The Core Six: Essential Strategies for Achieving Excellence with the Common Core

2014 SUMMER INSTITUTE
“THE CIRCLE OF KNOWLEDGE”

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To provide teachers with research based strategies that will assist in planning and facilitating student led discussions that increase student engagement and critical thinking.
Circle of Knowledge is a strategic framework for planning and conducting classroom discussions that engage all students in deeper thinking and thoughtful communication.

The strategy helps build the following Common Core skills:
• Speaking and Listening
• Integrating and evaluating information
• Collaborating with peers
Reasons for Using Circle of Knowledge

- Receive a rating of 4 on the Compass Evaluation Rubric
- Facilitate discussions that build collaborative and interpersonal skills
- Effectively incorporate Speaking and Listening, as prescribed in CCSS
- Can be implemented at either of the mindful teaching phases
- Can ensure successful integration of the arts
## Domain 3: Instruction

### Component 3b: Using Questioning and Discussion Techniques

Questioning and discussion are the only instructional strategies specifically referred to in the framework for teaching; this reflects their central importance to teachers' practice. But in the framework, it is important that questioning and discussion are used as techniques to deepen student understanding, rather than serving as recitation, or a verbal "quiz." Good teachers use divergent as well as convergent questions, framed in such a way that they invite students to formulate hypotheses, make connections, or challenge previously held views. Students' responses to questions are valued; effective teachers are especially adept at responding to and building on student responses and making use of their ideas. High quality questions encourage students to make connections among concepts or events previously believed to be unrelated, and arrive at new understandings of complex material. Effective teachers also pose questions for which they do not know the answers. Even when a question has a limited number of correct responses, the question, being non-formulaic, is likely to promote thinking by students. Class discussions are animated, engaging all students in important issues and in using their own language to deepen and extend their understanding. They may be based around questions formulated by the students themselves.

Not all questions must be at a high cognitive level in order for a teacher's performance to be rated at a high level; that is, when exploring a topic, a teacher might begin with a series of questions of low cognitive challenge to provide a review, or to ensure that everyone in the class is "on board." Furthermore, if questions are at a high level, but only a few students participate in the discussion, the teacher's performance on the component cannot be judged to be at a high level. In addition, in lessons involving students in small-group work, the quality of the students' questions and discussion in their small groups may be considered as part of this component.

In order for students to formulate high-level questions, they must have learned how to do this. Therefore, high-level questions from students, either in the full class, or in small group discussions, provide evidence that these skills have been taught.

### Elements of Component 3b:

- **Quality of questions/prompts:** Questions of high quality cause students to think and reflect, to deepen their understanding, and to test their ideas against those of their classmates. When teachers ask questions of high quality, they ask only a few of them, and they provide students with sufficient time to think about their response, to reflect on the comments of their classmates, and to deepen their understanding. Occasionally, for the purposes of review, teachers ask students a series of (usually low-level) questions in a type of verbal quiz. This may be helpful for the purpose of establishing the facts of an historical event, for example, but they should not be confused with the use of questioning to deepen students' understanding.

- **Discussion techniques:** Effective teachers promote learning through discussion. Some teachers report that "we discussed x" when what they mean is that "I said x." That is, some teachers confuse discussion with explanation of content; as important as that is, it's not discussion. Rather, in a true discussion, a teacher poses a question, and invites all students' views to be heard, and enabling students to engage in discussion directly with one another, not always mediated by the teacher.

- **Student participation:** In some classes a few students tend to dominate the discussion, other students, recognizing this pattern, hold back their contributions. Teacher uses a range of techniques to ensure that all students contribute to the discussion, and enlist the assistance of students to ensure this outcome.

### Indicators include:

- Questions of high cognitive challenge, formulated by both students and teacher
- Questions with multiple correct answers, or multiple approaches even when there is a single correct response
- Effective use of student responses and ideas
- Discussion with the teacher stepping out of the central, mediating role
- High levels of student participation in discussion
<table>
<thead>
<tr>
<th>3b: Using questioning/prompts and discussion</th>
<th>Ineffective</th>
<th>Effective: Emerging</th>
<th>Effective: Proficient</th>
<th>Highly Effective</th>
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<tbody>
<tr>
<td>Teacher’s questions are of low cognitive challenge, single correct responses, and asked in rapid succession. Interaction between teacher and students is predominantly recitation style, with the teacher mediating all questions and answers. A few students dominate the discussion.</td>
<td>Teacher’s questions lead students through a single path of inquiry, with answers seemingly determined in advance. Alternatively, the teacher attempts to frame some questions designed to promote student thinking and understanding, but only a few students are involved. Teacher attempts to engage all students in the discussion and to encourage them to respond to one another, with uneven results.</td>
<td>While the teacher may use some low-level questions, he or she poses questions to students designed to promote student thinking and understanding. Teacher creates a genuine discussion among students, providing adequate time for students to respond, and stepping aside when appropriate. Teacher successfully engages most students in the discussion, employing a range of strategies to ensure that most students are heard.</td>
<td>Teacher uses a variety of series of questions or prompts to challenge students cognitively, advance high level thinking and discourse, and promote meta-cognition. Students formulate many questions, initiate topics and make unsolicited contributions. Students themselves ensure that all voices are heard in the discussion.</td>
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**Critical Attributes**

- Questions are rapid-fire, and convergent, with a single correct answer.
- Questions do not invite student thinking.
- All discussion is between teacher and students; students are not invited to speak directly to one another.
- A few students dominate the discussion.

- Teacher frames some questions designed to promote student thinking, but only a few students are involved.
- The teacher invites students to respond directly to one another’s ideas, but few students respond.
- Teacher calls on many students, but only a small number actually participate in the discussion.

- Teacher uses open-ended questions, inviting students to think and/or have multiple possible answers.
- The teacher makes effective use of wait time.
- The teacher builds on uses student responses to questions effectively.
- Discussions enable students to talk to one another, without ongoing mediation by the teacher.
- The teacher calls on most students, even those who don’t initially volunteer.
- Many students actively engage in the discussion.

- In addition to the characteristics of “proficient,”
  - Students initiate higher-order questions.
  - Students extend the discussion, enriching it.
  - Students invite comments from their classmates during a discussion.
Bloom’s Taxonomy Question Stems

Knowledge
• What happened after . . .?
• How many . . .?
• Who was it that . . .?
• Can you name the . . .?
• Described what happened at . . .?
• Who spoke to . . .?
• Can you tell why . . .?
• Find the meaning of . . .?
• What is . . .?
• Which is true or false . . .?

Comprehension
• Can you write in your own words . . .?
• Can you write a brief outline . . .?
• What do you think might happen next . . .?
• Who do you think . . .?
• What was the main idea . . .?
• Who was the key character . . .?
• Can you distinguish between . . .?
• What differences exist between . . .?
• Can you provide an example of what you mean . . .?
• Can you provide a definition for . . .?

Application
• Do you know another instance where . . .?
• Could this have happened in . . .?
• Can you group by characteristics such as . . .?
• What factors would you change if . . .?
• Can you apply the method used to some experience of your own . . .?
• What questions would you ask of . . .?
• From the information given, can you develop a set of instructions about . . .?
• Would this information be useful if you had a . . .?
Analysis
- Which events could have happened...
- If... happened, what might the ending have been?
- How was this similar to...?
- What was the underlying theme of...?
- What do you see as other possible outcomes?
- Why did... changes occur?
- Can you compare your... with that presented in...?
- Can you explain what must have happened when...?
- How is... similar to...?
- What are some of the problems of...?
- Can you distinguish between...?
- What were some of the motives behind...?
- What was the turning point in the game...?
- What was the problem with...?

Synthesis
- Can you design a... to...?
- Why not compose a song about...?
- Can you see a possible solution to...?
- If you had access to all resources how would you deal with...?
- Why don’t you devise your own way to deal with...?
- What would happen if...?
- How many ways can you...?
- Can you create new and unusual uses for...?
- Can you write a new recipe for a tasty dish?
- Can you develop a proposal which would...?

Evaluation
- Is there a better solution to...?
- Judge the value of...?
- Can you defend your position about...?
- Do you think... is a good or a bad thing?
- How would you have handled...?
- What changes to... would you recommend?
- Are you a... person?
- How would you feel if...?
Students discuss with each other using the following language:

- Excuse me...
- I’d like to add...
- I disagree because...
- I agree because...
- I don’t understand what you mean by...
- I’m confused by...
- I’d like to expand on that...
- Please explain a little more about that...
Three Reasons for Using Circle of Knowledge to Address the CCSS

1. Effective oral communication
2. Speaking and Listening
   - Participate effectively...building on others’ ideas (SL.CCR.1)
   - Integrate and evaluate information (SL.CCR.2)
   - Evaluate a speaker’s point of view, reasoning and use of evidence (SL.CCR.3)
3. Discussions build collaborative and interpersonal skills
   - Cultural Diversity where student learn and work together
   - Students may work in small or large groups
   - Teacher gradually gives students more responsibility – hence “student led”
**QSPACE**

**Question:** Pose a question that students understand.

**Silence:** Wait time. 3-5 seconds.

**Probe:** Make student ‘think about their thinking.’

**Accept:** Acknowledge every response without affirming or correcting too often.

**Clarify:** Ask students to restate their and other students ideas.

**Elaborate:** Ask ‘What if?’ questions.
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<th>Let’s Practice</th>
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<td>Student Question?? Using question stems create a question. When you feel your question can be added to the discussion use Discussion language to interject.</td>
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<tr>
<th>Unemployment</th>
<th>Teacher: Should the unemployment rate be raised to $10.00 an hour?</th>
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<td>Slavery</td>
<td>Why do you think African kings sold their prisoners to Europeans?</td>
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<tr>
<td>Ecosystems</td>
<td>How would life be different if there were no bees?</td>
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<tr>
<td>Applied Math</td>
<td>You want cereal and there is no milk. You have two choices... 1. Use your mom’s can milk 2. Use your grandmother’s powder milk, knowing she won’t care.</td>
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What can the Circle of Knowledge look like in your classroom?

- High degree of participation
- Strong focus on essential content
- High levels of thinking

- Recitation
- Short answers
- Recall questions
Implementing Circle of Knowledge...

1. Sparking Question
2. Wait time
3. Share responses with partner/group
4. Focus Question
5. Small Group
6. Whole Group and Recognition Techniques
7. QSPACE
8. Record responses and summarize key content
9. Effective Discussion Report Card
10. Synthesize Activity
How do you see Circle of Knowledge being used in your classroom?