Crosswalk of the Classroom Assessment Scoring System (CLASS®) and Connect4Learning® (C4LTM) The Pre-K Curriculum





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CHILD: Teacher Carol, that worm is scary. I don't want to touch it.

TEACHER: Worms can surprise and startle us sometimes. Would you like me to hold your hand while we watch it crawl in the soil? (*Child holds teacher's hand*.) Have you ever seen a worm in your yard?

CHILD: My uncle has a jar of worms for fishing. I don't like to touch them.

TEACHER: It's okay if we just watch them together. I wonder how we could find out more about worms.

CHILD: We could look in the earthworm book.

TEACHER: Great idea! When we get back to the classroom, let's look in our earthworm book and see what we can find out. Would you like to hold my phone so we can take a picture?

Classroom Assessment Scoring System

Teachers and children interact moment to moment as they experience planned activities, spontaneous teachable interactions, and everyday routines. Research indicates that the quality of these interactions makes a difference for children's social, emotional, behavioral, and intellectual skills (Hamre and Pianta, 2001). The teacher in the example above listens, comforts, questions, and engages this child in wondering, researching, and taking action. The *Classroom Assessment Scoring System* (CLASS) measures these and other intentional interactions that link to children's social-emotional, self-regulatory, and academic outcomes (Mashburn et al., 2008). The CLASS is a classroom-based assessment tool used in thousands of classrooms around the country.

The ten CLASS dimensions are based solely on interactions; so, they do not include structural components such as materials, curriculum, or classroom arrangement (Pianta et al., 2008). Rather than relying on any specific curriculum, for example, the CLASS looks at how teachers use the curriculum and how children experience the materials or activities. Emerging research indicates the potential for a complementary relationship between curriculum and interactions, particularly when the curriculum is accompanied by professional development that supports teachers' implementation and teaching strategies (Barker, 2015; Yoshikawa et al., 2013; Weiland et al., 2013).

Connect4Learning®

Connect4Learning® (C4L™) is a curriculum that integrates math, science, literacy, and social-emotional experiences in early childhood classrooms through a balance of child-centered and teacher-facilitated instruction. C4L™ uses project-based learning and includes high-interest learning centers that support and extend children's growing understandings in mathematics, science, literacy, and social-emotional domains. When implemented with integrity, the philosophy and specific processes in C4L™ have the capacity to support best teaching practices that include high-quality teacher-child interactions.

Purpose of This Resource

The purpose of this resource is to identify alignment between interactions measured in ten CLASS dimensions and the organization and experiences identified in $C4L^{\text{\tiny M}}$. This crosswalk includes the CLASS dimensions that contribute to the social-emotional, behavioral, and academic outcomes of young children. In particular, it highlights interactions from the Instructional Support domain, because those are the weakest in the national data collected in Head Start classrooms. (Note: To review the data from the use of CLASS in Head Start classrooms, see https://eclkc.ohs.acf.hhs.gov/hslc/data/class-reports.)

Definitions

The CLASS is organized into three domains: Emotional Support, Classroom Organization, and Instructional Support. Each of the domains is further divided into dimensions that offer particular contributions to children's social-emotional, behavioral, thinking, and language growth. Table 1 includes a definition of each of the dimensions and indicators taken from the CLASS pre-K manual (Pianta et. al., 2008).

Table 1: CLASS Domains and Dimensions with Definitions and Indicators

Domain: Emotional Support			
Dimensions	Definitions	Indicators	
Positive Climate	Reflects the emotional connection between the teacher and students and among students, and the warmth, respect, and enjoyment communicated by verbal and nonverbal interactions	RelationshipsPositive affectPositive communicationRespect	
Negative Climate	Reflects the overall level of expressed negativity in the classroom; the frequency, quality, and intensity of teacher and peer negativity are keys to this scale	Negative affectPunitive controlSarcasm and disrespectSevere negativity	
Teacher Sensitivity	Encompasses the teacher's awareness of and responsiveness to students' academic and emotional needs; high levels of sensitivity facilitate students' abilities to actively explore and learn because the teacher consistently provides comfort, reassurance, and encouragement	 Awareness Responsiveness Addresses problems Student comfort 	
Regard for Student Perspective	Captures the degree to which classroom activities and the teacher's interactions with students emphasize students' interests, motivations, and points of view and encourage student responsibility and autonomy	 Flexibility and student focus Support for autonomy and leadership Student expression Restriction of movement 	
Domain: Classroom Organization			
Behavior Management	Encompasses the teacher's ability to provide clear behavioral expectations and use effective methods to prevent and redirect misbehavior	 Clear behavior expectations Proactive Redirection of misbehavior Student behavior 	

Productivity	Considers how well the teacher manages instructional time and routines and provides activities for students so they have opportunities to be involved in learning activities	Maximizing learning timeRoutinesTransitionsPreparation
Instructional Learning Formats	Focuses on the ways in which the teacher maximizes students' interests, engagement, and ability to learn from lessons and activities	 Effective facilitation Variety of modalities and materials Student interest Clarity of learning objectives
Domain: Instruct	cional Support	
Concept Development	Measures the teacher's use of instructional discussions and activities to promote students' higher-order thinking skills and cognition; measures the teacher's focus on understanding rather than on rote instruction	 Analysis and reasoning Creating Integration Connections to the real world
Quality of Feedback	Assesses the degree to which the teacher provides feedback that expands learning and understanding and encourages continued participation	 Scaffolding Feedback loops Prompting thought processes Providing information Encouragement and affirmation
Language Modeling	Captures the quality and amount of the teacher's use of language-stimulation and language-facilitation techniques	 Frequent conversation Open-ended questions Repetition and extension Self- and parallel talk Advanced language

Organization

The C4LTM/CLASS crosswalk is divided into three tables that show connections between the CLASS and C4LTM by distinct organizing principles. While the tables reference nearly all of the ten CLASS dimensions, emphasis is placed on the three dimensions found in Instructional Support:

- 1. C4L[™] core thinking processes and CLASS dimensions and indicators
- 2. C4L™ daily lessons and routines and CLASS dimensions and indicators
- 3. Specific examples from C4L™ units and CLASS dimensions and indicators

C4LTM identifies ten core thinking processes that are both domain specific and applicable across all four learning domains. The C4LTM layout uses "C4LTM Processes" text boxes alongside the lesson text, thus making the thinking opportunity visible and practical. Table 2 identifies linkages between the C4LTM thinking processes and CLASS dimensions and indicators. While C4LTM includes many examples across all units, table 2 includes examples from Unit 1 (unless otherwise indicated) that serve as sample illustrations.

Table 2: C4L™ Core Thinking Processes and the CLASS

C4L™ Thinking Processes	CLASS Dimensions	CLASS Indicators	Examples
Communicating and Representing	Positive climateConcept developmentLanguage modeling	 Relationships (social conversation) Creating (producing) Conversation 	Think, pair, and share
Cooperating	Positive climateInstructional learning formats	 Relationships Multiple modalities (hands-on) 	Partner play, such as naming the number of arms or noses each pair has
Comparing and Classifying	Concept development	Analysis and reasoning	Similarities and differences in names
Creating, Imagining, and Innovating	 Regard for student perspective Concept development Quality of feedback* Language modeling *Note: Quality of feedback (QF) is in response to what a child is doing, so it happens in the moment. C4L™ supports QF by identifying opportunities that may occur or places where children might be confused. 	 Flexibility and student focus Student expression Creating (brainstorming, planning, and producing) Prompting thought processes Open-ended questions 	 Asking, "How do you know?" Creating something new from recycled items (Unit 2): "Allow them to create as they wish, providing support as needed For example, 'Jamal, you said you want to make a bird's nest. What shape is the nest you are making? Is there anything here that is shaped sort of like a bird's nest?'"

Curiosity	 Regard for student perspective Concept development Quality of feedback Language modeling 	 Flexibility and student focus Student expression Analysis and reasoning Connections to real world Prompting thought processes Open-ended questions 	Creating something new from recycled items (Unit 2): "As you read, stop at different points and model asking questions about the text 'I wonder— what do these levers do?'" "Does anybody remember something that can be made from old things?" "This [activity] could cause some children to become a little frustrated, but by overcoming this challenge, children are practicing persistence." "Ask the children to think about what they would like to create."
Observation	 Instructional learning formats Concept development Language modeling 	 Multiple modalities Analysis and reasoning Conversation Open-ended questions Advanced language 	Snack Time: Focus on Observation and Prediction (Unit 1) Children explore and describe; teacher stops to ask questions about what children see, hear, and predict (predictive text read aloud); intentional use of vocabulary across multiple lessons

Persisting, Attending, and Self-Regulation	 Positive behavior Behavior management Instructional learning formats Quality of feedback 	 Relationships (cooperation) Student behavior Clarity of learning objectives Scaffolding 	Small Group: Friendship Skill: Give a Toy (Unit 1) Children learn self- regulation. Meet Our Class book: Children learn maintaining focus; teachers support children in writing names
Reasoning and Problem Solving	Concept development	Analysis and reasoning	Small Group explorations of the Solution Suitcase (Unit 2) Teacher provides a problem scenario. "Have [the children] identify the problem and think of solutions, referring to the solution cards on the table. Evaluate suggested solutions by asking follow-up questions: 'Would it be safe?' 'How would she feel?' 'Do you need a teacher for this problem, or could you try a solution on your own?'"
Making Sense	Concept development	IntegrationConnections to the real world	Learning form and function—why animals and items move the way they do because of how they are formed
Using Tools Strategically	Instructional learning formatsConcept development	Clarity of learning objectivesCreating (planning/ producing)	Choosing the best measurement tool for the task at hand

The $C4L^{\text{\tiny TM}}$ lessons include a predictable sequence of routines, which use explicit questions, facilitation suggestions, or specific activities. These routines provide opportunities to align with interactions measured in the CLASS. All of the units include multiple examples that fit particular routines. Table 3 identifies examples from Unit 1 as an illustration.

Table 3: C4L™ Daily Lessons and the CLASS

C4L™ Routines	CLASS Dimensions	CLASS Indicators	Examples of Activities
Welcome and Read-Aloud: The daily read-aloud includes thoughtful questions, intentional vocabulary, and integration with children's prior experiences and knowledge. Intentional integration with prior lessons is explicitly noted.	 Behavior management Productivity Concept development Language modeling Quality of feedback 	 Clear expectations Routines Connections to real world Conversation Creating Encouragement and affirmation 	Identify/learn classroom rules: Uses Otto Goes to School by Todd Parr to discuss routines; uses Pete the Cat: I Love My White Shoes by Eric Litwin to introduce children to think, pair, and share. In this lesson the question is about something they have stepped in or have gotten on their shoes. Children brainstorm ideas of what would turn shoes a specific color: "If Pete wanted green shoes, what could he step in to turn them green?" Teachers give positive descriptive feedback about the children sharing with their peers: "I love how you shared ideas with each other today!" or "You were really listening to your partner."
Connect: Connect lessons include social, language, and topic connections (including connections to prior lessons).	 Productivity Positive climate Instructional learning formats Concept development 	 Routines Relationships Multiple modalities Integration 	"Expectations Review and Friendship Wiggle" helps children understand about friendly touches. "I Spy New Friends": Children pass a ball while counting how many children are present; includes explicit connections to prior lessons.

Small Group: Three to five children work with a teacher toward deeper exploration and lesson extensions.	 Positive climate Teacher sensitivity Concept development Quality of feedback Language modeling 	 Relationships Opportunities to use feeling words 	Children spend time in Small Group to learn and talk about friendship skills and what it means to be a friend.
Centers	(See table 4.)		
Fast Focus: A short (5–10 minute) lesson that reinforces the lesson plan and/ or teaches specific early literacy skills; can also be used as a transition activity.	 Instructional learning formats Concept development Productivity 	 Multiple modalities Integration Transition 	Uses songs, fingerplays, chants, and movement; reviews lesson; learning activities embedded within transitions

The $C4L^{\text{\tiny M}}$ high-interest learning centers support and extend children's learning across math, science, literacy, and social-emotional domains; promote mature, intentional play; and provide opportunities for teachers to scaffold language, cooperation, and self-regulation. All of the units include multiple examples in centers that offer opportunities to align with CLASS interactions. Table 4 identifies examples from Unit 1 as an illustration.

Table 4: C4LTM Centers and the CLASS

C4L™ Centers	CLASS Dimensions	CLASS Indicators	Examples
Art Center	 Concept development Positive climate Instructional learning formats 	 Analysis and reasoning Creating Relationships Multiple modalities Student engagement 	Activities encourage exploration, vocabulary development, and collaboration. Compare chalk painting in a puddle and on a dry sidewalk; brainstorm/ produce character masks to act out a story; create a favorite things classroom collage; fingerpainting
Book Nook	 Regard for student perspective Instructional learning formats Concept development Quality of feedback Language modeling 	 Support for autonomy and leadership Multiple modalities Creating (brainstorming) Scaffolding Prompting thought processes Conversation 	Children make library cards and use them to check out books. "Picture Walk with Your Senses": Children describe what they would experience if they were in a book. The teacher may need to demonstrate a picture walk: "What do you think this would smell like?" "Puppet Storytelling": Children use puppets to retell stories.
Computer Center	 Positive climate Regard for student perspective Quality of feedback 	 Cooperation Support for autonomy and leadership Scaffolding 	Peer assistance is encouraged. Children have opportunities for independent work. Computer games provide feedback and level of play is determined by child's ability.

Construction Zone	Concept development	 Analysis and reasoning Creating Connections to real world 	Children figure out own sorting categories; plan and build a road, bridges, fences, and so on; discuss differences. Photos of bridges and fences promote connections to real world.
Dramatic Play	Concept developmentLanguage modeling	 Integration Connection to real world Creating Conversation 	Opportunities for school play and props, home play and props. Children can plan/put on play of a story.
Exploration Station	 Instructional learning formats Concept development Language modeling 	 Multiple modalities Integration Conversation Open-ended questions Advanced language 	Children explore both new materials and materials introduced in Small Group. Children are asked to describe. Provides new vocabulary
Games and Puzzles	Positive climateConcept developmentLanguage modeling	RelationshipsAnalysis and reasoningConversation	Shared games with teachers; What's Missing? game
Listening Center	Positive climateLanguage modeling	RelationshipsConversation	Children can record messages to each other and can record stories.
Show What You Know	 Positive climate Regard for student perspective Instructional learning formats Concept development 	 Relationships Autonomy and independence Clarity of learning objectives Creating 	Children can measure each other's heights, make signs for the classroom, use materials to represent learning, choose materials to identify centers, and create labels.

Writing Center • Teacher sensitivity • Regard for student perspective • Instructional learning formats	 Awareness Autonomy and independence Multiple modalities 	Teachers notice children who need more support in writing. Children cut paper pieces to use in a sensory table; copy a line and cut it out.
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Other Examples of Explicit Links between C4LTM and CLASS Interactions

C4L™ supports and references adult-child interactions throughout the structure and layout of the curriculum. Following are several other ways that C4L™ includes explicit language that can support CLASS interactions. Keep in mind that, while explicit references identify and promote quality adult-child interactions, the actual practice is up to the teacher.

- Each C4L™ unit contains intentional vocabulary that teachers are encouraged to introduce and continue using. (CLASS Language Modeling: Advanced language)
- C4L™ units and lessons include explicit connections to prior lessons, vocabulary, and children's prior experiences and/ or understanding. (CLASS Concept Development: Integration: Connection to the real world; Language Modeling: Advanced language)
- C4L™ lessons are written to encourage creativity and flexibility and to allow teachers to make adjustments as needed that will benefit and enhance the children's learning. (CLASS Regard for Student Perspective: Flexibility and student focus)
- C4L[™] promotes the use of high-interest learning centers to support and extend children's growing understandings in social-emotional skills, science, literacy, and mathematics. (CLASS Instructional Learning Formats: Student engagement; Extend learning: Quality of feedback; Language Modeling)
- The C4L™ philosophy of using play as a context for social-emotional and executive-function learning states, "Through this lens, teachers participate by scaffolding language, cooperation, and self-regulation, and teaching children to use specific tools, such as role-play, that assist them in taking control over their behaviors" (Sarama et al., 2016, p. 37). (CLASS Positive Climate: Relationships; Behavior Management: Student behavior; Concept Development: Problem solving)
- The C4L™ daily lessons include frequent text sidebars and specific wording or ideas that explicitly link teacher-child interactions. These include specific wording for questions that elicit children's ideas and promote thought, problem solving, planning, and open-ended delivery. The specific nature of the wording can support Concept Development (analysis and reasoning: how and why questions, predicting), Quality Feedback (prompting thought processes), and Language Modeling (open-ended questions).

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