages in an extended conversation with a colleague. If the teacher has not provided any instructional task for the students to be doing, and if considerable time is lost, then the class will score at the low end. Alternately, if the teacher has provided an activity and provided clear instructions for how to do it, but the students are not engaged, the classroom should NOT score at the low end of productivity. It is important to note that the quality of instruction is not important to the rating of this dimension. Teachers at the low end of this dimension continually allow disruptions to interfere with time for learning. Although all teachers need to complete managerial tasks, teachers at the low end of Productivity allow managerial tasks to take a great deal of time away from students' exposure to instructional activities.

The class is disorganized and students frequently do not know what to do. Routines are not well established or are not followed, resulting in frequent and/or lengthy losses of instructional time. Students often appear not to know what they should be doing and must ask for directions in order to know how to proceed with the lesson. The teacher's directions are unclear or vague, as evidenced by the students' confusion. Students may be observed wandering throughout the classroom asking peers for assistance.

Students spend a significant amount of time in transition and teachers do little to facilitate more efficient transitions. During transitions time is wasted because students appear confused about whether or not they are supposed to end their current activities, what to do with materials, or what they are supposed to do next. Teachers in these classes do not effectively redirect students to the task or provide time cues to facilitate transitions.

Teacher is not prepared for activities and/or lessons. At the low end, the teacher is not fully prepared for the lesson. The teacher may be caught up in last minute preparations for the next activity as students arrive and/or as students finish an activity and transition to another. Unpreparedness is also observed when the teacher has to interrupt an activity to get needed materials or seems to forget or be unfamiliar with the point of the activity. Similarly, at the low end, the teacher may refer frequently to the text or lesson plan in a way that disrupts the progression of the learning experience.

MID Productivity (3,4,5)

Most of the time there are tasks for students, but learning time is sometimes limited by disruptions and/or inefficient completion of management tasks. In the mid range of Productivity, there are some periods in which there are activities and tasks for students to work on, and other periods when they spend time waiting for the teacher or just sitting around. Although pacing is typically scored under Instructional Learning Formats, it can affect Productivity scores when the pacing is so slow that students spend a great deal of time waiting with nothing to do. In these cases classes often receive a mid-range productivity score because some instructional opportunities are available, but they are not maximized due to the very slow pacing. It is important to note that the quality of the learning activity or task is not important to the rating of productivity. The focus here is on the provision of opportunities for students to learn even if these are not of the highest quality. This teacher appears to have put time into getting ready for lessons and tasks in advance, but may still not be fully prepared. The teacher generally maintains focus on learning activities, but may occasionally allow distractions to interfere with time for learning. The teacher in the mid range of Productivity may also repeatedly get distracted by her own thoughts that appear to be completely or somewhat disconnected from the lesson. While at times the teacher appears to efficiently accomplish managerial tasks, there are times during which opportunities for learning are lost due to a lack of efficiency – i.e., slowly reading the entire class role to take attendance.

Some routines are clearly in place, but there are also times of uncertainty and disorganization. The teacher takes some steps to make routines go quickly and efficiently but does not consistently do so. The teacher's directions may be somewhat vague or confusing, and, as a result, students may not always know what they should be doing. They may spend some time asking the teacher what they are supposed to be doing or asking a peer for clarification of the task. The teacher may occasionally interrupt the instructional time of one group to provide directions to another group.

Students spend more time than is necessary in transitions and teachers are inconsistent in their facilitation of more efficient transitions. Classes in the mid range are often quite productive during planned lessons and tasks, but may fall apart during transitions. During transitions, there may be wasted time and students may appear confused as to how to conclude one activity and move on to the next. Activities and tasks may change frequently so that a significant amount of time may be dedicated to transition rather than to productive learning. Students may be redirected to the task at times, but this may not be done consistently. The teacher may provide time cues to facilitate transitions, but, again, this may not be done consistently.

Teacher is mostly prepared for activities and/or lessons but takes some time away from instruction for last minute preparation. Teachers in classrooms that score in the mid range appear to have put time into getting ready for lessons and tasks in advance, but may still not be fully prepared. For example, a teacher may have prepared for students to measure different quantities of sand by setting out different types of measuring equipment and containers, but may have to spend several minutes dividing sand up and giving each group a small amount. These brief interruptions add up over time to take important time away from instruction and learning. Additionally, the teacher may refer to the lesson plan or pause during instruction in a way that communicates that the teacher does not fully know the lesson material.

HIGH Productivity (6,7)

The teacher consistently provides tasks for students, effectively completes managerial tasks, and minimizes disruptions so that time for learning is maximized. In classes at the high end, it would be difficult to imagine more instructional time being squeezed out of the period. It is important to note that the quality of this learning time is not important to the rating of productivity. The focus here is on the provision of opportunities for students to learn even if these are not of the highest quality. A teacher high on this dimension will typically include clear directions/options for students who finish early or provide an agenda to students so they know what to expect and what to do. It is important to differentiate Productivity from student engagement, which is captured under Instructional Learning Formats. A class may be highly "productive" if the teacher is consistently providing students with an opportunity to experience a learning activity, even if many students are not fully engaged in this activity. Productive teachers are good at minimizing the number and length of disruptions to learning. All teachers must deal with managerial tasks at times, but the highly productive teacher deals with these tasks in a way that minimizes the loss of instructional time.

The class resembles a "well-oiled machine" where everybody knows what is expected of them and how to go about doing it. In highly productive classrooms, students and teachers go about the school day in an organized, efficient manner. Students know what they should be doing and how to get help if they need it. Students show little confusion about routines. The teacher provides clear instructions. There is little to no student wandering observed in this classroom.

Students transition from one lesson or activity to another in an efficient and smooth manner. During transitions, there is little wasted time and students move quickly from one activity to the next. Students are redirected to the task quickly when necessary. The teacher provides time cues to facilitate transitions.

Teacher is fully prepared for activities and/or lesson. The teacher is fully prepared for lessons and tasks, and materials are ready and easily accessible. The teacher clearly knows how to implement a task without having to consistently look at a text or lesson plan.

PRODUCTIVITY
CLASSROOM EXAMPLES

Maximizing learning time	**Low**	**High**
Tasks provided	Some students finish their individual work quickly and have nothing to do until the rest of the students finish their work. Students have to wait for close to 30 minutes with nothing to do while they wait for the teacher to explain how she wants them to complete their projects.	Because the teacher gives students options about what they can do when they finish a specific task, students consistently have something to do. As soon as the students finish their vocabulary activity, they take out their journals to start their daily writing activity.
Disruptions minimized	When the reading specialist comes by to pull a few students for individualized instruction, the teacher spends several minutes talking to the reading specialist about how each student is doing.	When another teacher stops by to ask the teacher a question, the teachers says she'll catch up with her at lunchtime.
Choice when finished	Students who finish their morning work early have to sit and wait with nothing to do while the others finish.	Students can choose which work center to go to after they finish their morning work.
Effective completion of managerial tasks	The teacher spends the first 15 minutes of the morning taking attendance, collecting field trip permission slips, and passing out papers for the students to take home.	The teacher takes attendance as students come in the door and asks them to give her their field trip permission forms at the beginning of class.
Routines	**Low**	**High**
Students know what to do	Students wander around after completing their work looking for something to do.	Students enter the class, immediately get out their work folders, and pull out papers to complete.
Clear instructions	As students enter the room, the teacher tells them to "Get ready," without explaining what she means. As a result, many students stand around wondering what to do next.	The teacher provides clear instructions as students transition from one activity to another. For example, as students come in from lunch the teacher says, "Get your reading book out and turn to page 56 to review the new vocabulary words for the chapter. Please take out your dictionaries and look up any words you don't know."

Little wandering	During a science lab, students walk around the room talking to other students and looking for necessary materials.	As soon as the teacher provides directions for work groups, students immediately gather their materials and go to their work areas.
Transitions	**Low**	**High**
Little wasted time	The transition from language arts to social studies takes a long time as students stop to get water, find their social studies books, and sharpen their pencils.	When the teacher asks the students to finish their group work and get ready for science, they quickly put their materials away and get their science books and notebooks.
Redirection to task when necessary	The teacher's attempts to redirect students back to the task at hand are ineffective.	As they enter the room, students congregate at the door to talk about a TV show they saw last night. The teacher reminds them that it is time for class and they all sit down quickly at their desks.
Time cues provided	The teacher does not provide any warnings about upcoming transitions.	The teacher says, "Centers will be over in 5 minutes. Please finish up and put your materials away."
Preparation	**Low**	**High**
Materials ready and accessible	The teacher spends five minutes looking for all of the materials for the science lab while students sit and wait.	During a science lab on light refraction, the teacher provides students with extra batteries in case the batteries in their flashlights wear out. The teacher has all of the materials for the students' measurement activity ready for them.
Knows lesson	The teacher has to keep referring to her teacher's manual throughout the lesson.	During the lesson, the teacher explains the steps of constructing a stem and leaf plot without referring to the teacher curriculum guide

Negative Climate[8]

Negative Climate reflects the overall level of negativity among teachers and students in the class; the frequency, quality, and intensity of teacher and student negativity are important to observe.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Negative affect • Irritability • Anger • Harsh voice • Physical aggression • Disconnected or escalating negativity	The class is characterized by the absence of strong negative affect and only rare episodes of more mild negativity by the teacher and/or students.	Mild instances of irritability, anger, or other negative affect by the teacher and/or students are observed on multiple occasions.	The class is characterized by severe[9] and/or consistent irritability, anger, or other negative affect by the teacher and/or students.
Punitive control • Yelling • Threats • Harsh punishment • Physical control	The teacher does not yell at students or make threats to establish control.	The teacher makes occasional, mild attempts at punitive control through raised voice, mild threats, or physical control.	The teacher makes frequent or intense/severe attempts to control students through yelling, threatening, or physically controlling students.
Disrespect • Teasing • Bullying • Humiliation and sarcasm[10] • Exclusionary behavior • Inflammatory, discriminatory, or derogatory language or behavior	The teacher and students are very rarely sarcastic or disrespectful to one another through words and/or actions and any incidences are brief and mild.	The teacher and/or students are repeatedly mildly disrespectful of one another or are observed to occasionally engage in brief but more intensely disrespectful interactions.	The class is characterized by repeated intense disrespectful language and behavior between the teacher and students or among students.

[8] Negative Climate is scaled in the opposite direction of the other UE CLASS scales. Higher negativity indicates lower quality.

[9] Unlike in other Upper Elementary CLASS dimensions, Negative Climate can be scored in the high range based on a single incident if that incident reflects a very intense form of Negative Climate, such as a fist fight among several students or a teacher hitting a student.

[10] Some teachers use sarcasm to build rapport with students. While sarcasm can be humorous, it is a form of disrespect. All incidences of sarcasm should be noted in Negative Climate but, as with all behavioral observations, the frequency, depth, and intensity of the behavior should be taken into account as a score is determined. Rare and lighthearted sarcasm with no signs of student offense should be weighed much differently from frequent and biting remarks.

LOW Negative Climate (1,2)

The class is characterized by the absence of strong negative affect and only rare episodes of more mild negativity by the teacher and/or students. At the low end of Negative Climate, the teacher and/or students spend little, if any, time irritated by each other and display no instances of more severe negativity (e.g., anger). Rarely, if ever, does the teacher or students use harsh voices when in conversation or discussions. There may be very mild negativity on the part of the teacher (e.g., irritated tone, rolling of eyes, or a grimace), but these instances are rare and very brief. If mild negativity is observed, it resolves quickly and these situations have a "fleeting" quality to them. At the low end of Negative Climate, individual student negativity or negativity among students is either absent or there are only very occasional episodes of mild negativity. Students do not engage in aggressive acts with each other. Mild negativity does not escalate to higher levels. The teacher has the ability to modulate or dampen any negativity once it is expressed and to quickly return to more neutral or positive behaviors. The teacher appears to quickly move beyond annoyance and irritation and may acknowledge and even apologize for this type of behavior or follow these incidents with an explicit conversation or explanation of the negativity, which connects it to the specific event. For example, "I'm sorry that I sounded irritated, but I was a bit frustrated that several of you appear not to have been listening while I was talking." Of note at the low end is that there is a clear and reasonable explanation of the teacher's annoyance, that it did not last long or get actively expressed at a high level to the students, and that he may have verbalized his regulation (ability to control) of the negative feeling.

The teacher does not yell at students or make threats to establish control. The teacher is never observed yelling, or threatening to punish or actually punishing students who misbehave. She does not engage in physical controls to gain the students' attention or compliance.

***The teacher and students are very rarely sarcastic or disrespectful to one another through words and/or actions and any incidence is brief and mild*.** This class is characterized by the absence of teasing, bullying, humiliation, or sarcasm by the teacher or among students. Teachers and students do not exclude one another in conversations and activities. At the low end of Negative Climate, any evidence of language or behavior that is inflammatory (e.g., references to alcohol, drugs, sex, weapons, or violent behavior), discriminatory (e.g., racism, sexism, or sexual harassment) or derogatory (belittling, contemptuous, degrading) is rare. If there is any evidence of these types of behavior, the teacher addresses them quickly, efficiently, and effectively.

MID Negative Climate (3,4,5)

Mild instances of irritability, anger, or other negative affect by the teacher and/or students are observed on multiple occasions. At the mid-range of Negative Climate teachers and/or students spend some of the time irritated by each other or display some mild instances of anger or other negative affect. In contrast to the low Negative Climate class where even mild negativity is rare and the exception, in the mid-range there are more instances and they play a more significant role in the overall tone of the class. The teacher will sometimes take a slightly negative stance toward her interactions with some of the students. There are times when the teacher or students use harsh voices when communicating with one another. There are no instances of aggressive acts or severe negativity between or among the teacher and students. In the mid-range, there may be more frequent low level negativity such as irritation or annoyance that continues for a substantial amount of time. In the mid-range, mild to moderate negativity may appear disconnected from any specific event in the class or may be connected to a specific event but appear out of proportion to that event. This type of negativity may not only persist, but it may also escalate to higher, more moderate levels. For example, a teacher might respond initially with a frustrated tone of voice, but then increase volume, use an angry tone, and pointedly criticize a student in an embarrassing way. In instances when this teacher's negativity can be tied directly to a particular event, his negative affect may appear to be out of proportion or an over-reaction to that event. This teacher appears to have some difficulty effectively regulating his own negative affect, but does eventually return to more neutral or positive behaviors. There are times that the tone in this class may be marked by some unpredictability.

The teacher makes occasional attempts at punitive control through raised voice, threats, or physical control. In addressing misbehavior the teacher may occasionally (once or twice) resort to yelling, threatening to punish or actually punishing students. In the mid-range the teacher may also occasionally use mild physical control such as gently pushing or pulling students to get them to move or respond.

The teacher and/or students are repeatedly mildly disrespectful of one another or are observed to occasionally engage in brief but more intensely disrespectful interactions. In the mid-range class, there are occasional instances of teasing, bullying, humiliation, or sarcasm by the teacher or among peers. Sarcasm can be interpreted in various ways; it is coded under Negative Climate if the students interpret the teacher's or peer's words or tone to be insulting or degrading. Sarcasm toward the teacher from students, which is interpreted in an insulting or degrading manner, is also included here. There are times when the teacher and students work collaboratively, and, at other times engage in exclusionary behavior with one another. Classes in the mid Negative Climate range may display some evidence of language or behavior that is inflammatory (e.g., references to alcohol, drugs, sex, weapons, or violent behavior), discriminatory (e g., racism, sexism, or sexual harassment) or derogatory (belittling, contemptuous, degrading). In the mid-range of negativity, teachers generally deal quickly, efficiently, and effectively with these types of behavior. Occasionally, however, instances are not addressed by the teacher or are not dealt with immediately. There is evidence that such behavior is discouraged by the teacher, yet it is sometimes allowed to persist.

HIGH Negative Climate (6,7)

The class is characterized by severe and/or consistent irritability, anger, or other negative affect by the teacher and/or students. In highly negative classes the teacher and/or students spend much of the time irritated by each other or display instances of more severe negativity (e.g., anger) in their interactions with one another. The teacher appears to take a negative stance toward her interactions with most students and is annoyed with nearly everything the students do. The teacher and/or students use harsh voices when speaking to one another. Students in this class are frequently annoyed with one another or engage in aggressive acts with one another, such as physical altercations. The negativity is not isolated but rather significantly impacts the tone of the class environment in an adverse way. What begins as mild negativity between or among the teacher and students often escalates into more moderate or more severe, intense negativity. For example, the teacher may start off with mild irritation that students aren't doing a task the way he wants them to do it but ends up escalating to getting angry, stopping the activity, and punishing the students. This teacher does not appear to have the ability to effectively regulate his own negative affect and thus negativity not only escalates, but may continue for an extended period of time. The teacher and/or students frequently express annoyance, irritation, or anger without a clear reason. In instances when a negative response cannot be connected to a particular event, the teacher's or student's high level of negativity is unexpected and seen as a serious over-reaction to what has occurred. Students might be heard to wonder, "Where did that come from?" or try to put the situation in perspective, e.g., "But I wasn't talking" or "I was only walking to the pencil sharpener." The tone in this class may be marked by its unpredictability. The high end of negative climate may be coded if there is a single severe incident of negative behavior such as students engaging in a fist fight or a teacher hitting a student.

The teacher makes frequent or intense/severe attempts to control students through yelling, threatening, or physically controlling students. This teacher often resorts to yelling, threatening to punish, or actually punishing students who misbehave. She may also engage in physical controls such as pushing or pulling students to move or respond.

The class is characterized by repeated intense disrespectful language and behavior between the teacher and students or among students. This class is characterized by a general pattern of disrespect as indicated by repeated instances of teasing, bullying, humiliation, or sarcasm by the teacher or among students. Sarcasm can be interpreted in various ways; it is coded under Negative Climate if students interpret the words or tone to be insulting or degrading. The teacher in the high range may often humiliate, put down, or disgrace students by specifically commenting derogatorily or in a sarcastic manner on achievement levels, physical characteristics, cultural characteristics, or social-emotional skills. The teacher or students may also exclude certain students from conversation or activities. There is frequent language or behavior which is inflammatory (e.g., references to alcohol, drugs, sex, weapons, or violent behavior), discriminatory (e. g., racism, sexism, or sexual harassment) or derogatory (e.g., belittling, contemptuous, degrading). At the high end, the teacher either deals ineffectively with instances of disrespect, or she does not address the behavior at all, such that these episodes continue and or escalate.

NEGATIVE CLIMATE
CLASSROOM EXAMPLES

Negative affect	Low	High
Irritability	The teacher briefly appears mildly irritable when students fail to respond to her request to stop working, but she quickly regroups and apologizes for being irritated, explaining why she was upset with them.	The teacher snaps at a student who asks her a question and says, "I already told you what to do. Weren't you listening?" When the student comes back and asks for clarification, the teacher rolls her eyes and tells the student to go figure it out himself. She tells the class that if anyone else asks her a question, she might consider taking away their points. (Also harsh voice, escalating negativity)
Anger	Instead of getting visibly angry when a student fails to comply with a directive, the teacher explains how she feels and asks the student to do better next time. For example, instead of getting upset when Don cuts up during his peer's book report, the teacher takes Don aside and reminds him of the class rule to listen respectfully.	When a student asks a question that the teacher has answered before, the teacher angrily says, "We have been over this time and time again. I can't believe that you still don't get it." (Also humiliation or sarcasm)
Harsh voice	Any instances of the teacher using a harsh voice are fleeting.	The teacher often uses a harsh and hostile voice when talking to the students.
Physical aggression	The teacher and students do not engage in acts of physical aggression.	The teacher and/or students hit, kick, or otherwise engage in acts of physical aggression.
Disconnected or escalating negativity	As the teacher explains why volcanoes erupt, one student stands up and says, "I'm hot magma. I'm going to erupt!" Other students start to laugh, but notice the teacher shaking her head and mouthing "no." The first student quickly sits down and the other students stop laughing.	As students enter the room after lunch, two students finish up the conversation they were having in the hallway. The teacher looks at the students and says, "You need to stop talking right now. And if you don't stop, you will both have to stay after school for detention. "

Punitive control	**Low**	**High**
Yelling	The teacher does not yell to establish control. When the students start to get too loud, she quickly flicks the lights on and off to remind them that they need to be quiet.	When the class gets a little too loud, the teacher raises her voice and yells for the students to quiet down.
Threats	The teacher remains calm when dealing with student misbehavior.	The teacher notices that the students are not standing quietly in line. She counts to three and when they don't quiet down, she sends them back to their seats and tells them that if they don't start to listen that she will take time away from their break time.
Harsh punishment	The teacher does not use harsh punishments, but instead talks to students about their behavior.	"Dennis, that is the second time today that you have spoken out of turn. You need to go to the principal's office right now."
Physical control	When a student doesn't line up as requested, the teacher moves over towards him as a way to prompt him to get in line.	The teacher asks the students to stand over by the blackboard. One boy does not immediately go and the teacher grabs him by the arm and pulls him over to the board.
Disrespect	**Low**	**High**
Teasing	Students rarely, if ever, tease one another.	One boy gives another boy a hard time because he is singing a "girl song."
Bullying	Students do not bully one another.	One student is overheard telling another student that he had better let him copy her homework if she knows what is good for her.

Humiliation and sarcasm	The teacher and students do not humiliate or put each other down. Similarly, the teacher and students do not make sarcastic or disrespectful comments, use a sarcastic tone of voice, sigh deeply, or roll their eyes.	"This is the second time I've come over here and seen Melissa working hard and you two messing around." The teacher sees that students are writing out full words in their science lab rather than using abbreviations. She says, "It will take HOURS if you have to write the word milliliters each time. You need to follow my directions and use the abbreviations I gave you." The teacher notices that one group is not keeping up with the others. She loudly says, "Wow. You guys are way far behind."
Exclusionary behavior	Students include others in their activities. When a student asks to join in a game the others welcome the student and tell them what has been happening in the game.	During a small group project, a student asks one of the groups if he can join. The leader of the group says, "No, this is our idea. You can't be a part of our group."
Inflammatory, discriminatory, derogatory language, or behavior	Teachers and students do not engage in inflammatory, discriminatory or derogatory language or behavior.	During a lab experiment, a student makes a mistake that puts the team behind the other groups. One of her lab partners curses at her and then says, "This is what happens when you have to have a girl in your group."

Instructional Learning Formats

Instructional Learning Formats focuses on the ways in which the teacher maximizes student engagement in learning through clear presentation of material, active facilitation, and the provision of interesting and engaging lessons and materials.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Learning targets/ organization • Clear learning targets • Previews • Reorientation/summary statements • Clear, well-organized presentation of information	Clear learning targets are absent and/or not stressed. The teacher's communication of them is disorganized or otherwise not clear. The teacher does not effectively draw students' attention to the objectives.	Learning objectives may be discussed but are not always clear. The teacher may use preview and/or summary statements, but these are done too briefly or without sufficient depth to fully focus student attention on learning objectives.	The teacher clearly communicates learning objectives and effectively supports student attention on the objectives.
Variety of modalities, strategies, and materials • Variety of modalities and strategies • Variety of materials • Interactive materials	The teacher only offers information in a single mode with little or no variety in strategies or materials. Students have few opportunities to interact with materials/activities.	Students are sometimes presented with information using varied modalities, strategies, and/or materials and students have some opportunities for interaction with materials/activities, but these opportunities are brief and/or limited in depth.	The teacher presents information through multiple modalities and strategies, and uses multiple materials. Students have consistent opportunities for interaction with materials/activities.
Active facilitation • Promoting involvement • Effective pacing • Teacher interest	The teacher is uninvolved in the work of students and appears disinterested in their work or class participation.	The teacher is intermittently or mildly engaged in facilitating student involvement through questioning, appropriate pacing, and the active display of interest and engagement in students' work, but at other times appears uninvolved or disinterested.	The teacher actively facilitates students' involvement through questioning, appropriate pacing, and the active display of interest and engagement in students' work and participation.
Effective engagement • Active participation • Sustained attention	The students do not appear interested or engaged in the instruction.	As a function of the teacher's efforts, students appear to be interested and/or engaged in the instruction some of the time or consistently mildly engaged.	As a function of the teacher's efforts, students appear consistently actively interested and engaged.

LOW Instructional Learning Formats (1,2)

Clear learning targets are absent and/or not stressed. The teacher's communication of them is disorganized or otherwise not clear. The teacher does not effectively draw students' attention to the objectives. Students in this classroom appear unaware of the point of the lesson or how they should be focusing their attention. At the low end, the teacher does not provide a clear learning target. A teacher may ask the class to read a chapter without previewing or explaining how they will demonstrate their knowledge. The teacher may provide a verbal agenda, listing sequential tasks without meaningful discussion of content. He does not attempt to reorient or refocus students' attention when their confusion is evident. There is no attempt to summarize or review what has been covered and what will follow. At the low end, the teacher presents information in a disorganized fashion; it might be out of logical sequence, jump from topic to topic, and/or contain vague language.

The teacher only offers information in a single mode with little or no variety in strategies or materials. Students have few opportunities to interact with materials/activities. The teacher presents information utilizing one modality (typically auditory) without attending to other modalities (movement, visual, or nonverbal expression and behavior). The teacher may present all information in a lecture format with minimal intonation and expression and with no use of visuals that might enhance student understanding. Within a particular modality, there is no variety in the strategies that the teacher uses to engage the students. The teacher has not selected an assortment of materials in order to help students become actively engaged. For example, the teacher may rely on non-interactive and less stimulating activities such as worksheets. There is little to no evidence that students have the opportunity to manipulate or explore any resources or materials, but rather are asked to passively attend to material. For example, a teacher may demonstrate how to use materials, but fail to allow students to try using them.

The teacher is uninvolved in the work of students and appears disinterested in their work or class participation. This teacher is not an active facilitator of student participation; she rarely asks students questions, scaffolds their learning, or extends their involvement. She may give students an activity to complete, but instead of facilitating their exploration, she lets the students complete it on their own. This teacher may pace the lesson so slowly that students are bored, fidgety, falling asleep, or so fast that students are lost and disengaged because they cannot keep up. She is not animated and does not use facial expressions, intonation, or movement to capture students' attention.

The students do not appear interested or engaged in the instruction. Students may appear bored or disengaged or more socially than academically involved. Students generally are not volunteering, raising hands, or participating in the activity or lesson presented by the teacher.

MID Instructional Learning Formats (3,4,5)

Learning objectives may be discussed, but are not always clear. The teacher may use preview and/or summary statements, but these are done too briefly or without sufficient depth to fully focus student attention on learning objectives. Students in this class sometimes appear aware of the point of the lesson or how they should focus their attention, and at other times they seem unfocused or unclear about the learning objectives. The teacher may occasionally use strategies such as previewing, advanced organizers, reorientation statements, and summary and review, but does not consistently do so. At times, this teacher maintains focus on the learning objective, but at other times he does not. If this teacher recognizes digression, he may try to refocus or reorient the students. In the mid range, the teacher sometimes presents information in a clear and organized fashion, but occasionally the information is disorganized; it might be out of logical sequence, jump from topic to topic, and/or contain vague language. Student confusion may become evident and the teacher may make some attempt to provide clarification.

Students are sometimes presented with information using varied modalities, strategies, and/or materials and students have some opportunities for interaction with material/activities, but these opportunities are brief and/or limited in depth. The teacher in the mid range presents information using at least two modalities, enhancing the likelihood that students' different learning preferences are addressed. The teacher may combine an auditory (lecture) presentation with visuals (diagrams, photographs) that illustrate key points. There is evidence of multiple instructional strategies, such as whole group and small group discussions or writing and drawing. In the mid range the teacher's selection/utilization of such strategies, however, may not consistently maximize student engagement. The teacher appears to have put some thought into creating activities and structuring lessons which include materials that are engaging and stimulate student interest and exploration, but these opportunities are not consistently available.

The teacher is intermittently or mildly engaged in facilitating student involvement through questioning, appropriate pacing, and the active display of interest and engagement in students' work, but at other times appears uninvolved or disinterested. The teacher in the mid range sometimes facilitates student participation. She makes some attempts to engage students by moving around the classroom and/or asking questions, but at times she simply sets up materials and tasks and then lets the students finish them on their own. Lesson activities are sometimes appropriately paced; sometimes students are engaged and involved. This teacher may appear interested in some aspects of what she is teaching, and less so in others. Facial expressions, body language, tone, and overall animation may indicate interest at some times but convey lack of interest at others.

As a function of the teacher's efforts, students appear to be interested and/or engaged in the instruction some of the time or consistently mildly engaged. In the mid range there may be times when students are interested and engaged and other times in which they are bored or disengaged. Alternately, there may be some students who appear actively engaged while others are not interested in what the teacher has prepared for them. This may be observed when one group of students in a cooperative activity is actively engaged and interested while those in a different group are less engaged.

HIGH Instructional Learning Formats (6,7)

The teacher clearly communicates learning objectives and effectively supports student attention on the objectives. Students appear aware of the point of the lesson or how they should focus their attention. The teacher consistently maintains focus on the learning objectives using strategies such as previewing and advanced organizers. At times of brief digressions, the teacher successfully re-engages the students with refocusing or reorientation statements. Clear summaries are provided. Information presented by the teacher is consistently well organized and accessible to the students. The lesson is logically sequenced, stays on topic, and the language is specific and well defined.

The teacher presents information through multiple modalities and strategies, and uses multiple materials. Students have consistent opportunities for interaction with materials/activities. The teacher uses different modalities, instructional strategies, and materials in order to present information in many ways. Even when a teacher is using a single modality for a portion of the lesson, he uses multiple strategies for engaging students such as asking them to write and draw or first using whole group discussion and then asking the students to break into small groups to further explore a topic. The teacher has clearly put time and effort into planning and preparing activities and selecting an assortment of materials that will help students become actively engaged through manipulating and exploring the resources. The teacher does not simply demonstrate the use of materials, but provides students with opportunities to use these materials independently or in groups. Student engagement is enhanced through novelty in materials and activities. There is limited use of lecture/presentation in which there is no student talk or participation or in which the orally presented material is not reinforced by interesting visuals.

The teacher actively facilitates students' involvement through questioning, appropriate pacing, and the active display of interest and engagement in students' work and participation. This teacher is an active facilitator of student participation by asking students questions, and scaffolding and extending student learning. Lesson activities are appropriately paced so that students are consistently engaged and involved. The teacher conveys interest in the content and materials to the students through her facial expression, tone, and other non-verbal communication.

As a function of the teacher's efforts, students appear consistently actively interested and engaged. In this class, the teacher's efforts are seen to be effective in that students are focused on important work. They are listening to the teacher, raising their hands or volunteering information, responding when asked direct questions, and actively participating in discussions, group, or individual work.

INSTRUCTIONAL LEARNING FORMATS
CLASSROOM EXAMPLES

Learning targets/ organization	**Low**	**High**
Clear learning targets	The teacher starts the unit on fractions by showing examples of different fractions.	The teacher says, "By the end of this lesson you will be able to convert fractions to decimals."
Previews	The teacher tells the students to break into groups to discuss *The Phantom Tollbooth*, but does not provide any discussion questions or vocabulary lists.	A teacher begins her lesson on plant and animal cells by having students complete the first two sections of the K-W-L (Know-Want to Know-Learned) chart.
Reorientation/summary statements	Students are not certain how to adjust the quotients when dividing two digits into a larger number. The teacher does not provide the students with any guidance.	The students are supposed to be talking about their reading of *Beezus and Ramona*. However, the teacher notices that they are talking about *Harry Potter* instead. The teacher says, "Let's focus on *Beezus and Ramona* for now. We can talk about *Harry Potter* another time."
Clear, well organized presentation of information	The lesson on how a bill becomes law was very poorly organized. The teacher did not spell out the steps that legislators take to pass a bill, leaving most students confused.	The teacher's lesson on the three branches of government is logically sequenced and flows smoothly. She first explains the rationale for having three branches of government and then clearly names and defines the roles and responsibilities of each branch.
Variety of materials, modalities, and strategies	**Low**	**High**
Variety of modalities and strategies	The teacher relies heavily on worksheets to reinforce material presented in lecture.	The teacher reinforces information about the history of the earth by presenting resources on the fossil record. The students go online to learn more about fossils and examine the real fossils that the teacher brings in. The teacher sets up a station where students can make their own fossils out of plaster of Paris and clay.

Variety of materials	The teacher uses only one material, a map of the United States, to show students the Trail of Tears that relocated many Native Americans in the 1830s.	To help students understand Native Americans' experiences on the Trail of Tears, the teacher brings in maps that trace the routes, has students look up information on the Internet, and brings in pictures depicting the event. She also brings in documents that outline the government's rationale for the relocation.
Interactive materials	The teacher uses a flat diagram of the human body to teach about the respiratory system.	The teacher supplements the lesson on the circulatory system by bringing in plastic models of the heart that the students can manipulate and take apart to see how the blood flows.
Active facilitation	**Low**	**High**
Promoting involvement	After telling the students the topic for their daily journal writing, the teacher steps out into the hallway to talk to another teacher about an upcoming field trip.	As the students write in their journals, the teacher circulates around the room and stops to talk to students about their ideas. She is overheard to say, "Wow. That's a good idea. I hadn't thought about that."
Effective pacing	As the teacher goes over each vocabulary word, the pacing of the lesson is so slow that many students become disengaged and begin playing in their desks.	The teacher moves through the reading comprehension questions at an appropriate pace so that all students can keep up with the lesson and stay involved.
Teacher interest	The teacher does not appear to have any interest in the topic he is teaching. It appears as if he is just going through the motions of teaching.	To help students share her enthusiasm for the Civil War, the teacher comes to class dressed as a Union soldier and shares reproduction artifacts that she has collected at different battle sites.
Effective engagement	**Low**	**High**
Active participation	Only one of the five students in the group is working on the project. The others are talking to each other and working on homework for another class.	Students are divided up into small groups to work on brainteasers that the teacher has given them. Students freely share their ideas and good naturedly argue about how to work out the problem.
Sustained attention	Rather than attending to their lab on weights and measures, the students talk about their field trip to the museum.	Due to the teacher's provision of interactive materials, the students spend the entire class period working on their masks of Greek gods.

Content Understanding

Content Understanding refers to both the depth of lesson content and the approaches used to help students comprehend the framework, key ideas, and procedures[11] 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.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Depth of understanding • Emphasis on meaningful relationships among facts, skills, and concepts • Real world connections • Multiple and varied perspectives	The focus of the class is primarily on presenting discrete pieces of topically related information; broad, organizing ideas are not presented.	The focus of the class is sometimes on meaningful discussion and explanation of broad, organizing ideas, while at other times, it is focused on discrete pieces of topically related information.	The focus of the class is on encouraging deep understanding of content through the provision of meaningful, interactive discussion and explanation of broad, organizing ideas.
Communication of concepts and procedures • Essential components identified • Conditions for how and when to use the concept and/or procedure • Multiple and varied examples • Contrasting non-examples	Class discussion and materials fail to effectively communicate the essential attributes of concepts/procedures to students.	Class discussion and materials communicate a few of the essential attributes of concepts/procedures but examples are limited in scope or not consistently provided.	Class discussion and materials consistently and effectively communicate the essential attributes of concepts/procedures to students.
Background knowledge and misconceptions • Attention to prior knowledge • Explicit integration of new information • Attention to misconceptions • Students share knowledge and make connections	There is little effort made to elicit or acknowledge students' background knowledge or misconceptions or to integrate previously learned material when presenting new information.	There are some attempts to elicit and/or acknowledge students' background knowledge or misconceptions or to integrate information with previously learned material, but these moments are limited in depth or provided inconsistently.	New concepts/procedures/ broad ideas are consistently linked to students' prior knowledge in ways that advance understanding and clarify misconceptions.

[11] A procedure is a step-by-step process used to achieve a result related to a learning objective. Examples include, but are not limited to: steps in the Scientific Method, the steps necessary to graph an equation, the steps taken to write an introductory paragraph in an essay, the steps in having a debate, etc. A class can score highly on Content Understanding if the focus of the lesson is on having students deeply understand an academic procedure or skill.

Transmission of content knowledge and procedures[12] • Clear and accurate definitions • Effective clarifications • Effective rephrasing	Content/procedural knowledge is inaccurate or not presented clearly.	Content/procedural knowledge is sometimes effectively and accurately communicated to students; at other times, information is confusing and/or inaccurate.	Content/procedural knowledge is effectively and accurately communicated to students.
Opportunity for practice of procedures and skills[13] • Supervised practice • Independent practice	Students simply receive information about procedures and skills and do not have opportunities to practice procedures or skills relevant to the content area of the lesson.	The teacher occasionally incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson.	The teacher regularly incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson.

[12] Ideally, observers are knowledgeable about the content area for which they are observing. However, the focus here is not exclusively on accuracy of content, but rather on behavioral markers which may indicate the accurate transmission of content knowledge, even to observers without high levels of content knowledge.

[13] This indicator should only be scored if procedures or skills are a part of the lesson. Otherwise, do not include this indicator in the overall rating. Observers should not make judgments about whether procedures or skills should have been a focus of a lesson; rather, this indicator is scored low if a teacher **explicitly** talks about specific procedures or skills without proving opportunities for practice.

LOW Content Understanding (1,2)

The focus of the class is primarily on presenting discrete bits of topically-related information; broad, organizing ideas are not presented. At the low end, the teacher makes few or no attempts to develop or broaden students' understanding of concepts, either by linking facts with concepts, or by discussing the big ideas within a discipline. The emphasis is not on the meaningful relationships among facts, concepts, and generalizations; instead, it is primarily on discrete bits of information and facts that students are expected to remember and recall. Activities and instruction seem very abstract and removed from students' everyday lives, and the teacher does not help students apply their thinking to real world events and situations. There are few, if any, meaningful class interactions that reflect multiple or varied perspectives. At the low end, the teacher presents information from only one point of view or perspective. There is a sense that this perspective is "correct" rather than something that could or should be debated or looked at differently.

Class discussion and materials fail to effectively communicate the essential attributes of concepts/procedures to students. At the low end, the teacher does not present the defining or essential components of concepts or procedures. The teacher does not explain when to apply the conceptual or procedural knowledge; the teacher fails to include how and when the particular skills or concepts should be used. Rarely, if ever, does the teacher provide an example of the content being discussed. If a positive example is provided, it is usually prototypical, a basic clear cut exemplar of what is being taught, and students are not given the opportunity to reflect on its features and characteristics. The teacher also fails to use contrasting non-examples, or examples that are less obvious, to further student understanding.

There is little effort made to elicit or acknowledge students' background knowledge or misconceptions or to integrate previously-learned material when presenting new information. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the low end, the teacher gives little or no attention to students' prior knowledge; she rarely tries to identify what students already know about a subject in order to make links between the new material and what is known. Content is presented independent of students' understandings and previous knowledge. The teacher also fails to clarify misconceptions. The teacher does not have any expectations for students to integrate knowledge across disciplines, and the learning environment rarely provides opportunities for the students to share knowledge and make connections.

Content/procedural knowledge is inaccurate or not presented clearly. The teacher's knowledge of the subject matter appears limited and insufficient in order to support student learning. There are inaccuracies in the information that is presented, as may be observed by a lack of clear and accurate definitions. Content/procedural knowledge is presented at a very superficial level, and the teacher has difficulty answering questions that the students pose. In addition, in order to address student confusion, the teacher is unable to provide effective clarifications or rephrasing. For example, when several students claim that they do not understand the material presented, the teacher presents the material again using the same words and examples.

Students simply receive information about procedures and skills and do not have opportunities to practice procedures or skills relevant to the content area of the lesson. The teacher explicitly introduces procedures or skills, but does not present opportunities for students to practice new procedures and skills under supervision of the teacher with feedback regarding performance. For example, following the introduction of the steps to be used when graphing an equation, the teacher does not provide opportunities for students to practice, ask questions, and

receive feedback. Additionally, the teacher does not organize homework or in-class tasks that allow students to practice new procedures and skills independent of teacher monitoring or on-going feedback. For example, following the introduction to the steps to be used in graphing an equation, the teacher does not provide a way for students to demonstrate their facility with the new procedures or skills or expect that students will be able to solve math problems of this type without the opportunity for supervised practice. The observer should not make judgments about whether a teacher should or should not focus a lesson on procedures or skills, but rather only score this indicator as low if the teacher explicitly introduces procedures or skills and then fails to provide opportunities for practice. For example if the teacher tells students they will have a debate and then the debate begins, this indicator should not be scored. If, however, the teacher talks about what a debate is, providing specific guidance about the procedures and skill used in a debate but does not provide students an opportunity to practice, this indicator should be scored at the low end.

MID Content Understanding (3,4,5)

The focus of the class is sometimes on meaningful discussion and explanation of broad, organizing ideas and relevant procedural practice, while at other times it is focused on discrete bits of topically-related information. At the mid range, at times, the teacher focuses beyond the presentation and recall of discrete facts and bits of information to a deeper understanding of concepts and conceptual relationships, but at other times the teacher emphasizes more factual learning. The observer can expect to find a combination of focus; sometimes it will be on meaningful relationships among facts, concepts, and generalizations, but at other times it will be on isolated, discrete bits of information. The teacher makes some attempts for students to apply their thinking to real world events and situations, but sometimes these attempts may be weak or inappropriate. There are some meaningful class interactions that may incorporate multiple or varied perspectives, but they are not always clearly and appropriately related to the ideas under discussion. Sometimes the different perspectives may not contribute significantly to a greater depth of understanding for students, different perspectives may not be given equal weight, or the teacher may present one perspective as more correct than others. In the mid range a teacher may provide all the information without engaging students in a discussion of the content in a way that helps them understand the material at a deeper level.

Class discussion and materials communicate a few of the essential attributes of concepts/procedures, but examples are limited in scope or not consistently provided. In the mid range, the teacher occasionally presents the defining or essential components of concepts and procedures. At times, the teacher may explain when to apply the conceptual and procedural knowledge; the teacher may or may not explain the conditions for how or when the particular skills or concepts should be used. This teacher may sometimes present multiple positive examples of the content being discussed, including prototypical examples, and may sometimes use contrasting non-examples.

There are some attempts to elicit and/or acknowledge students' background knowledge or misconceptions or to integrate information with previously-learned material, but these moments are limited in depth or not consistently provided. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the mid range, the teacher sometimes attempts to discover and utilize the background knowledge of students and sometimes attempts to integrate it explicitly into new material, but at other times fails to do so. At times, the teacher may make only a vague reference to background knowledge that may not result in a more in-depth discussion or elaboration. The teacher sometimes looks for misconceptions and addresses areas of confusion or misinformation. At times, students share their knowledge and make connections in order to integrate the new experiences into their existing frameworks.

Content/procedural knowledge is sometimes effectively and accurately communicated to students; at other times, information is confusing and/or inaccurate. Generally, in the mid range, the teacher demonstrates sufficient knowledge of the material to support student learning at a level that meets the goals of the lesson, although the teacher's knowledge may not be sufficient to answer high level questions or to support high levels of student thinking and understanding. At times, the teacher provides clear and accurate definitions and conveys a sense of comfort and familiarity with the material that extends beyond the textbook; at other times, he is unable to sufficiently answer questions. The teacher sometimes provides effective clarifications and rephrasing in order to address student confusion and answer most student questions.

The teacher occasionally incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson. At times the teacher leads the class in guided practice with new procedures and skills, but does not do so consistently or effectively for all students. For instance, following introduction of the procedures used to edit their essays, the teacher may check for proper performance of some students and provide guidance when needed, but not all students are directly observed or provided performance feedback. The teacher organizes homework or in-class assignments to practice new procedures and skills, but feedback is nonexistent, late, or not tied to student performance. The teacher may not provide feedback to the students on their work, the feedback may come after the unit is completed, or the feedback may be on the accuracy of the content rather than on the students' implementation of the procedure/skill.

HIGH Content Understanding (6,7)

The focus of the class is on encouraging deep understanding of content through the provision of meaningful, interactive discussion and explanation of broad, organizing ideas. At the high end, the teacher consistently focuses beyond the presentation and recall of discrete facts and bits of information to an understanding of concepts and conceptual relationships at a broader level. Facts are used to support ideas and concepts, but they are not the focus nor the measure of a student's understanding; the emphasis is on the meaningful relationships among facts, concepts, and generalizations. The teacher consistently helps students apply their thinking to real world events and situations that make the concepts more meaningful. Through meaningful class interactions, the teacher regularly and effectively presents and probes multiple, varied perspectives and points of view as a way of enhancing and refining student understanding. Rather than expecting students to support the teacher's perspective, the teacher is primarily concerned with students being able to understand the different perspectives and to support/substantiate whatever position they choose. This information is conveyed through discussion so that students are meaningfully engaged in the content.

Class discussion and materials consistently and effectively communicate the essential attributes of concepts/procedures. At the high end, the teacher consistently presents the defining or essential components of concepts/procedures. Attention is also paid to the conditions for how and when particular skills and knowledge should be used. This teacher puts considerable emphasis on helping the students to define and refine their understanding by presenting multiple and varied examples and contrasting non-examples. In addition, examples and non-examples that are less obvious are also included to further enhance students' understanding. At the high end this is not simply a brief statement, but rather there is significant depth in coverage of essential attributes of concepts and/or procedures.

New concepts/broad ideas are consistently linked to students' prior knowledge in ways that advance understanding and clarify misconceptions. Learning is enhanced when new information is linked in a meaningful way to background knowledge. At the high end, the teacher consistently attempts to discover and utilize the background knowledge that students bring with them. She pays attention to students' prior knowledge and then explicitly integrates the new information within the students' existing knowledge and frameworks. The teacher capitalizes on the opportunity not only to identify what is known, but also to clarify misconceptions. The learning environment encourages students to share knowledge and make connections. At the high end the teacher does not simply make a single statement linking new and previous knowledge, but rather conveys the connections in ways that help students fully integrate new knowledge with previous learning.

Content/procedural knowledge is effectively and accurately communicated to students. The teacher exhibits familiarity with all aspects of the lesson content/procedural knowledge and an ease in handling the material. Clear and accurate definitions are provided. Information presented is specific and rich in terms of examples, details, and insights. The teacher's knowledge appears to extend beyond that which is needed for the lesson and can support student learning across a wide range including high level thinking skills and creative endeavors. The teacher can answer all levels of student questions and provide effective clarifications and rephrasing to address student confusion.

The teacher regularly incorporates opportunities for supervised or independent practice of procedures and skills relevant to the content area of the lesson. The teacher uses guided practice with all new procedures and skills and provides clear, performance-based feedback to all students as they practice these procedures/skills. The teacher provides homework or in-class

assignments that allow students to practice all new procedures and skills in a meaningful way. Feedback is timely and tied to student performance, but is not given until the students have completed the task independently. The procedural practice assists in building students' automaticity with procedures that they can solve more complex problems.

CONTENT UNDERSTANDING CLASSROOM EXAMPLES

Depth of understanding	**Low**	**High**
Emphasis on meaningful relationships among facts, skills, and concepts	The teacher has students look up and memorize dictionary definitions for their vocabulary words.	The teacher explains how climate change has affected animal migration patterns. During a health unit on diet, students explore how diet and exercise contribute to reduced rates of heart disease.
Real world connections	The teacher conducts a lesson on climate change, but does not make an attempt to have the students think about how climate change affects them or the world around them.	The teacher asks students how climate change is affecting the habitat of the local wildlife. During a lesson on measurement, the teacher asks students, "What do you buy at the grocery store that is sold in liter containers?"
Multiple and varied perspectives	During a lesson on the relationship between Native Americans and Europeans, the teacher only refers to the textbook.	The teacher shows students primary sources from Colonial politicians and Native American leaders. She then asks students if they agree or disagree with these different points of view.
Communication of concepts and procedures	**Low**	**High**
Essential components identified	The teacher asks students to peer-edit each other's personal stories without providing a rubric or instruction in how to edit.	In preparation for a trip to the art museum, the teacher talks about expressionist painting and the kinds of brush strokes, colors, and themes that characterize this genre of art.
Conditions for how and when to use the concept and/or procedure	During a unit on weather, the teacher shows the students a barometer but does not tell them why a meteorologist would use one.	When conducting a math lesson on the value of digits, the teacher explains how to express numbers in both the standard and the expanded form and explains when to use each form.
Multiple and varied examples	The teacher's lesson on sources of energy focuses primarily on electricity.	In addition to teaching about electricity and energy that comes from fossil fuels, the teacher also talks about solar energy, nuclear energy, wind, and geothermal energy.

Contrasting non-examples	When talking about healthy diets, the teacher only talks about healthy foods that students should eat and doesn't mention unhealthy foods that they should avoid.	In a lesson on cylinders, the teacher provides examples of everyday objects that are cylinders (soda and tennis ball cans) and things that are not (box drinks and yogurt containers) and then has students brainstorm more non-examples.
Background knowledge and misconceptions	**Low**	**High**
Attention to prior knowledge	When introducing the difference between prime and composite numbers, the teacher does not ask students if they know what either concept means.	Before teaching a lesson on extending numerical patterns, the teacher asks students what experience they have with patterns and how they identify the pattern in a series of shapes.
Explicit integration of new information	The teacher conducts a lesson on the Cenozoic era, but does not connect the new information to what the students have already learned about the Mesozoic era that preceded it.	The teacher helps the students understand how the Montgomery bus boycott fit into the broader context of the Civil Rights movement.
Attention to misconceptions	Several students indicate that they believe that pigs carry swine flu. The teacher lets this statement go by and does not clarify this misinformation.	As the students explain their answers for their homework, the teacher notices that the students have made a mistake in how to convert fractions into decimals. She stops checking homework to point out the correct way to convert a fraction to a decimal.
Students share knowledge and make connections	During a discussion about the terrain in the American Southwest, the teacher is the only person sharing knowledge in the classroom. Students do not raise their hands to share any of their own connections.	As students discuss different types of governments, a student shares that he notices a connection between a democracy and a republic. The teacher reinforces the connection.

Transmission of content knowledge and procedures	**Low**	**High**
Clear and accurate definitions	During a lesson on *convex* and *concave*, the teacher confuses the definitions and ends up giving the students inaccurate information.	The teacher clearly and accurately defines the terms *convex* and *concave* and gives students an example of each.
Effective clarifications	When students say they don't understand why the chemicals reacted the way they did, the teacher says, "Go back to your textbook and look it up."	When students say they don't understand why the chemicals create a certain reaction, the teacher leads a discussion of what they know about each of the chemicals and repeats the experiment while students ask questions of the teacher and one another.
Effective rephrasing	When students say they do not understand the material that the teacher presented, she presents the material again using the same words and examples.	Some students do not understand the meaning of the new vocabulary word *osmosis*. The teacher rephrases the definition as such, "In osmosis, the water moves from an area where there are many water molecules to the side membrane where there are not."
Opportunity for practice of procedures and skills	**Low**	**High**
Supervised practice	After teaching the students how to do a long division problem, the teacher does not provide an opportunity for students to practice the procedure with the teacher's guidance, ask questions, and receive feedback.	After teaching the students the steps for solving a long division problem, the teacher and students solve several problems together, with the teacher asking guided questions and offering hints.
Independent practice	After teaching the procedure for converting Fahrenheit into Celsius degrees, the teacher does not provide the students the chance to independently practice the skill.	After learning the procedure for converting Fahrenheit into Celsius degrees, the teacher gives students an in-class assignment in which they practice the procedure independently. The teacher provides feedback on the students' performances after they have completed the assignment independently.

Analysis and Inquiry

Analysis and Inquiry assesses the degree to which students are engaged in higher-level thinking skills through the application of knowledge and skills to novel and/or open-ended problems, tasks, and questions. Opportunities for engaging in metacognition, i.e., thinking about thinking, are also included.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Facilitation of Higher-Order Thinking • Students identify and investigate problems/ questions • Students examine, analyze, and/or interpret data, information, approaches, etc. • Students construct alternatives, predict, hypothesize, or brainstorm • Students develop arguments, provide explanations	Students do not meaningfully engage in higher-order thinking skills through analysis and inquiry.	Students occasionally engage in higher-order thinking through analysis and inquiry, but these episodes are brief or limited in depth.	Students consistently engage in extended opportunities to use higher-order thinking through analysis and inquiry.
Opportunities for novel application • Open-ended tasks • Presents cognitive challenges • Students apply previous knowledge/ skills	Instruction is presented in a rote manner with no opportunities for students to engage in novel or open-ended tasks. Students are not challenged to apply previous knowledge and skills to a new problem.	The teacher provides opportunities for students to apply knowledge and skills within familiar contexts and with teacher guidance available, but does not provide opportunities for analysis and problem-solving within novel contexts and/or without teacher support.	The teacher provides opportunities for students to independently solve or reason through novel and open-ended tasks requiring them to select and utilize or apply existing knowledge and skills.
Metacognition • Students explain their own cognitive processes • Student self-evaluate • Students reflect • Students plan • Teacher models thinking about thinking	Students are not encouraged to think about, evaluate, or reflect on their own learning or to plan their own learning experiences.	Students have occasional opportunities to think about their own thinking through explanations, self-evaluations, reflection, and planning; however these are typically brief and limited in depth.	Students have multiple, extended opportunities to think about their own thinking through explanations, self-evaluations, reflection, and planning.

LOW Analysis and Inquiry (1, 2)

Students do not meaningfully engage in higher-order thinking skills through analysis and inquiry. Students are not asked to identify and investigate problems or questions related to the content. Instead, the teacher provides all of the problems or questions that students are required to complete. There are few to no opportunities to examine, analyze, and/or interpret the relevant data, information, or approaches. Students are discouraged from thinking about alternative approaches/answers, or engaging in prediction, hypothesis, and/or brainstorming. Students are not given the chance to develop arguments or provide explanations for their approaches or answers. At the low end, teachers may provide all answers to questions presented in the classroom or only ask students to engage in tasks that require lower-level thinking skills, such as identification or memorization.

Instruction is presented in a rote manner with no opportunities for students to engage in novel or open-ended tasks. Students are not challenged to apply previous knowledge and skills to a new problem. At the low end of Analysis and Problem Solving, there is little to no focus on complex tasks, problems, and situations. Teachers do not present open-ended tasks for students to solve. Instructions in this classroom are presented in a rote manner and tasks require students to identify the one correct solution. These tasks do not provide sufficient challenges for students. They may be too easy for students, as observed by students moving on quickly from one problem to the next without appearing to stop and think. Students are given no opportunities to apply previous knowledge and skills to new problems. Material is presented in isolation, and the teacher does not elicit students' prior knowledge as a means of providing context for new problems.

Students are not encouraged to think about, evaluate, or reflect on their own learning or to plan their own learning experiences. Students are rarely asked to explain their own cognitive processes to peers and/or the teacher. If a student answers incorrectly, the teacher quickly moves on to a new student without asking the student to describe the process he/she went through to solve the problem. Students are not given the opportunity to evaluate their own work. If they are given this opportunity, it is presented in a rote manner, such as students simply checking their answers against the correct answers or checking their own answers while the teacher reads the correct ones. Students are discouraged from reflecting on their own developing thought processes. Students are not provided with opportunities to plan their own learning. Tasks are presented to the students by the teacher in an explicit manner and they are given no opportunities for input in the tasks or processes required to complete the tasks. There are few to no instances when the teacher models metacognition by "thinking out loud" to demonstrate the teacher's own thought processes.

MID Analysis and Inquiry (3, 4, 5)

Students occasionally engage in higher-order thinking through analysis and inquiry, but these episodes are brief or limited in depth. Students are asked to occasionally engage in a variety of cognitive-challenging activities, as observed by the students' level of thinking needed to solve the tasks. However, they are not asked to engage in these higher-order thinking skills consistently throughout the segment. This may include opportunities for students to solve problems that the teacher has identified for them. The teacher may present these challenging problems and questions and provide students with brief opportunities to examine, analyze, and/or interpret the relevant data, information, or approaches. The brief amount of time that students are given to solve these problems is observed to affect the level of depth that students are able to reach in their thought processes. Students are sometimes encouraged to spend time thinking about alternative approaches/answers or engage in prediction, hypothesis, and/or brainstorming, but this does not occur throughout the entirety of the segment. Students may be asked to develop arguments or provide explanations for their approaches or answers, but they are not given enough time to engage in tasks at a deep level. Alternatively, the arguments may be prescribed for them by the teacher, and the students asked to look for evidence to support their assigned positions. At the mid-level, teachers may ask challenging questions or present challenging problems to be solved, but they do not provide the structures and skills needed to help students work through these tasks.

The teacher provides opportunities for students to apply knowledge and skills within familiar contexts and with teacher guidance available, but does not provide opportunities for analysis and problem-solving within novel contexts and/or without teacher support. The teacher presents some open-ended tasks for students to solve, but these are brief or not well-integrated into the lesson. Open-ended tasks are tasks in which there is not a single correct answer or where a variety of answers are possible. At the mid-level, the teacher may present an open-ended task, but then explain how to complete it so explicitly that the students do not have the opportunity to think independently. Additionally, the teacher may provide brief opportunities for the students to engage in open-ended tasks, but this is not consistent throughout the lesson. At times, these tasks may provide sufficient challenges for students, but at other times students are observed to be working on tasks that do not require them to think through the material at a deeper level. The teacher provides opportunities for students to apply previous knowledge and skills within familiar contexts, but not to new problems or novel contexts. For example, the teacher may provide students with the chance to practice rounding to the nearest whole number by having students select items from a menu. Thus the teacher provides direct instruction on a set of knowledge and skills, but then does not ask students to take the time to think through how this knowledge and skill may help them solve a larger problem. At times, the teacher facilitates students' thinking through modeling problem solving, asking questions, and providing students with support. Rather than having students independently solve problems, the teacher may give the students so much guidance that they have limited opportunities to engage in the problem-solving tasks for extended periods of time.

Students have occasional opportunities to think about their own thinking through explanations, self-evaluations, reflection, and planning; however, these are typically brief and limited in depth. Students are occasionally asked to explain their own cognitive processes to peers and/or the teacher, but they are not asked to do this consistently or are not given sufficient time to do this at a deep level. Students may also be provided with some opportunities to evaluate their own work and thinking but the teacher does not explicitly focus on this task. At times, students may be encouraged to reflect on their developing thought processes, but are not encouraged to share them or are not given sufficient time to share. Students are provided with some opportunities to plan their own

learning. At the mid-level, the teacher does not make these planning efforts an explicit part of the instruction or does not allow students to execute their plans. These efforts may be completed via oral or written activities conducted by themselves, with peers, or directly with the teacher. The teacher may occasionally model metacognition by “thinking out loud” and, in effect, invite students to notice and study the teacher’s own thought processes. However, the teacher’s metacognition does not explicitly bring students’ attention to the mental processes that underlie the learning process.

HIGH Analysis and Inquiry (6, 7)

Students consistently engage in extended opportunities to use higher-order thinking through analysis and inquiry. As students are presented with novel and open-ended tasks, these tasks are organized to require students to engage in a variety of cognitively-challenging activities. This may include opportunities for students to identify and investigate problems or questions related to the content. Students may be presented with a scenario, text, or issue and be asked to articulate what the problem or questions of relevance are. Alternately, the teacher may present these challenging problems and questions and provide students with extended opportunities to examine, analyze, and/or interpret the relevant data, information, or approaches. Examples include lessons that ask students to compare and contrast, outline, examine relationships among ideas, or generate inferences. During this work, students may be encouraged to spend time thinking about alternative approaches/answers or engage in prediction, hypothesis, and/or brainstorming. Students may be asked to develop arguments or provide explanations for their approaches or answers. This may include lessons asking students to critique, defend, or justify ideas or concepts. At the high end it is important that students are not given the answers, but rather asked to engage in the higher-level thinking required to discover the answers and evaluate their solutions. Teachers set up instructional opportunities in ways that facilitate this level of thinking. At the high end teachers do not just ask challenging questions or present challenging problems to be solved; they also provide the structures and skills needed to help students work through these tasks.

The teacher provides opportunities for students to independently solve or reason through novel and open-ended tasks, requiring them to select and utilize or apply existing knowledge and skills. At the high end of Analysis and Problem Solving, there is a consistent focus on ways to deal with complex tasks, problems, and situations. Teachers present open-ended tasks for students to solve. Open-ended tasks are tasks in which there is not a single correct answer or where a variety of answers are possible. These tasks provide sufficient challenges such that students are observed to be wrestling with them, not simply thinking for one minute and then moving on to the next problem or question. Although at the high end students are encouraged to think through approaches to these tasks, the teacher consistently scaffolds the processes in ways that allow students to be successful. Students are asked to apply previous knowledge and skills to new problems. Thus the teacher may provide more direct instruction on a set of knowledge and skills, but then ask students to take the time to think through how this knowledge and skill may help them solve a larger problem. Teachers facilitate students' thinking through questions and support. At the high end teachers do not solve problems for students, but rather model the problem-solving process in ways that allow the students to develop and practice their own thinking skills.

Students have multiple extended opportunities to think about their own thinking through explanations, self-evaluations, reflection, and planning. Students are asked to explain their own cognitive processes to peers and/or the teacher. They may be encouraged to describe how they arrived at an answer or asked to articulate how they approached a given problem or task. Students are also provided with opportunities to evaluate their own work and thinking and the teacher explicitly focuses on this task and supports their efforts. At the high end this is not simply checking their answers against the correct answers, but rather engaging an explanation and defense of a particular solution, and a deeper evaluation of what they have (or have not) learned. Students are encouraged and expected to reflect on and share their developing thought processes. Students are provided with opportunities to plan their own learning and execute those plans. Thus, rather than being given a very explicit set of steps to go through to solve a problem, students may be reminded of the various approaches that could be used and then be asked to plan how they are going to approach the

problem. At the high end the teacher makes these planning efforts an explicit part of the instruction and helps students become more self-aware about their own planning capabilities. Opportunities for students to explain, evaluate, reflect and plan may be completed via oral or written activities conducted by themselves, with peers, or directly with the teacher. At the high end there may be instances when the teacher models metacognition by "thinking out loud" and, in effect, invites students to notice and study the teacher's own thought processes. The teacher presents the conceptual connections she expects students to go through in order to derive a particular solution. At the high end the teacher is explicitly bringing students' attention to the mental processes that underlie the learning process.

ANALYSIS AND INQUIRY
CLASSROOM EXAMPLES

Facilitation of Higher-Order Thinking	**Low**	**High**
Students identify and investigate problems/questions	When the students note that their lab experiment on photosynthesis did not work, the teacher says, "That's too bad."	Students make solar ovens from pizza boxes as a part of their study of energy. When one oven does not work, the teacher asks the team to identify what is not working.
Students examine, analyze, and/or interpret data, information, approaches, etc.	Students color in the appropriate level on their fluency graphs.	The teacher asks students to examine their fluency graphs to identify how they have changed over the last nine weeks. While examining a graph that shows fifth grade students' favorite lunches, the teacher asks students to draw conclusions and make recommendations to the cafeteria staff based on the results.
Students construct alternatives, predict, hypothesize, or brainstorm	The teacher has the students plant seeds in different mediums (e.g., sand, dirt, clay, water), but does not ask them to predict how the different mediums might affect plant growth.	The teacher asks students to hypothesize what will happen to polar bears if the melting of the polar ice caps continues at its current rate.
Students develop arguments, provide explanations	After a student provides his opinion about the main character, the teacher does not ask him to defend his opinion with evidence from the novel.	Students work in small groups to develop positions for debating whether television is a bad influence.
Opportunities for novel application	**Low**	**High**
Open-ended tasks	In an algebra class, students solve for the values of x and y in a set of problems.	The teacher asks students to create a model for *intelligence.*
Presents cognitive challenges	The teacher asks students to draw and label a map of the original 13 colonies.	The teacher asks students to develop a concept map, outlining the key issues that lead to the American Revolution.

Students apply previous knowledge/skills	Students listen to a debate between the two candidates who are running for governor, but do not discuss how this links to what they are learning about in Government.	During a lesson on ecosystems, the teacher has the students read an article on the dangers of global warming and asks the students to identify how global warming could affect the different ecosystems they have learned about.
Metacognition	**Low**	**High**
Students explain their own cognitive processes	In a fifth grade classroom, students are asked to create laws for an American colony. They are not asked to describe why they chose the laws that they did.	As a fifth grade student shares her observations about a classroom graph, the teacher pushes her to describe her thinking when making these observations.
Students self-evaluate	The teacher asks students to write their own autobiographies. Students turn them in for the teacher to grade.	The teacher asks the students to compare their essays to the sample essay in their text and think about how their responses are similar or different.
Students reflect	Students present their science fair projects, but are not asked to reflect on the processes used in designing their projects.	While students present their science fair projects, the teacher pushes each student to reflect on how they chose their topics and the processes they went through in designing their projects.
Students plan	When the students approach the teacher about doing a student newspaper, the teacher agrees, but then assigns different tasks to the students.	The teacher allows the students to plan the production of the student newspaper. The students plan what the initial steps are for the newspaper and divide up the tasks.
Teacher models “thinking about thinking”	When giving the students a writing assignment, the teacher says, “Just do your best. I know a good story when I see one.” The math teacher assigns several word problems and tells students that the problems are challenging.	”In this rubric I’ve shared with you my thinking about what creates a high-quality personal narrative story.” As the math teacher notices students struggling with a word problem, she says, “The first thing that I would do to solve this problem would be to look at what I know.”

Quality of Feedback

Quality of Feedback[14] assesses the degree to which feedback expands and extends learning and understanding and encourages student participation. In upper elementary classrooms, significant feedback may also be provided by peers. Regardless of the source, the focus here should be on the nature of the feedback provided and the extent to which it "pushes" learning.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Feedback loops • Back-and-forth exchanges • Persistence • Follow-up questions	Feedback in this classroom is non-existent or perfunctory.	There are occasional feedback loops between the teacher and students or among students, but at other times feedback is more perfunctory.	There are frequent feedback loops between the teacher and students or among students, which lead students to obtain a deeper understanding of material and concepts.
Scaffolding • Assistance • Hints • Prompting completion and thought processes	Students are not provided with assistance, hints, or prompting from the teacher or peers when participating in class work but are left to complete work without such assistance.	The teacher and/or peers sometimes scaffold student learning but these interactions are brief or not of sufficient depth to allow students to fully perform at a higher level.	The teacher and/or peers often scaffold student learning, allowing them to perform at a higher level than they would be able to perform independently.
Building on student responses • Expansion • Clarification • Specific feedback	The teacher and/or peers move on quickly after a student has provided an answer or presented work without building on student responses in a way that clarifies or extends learning.	The teacher and/or peers sometimes build on student responses to expand students' learning and understanding, but these exchanges are brief and/or limited in depth.	The teacher and/or peers often build on student responses in a way that expands students' understanding.
Encouragement and affirmation • Recognition and affirmation of effort • Encouragement of persistence	Students rarely receive encouragement or affirmation of their work or participation.	The teacher and other students occasionally offer encouragement of students' efforts that increases involvement and persistence, but these are brief or not consistently observed.	The teacher and other students often offer encouragement of students' efforts that increases involvement and persistence.

[14] Classes receive a 1 if no feedback is given. Feedback is generally observed in a teacher's response to a student's or students' contributions or as a student progresses on his work or involvement in a task. Content Understanding and Analysis and Inquiry, in contrast, refer more to the cognitive level(s) a teacher uses as she provides instruction or the expected levels of student responses.

LOW Quality of Feedback (1,2)

Feedback in this classroom is non-existent or perfunctory. Rather than engage students in back-and-forth exchanges, which serve to expand and extend their learning, this teacher gives perfunctory comments or no feedback about students' ideas or work. At the low end of Quality of Feedback, peer feedback may be absent or superficial. For example, when an essay is peer reviewed, there is either no feedback or the feedback provided is minimal ("It was okay," or "I agree.") and does not probe the author's thinking or provide constructive ideas for improvement. Teacher and student responses typically address only the surface quality of what the student has produced rather than probing the student's understanding. The teacher does not focus on pushing students to a deeper level of understanding. The teacher and students are not persistent in their feedback, and ask few or no follow-up questions that would facilitate a deeper understanding of the content. ***Note: Classrooms receive a (1) if no feedback is given.***

Students are not provided with assistance, hints, or prompting from the teacher or peers when participating in class work, but are left to complete work without such assistance. The teacher or peers rarely, if ever, provide students with assistance and hints that would help them perform academic tasks or refine their thinking. If a student is struggling to get an answer, the teacher simply moves on and gives the correct answer or asks another student. The teacher at the low end does not make efforts to work with individual students or groups to facilitate their understanding of concepts or procedures. There are few, if any, instances when the teacher uses prompting to help a student understand why a certain response is correct or incorrect. At the low end, students are rarely, if ever, prompted to explain their thinking.

The teacher and/or peers move on quickly after a student has provided an answer or presented work without building on student responses in a way that clarifies or extends learning. The teacher and/or peers do not expand on students' initial responses, providing little additional information or clarification. The teacher provides either no or very general feedback, such as "Good job," or "Nice work," rather than individualized and specific comments that might add additional knowledge and understanding for the student. When the teacher gives feedback, it is entirely focused on correctness. Typically, the teacher says, "Yes," "No," or "That's not right," before moving on. The teacher does not provide students with information about why their responses are incorrect or what it is about a response that makes it correct. Little to no attention is given to "push" learning, or to engage in exchanges that help students to process and understand at a deeper level.

Students rarely receive encouragement or affirmation of their work or participation. When responding, the teacher's primary concern is the correctness of the students' answers. The teacher infrequently, if ever, recognizes or affirms the effort put forward by the students. The teacher does not provide feedback that encourages persistence if the students are having difficulty with an activity or task.

MID Quality of Feedback (3,4,5)

There are occasional feedback loops between the teacher and students or among students, but at other times feedback is more perfunctory. In the mid range, the teacher's feedback may help students to expand and elaborate on their learning, but generally, these efforts are not sustained for long. There is evidence of at least preliminary feedback loops, the back-and-forth exchanges where a student's comment elicits a response from the teacher. At the mid range, in these exchanges the teacher provides additional information or examples to extend learning, but this may not elicit additional exchanges that push the student(s) to a deeper level of understanding. Occasionally, there may be feedback loops that are more fully developed (sustained teacher-student exchanges over several turns that push more learning), but these do not occur frequently. In the mid range, occasional peer feedback that focuses on extending or expanding understanding may be observed, but other peer feedback may only be perfunctory. In the case of both teacher and peer feedback, there is a mixed level of persistence – that is, sometimes the exchange is just one comment, and sometimes there is a more sustained interaction. Teachers and peers occasionally ask follow-up questions of one another to reach a deeper understanding of content.

The teacher and/or peers sometimes scaffold student learning but these interactions are brief or not of sufficient depth to allow students to fully perform at a higher level. In the mid range, the teacher sometimes uses students' incorrect or non-responses as an opportunity to scaffold learning by providing assistance or hints, or other cues that will lead students to success and understanding; at other times the teacher does not. The teacher may occasionally prompt the student(s) to help scaffold completion of a task by saying, for example, "What do you need to do first?" In response to student comments or actions, the teacher occasionally will ask *why* or *how* questions to prompt the student to explain his thinking; however, this does not occur frequently and is often only a very brief exchange. The teacher may ask the types of questions that allow students to explain what or why but then may move on before students have had sufficient time to respond. In the mid range, teachers may occasionally ask students to extend their responses or actions by saying, "Tell me a bit more," "Show me what you mean."

The teacher and/or peers sometimes build on student responses to expand students' learning and understanding, but these exchanges are brief and/or limited in depth. At times, the teacher or other students may expand on the students' initial response or action in ways that provide additional information or clarification. In the mid range, the teacher may occasionally give specific feedback that is individualized to specific students or contexts of learning. At other times, the teacher does not provide this more intensive feedback and simply tells students they are incorrect, or the teacher may simply give the students the answers. Sometimes the teacher appears to individualize the feedback to specific students or contexts of learning, but at other times the teacher relies on global statements such as "Nice work."

The teacher and other students occasionally offer encouragement of students' efforts that increases involvement and persistence, but these are brief or not consistently observed. Teachers in the mid range use a mix of process feedback (feedback that will increase understanding, personal improvement, effort, and/or persistence, or that will get students to try new strategies) and more perfunctory feedback. The teacher may occasionally provide feedback that recognizes and affirms students' efforts. At other times, however, the teacher's feedback fails to encourage the students' active involvement in the learning process and may simply be focused on correctness. When the teacher provides encouragement, the students may be observed to persist and work harder; when this encouragement is absent, the students may appear less motivated to complete tasks.

HIGH Quality of Feedback (6,7)

There are frequent feedback loops between the teacher and students or among students, which lead students to obtain a deeper understanding of material and concepts. There are multiple instances in which teachers and students engage in back-and-forth exchanges. In these exchanges a teacher or another student responds to an initial student comment by engaging with the student, or group of students, in a sustained effort to reach deeper understanding of the material and concepts. These feedback loops may also occur between peers, such as when an essay is peer reviewed and several reviewers specify what they like about the essay, provide constructive suggestions for the author, or provide the author with new ideas to think about or new ways to look at the same problem. In these instances, the teacher has set the stage for this valuable feedback and helps to facilitate the process in a way that helps both the author and peer reviewers. In the case of both teacher and peer feedback, to score at the high end, there should be notable persistence—that is, the exchange is more than one comment and is a sustained interaction. Teachers and students ask follow-up questions of one another to reach a deeper understanding of content.

The teacher and/or peers often scaffold student learning, allowing them to perform at a higher level than they would be able to perform independently. The teacher or peers consistently provide students with assistance and hints that help them perform academic tasks. A teacher may provide resources for a student and/or ask the student additional questions that will lead to an answer. There may also be prompting to help scaffold completion of a task such as, "What do you need to do first? Next?" When a student is struggling to get the correct answer, the teacher provides the student with the help needed, rather than simply moving on. In response to students' comments or actions, the teacher often asks questions such as, "How did you know that?" or "How did you figure that out?" "Why did you use that strategy?" These kinds of questions prompt the students to explain their thinking. This type of feedback, when teachers ask questions about why students are doing something or how they got to an answer, helps all students in the classroom because it focuses on the process of learning. Students may be asked to explain their thinking or extend their responses when they give a correct answer (in order to help the student and her peers understand how she arrived at the answer) or when they give an incorrect answer (as a way to help figure out why or how they made an error). Some ways that the teacher may ask students to extend their responses or actions are by saying, "Okay, tell me a bit more," "Show me what part of the text you used to arrive at your answer," or "Can you demonstrate what you mean?"

The teacher and/or peers often build on student responses in a way that expands students' understanding. The teacher or other students often expand on students' initial responses or actions in ways that provide additional information or clarification. At the high end, the teacher or peers consistently go beyond a global "Good job!" and frequently give very specific feedback that is individualized to specific students or contexts of learning.

The teacher and other students often offer encouragement of students' efforts that increases involvement and persistence. This teacher's primary concern when giving feedback is to increase understanding, personal improvement, effort, and/or persistence, or getting students to try new strategies. The teacher focuses attention on effort and explicitly recognizes students' efforts. If a student appears to be getting frustrated, the teacher encourages persistence by making statements such as "This is a hard one, but let's keep going; you are on the right track. You can do it." As a result of these interactions, students in this classroom are able to persist even when working on more difficult problems.

QUALITY OF FEEDBACK
CLASSROOM EXAMPLES

Feedback loops	Low	High
Back-and-forth exchanges	The teacher asks, "Do you think the main character is someone you would want to be friends with?" A student responds, "Yes, I would like to be his friend." The teacher moves on.	The teacher tells a student to include the author's name in her book report. Student: "Why do we have to put the author's name?" Teacher: "Who's your audience?" Student: "You are." Teacher: "Check the rubric. It says you have multiple audiences, even people who have not read the book." Student: "Everyone knows who wrote the book." Teacher: "It might seem that way to you because everyone in our class read the book, but not everyone has read it and they might like to know the author's name." Student: "I guess knowing his name would help someone who hasn't read the book."
Persistence	When a student can't remember the first step of the Order of Operations for an equation, the teacher says, "The first step is to solve what is in the parentheses. Try to remember that."	When a student responds incorrectly to a problem, the teacher continues to ask him questions until he demonstrates his understanding of the concept.
Follow-up questions	After the student responds to a question, the teacher says, "Good," and moves on to the next question.	A student shares that he thinks theft is a classroom problem. The teacher asks him, "What kinds of things are people stealing in our classroom?" After the student answers, "Pencils, paper, and markers," the teacher asks, "Why do you think they are stealing these materials?"

Scaffolding	**Low**	**High**
Assistance	The student asks the teacher if she has solved the equation correctly and the teacher says, “No. Try again.”	The teacher notices a student who is struggling and says to her, “Let’s go back and look at the relationship between the diameter and circumference of a circle.”
Hints	When a student says that she does not understand what a conjunction is, the teacher tells her to look it up.	“If you are having difficulty with this problem, remember that it is just like the ones we did yesterday.”
Prompting completion and thought processes	When a student provides an incorrect answer to a question, the teacher says, “No,” and gives the correct answer. After a student shares his answer to a problem, the teacher says, “That’s right,” and moves on to the next problem.	”What do you need to do first? Next?” A student responds that the precipitation would be snow. The teacher asks, “Can you explain why you think that?” “How did you get that answer?” “Tell us more…”
Building on student responses	**Low**	**High**
Expansion	“Perfect.”	“You are right, that poem is an example of free verse. That means that it does not have a regular meter or rhyme scheme.”
Clarification	When asked to identify the correct order of mathematical operations, a student says, “Exponents, parenthesis, multiplication, division, addition, and subtraction.” The teacher says, “That’s incorrect.”	When a student says that the Civil War was caused by slavery, the teacher responds that slavery was one of the issues, but that the differences between the industrialized North and the agrarian South also played a role in the war.

Specific feedback	"Definitely!" "That is exactly right." The teacher asks the class if anyone knows what a muckraker was. When Charlie says it was a farm worker the teacher says, "No," and then asks if anyone else knows the answer.	While students are debating the differences between socialism and capitalism, a student states that socialism is a government with a dictator in charge. The teacher responds, "Not necessarily. Remember when we said that capitalism is an economic system in which decisions are made and ownership is retained by individuals, while socialism is an economic system in which the government runs the economy and tries to spread the wealth equally."
Encouragement and affirmation	**Low**	**High**
Recognition and affirmation of effort	"That is the correct answer. Can someone tell me the answer to the next question?" After struggling to solve the equation, a student comes to show the teacher that he finally got it. The teacher says, "You still have four more left."	"That was so good, Sedra! That was an incredible explanation of how you solved that problem." "Those are some really great ideas. You're really cranking them out!"
Encouragement of persistence	The teacher sees that a group of students is working really hard on their project. She says, "This is taking a lot longer than it should. You should pick an easier topic next time."	"Figure it out. Don't give up. You can do it!" "This is a really tough topic you've picked. I am so impressed by how hard you are working. I can't wait to see the finished project!"

Instructional Dialogue

Instructional Dialogue captures the purposeful use of content-focused discussion among teachers and students that is cumulative, with the teacher supporting students to chain ideas together in ways that lead to deeper understanding of content. Students take an active role in these dialogues and both the teacher and students use strategies that facilitate extended dialogue.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Cumulative content-driven exchanges • Connection to content • Depth of exchanges • Exchanges that build on one another	There are no or few discussions in the class or discussions are unrelated to content or skill development or discussions contain only simply question-response exchanges between teacher and students.	There are occasional content-based discussions in class among teachers and students; however, they are brief or quickly move from one topic to another without follow-up questions or comments from the teacher and other students.	There are frequent, content-driven discussions in the class between teachers and students or among students that build depth of knowledge through cumulative, contingent exchanges.
Distributed talk • Student-initiated dialogues • Balance of teacher and student talk • Majority of students • Peer dialogues	The class is dominated by teacher talk or there is no discussion.	The class is mostly dominated by teacher talk, but there are times in which students take a more active role; or there are distributed dialogues that only involve a few students in the class.	Class dialogues are distributed such that both the teacher and the majority of students take an active role or students are actively engaged in instructional dialogues with each other.
Facilitation strategies • Open-ended questions and statements • Students respond • Acknowledgement/ repetition/extension • Pause as needed to allow thinking and full expression • Active listening	The teacher and students ask closed questions, rarely acknowledge, repeat or extend others' comments, and/or appear disinterested in others' comments. This results in many students not being engaged in instructional dialogues.	The teacher and students sometimes use facilitation strategies that encourage more elaborated dialogue (e.g. open-ended questions, repetition/extension, active listening), but they may be brief, inconsistent or ineffective at consistently engaging students in extended dialogues.	The teacher and students frequently use facilitation strategies that encourage more elaborated dialogue, such as open-ended questions, repetition/extension, and active listening, and students are observed to respond to these techniques by fully participating in extended dialogues.

LOW Instructional Dialogue (1,2)

There are no or few discussions in the class or discussions are unrelated to content or skill development or discussions contain only simply question-response exchanges between teacher and students. There are few dialogues between the teacher and students or among students or the conversations that occur are about non-instructional matters. Examples of classroom situations in which there are few to no dialogues are teacher lectures in which there is little to no teacher-student interaction, students working independently and silently, students reading aloud from a text or play, etc. In classrooms that are low in Instructional Dialogue, exchanges do not build upon one another. If students make comments, ask questions, or state observations, the teacher may briefly acknowledge or respond, but then moves on without building in any substantive way on their responses. Likewise, if the teacher makes a comment or asks a question, students provide minimal responses. This often occurs when one student responds to a teacher's question, the teacher gives feedback, and quickly moves on. This simple question-response exchange does not engage students in dialogue or further their understanding of material in any substantive way. If substantive back-and-forth exchanges do occur in this classroom, they are not connected to content, but rather may be social or behavioral conversations.

The class is dominated by teacher talk or there is no discussion. The teacher dominates conversations and fails to initiate questions and commentaries from students. Students do not answer the teacher's questions or answer with short, brief statements which are not elaborated on by the teacher or other students. The teacher does not make an effort for the students to express their ideas during whole group, small group, and individual work. The teacher appears disinterested in understanding how the students "see the world" and in getting them to express these thoughts. Students who respond to a question with other than the expected answer are dismissed; questions or comments that are not clearly related to the correct answer are ignored. Peers are not allowed or encouraged to talk to one another or peers converse about social or other non-instructional matters.

The teacher and students ask closed questions, rarely acknowledge, repeat or extend others' comments, and/or appear disinterested in others' comments. This results in many students not being engaged in instructional dialogues. The majority of teacher and student talk uses closed questions and statements. These are questions and statements that invite only brief, one or two-word answers, such as "What was the first state to join the Union after Reconstruction?" or "What is the formula for the Pythagorean Theorem?" At the low end the teacher may ask a few open-ended questions, but these questions and statements are not responded to, either because students just fail to answer or because the teacher quickly moves on without pausing to provide an opportunity to answer. The teacher and or peers dismiss student comments, and simply move on. The teacher and/or peers appear disinterested in what students have to say as indicated by not making eye contact with the person speaking, having side conversations, or having their heads down on desks.

MID Instructional Dialogue (3,4,5)

There are occasional content-based discussions in class among teachers and students; however, they are brief or quickly move from one topic to another without follow-up questions or comments from the teacher and other students. The class may be observed to have many conversations, but these move from topic to topic without providing enough time to engage in-depth on any one topic. In the mid-range, dialogue may be somewhat connected to content, but it may be somewhat tangential to the focus of the lesson. The teacher and students sometimes engage in dialogue that pushes students' understanding of the content, such as argumentation or speculative and exploratory talk, but at other times these dialogues lack depth (e.g., the teacher asks a question, follows-up on a student response with one or two more statements, and then moves on).

The class is mostly dominated by teacher talk, but there are times in which students take a more active role; or there are distributed dialogues that only involve a few students in the class. Teacher talk may predominate, but students do participate and are allowed to share their ideas or opinions at a minimal level or for short periods of time. The teacher sometimes encourages students to share their ideas or opinions, but at other times appears more interested in giving them the information. Student-initiated dialogues may occur, but they are brief and the teacher then begins to control conversation again. In the mid range there may also be a few students who engage in extended dialogues, with each other or with the teacher, but these dialogues are not representative of the majority of students in the class.

The teacher and students sometimes use facilitation strategies that encourage more elaborated dialogue (e.g. open-ended questions, repetition/extension, active listening), but they may be brief, inconsistent or ineffective at consistently engaging students in extended dialogues. The teacher or students sometimes ask questions that require the students to use more complex language in response; however, the majority of questions is closed-ended and requires only short responses from students. In the mid range there may be times when the teacher or students ask open-ended questions and engage in dialogue and other times when these questions are asked but the teacher moves on before they are discussed in any depth or students simply fail to respond. The teacher and/or fellow students sometimes acknowledge students' comments and repeat or extend these in ways that affirm their observations and/or recast the information in a more complex form, but at other times student questions and comments go unnoticed. The teacher may pause to allow some students to respond, but not others. Active listening is observed among some, but not a majority, of students. Active listening is indicated by making eye contact with the person speaking, leaning forward, nodding or shaking heads, and responding to comments and follow-up questions.

HIGH Instructional Dialogue (6,7)

There are frequent, content-driven discussions in the class between teachers and students or among students that build depth of knowledge through cumulative, contingent exchanges. There are many examples or an extended period of dialogic exchanges between the teacher and students or among students that build upon each other in a cumulative manner. During these dialogues there is a natural flow in the exchange of information that encourages students to converse and makes them feel as if they are valued conversational partners. Contingent responding is observed, such that teachers and students ask follow-up questions or make comments that reflect a building of the shared dialogue. At the high end these dialogues are meaningfully connected to content in such a way that they further students' understanding of instructional objectives. An extensive dialogue about behavior management or social activities (e.g., an upcoming soccer game) would not score in the high range unless these were integrated into the curricular material (e.g., discussion based on a social-emotional curricula focused on managing behavior appropriately). The teacher and students engage in extended dialogues that encourage students' depth of understanding of the content. Examples of these types of dialogue are argumentation or speculative and exploratory talk. Argumentation occurs when students debate different ideas/opinions about a concept; speculative and exploratory talk occurs when students brainstorm new perspectives for an idea or new solutions to a problem.

Class dialogues are distributed such that both the teacher and the majority of students take an active role or students are actively engaged in instructional dialogues with each other. A format for dialogue is present in the class that allows students to initiate questions and commentaries. There is balance of teacher and student talk with many opportunities for students to take active roles in the dialogue. It is possible that, in classes scoring in the high range, the teacher will set the tone for periods in which students should not be communicating and in which she is "in charge." For instance, the teacher may read from a text and explain to students that their job is to listen carefully during the reading so that they can converse about it later. Or, the teacher may temporarily ask students not to raise their hands and to hold their comments until she is finished talking. However, to receive a high score on this scale, these teacher-controlled periods should be relatively short and the teacher should then transition to a period in which she encourages more student talk. At the high end the majority of students are engaged in these dialogues. Students in these classrooms may also engage in extended conversations with one another. Students initiate conversations with their peers and seek one another out to discuss class assignments. A class in which the entire session is dominated by peer dialogue, with little teacher participation, may score at the high end assuming all other indicators are present at the high end. In such classes students have been socialized to use strategies that encourage meaningful dialogue connected to the instructional objective, not simply peer talk.

The teacher and students frequently use facilitation strategies that encourage more elaborated dialogue, such as open-ended questions, repetition/extension, and active listening, and students are observed to respond to these techniques by fully participating in extended dialogues. The majority of teacher and student talk uses open-ended questions and statements. These are questions and statements that invite more elaborate responses, such as "Tell me about…" or "Share your thinking with the group" or "I wonder why…" Often these are questions for which the answer is unknown, such as "What do you think?" or "How do you know?" Questions and statements may also have a known answer (e.g., "Tell me what is happening during this experiment."), but the important consideration for this dimension is that they require students to put together language to communicate more complex ideas. At the high end these questions and statements are responded to, rather than situations in which the teacher and/or initiating student simply moves on or answers the

question themselves. The teacher and/or fellow students acknowledge the students' comments and repeat or extend these in ways that affirm their observations and/or recast the information in a more complex form. At the high end the teacher may not follow up on every single student comment, but the majority of student comments are responded to in some way. The teacher and/or fellow students pause as needed to allow students time to think and fully express themselves. The teacher and students frequently engage in active listening as indicated by making eye contact with the person speaking, leaning forward, nodding or shaking heads, and other non-verbal listening cues.

INSTRUCTIONAL DIALOGUE
CLASSROOM EXAMPLES

Cumulative, content-driven exchanges	**Low**	**High**
Connection to content	The teacher and students are engrossed in a discussion about the upcoming fifth grade play. The teacher asks students to share what parts they are playing.	After the teacher introduces the Civil Rights period, the teacher and students engage in a discussion of how the lives of Blacks have changed in a short period of time.
Depth of exchanges	The teacher asks students to define each vocabulary word. After a student responds to each question, the teacher tells them they did a great job defining each vocabulary word.	After several students have shared their ideas about the causes of the Civil War, the teacher asks the students to break into small groups to discuss which cause they feel is the most important and why.
Exchanges that build on one another	The teacher pushes each student to explain how he/she arrived at his answer when checking the math test review (questions are all on separate topics).	The teacher and students engage in back-and-forth exchanges about the metric system's impact on the United States. Each exchange relates to the previous one and builds upon it.
Distributed talk	**Low**	**High**
Student-initiated dialogues	The teacher initiates a dialogue with a student about his/her science experiment by asking, "What do you observe about the salt in the water?" The student answers, "It dissolved." The teacher moves on to another student.	A student initiates a conversation in the classroom by bringing up the topic of food combinations that can be made in the lunchroom. The teacher asks students to brainstorm the food combinations and discuss which ones are the healthiest.
Balance of teacher and student talk	The classroom is dominated by the teacher talking—whether it be to explain the material, to give instructions, or to tell his/her own story. The teacher does not encourage students to share their ideas about why they empathized with the main character.	Students engage in an interactive discussion to create their own laws for the settlement of Jamestown. The teacher occasionally prompts students to think about the needs of the Jamestown community but the majority of the discussion is student-directed.

Majority of students	The teacher and one student engage in a short, animated discussion for the upcoming experiment. The rest of the students are not participating.	In a discussion about the conflict of a story, the majority of students offers their opinions and takes active roles in pinpointing the central conflict.
Peer dialogues	When introducing the topic of germs, the teacher lists multiple places in the school that students can contract germs. When students whisper to one another about germs, the teacher discourages this sharing of ideas.	Students work in pairs to discuss each step of the water cycle. The teacher moves around the room and monitors their discussions.
Facilitation strategies	**Low**	**High**
Open-ended questions and statements	During a unit on fractions, the teacher asks the students, "What part of this circle is highlighted?"	The teacher encourages students to look around the room and provide examples of objects that can be expressed in fractions.
Students respond	The teacher asks students, "What is your opinion of this character's actions during the second half of the story?" When no students raise their hands, the teacher moves on and states her own opinion.	In a discussion about a novel, the teacher asks students to share whether they think the ending was happy or not. Students actively respond and debate each other's opinions.
Acknowledgement/Repetition/ Extension	After a student responds that she didn't like the documentary about the Revolutionary period, the teacher ignores the student's comment.	One student says that she agrees with another student's hypothesis. The teacher acknowledges this and explains why this hypothesis is on the right track.
Pause as needed to allow thinking and full expression	When a student begins answering the teacher's question, he appears to struggle with wording his explanation. The teacher quickly interrupts, "What's your conclusion?"	When a student shares his explanation for how he arrived at his solution, the teacher gives him as much time as he needs to respond, and then asks the other students if they understand the explanation.
Active listening	While a student is presenting his science fair project, the teacher engages in a side conversation with another teacher who comes to the door.	The teacher and students show that they are actively listening to a student's presentation by making eye contact, asking follow up questions, and nodding their heads.

Student Engagement

Student Engagement is 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.

	Low (1,2)	Mid (3,4,5)	High (6,7)
Active engagement • Responding • Asking questions • Volunteering • Sharing ideas • Looking at the teacher • Active listening • Manipulating materials • Lack of off-task behavior	The majority of students appear distracted or disengaged.	Students are passively engaged, listening to, or watching the teacher; or there is a mix of student engagement with the majority of students actively engaged for part of the time and disengaged for rest of the time; or there is a mix of student engagement with some of the students actively engaged and some disengaged.	Most students are actively engaged in classroom discussions and activities.

LOW Student Engagement (1,2)

The majority of students appear distracted or disengaged. In classes with low Student Engagement, few, if any, students appear to be participating in class activities. There is a low level of response when the teacher asks questions or solicits their involvement in activities. In addition, there may be no or few students asking questions, volunteering information, sharing ideas, or manipulating materials. Many students appear to be either distracted or involved in off-task behaviors, such as wandering around or talking with peers about something other than the teacher's planned task/lesson. Students may be writing and passing notes to peers, using their cell phones, or doing work for another class. If the teacher is presenting a lesson, students are not paying attention to what he is saying or are not participating in the activity. Students who are supposed to be working independently or in groups are not engaged in the work they are intended to do. Low engagement levels are sustained over activities and lessons. Many students appear distracted or disengaged for extended periods throughout the lesson. The students do not appear interested in or involved in the activities that the teacher has planned or facilitated and/or group work and independent tasks.

MID Student Engagement (3,4,5)

Students are passively engaged, listening to, or watching the teacher, or; there is a mix of student engagement with the majority of students actively engaged for part of the time and disengaged for rest of the time, or; there is a mix of student engagement with some of the students actively engaged and some disengaged. At the mid range of Student Engagement, students appear to be listening but are not taking an active role by responding to questions or by asking their own questions. Students may periodically give responses to the teacher's questions and may periodically volunteer information, share ideas, or manipulate materials, but generally they are in a receptive rather than an active mode. Overall, most students appear to be on-task and to be doing what they are told, but they do not really appear interested in the task. Some students are engaged but others are engaged for only parts of the activity or lesson. Overall, there is a mix of the frequency of student engagement in the given time period. There may be times of more or less engagement among students, and some students may appear actively engaged at times while others may appear disengaged or passively engaged at times.

HIGH Student Engagement (6,7)

Most students are actively engaged in classroom discussions and activities. In classrooms at the high end of Student Engagement, students are full participants in the learning process and take full advantage of the opportunities that the teacher has provided for them. They are responding to questions, asking their own questions, volunteering information, sharing ideas, or manipulating materials. Overall, students appear to be on-task and focused on their class-related goals. High engagement is sustained throughout different activities and lessons. Most of the students demonstrate sustained engagement during the class period. There may be a short period of time when engagement is just passive, rather than active, but during the majority of the time, the students in this class appear interested in and involved in the activities that the teacher has planned or facilitated and/or in group work and independent tasks.

STUDENT ENGAGEMENT
CLASSROOM EXAMPLES

Active engagement	Low	High
Responding	Students do not readily respond to the teacher's questions. When she asks what they remember about igneous rocks, only one student volunteers an answer.	When the teacher asks for two students to come to the front of the room to act out a scene from *Julius Caesar*, most of the students raise their hands and several say, "Pick me!"
Asking questions	At the end of Annie's presentation on Ellis Island, no one has any questions about the topic.	During a discussion about *Sounder*, students ask a lot of questions about what life was like for slaves.
Volunteering	When the teacher says he needs a student to be responsible for counting the votes in the mock election, no one volunteers to do the job.	When the teacher asks for someone to come up to the board to demonstrate how to do a problem many students raise their hands.
Sharing ideas	The teacher tries to engage the students in a discussion of Frederick Douglass' memoir about his life as a slave, but the students sit quietly and stare at the teacher.	The teacher writes several common phrases on the board such as, "Necessity is the mother of invention," and "Rome wasn't built in a day," and asks the students to tell her what they think each phrase means. The majority of students raise their hands to share their ideas.
Looking at the teacher	Students rarely look at the teacher during the lesson.	Students consistently watch the teacher during the lesson.
Active listening	Students do not make eye contact, nod their heads, or orient themselves toward the teacher during the lesson.	During a student presentation, other students make eye contact, nod their heads, and orient their bodies toward the speaker.
Manipulating materials	The teacher uses a flashlight and a prism to demonstrate how light refracts, but does not give students the opportunity to try it themselves.	As they learn about the metric system, students enthusiastically use eyedroppers, tablespoons, turkey basters, and full cups to measure out different amounts of liquid.
Lack of off-task behavior	In a discussion about the American government system, one student is seen drawing on the inside of his desk while another one is whispering to her friend.	Throughout the lesson on plant growth, all students are on-task, evidenced by students listening to the teacher and being able to answer teacher and peers' questions readily.