Iowa CORE

Exploring the Iowa Core Facilitator's Guide

Table of Contents

List of Figures

Acknowledgments

Educational leaders from the Iowa Department of Education and state-wide Iowa Core Network team members from AEAs and LEAs contributed to this valuable resource. Materials in the guide were compiled and selected for focused collaborative learning team discussions and experiences. Contributors and contributions are too numerous to list, however each and every effort is recognized and valued.

Suggestions for Using Exploring the Iowa Core Facilitator's Guide

The Exploring the Iowa Core Facilitator's Guide resources were compiled and selected for focused collaborative learning team discussions and experiences.

Collaborative learning teams and technical assistance providers should select resources and engage in activities to deepen understanding and skill development in characteristics of effective instruction according to their Iowa Core Implementation Plans and improvement efforts.

The guide is organized in a way that allows collaborative learning teams to sequence and pace their work according to their needs. Collaborative learning teams should make informed decisions about their areas of study and monitor learning goals and success criteria to determine how long to continue a particular area of study.

A team may determine the need to continue in a particular area for an extended period of time, or they may choose to use various relevant resources and tasks based upon their current needs.

The result of collaborative teams engaging in learning using the materials and resources in the guide is to add to and strengthen educators' understanding and skills in providing effective instruction for all learners.

Assumptions

- Student learning is at the center of school improvement efforts and staff professional development.
- Learning from each session will be enhanced and sustained if teachers participate in learning communities where they study attributes of effective instruction and work collaboratively to learn and implement new knowledge and skills.
- Educators working collectively to reach a common goal or outcome will further enhance the likelihood of success.
- Collaborative learning teams will engage in analysis of student responses to instruction and evidence of student learning to identify instruction and learning tasks that produce positive student results and achievement.
- Leadership and systemic support are essential for successful improvement efforts. Collective professional development aimed at student learning goals requires focused leadership that is distributed among faculty and administration.
- Purposefully structuring and focusing the collaborative learning sessions will provide participants with an opportunity to socially construct and experience learning that leads to implementation and instructional improvement.

Chapter 1: Overview

Purpose of Facilitator's Guide

The purpose of this facilitator's guide is to provide guidance for schools to assist collaborative learning teams in how to engage in ongoing, job-embedded professional learning. High quality professional development needs to be designed and planned to enhance teachers' content-specific instructional practices with the intent of improving student learning and performance. Within collaborative learning teams, teachers need to be engaged in ongoing, inquiry-based work around learning the characteristics of effective instruction and applying their new knowledge and skills to impact student achievement (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009).

The facilitator's guide will assist AEAs and LEAs in Iowa Core professional development for the following purposes:

- To establish collaborative learning teams (CLTs) as defined in Iowa Professional Development Model
- To identify the essential concepts and skills in instruction
- To learn about the characteristics of effective instruction and the universal constructs
- To apply characteristics of effective instruction to classroom settings
- To set the stage for deeper intensive study of the characteristics of effective instruction

As a result of engaging in ongoing, job-embedded professional learning through participation in collaborative learning teams, teachers will

- be familiar with the attributes of each characteristic of effective instruction (CEI) and the content of the essential concepts and skills;
- describe the benefits and implications of putting the essential concepts and skills and the characteristics of effective instruction in place in every classroom;
- engage in collection of evidence and ongoing reflection about current practices;
- make connections to existing work and prior study of professional development initiatives;
- view demonstrations (video, vignettes, classroom observations) and practice identifying the attributes of characteristics of effective instruction;
- apply practices learned through the study of characteristics of effective instruction in the classroom;
- use data, self reflection, and team planning skills to develop innovative units and lessons that model the characteristics of effective instruction and essential concepts and skills; and
- work as a team to use data and make decisions about which characteristics and attributes to focus on for future professional development.

Theory of Action for Exploring the Iowa Core Aligned with Iowa Professional Development Model

The outcomes from the Iowa Core Implementation Plan suggests a theory of action, which provides a roadmap of how high quality professional development leads to changes in teacher knowledge and skills, changes in classroom teaching, and, ultimately, to increase in student achievement. Yoon, Duncan, Lee, Scarloss, & Shapley (2007, p. 4) stated three steps needed for high quality professional development to impact student achievement.

When fully implemented, the Iowa Professional Development Model provides for high quality planning, design, and implementation.

The Iowa Core Implementation Plan Outcomes suggest a theory of action that establishes:

- *Sustained and content-focused professional development*
- *Collaboration*
- *Strong implementation*
- *Continuous improvement*
- *Evaluation*

Essential concepts and skills along with the characteristics of effective instruction establish valid and effective curricular and instructional models.

The recommended collaborative team structures for the Iowa Core professional development provide for ongoing school collaboration.

Teachers have access to follow-up consultation from the Iowa Core network. The network has ongoing technical assistance from state and national experts.

> Professional development affects student achievement through three steps. First, professional development enhances teacher knowledge and skills. Second, better knowledge and skills improve classroom teaching. Third, improved teaching raises student achievement. If one link is weak or missing, better student learning cannot be expected. If a teacher fails to apply new ideas from professional development to classroom instruction, for example, students will not benefit from the teacher's professional development.
>
> In the first step, professional development must be of high quality in its theory of action, planning, design, and implementation.
>
> - It should be intensive, sustained, content-focused, coherent, well defined, and strongly implemented (Garet et al., 2001; Guskey, 2003; Loucks-Horsley, Hewson, Love, & Stiles, 1998; Supovitz, 2001; Wilson & Berne, 1999).
> - It should be based on a carefully constructed and empirically validated theory of teacher learning and change (Ball & Cohen, 1999; Richardson & Placier, 2001; Sprinthall, Reiman, & Thies Sprinthall, 1996).
> - It should promote and extend effective curricula and instructional models—or materials based on a well defined and valid theory of action (Cohen, Raudenbush, & Ball, 2002; Hiebert & Grouws, 2007; Rossi, Lipsey, & Freeman, 2004).
>
> In the second step, teachers must have the motivation, belief, and skills to apply the professional development to classroom teaching (Borko, 2004; Showers, Joyce, & Bennett, 1987), supported by ongoing school collaboration and follow-up consultations with experts. Doing so could require overcoming such barriers to new practices as lack of time for preparation and instruction, limited materials and human resources, and lack of follow-up support from professional development providers.
>
> In the third step, teaching—improved by professional development—raises student achievement. The challenge is evaluating the gains. (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007, p. 4)

Chapter 2: Foundations of the Iowa Core

The *Foundations of the Iowa Core* provides an overview of the Iowa Core, which includes vision, essential concepts and skills, universal constructs, benefits for students and teachers, six outcomes, and characteristics of effective instruction. The online instructional module can be accessed at http://www.aea11.k12.ia.us/prodev/icc/. The purpose of studying the Foundations of Iowa Core is to provide everyone a common experience to be able to fully implement the Iowa Core.

The Iowa Core Vision

- Each and every K–12 student will learn the essential concepts and skills identified in the Iowa Core for life in the 21st century.
- Each K–12 educator will embed the essential concepts and skills in rigorous and relevant instruction informed by ongoing formative assessment.
- Each and every educational leader will ensure an aligned system of curriculum, instruction, and assessment, focused on the Iowa Core essential concepts and skills.
- The Iowa Department of Education, Area Education Agencies (AEAs), Local Education Agencies (LEAs), and collaborative partners will work together to provide the necessary systems of support to establish and sustain structures as needed for the essential concepts and skills, instruction, and assessment (Iowa Department of Education [IDE], 2009a, p. 1; Heartland Area Education Agency [AEA], 2010, Slide 24).

Essential Concepts and Skills

Iowa Core goes deeper than the Core Content standards and benchmarks:

1. It provides schools direction about the most important content to teach by being more specific through essential concepts and skills.
2. It provides schools direction on how to teach and assess those concepts and skills.
3. It places an additional emphasis on 21st century skills to address the content students need to flourish in a world marked by a changing workforce and rising global competition.

Iowa Core targets the following essential concepts and skills:

- Math: algebra, geometry, numbers and operations, measurement, and data analysis
- Science: life science, physical science, earth and space science, and science as inquiry
- Literacy: reading, writing, speaking, listening, and viewing literacy
- Social Studies: behavioral science, economics, geography, history, and political science/civic literacy
- Twenty-first century skills: financial literacy, health literacy, civic literacy, employability skills, and technology literacy (Heartland AEA, 2010, Slide 26)

Universal Constructs Essential for 21st Century Success

Six constructs have been identified as necessary outcomes so each Iowa student can graduate prepared for success in career, college and citizenry (Heartland AEA, 2010, Slide 19).

Teachers need to integrate the constructs into content and instructional practice using a 21st century lens.

Critical Thinking

Critical thinking is the ability to access and analyze key information to develop solutions to complex problems that may have no clear answer.

Complex Communication

Complex communication is based on the successful sharing of information through multiple means, including visual, digital, verbal, and nonverbal interactions.

Creativity

Creativity incorporates curiosity and innovation to generate new or original thoughts, interpretations, products, works, or techniques.

Collaboration

Collaboration is working among and across personal and global networks to achieve common goals.

Flexibility and Adaptability

Flexibility and adaptability include responding and adjusting to situational needs, and changing to meet the challenges of new roles, paradigms and environments.

Productivity and Accountability

Productivity is prioritizing, planning and applying knowledge and skills to make decisions that create quality results in an ever-changing environment.

Student Benefits

The Iowa Core:

- Ensures that students will grasp big ideas through a focus on essential topics
- Moves students beyond superficial knowledge to deep conceptual and procedural knowledge through learning for understanding, problem solving, and inquiry
- Provides students opportunities to learn rigorous, robust content through the effective pedagogy of the Iowa Core. Students will leave school equipped to succeed regardless of their postsecondary plans.
- Enhances student engagement by involving students in interesting, relevant learning experiences that are motivating and lead to positive outcomes and less negative behavior
- Facilitates reduction in fragmentation and redundancy that sometimes occurs in school curricula, thus creating more effective use of instructional time
- Promotes the use of formative assessments that are based on authentic content taught in a meaningful way, and engages students more directly in monitoring their progress and growth, thus providing motivation to improve
- Promotes clear communication between parents, teachers, and students about what a student is to know and be able to do as he or she moves through the K–12 educational system
- Promotes student learning through the development of conceptual understanding and application of knowledge. (Heartland AEA, 2010, Slides 28–29)

Teacher Benefits

- Teachers who deliver instruction focused on the Iowa Core will have confidence that their content and pedagogy are research-based or evidence-based.
- When the content is focused, quality professional development can provide important professional growth for teachers to improve their instructional practices. Teachers engaged in quality professional learning are more likely to be productive and positive learners, and improve the learning culture of the school (IDE, May 2010, Standards 2 & 7).
- As school staffs analyze local curriculum and instruction to identify opportunities for improvement, they are likely to discover that they spend too much instructional time teaching content that is not essential and not enough time focusing on the critical content. This process will help schools determine what to do more of and what to eliminate or decrease.
- As school staffs focus on improving instruction, they may discover instructional practices that are commonly used but ineffective and decide to replace those practices with more effective, research-supported ones.
- The Iowa Core provides consistency among Iowa's schools and districts, which will help teacher preparation programs at universities and colleges better prepare teacher candidates to successfully enter Iowa's teacher workforce.
- Teachers who are focused on the Iowa Core are less distracted by fads and superficial projects that are unlikely to yield results.
- When teachers design formative assessment practices based on authentic content, data will be useful for shaping future instruction.
- The Iowa Core provides school administrators opportunities to support balanced leadership by giving them tools to actively help teachers with issues regarding curriculum, instruction, and assessment (Standard 2, Iowa School Leaders Standards and Balanced Leadership Responsibilities as cited in Heartland AEA, 2010, Slides 31–32).

Looking at the Iowa Core: Six Outcomes

There are six outcomes in the implementation plan that—when fully implemented—will establish the following:

- An integrated approach to address the systems-level needs of students and educators through the full engagement and focused actions of leadership, schools and support agencies, and the community
- An aligned system of content, instruction, and assessment focused on the Iowa Core essential concepts and skills, which focus on:
  - What to teach (content)
  - How to teach (instruction)
  - How to determine whether students are learning important content and skills and how to help students to keep track of their own progress (assessment)

Leadership

Outcome 1: School leaders build and sustain system capacity to implement the Iowa Core.

- Leaders are focused on learning and make decisions with student learning primarily in mind.
- Leaders are committed to the Iowa Core.
- Leadership includes shared responsibility with administrators, teachers, and school board members. This includes having a central role in planning and implementation.
- Leaders are actively engaged in the classroom.
- Leaders look to data to make informed decisions.
- Leaders actively oversee the alignment process, professional development, and the review of instructional practice (Outcomes 4, 5, and 6).
- Leaders create a positive culture where life-long learning and collaboration are valued. (Heartland AEA, 2010, slide 39; IDE, April 2010, pp. 12–20)

Community

Outcome 2: Community members and other supporting agencies work together to sustain implementation of the Iowa Core.

Schools

Outcomes 3: A continuous improvement process to improve teaching and learning is used at the district and school level.

Content Alignment

Outcome 4: District leaders and other educators monitor and use data to increase the degree of alignment of each and every student's enacted curriculum and other relevant educational opportunities to the Iowa Core.

Alignment is the process used to determine if a school is teaching what it should be teaching.

- **Intended curriculum:** What the school intends for all students to learn, be it district standards and benchmarks, or the essential concepts and skills in the Iowa Core.
- **Enacted curriculum:** What the teacher actually teaches in the classroom.
- **Assessed curriculum:** What the school measures through assessments, be they standardized, criterion-based, or teacher-generated (Heartland AEA, 2010, Slide 44)

Professional Development

Outcome 5: Educators engage in professional development focused on implementing characteristics of effective instruction, and demonstrate understanding of essential concepts and skills.

When fully implemented, the Iowa Professional Development Model provides for high quality planning, design, and implementation of professional learning designed to

- facilitate rich discussions about instructional practices that will lead to pedagogical change;
- keep participants focused on the essential concepts and skills, and characteristics of effective instruction; and

- support collaborative teams in learning and applying new knowledge and skills (Heartland AEA, 2010, Slide 46),

The full text of the Iowa Professional Development Model Technical Assistance Guide can be located at http://www.iowa.gov/educate.

Instruction and Assessment

Outcome 6: Educators implement effective instructional practices to ensure high levels of learning for each and every student. (IDE, 2009a, pp. 3–4).

There are five characteristics of effective instruction that lead to deep conceptual and procedural knowledge, which include student-centered classrooms, teaching for understanding, assessment for learning (formative assessment), rigorous and relevant curriculum, and teaching for learner differences. The definitions for each of the five characteristic of effective instruction are listed below.

Student-Centered Classrooms

In student-centered classrooms, students are directly involved and invested in the discovery of their own knowledge. Through collaboration and cooperation with others, students engage in experiential learning which is authentic, holistic, and challenging. Students are empowered to use prior knowledge to construct new learning. Through the development of the metacognitive process, students reflect on their thinking. Curriculum and assessment are centered on meaningful performances in real-world contexts. As a partner in learning, teachers intentionally create organized and cohesive experiences to assist students in making connections to key concepts (Heartland AEA, 2010, Slide 47).

Teaching for Understanding

Teaching for understanding is leading students to engage in a variety of thought-provoking activities such as explaining, finding evidence in examples, generalizing, connecting, applying, making analogies, and representing the topic in new ways. According to Wiggins and McTighe (1998), "Understanding is not just about coverage of knowledge… but about 'uncoverage'—being introduced to new ideas and being asked to think more deeply and more carefully about facts, ideas, experiences, and theories previously encountered and learned." Teachers who teach for understanding facilitate 1) the construction of deep conceptual and procedural knowledge, 2) the development of representations and conceptual models, 3) the induction of students into the discipline, and 4) the application of new learnings and understandings in new and novel situations (transfer) (Wiggins & McTighe, 1998).

Assessment for Learning (Formative Assessment)

Formative assessment is a process used by teachers and students as part of instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of core content. As assessment for learning, formative assessment practices provide students with clear learning targets, examples and models of strong and weak work, regular descriptive feedback, and the ability to self-assess, track learning, and set goals (Adapted from Council of Chief State School Officers, 2010; Heartland AEA, 2010, Slide 47).

Rigorous and Relevant Curriculum

A rigorous curriculum is one that is cognitively demanding and challenging to students as they apply the essential concepts and skills to real world, complex, and open-ended situations. The content is not just interesting to students, but involves particular intellectual

challenges. When students successfully meet these challenges, their new learning will have meaning and value in contexts beyond the curriculum unit or classroom setting.

Teaching for Learner Differences

Teaching for learner differences requires teachers to understand essential concepts and skills, to identify the contributing factors affecting the desired outcome, and to utilize a variety of methods to teach and reinforce the desired concepts and skills. It includes providing access to the general education curriculum for all students. Teaching for learner differences can best be accomplished by engaging in a process, which has teachers using student and instructional assessment data to make sound instructional decisions to meet the needs of individual students (Heartland AEA, 2010, Slide 47).

Chapter 3: Role of Iowa Core Leadership Team

Introduction: Focus on Outcome 1

If teachers are going to be engaged in ongoing, job-embedded professional development through participation in collaborative learning teams (CLTs) focused on the characteristics of effective instruction and universal constructs, then the roles and responsibilities of the building leadership team might need to be redefined in terms of current practices.

This guide provides resources to support building leadership teams in preparing to lead and support collaborative learning teams, specifically through some of the action steps as identified below.

Outcome 1: School leaders build and sustain system capacity to implement the Iowa Core.

- *Action 1.a.1: Leadership team is established and operating to implement Iowa Core.*
- *Action 1.a.2: Leadership team consistently communicates a clear and shared vision for the Iowa Core.*
- *Action 1.a.3: Leadership team understands and manages the change process.*
- *Action 6.a.4: Leadership team facilitates a process to determine the degree to which practices that align with the characteristics of effective instruction are in place in classroom instruction.*
- *Action 6.b.1: Leadership team makes decisions about how to strengthen the district/building professional development plans to address Iowa Core* (IDE, April 2010, p. 12).

Learning Goals and Success Criteria for Leaders

Learning Goals

District/school leaders understand

- how to build and sustain system capacity to implement the Iowa Core (Outcome 1);
- that community members and other supporting agencies work together to support the implementation of the Iowa Core (Outcome 2);
- that the Iowa Core and related school improvement processes function as ongoing continuous improvement processes based on data (Outcome 3);
- that increasing the degree of alignment between the intended, enacted, and assessed curriculum will improve the quality of instruction and increase student learning and performance (Outcome 4);
- that professional development must contain all elements of effective professional development for student achievement (Iowa Professional Development Model) (Outcome 5); and
- how to facilitate a process to determine the degree to which practices align with the characteristics of effective instruction and are in place in classroom instruction (Outcome 6).

Success Criteria

District/school leaders can

- provide resources to support and sustain the vision and implementation of the Iowa Core in their district/school (Outcome 1);
- develop and follow a cycle for document/plan review for the purposes of updating the Iowa Core plan annually, while implementing the plan with integrity (Outcome 1);
- establish a continuum of quality strategies, programs, services, and practices to support student learning with a focus on the six content areas of Learning Supports (Outcome 2);
- engage in discussions with the local school board and other community members regarding the progress of the Iowa Core (Outcome 2);
- establish processes and procedures to sustain the implementation of the Iowa Core (Outcome 3);
- use local information to select and implement processes and tools to be used for alignment of the enacted curriculum to the intended curriculum of the Iowa Core (Outcome 4);
- collect and use data across Iowa Core outcomes and student achievement to guide professional development (Outcome 5); and
- can facilitate a process to determine the degree to which practices that align with the characteristics of effective instruction are in place in classroom instruction (Outcome 6).

Iowa Core Implementation Plan Review Process

A member of the AEA network will facilitate a review process between two school leadership teams working in partnership over time to support and strengthen their implementation of their Iowa Core plans. The half-day session will be structured using the review process protocol to help schools focus during each round on implementation of one of the six outcomes, or any combination of the six outcomes. During this process, the schools need to reflect on their greatest concerns or priorities as identified in their implementation plans.

Through the use of this guide, the AEA and district leadership team can assist buildings in fully implementing their Iowa Core plan.

Establish Building Leadership Teams

Action 1.a.1: Leadership Team is established and operating to implement Iowa Core.

In the *Iowa Professional Development Model Technical Guide,* the purpose of the Building Leadership Team (BLT) is defined as moving from formation to action. The following suggestions are presented in the Steps for Establishing a Professional Development Leadership Team (IDE, 2009b, p. 19).

Suggested Purposes of a Leadership Team

- To help organize and support various professional development functions
- To engage in participative decision making—a democratic decision making process for keeping teachers involved and informed
- To help principals sustain a focus on instruction and keep professional development functions going

- To distribute leadership and responsibility up and down the organization
- To work together with the teacher quality committee to facilitate communication and participative decision-making

Suggested Composition

- Teachers representing various grade levels and department/content areas. It is important that there is representation from the various collaborative learning teams to ensure two-way communication, monitoring implementation, and adjusting as needed throughout the school year
- Individuals who have specific expertise in content, collecting and analyzing data, assessment, professional development, etc.

Suggested Processes

- Clarify roles of the team, e.g., assisting with the collection and analysis of data; facilitating building meetings between training sessions; helping to collect and organize implementation data; demonstrating strategies; supporting the establishment of collaborative teams
- Establish a protocol for meeting routines and a framework for agendas
- Determine how meetings will be monitored and what data will be collected
- Collect meeting artifacts such as meeting agendas and minutes (IDE, 2009b, p. 19)

According to Linda Munger and Valerie Von Frank (2010, p. 19), "the size of the team varies between five and 12 members. The team should include representatives from each grade level or department. Equal representation from all grade-level or department learning teams allows communication to flow to and from the school leadership team to ensure the faculty's collective focus on professional learning is embedded into teachers' daily work."

Usually members rotate their participation on the leadership team every three years, which allows teachers to develop relationships within the team and provides consistency in the learning and transfer back to the grade-level/department teams represented on the leadership team.

The following tool (Figure 1) will help the building principal in selecting team members and identifying strengths and areas for professional growth for some or all team members.

Figure 1.
Learning Tool to Assist in Selection of Teacher Leaders for Building Leadership Team

Name	Years in district/ school	Grade level/ Content Area	Knowledge and Skills related to Iowa Core	Leadership Qualities	Evidence of Knowledge and Skills and Leadership Qualities

Figure 1. Learning Tool to Assist in Selection of Teacher Leaders for Building Leadership Team. Adapted with permission from *Change, Lead, Succeed: Building Capacity with School Leadership Teams*, by L. Munger and V. Von Frank, 2010, Tool 1.2. Copyright 2010 by the National Staff Development Council.

Communicate a Shared Vision for Iowa Core

Action 1.a.2: Leadership Team consistently communicates a clear and shared vision for the Iowa Core.

The role of the building leadership team is to develop a shared understanding among staff and consistently communicate to all stakeholders the vision for the Iowa Core, which is:

- Each and every K–12 student will learn the essential concepts and skills identified in the Iowa Core for life in the 21st century.
- Each K–12 educator will embed the essential concepts and skills in rigorous and relevant instruction, informed by ongoing formative assessment.
- Each and every educational leader will ensure an aligned system of curriculum, instruction, and assessment, focused on the Iowa Core essential concepts and skills.

The role of the building leadership team is to develop strategies for instilling the vision of the Iowa Core into the everyday life of the school, assume responsibilities for implementation of the Iowa Core plan, and monitor the progress of the action steps outlined for each outcome.

Learning Tool for Engaging Staff in a Shared Vision

The following tool, Four Corners to a Vision (Figure 2), outlines a possible activity that the leadership team can use to engage the faculty in thinking about their strongly held beliefs, articulating those beliefs, and discussing them among colleagues at the school.

Figure 2. Learning Tool: Four Corners to a Vision

Time: 1 hour

Supplies: statements prepared on slides or newsprint; signs with level of agreement (Agree, Strongly Agree, Disagree, Strongly Disagree)

Preparation: Develop statements that focus on topics (e.g., assessment for learning/formative assessment, student-centered classrooms, universal constructs) aligned with the Iowa Core vision.

Examples of statements related to the Iowa Core vision:

- Teachers do not have the knowledge and skills to do formative assessments.
- Different assessment methods should be used with different students.
- All children can learn at high levels.
- Classrooms should be student-centered and not teacher-centered.

Directions:

1. Have a number of statements prepared in advance (either on PowerPoint slides or newsprint) but do not show until ready.
2. Set up the room with signs in each of four corners: Agree, Strongly Agree, Disagree, Strongly Disagree
3. Show one statement to the faculty. Ask individuals to stand in the corner that represents how they feel about that statement. It is important to make the decision based on their individual interpretation of what the statement means.
4. As a group in each of the four corners, discuss among themselves how they feel about the statement.
5. Have a spokesperson from each corner report out to the whole group the reasons why the group chose that corner. At any time during the process, participants should be allowed to change their minds and move to a different corner.
6. Repeat the process (Steps 3-5) for each statement.

Figure 2. Learning Tool: Four Corners to a Vision. Adapted with permission from "If You Can Envision It, You Can Create It," by J. Richardson, 1997, August/September, p. 6. Copyright 1997 by the National Staff Development Council.

In creating a shared vision around the Iowa Core, it is important for the leadership team to help teachers create a mental picture describing what the change will look like when fully implemented. Innovation configuration (IC) maps have been created for each of the five characteristics of effective instruction. The ideal level is always level one, which describes in detail what the teacher and students will be doing when implementing the attributes for each of the characteristics. The IC maps and activities for using these tools are in the chapter on Teaching and Learning.

Understand and Manage the Change Process

Action 1.a.3: Leadership Team understands and manages the change process.

Joellen Killion and Pat Roy (2009, p. 46) state that "implementing collaborative professional learning among educators who have been independently responsible for their own classrooms requires thoughtful, intentional planning to address people's concerns about doing things differently."

Some basics about change that the building leadership team needs to understand include:

- People respond differently to change, which include those who question the value of changing to those who advocate for change;
- Change can cause divisiveness between those leading change and those resisting change, which can have lasting impact on the effectiveness of the initiative;
- Conflict is a natural occurrence during change, which causes disequilibrium;
- Change is a process, which includes acquiring new knowledge and skills, practicing, and receiving feedback;
- Trying to do too much minimizes the potential success of any improvement effort because nothing gets done thoroughly to any extent; and
- Change needs to flow through the whole system with people making the change, which will cause the school culture to shift (Killion & Roy, 2009).

It is important for the building leadership team to understand that people assume different roles in the change process due to varying experiences and expectations. This information will help leaders better understand if there is a lack of commitment or apparent resistance to the change effort. There are five roles people play in the change process:

- **Trailblazers** want a clear vision. They want to know that they are headed somewhere that is different. They are motivated by novelty and excited by risk. They need opportunities to network with others and share what they are learning.
- **Pioneers** stay the course once they are convinced that the new way is better. They need demonstrations of how the journey can be made. They develop teams and build communities.
- **Settlers** need to know that the direction they are moving is better than the current one, and the way to get there is known. They need to know details and what is expected of them. They visit sites where the process has worked, have conversations with trailblazers and pioneers, and read articles to better understand what is expected of them. They need strong leadership to inspire them to keep going when they might want to turn back. They need evidence to demonstrate their progress.
- **Stay-at-homes** do not need a lot of time and energy spent on them, as they won't necessarily come along or even try to change until after the pioneers and settlers have done their work very well.
- **Saboteurs** are individuals who actively try to stop the change. They tend to thrive in isolation. However, sometimes there is much to be learned from them so it is important to hear what they have to say. Keep them involved inside, rather than outside, the change process (Schlechty, 2006, pp. 6–7).

In order for the building leadership team to support change efforts, Killion and Roy (2009, p. 49) state that "success depends more on the visible support that engages people in change,

a deep understanding of the benefits to them, clear expectations, and clarity of results." This requires the principal and teacher leaders—as a leadership team being responsible for implementing Iowa Core through collaborative learning teams—to understand the seven stages of concern, know how to recognize each stage, and know what interventions can be used to address educators' concerns at each stage. This will allow the team to provide appropriate support to individual teachers, as well as collaborative learning teams.

The Concerns-Based Adoption Model (CBAM) has three tools, one of which is Stages of Concern, which can be used to identify at which stage an individual is during the change. The following chart (Figure 3) identifies the seven stages, describes how a collaborative learning team (CLT) member might feel and think at each stage, and provides examples of possible interventions.

Figure 3. Learning Tool: Identifying Stages of Concern and Interventions

Stage of Concern	How Team Member Feels and Thinks at Each Stage	Examples of Interventions
Awareness	I have little information, concern or involvement with the characteristics of effective instruction. I am not concerned about this change and am not doing anything about it.	• Web resources and written resources about characteristics of effective instruction. • Opportunities for learning. • Conversations providing a rationale for characteristics of effective instruction.
Informational	I have a general interest in the characteristics of effective instruction and would like to know more about it. I'm taking the initiative to learn more about the characteristics of effective instruction.	• Question-and-answer sessions. • Discussions with individuals who have expertise with characteristics of effective instruction. • Opportunities for learning.
Personal	I want to know the personal impact of the characteristics of effective instruction on teaching and learning in my classroom.	• Information about time and work commitments for meeting in collaborative learning teams to study and implement characteristics of effective instruction. • Involvement in planning for learning in collaborative learning teams. • Discussions with individuals with expertise in characteristics of effective instruction. • Facilitated discussions about characteristics of effective instruction during collaborative learning team meetings.
Management	I am concerned about how the characteristics of effective instruction will be managed in practice and what members need to know in order to do this work.	• Organizing and planning learning opportunities. • Information on logistics for implementation of characteristics of effective instruction. • Professional development specifically in characteristics of effective instruction and collaborative learning teams.
Consequence	I want to know how my instructional practices affect my colleagues and my students, and how to make my	• Self-assessments. • Reflection on instructional practices. • Experimentation. • Communication with other grade level/content

Stage of Concern	How Team Member Feels and Thinks at Each Stage	Examples of Interventions
	involvement in Iowa Core have more impact. I am moving from simply attending collaborative learning team meetings to making changes to improve teaching and learning.	area teachers and/or collaborative learning teams. • Assistance with examining teacher practice and student work. • Access to research and study materials about characteristics of effective instruction.
Collaboration	I share, coordinate, and align my professional growth and teaching practices with others on my CLT. I depend on them, and I give them support. I am involved in a collective impact on teaching and learning.	• More frequent opportunities to share, coordinate, and learn with colleagues. • Opportunities to observe colleagues. • Schoolwide information sharing of implementation of and student performance results. • Communication and interaction with other collaborative learning teams about instructional practices.
Refocusing	I am interested in making implementation of instructional practices more effective, and I have ideas about modifications that might work even better.	• Review of more research on instructional practices. • Data analysis. • Consistent and regular support.

Figure 3. Learning Tool for Identifying Stages of Concern and Interventions. Adapted with permission from *Change, Lead, Succeed: Building Capacity with School Leadership*, by L. Munger and V. Von Frank, 2010. Copyright 2010 by National Staff Development Council; *Team to Teach: A Facilitator's Guide to Professional Learning Teams*, by A. Jolly, 2008. Copyright 2008 by National Staff Development Council; and *Implementing Change: Patters, Principles, and Potholes*, by G. Hall, and S. Hord, 2001. Copyright 2001 by Allyn & Bacon.

Learning Tools Index

Title of Learning Tool	Use
Holloway, K. (February/March 2003). A measure of concern: Research-based program aids innovation by addressing teacher concerns. *Tools for Schools*. Oxford, OH: National Staff Development Council.	This article provides the leadership team with a description of how to measure change one of the tools from Concerns-based Adoption Model (CBAM), which is called Stages of Concern. Data can be collected by using one-legged interviews, open-ended statements, or Stages of Concern questionnaire (SCQ). The results can be used to address teacher concerns about the change effort in implementation of Iowa Core.
Roy, P. (October 2008). What concerns do you have? *The Learning Principal*. Oxford, OH: National Staff Development Council.	This article describes three ways the leadership team can assess and consider teacher concerns when designing learning opportunities. Within the article are two tools to use: statements that an individual might say to help determine which stage and specific suggestions to assist in addressing the identified stages of concern.

Facilitate a Process to Determine Degree of Implementation

Action 6.a.4: Leadership Team facilitates a process to determine the degree to which practices that align with the characteristics of effective instruction are in place in classroom instruction.

The role of the school leadership team is to focus their work on continuous improvement of instruction to impact student achievement.

Learning Tools Index

Title of Learning Tool	Use
Roy, P. (December/January 2009). Focus on the instructional core. *The Learning Principal*. Oxford, OH: National Staff Development Council.	This article describes what Elmore states are the essential ways for improving school performance: 1) increase in teachers' knowledge and skills; 2) change the content; and 3) alter the relationships of the student to the teacher and the content.
Success Analysis Protocol for Sharing Instructional Practice. Adapted from National School Reform Faculty at www.nsrfharmony.org	This protocol can be used by the leadership team in analyzing cases of instructional practices to understand circumstances and action that made the practices successful and then be able to apply new understanding in adjusting professional development needs for specific collaborative learning teams and/or the whole school.
A Change in Practice. Adapted from National School Reform Faculty at www.nsrfharmony.org	This protocol provides a structure that the school leadership team can use to analyze the process teachers used in making change in their practice.

Figure 4. Learning Tool: Success Analysis Protocol: Sharing Instructional Practice

Purpose: The purpose of this protocol is to engage colleagues in collaborative analysis of cases of instructional practices—in order to understand the circumstances and actions that made the practices successful—and then be able to apply this new understanding to future instructional practices.

Roles: Facilitator, multiple presenters

Time: 45 minutes to 2 hours

Definition: Success is defined as to the effectiveness in achieving the intended student outcomes.

Steps:

1. Preparing cases (can be done ahead of time; otherwise allow 15 minutes for preparation)
   - Each teacher prepares a "case" by reflecting on an instructional practice where students were engaged in authentic work, using methods specific to their discipline, and applying what know or are learning to solve complex problems.
2. Sharing (5 minutes)
   - One teacher shares his/her case of successful practice orally or in writing (optional) while the other team members listen and take notes.
3. Analyzing and Discussing (10 minutes)
   - The CLT as a team reflects on the success. Team members offer their own insights into what makes this case of instructional practice successful for students. The team specifically names factors that contributed to the success.
   - Team members can help the presenter reflect by using the following question prompts:
     - Why do you think . . . ?
     - What was different about . . . ?
     - Why did you decide to . . . ?
4. Repeat Steps 2 and 3 for each member of the CLT.
5. Reflection (10 minutes)
   - The CLT lists the attributes that contributed to the success of the instructional practice for the characteristic of effective instruction.
6. Debrief the use of the protocol

Figure 4. Learning Tool: Success Analysis Protocol: Sharing Instructional Practice. Adapted from the Success Analysis Protocols by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/success_analysis_adult.html

Figure 5. Learning Tool: A Change in Practice Protocol

Purpose: The purpose of this protocol is to provide a structure for analyzing the process teachers used in making changes in their practice, based on new knowledge and skills about characteristics of effective instruction and universal constructs.

Roles: Facilitator, Teacher Leaders (members of School Leadership Team)

Time: 75 minutes (working as triads)

Steps:

1. Written Statement (10 minutes); Analyzing and Discussing (10 minutes)
   - Each member writes or comes prepared with a written statement about a change the teachers of a collaborative learning team have made in their instructional practices. The description needs to be specific about what happened in the classrooms, and should answer questions such as:
     - What were the students learning?
     - What change did the teacher(s) make?
     - Why did the teacher(s) think they should make a change? Was there something specifically happening that lead to the change?
     - How did the teachers decide what to do? What evidence led to the change?
     - How did the teachers in the collaborative learning team know whether or not the change was successful or progress was being made?
     - What are you wondering based on this change? What was different about . . . ?
2. Presentation (5-7 minutes)
   - Teacher leader reads or tells about the change in practice from the written statement.
3. Clarifying Questions (5 minutes)
   - Team members ask clarifying questions.
4. Discussion (10 minutes)
   - The triad talks about what they heard the presenter say. The purpose is for the presenter to leave with a greater understanding of what changes in instructional practices are working or aren't working for their learning team, based on their collective focus and the characteristics of effective instruction and universal constructs. [The presenter listens only and takes notes during this time.]
5. Reflection (5 minutes)
   - Presenter reflects on what was heard and then the group engages in a conversation about the implications for changes to instructional practices for some or all teachers in the school. A possible question to prompt reflection might be: "What new insights occurred for all of us?"
6. Repeat Round (Steps 2-5) (27 minutes)
7. Debrief (5 minutes)
   - School leadership team debriefs the use of the protocol, describing what worked/didn't work to help move the learning teams forward in helping teachers change instructional practices.

Figure 5. Learning Tool: A Change in Practice Protocol. Adapted from the Success Analysis Protocols by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/success_analysis_adult.html

Using Innovation Configuration Maps

Results from the use of the innovation configuration maps for each of the five characteristics of effective construction can also be used to assess current levels of practice. Further, the results can also be used to guide action steps for supporting and assisting collaborative learning teams in monitoring and adjusting their professional learning needs in order to impact student performance.

Learning Tools for IC maps

Figure 6. Learning Tool: Checking Progress

Purpose: Use the IC maps for checking progress towards implementation of the attributes of one or more characteristics of effective instruction.

Time: 30 minutes

Materials: Copy of scoring sheets used by collaborative learning teams or individual IC maps used by school leadership team during classroom walk-throughs.

Characteristic of Effective Instruction: _____

Collaborative Learning Team	Attribute	Attribute	Attribute
A	Level _____	Level _____	Level _____
B	Level _____	Level _____	Level _____
C	Level _____	Level _____	Level _____
D	Level _____	Level _____	Level _____
E	Level _____	Level _____	Level _____
F	Level _____	Level _____	Level _____
G	Level _____	Level _____	Level _____

Figure 6. Learning Tool: Checking Progress. Adapted with permission from *User's Guide: Innovation Configurations for NSDC Standards for Staff Development* by P. Roy, 2007. Copyright 2007 by the National Staff Development Council (Learning Forward).

Figure 7. Learning Tool: Determine Support Strategies

Purpose: How to use data from Checking Progress to determine assistance and support to collaborative learning teams

Time: 30 minutes

Materials: List of current levels of practice, copy of IC map(s), analysis questions

Directions:

1. Review the current level of practice as identified on the Checking Progress
2. Review the IC map to ensure that everyone has a common understanding of what each level means
3. Use the analysis questions to guide discussion among team members to determine the assistance needed for some or all of the collaborative learning teams.
    - Which collaborative learning teams seem to have the highest level of implementation?
    - Which collaborative learning teams seem to have the lowest level of implementation?
    - What additional resources or information would be of assistance to individuals or teams?
    - What other interventions might need to be made for certain collaborative learning teams?

Figure 7. Learning Tool: Determine Support Strategies. Adapted with permission from *User's Guide: Innovation Configurations for NSDC's Standards for Staff Development* by P. Roy, 2007. Copyright 2007 by the National Staff Development Council (Learning Forward).

Make Decisions to Strengthen Professional Development Plans

Action 6.b.1: Leadership Team makes decisions about how to strengthen the district/building professional development plans to address Iowa Core.

Valerie Von Frank (April 2009, p. 4) cites a statement by Roland Barth stating that "a precondition for doing anything to strengthen our practice and improve a school is the existence of a collegial culture in which professionals talk about practice, share their craft knowledge, and observe and root for the success of one another."

In deepening understanding of leadership strategies to create a positive culture and climate that affect teaching and student learning, the following facilitative leadership strategies have been identified that might help the school leadership team strengthen their building professional plans to address the Iowa Core. The following figure identifies the leadership strategies, which include: create an atmosphere and context for change, invest in professional development, develop and communicate a shared vision, check progress, plan and provide resources, and continue to give assistance. The questions are used to guide discussion among the school leadership team, and to help them make decisions to take action.

Figure 8. Learning Tool: Leadership Strategies to Guide Decision Making

Create an atmosphere and context for change	Invest in professional development
Create an atmosphere and context for change • How does the school create a sense of urgency about the need for improvement? • What elements are crucial in creating an environment of trust and a collaborative atmosphere? • What does the school leadership team do to develop a collegial relationship among all staff? • What can the school do to build a sense of mutual responsibility and accountability?	**Invest in professional development** • How does our vision guide us in creating professional development? • What forms of professional development are needed to support the implementation of a new strategy or improvement plan? • What resources are available to guide us in deciding what professional development we need?
Develop and communicate a shared vision	**Check progress**
• Ideally, what do we want meetings and classroom instruction to look like once we've implemented a new strategy or improvement plan? • What are the best ways of getting input from staff, parents, and community members to develop our vision? • What are some effective methods of communicating the vision?	• What effective tools and processes are available to use to assess our progress? • How can teachers help each other to check their progress in using new strategies and approaches? • What types of data are needed to check on progress? • How do we use data to measure progress? • How do we communicate the data we collect?
Plan and provide resources	**Continue to give assistance**
• What activities must occur to have a new strategy or improvement plan be effectively implemented? • How can we make the most efficient use of the time, personnel, and funds we have available to support the implementation of a new strategy or improvement plan? • How do we ensure that our plan remains up-to-date and is working as planned?	• What forms of assistance will maintain the momentum of a new strategy or improvement plan? • How do we continue to sustain and improve a new strategy or program in the face of changes and challenges? • How can we incorporate what we learn from assessment to improve performance? • When and how might we celebrate and acknowledge successes?

Figure 8. Learning Tool: Leadership Strategies to Guide Decision Making. Adapted with permission from "A Learning Community Is Built on Trust" by V. Von Frank, April 2009, *The Learning Principal, 4*(7), p. 4. Copyright 2009 by the National Staff Development Council (Learning Forward).

Engage Teacher Leaders as Skilled Facilitators of Collaborative Learning Teams

It is important in the selection of teacher leaders to identify their current facilitation skills as well as the need for new knowledge and skills to ensure effective facilitation of the learning in all collaborative learning teams. This might necessitate teacher leaders developing new knowledge and practicing their skills as members of the building leadership team to be able to facilitate the learning of Iowa Core content through the use of effective learning tools.

The teacher leaders need to be able to learn, practice, and model the basics of effective teamwork both in building leadership team and collaborative learning team meetings. The basic team functions include: developing and monitoring use of norms, setting times for and meeting regularly, assigning and rotating roles, setting agendas and keeping minutes to monitor progress, using protocols to engage all members and deepen the learning, and assessing team behaviors and accomplishments.

The role of the building leadership team will be to lead the collaborative learning teams in examining data to identify both student and adult learning needs specific to their grade level/content area, and that are aligned with school and district goals. Part of their facilitation role will be to use protocols to help teachers learn the characteristics of effective instruction, apply their new knowledge and skills in their own classrooms, and then engage in ongoing dialogue to determine the impact of changes on teaching practices and student performance.

Chapter 4: Collaborative Learning Teams

Introduction: Focus on Outcomes 5 and 6

Iowa Professional Development Model clearly identifies the steps needed for collaboration. In addition to finding time for teams to meet regularly, collaborative learning teams need to be facilitated and structured. This means that collaborative learning teams need to develop procedures for managing their time, working in a collegial manner, being efficient, and demonstrating accountability.

This guide provides resources to support collaborative learning teams in engaging in the ongoing cycle of professional learning, as defined in the Iowa Professional Development Model element of collaboration and implementation.

Outcome 5: Educators engage in professional development focused on implementing characteristics of effective instruction and demonstrate understanding of essential concept and skills.

- *Action 5.a.1: Educators collect and use data across Iowa Core outcomes and student achievement to guide professional development.*
- *Action 5.b.1: Educators engage in professional development that contains all elements of effective professional development for student achievement (Iowa Professional Development Model)* (IDE, April 2010, p. 40).

Learning Goals and Success Criteria for Teachers

Learning Goals

Educator understands

- that establishing, utilizing, and monitoring collaborative learning teams, as defined by the Iowa Professional Development Model, will lead to improved teaching and learning (Outcomes 5 & 6);
- that identifying where the essential concepts and skills are taught within a curriculum will lead to increased student learning for all students (Outcome 4);
- that alignment between intended and enacted curriculum will result in improved student learning and progress (Outcome 4);
- that all students learn when effective instructional practices are implemented (Outcome 6);
- that learning supports increase the opportunity to learn for all students (Outcome 2); and
- that a continuous improvement process will improve teaching and learning for all students (Outcome 3).

Success Criteria

Educator can

- continue learning through collaborative learning teams, implement learning in classrooms, monitor (implementation logs), and reflect on practice;
- use alignment tools/processes;
- create the cognitive conditions needed implement the characteristics of effective instruction;
- utilize learning supports to remove barriers and facilitate student learning and development; and
- use the data to make instructional decisions.

Ongoing Cycle: Collaboration and Implementation

Within Iowa Professional Development Model (IPDM), the steps for collaboration and implementation have been clearly defined using the following routines:

1. Set up collaborative teams and define team roles:
   - Team leader who keeps the group focused and on task
   - Time keeper who helps with efficient use of time
   - Recorder who manages the agenda and minutes
   - Data leader who finalizes data displays and summaries generated by team
2. Develop a schedule for collaborative teams to meet.
3. Articulate how collaborative teams will be facilitated and structured; provide format for agendas, minutes.
4. Set up ground rules or norms for group member engagement.
5. Reflect on what was accomplished and how the team functions.
6. Record collaboration plan in the building professional development plan.
   - Describe collaboration (including opportunities for observation and reflection)
   - Describe the study of implementation at the building level (IDE, 2009b, p. 65)

Professional Learning Community

A PLC is composed of collaborative teams whose members work interdependently to achieve common goals linked to the purpose of learning for all. (Richard DuFour, Rebecca DuFour, Eaker, & Many, 2006, p. 3)

DuFour et al. (2006, pp. 3–4) state that "collaboration represents a systematic process in which teachers work together interdependently in order to impact their classroom practice in ways that will lead to better results for their students, for their team, and for their school. . . Systematic processes engage each member of the organization in an ongoing cycle of

- gathering evidence of current levels of student learning,
- developing strategies and ideas to build on strengths and address weaknesses in that learning,
- implementing those strategies and ideas,
- analyzing the impact of the changes to discover what was effective and what was not, and
- applying new knowledge in the next cycle of continuous improvement."

Hord and Sommers (2008, p. 9) identified the following attributes of a professional learning community: shared beliefs, values, and vision; shared and supportive leadership; collective learning and its application; supportive conditions; and shared personal practice.

- **Shared beliefs, values, and vision:** The staff consistently focuses on students' learning, which is strengthened by the staff's own continuous learning—hence, professional learning community;
- **Shared and supportive leadership:** Administrators and faculty hold shared power and authority for making decisions;
- **Collective learning and its application:** What the community determines to learn and how they will learn it in order to address students' learning needs is the bottom line;
- **Supportive conditions**: Structural factors provide the physical requirements: time, place to meet for community work, resources and policies, etc. to support collaboration. Relational factors support the community's human and interpersonal development, openness, truth telling, and focusing on attitudes of respect and caring among the members; and
- **Shared personal practice**: Community members give and receive feedback that supports their individual improvement and that of the organization

This guide provides resources to assist collaborative learning teams in engaging in collective inquiry to improve teaching and learning. DuFour et al. (2006) define collective inquiry as learning how to learn together and developing capacity to improve both student and adult learning.

Learning Tools Index

Title of Learning Tool	Use
Von Frank, V. (April 2009). Professional Learning Communities Survey. *The Learning System*, pages 4-5.	This tool is a survey to assess the extent to which the critical elements, human resources, and structural conditions are present for collaborative learning teams in a school.
McTighe, J. (May 2008). Making the most of professional learning communities. The Learning Principal. Oxford, OH: National Staff Development Council, pages 1 and 4-7.	This tool is an article that describes three roles for members of a professional learning community: critical friend, analyst of student work, and continuous learner. Specific questions for teachers to ask when examining student work are listed on page 5.

Outcome 6: Instruction and Assessment—Educators implement effective instructional practices to ensure high levels of learning for each and every student.

- *Action 6.a.1: Educators form and maintain collaborative teams.*
- *Action 6.a.3: Educators engage in dialogue about practices that support the characteristics of effective instruction* (IDE, April 2010, p. 44).

Basics of Forming Effective Collaborative Learning Teams

Identify Team Members

- Size of group: 3-7
- Organize by grade levels, disciplines, across content areas

Define Team Functions

- Developing norms (behaviors)
- Setting times for regular meetings
- Assigning roles
- Setting agendas and keeping minutes
- Using protocols
- Assessing team accomplishments

Identify Focus on Student Learning Needs

- Examine student data to determine student learning needs

Develop an Action Plan

- Identify student learning needs
- Identify data collection methods for teachers and students

Evaluate Implementation and Impact

- Collect teacher and student performance data
- Monitor classroom implementation
- Determine impact on changes in teaching practices and impact on student achievement

Team Function: Establishing Norms

Jolly (2008) developed the following two tools to assist teams in establishing norms if behaviors for working together have not been established yet. Norms are also referred to as ground rules or working agreements.

Figure 9. Learning Tool: Norms

Directions: Read each of the following norms and as a team, agree on the ones that most effectively will guide the team in working efficiently and productively during the time allocated for the learning team.

Attendance

- ☐ Each team member will commit to participate actively for the school year.
- ☐ All members will arrive on time and stay for the entire meeting.
- ☐ We will start on time and end on time.

Communication

- ☐ All members will join in the team's discussions.
- ☐ No one will dominate the discussions.
- ☐ Each member will listen attentively as others speak.
- ☐ Everyone's point of view will be considered.
- ☐ Our conversations will reflect our respect for and acceptance of one another.
- ☐ We will disagree with ideas, not individuals.
- ☐ No zingers or put-downs.
- ☐ We will keep confidential any information shared in confidence.

Expectations

- ☐ We will rotate the team leader role.
- ☐ All members will be prepared for the meeting when they arrive.
- ☐ All members will be "totally present" during the meeting.
- ☐ All members will refrain from scheduling other activities during the meeting time.
- ☐ All members will turn off cell phones.
- ☐ All members will stay on task during the meeting.
- ☐ All members will work to keep team meetings positive and productive.
- ☐ The atmosphere will remain cordial and friendly throughout the meeting.
- ☐ We will have fun and enjoy working together.

Decision Making

We will reach decisions by consensus.

Assessment

We will briefly revisit our norms after every, or every other meeting, and will decidewhich ones we need to follow better and which we need to change.

Directions: First, each team member lists up to six behaviors he/she values in others during team meetings. Then as a team, reach consensus on the behaviors that all team members are willing to follow during team meetings. The norms should be visible and referred to during and at the end of team meetings.

Team Member: List six behaviors you value in others during team meetings.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Team: Identify up to six behaviors to guide working together during team meetings.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Figure 9. Learning Tool: Norms. Adapted with permission from *Team to Teach: A Facilitator's Guide to Professional Learning Teams* by A. Jolly, 2008. Tools 4.3 and 4.5. Copyright 2008 by the National Staff Development Council (Learning Forward).

Team Function: Assigning Roles

Anne Conzemius and Jan O'Neill (2002) state that defining specific roles will help to ensure effective team meetings. The following roles are the most common; however, the team can add other role assignments as needed. Role assignments are often rotated to ensure shared leadership within the team over time.

Facilitator

The role of the facilitator is to guide the team through the agenda by

- starting the meeting on time;
- describing and guiding the check-in (i.e., opening prompt/activity to focus the team on learning);
- reviewing the norms (i.e., behaviors to guide how the team works together);
- introducing each agenda item and stating time allocated for that item;
- leading the group in using protocols to ensure participation by all team members and providing more in-depth learning and discussion;
- summarizing accomplishments from the learning and setting expectations for classroom application;
- closing the meeting by setting the agenda for the next meeting, assigning any preparation for the next meeting; and
- assessing how well the team worked together.

Recorder

The role of the recorder is to maintain a record/minutes summarizing what was learned and capturing the changes in the expected instructional practices.

Scribe/Chart recorder

The role of the scribe/chart recorder is to capture discussion points using chart paper or a white board, so the discussion points are visible to the entire team.

Timekeeper

The role of the timekeeper is to keep track of limits established for protocols or agenda items to ensure movement through the established agenda within the time allocated for the team meeting.

Team Function: Setting Agendas and Keeping Minutes

An agenda serves as a written plan for learning expectations within a set amount of time. Most teams like to plan their next agenda at the end of a meeting so the team members can plan ahead and come prepared for the next meeting. The facilitator uses the agenda to help all team members stay focused on the learning task within the time allocated. Often, team agendas include space to summarize the team's learning and expectations for classroom application. The agenda/minutes are dated and can be used as an assessment tool to monitor progress of team functioning and learning focus over time (Figure 10).

Leahy and Wiliam (2009) concluded that teachers need to meet for a minimum of 75 minutes for school-based teacher learning communities. They recommended that teams should follow a standard structure for their meetings.

Figure 10. Collaborative Learning Team Meeting Template

Collaborative Learning Team Agenda

Purpose: Collaboratively build knowledge and skills to enable effective instruction through theory, demonstration, practice, and collaboration.

Learning Goals:

- _____
- _____

Success Criteria:

- I can . . .
- I can . . .

Date: _____ **Location:** _____

Start time: _____ **End time:** _____

Minutes by: _____

Materials Needed:

- _____
- _____

Setting the Stage for Learning (Check-in)

- Opening (5 minutes)
- Review of norms (ground rules)
- Identify roles (facilitator, recorder of minutes, timekeeper, etc.)

Learning Focus: _____

- Learning Opportunity #1:
- Learning Opportunity #2:

Closure

- Summary of learning
- Reflection of use of norms

Planning for Classroom Application and Next Meeting

- Classroom application to take before the next meeting
- Preparation for the next meeting

Next Meeting Date: _____ **Time:** _____

Facilitator: _____ **Location:** _____

Minutes

Names of individuals in attendance: _____

_____

_____

Decisions Made:

_____

_____

_____

Summary of what was discussed and learned:

Summary of data analyzed:

Identify any unanswered questions or issues:

Figure 10. Collaborative Learning Team Meeting Template. Adapted from the collaborative learning team meeting template developed by D. Hansen, C. Anderson, J. Hukee, C. Mangrich, and M. Hall, 2010. Copyright 2010 by the Iowa Department of Education.

Team Function: Using Protocols

Protocols are structures that guide deeper conversations among colleagues when sharing information from text and examining teacher and student work. A facilitator leads the team through the steps of the protocol within allocated time limits.

Figure 11. Sample Protocols for Use with Text

Protocol	Use
The Making Meaning Protocol	This protocol allows for teachers to share their thoughts about ways a text might influence teaching practices.
Process of Developing Understanding: A Protocol for Reflection and Analysis	This protocol guides the analysis of how a new understanding has developed and the factors that helped to clarify the new understanding.
Four "A"s Text Protocol	This protocol engages team members in identifying assumptions, agreements, arguments, and aspirations related to content of a text.
The Final Word	This protocol provides an opportunity to deepen understanding by hearing all team members' ideas, understandings, and perspectives.
Three Levels of Text	This protocol allows a team to construct meaning collaboratively, clarify, and expand thinking about a text.

Figure 11. Sample Protocols for Use with Text. Adapted from the protocols in the NSRF Materials on http://www.nsrfharmony.org/protocol/protocols.html, n.d., Copyright by the National School Reform Faculty, Harmony Education Center; "Protocols: A facilitator's best friend" by L. Easton, February/March 2009, *Tools for Schools, 12*(3), p. 1-7, Copyright 2009 by the National Staff Development Council (Learning Forward).

Figure 12. Sample Protocols for Use with Examining Student Work and Teaching Practices

Protocol	Use
Success Analysis Protocol	This protocol helps a team to celebrate successes related to instructional practices to demonstrate successful decision making or problem solving.
What? So What? Now What?	This protocol helps team members outline a current challenge or success related to implementation of CEI.
Constructivist Tuning Protocol	This protocol allows team members to present and assess students' work.
Collaborative Assessment Conference Protocol	This protocol allows team members to examine student work and discuss implications for teaching and learning for all team members.
Looking at Patterns in Student Work	This protocol focuses on inquiry into an essential question by viewing a range of students' work from multiple classrooms.

Figure 12. Sample Protocols for Use with Examining Student Work and Teaching Practices. Adapted from the protocols in the NSRF Materials on http://www.nsrfharmony.org/protocol/protocols.html, n.d., Copyright by the National School Reform Faculty, Harmony Education Center; "Protocols: A facilitator's best friend" by L. Easton, February/March 2009, *Tools for Schools, 12*(3), p. 1-7, Copyright 2009 by the National Staff Development Council (Learning Forward).

Team Function: Reflecting on Effectiveness of Meeting

At the close of the meeting, it is important for the facilitator to guide the team members in summarizing what they have learned, setting expectations of what they will apply in their own classrooms related to the new learning, setting the agenda for the next meeting so teachers come prepared to share and learn together, and reflecting on how well the team interacted during their learning time.

Jolly (2009) designed a tool (Figure 13) for helping team members quickly check on what went well and what improvement could be made during the next team meeting.

Figure 13. Learning Tool: Reflection of Team Meeting

Directions: At the close of a team meeting, the facilitator should guide the team in reviewing their norms (behaviors) and reflecting on how well all team members followed them. The recorder can check off and write under the different columns.

- ☐ Did every member join in the team's discussions?
- ☐ Did each member listen attentively as others spoke?
- ☐ Did one or two members dominate the discussions?
- ☐ Did all members arrive on time and stay for the entire meeting?
- ☐ Were all members prepared for the meeting when they arrived?
- ☐ Were all members "totally present" during the meeting?
- ☐ Did each member of the group believe that his or her time at the meeting was well spent?

What Did We Do Well	What Can We Improve

Figure 13. Learning Tool: Reflection of Team Meeting. Adapted with permission from *Team to Teach: a Facilitator's Guide to Professional Learning Teams* by A. Jolly, 2009, Tool 4.6. Copyright 2009 by the National Staff Development Council (Learning Forward).

Maintaining Effectiveness of Collaborative Learning Teams

Maintaining effectiveness of collaborative learning teams means understanding where teams are in their stages of team development and their comfort level of working together. Identifying the current stage of team development and the collaborative skills needed to work effectively and productively will impact the amount of structure that is needed, along with the selection of learning tools to engage teachers in their focus on instructional practices to improve student performance.

Killion and Roy (2009) identified the following knowledge and skills (Figure 14) for collaborative learning teams that will impact their effectiveness and productivity.

Figure 14. Collaborative Skills

Knowledge	Skills
• Understanding what collaborative professional learning is and how it differs from other forms of professional development • Benefits of collaborative professional learning • Purpose of collaborative professional learning in the school • How collaborative professional learning fits within a comprehensive professional development program • How collaborative professional learning helps teachers meet the state's requirements for professional learning within the school • Expectations for collaborative professional learning within the school • Strategies for team learning • Processes for establishing teams, communicating about the team's work, demonstrating the team's work and results • Stages of team development • Knowing and teaching core content	• Setting agreements • Taking various roles • Making decisions • Resolving disagreements • Building trust • Working collaboratively • Communicating clearly • Setting goals • Developing action plans • Analyzing data • Developing and reviewing curriculum, assessment, instruction, and student learning • Evaluating work products and processes

Figure 14. Knowledge and skills for collaborative learning teams. Adapted with permission from *Becoming a Learning School* by J. Killion and P. Roy, 2009, Tool 7.6. Copyright 2009 by the National Staff Development Council (Learning Forward).

Stages of Team Development

Joan Richardson (November/December 2005, p. 2) cited in *Tools for Schools* a definition for a team by Jon Katzenbach and Douglas Smith (Harvard Business Review, March/April 1993): "A team is a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable." Therefore, for a group of teachers to evolve into becoming an effective collaborative learning team, it is important to understand the four stages of team development, which include forming, storming, norming, and performing.

- **Forming:** At this stage, teachers are just forming into collaborative learning teams. They tend to have high expectations but also some anxiety of how they fit in. Teachers will tend to be more guarded with their behaviors during this time. There is more dependence on a facilitator to create a structure for the group of teachers selected to work together.

- **Storming:** At this stage, conflict occurs as teachers begin to confront each other, are influenced more or less by certain individuals within the group, and become more aware of the amount of work needed to accomplish tasks.
- **Norming:** At this stage, teachers have resolved their issues and feelings of resistance and begin to become more cohesive as a group. At this point, the group begins to develop collaborative skills and agree on procedures for working together to accomplish assigned tasks.
- **Performing:** At this stage, the group really becomes a team by sharing leadership, working collaboratively and interdependently, and performing at high levels on their collective focus to improve instructional practices for all students.

Learning Tools Index

Title of Learning Tool	Use
Richardson, J. (November/December 2005). Transform your group into a team. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 4.	This tool provides the facilitator with directions on how to develop norms.
Richardson, J. (November/December 2005). Transform your group into a team. *Tools for Schools*. Oxford, OH: National Staff Development Council, pages 5-7.	This tool is a questionnaire that can be used to assess the degree certain behaviors are demonstrated within the team. The team can use the scoring system to determine their current stage of team development and identify next steps for increasing effectiveness and productivity of the team.
Richardson, J. (April/May 2001). Rate yourself as a team player. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 5.	This tool is a survey that individuals can use to rate their own effectiveness as a team player. It will help the team to identify current behaviors and use the results to improve team functioning.
Richardson, J. (April/May 2001). Team meetings. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 6.	This tool is a survey that teams can use to assess how well they attend to the basics of effective team meetings.
Richardson, J. (August/September 2001). Learning team survey. *Tools for Schools*. Oxford, OH: National Staff Development Council, pages 5-6.	This tool is a survey that a team can use to assess positive and negative impacts of team meetings, benefits of participating in a learning team, success of the team with collective focus, and level of commitment to the team efforts.
Richardson, J. (December/January 1999). How I act in conflicts. *Tools for Schools*. Oxford, OH: National Staff Development Council, pages 3-4.	This tool is a survey designed to help team members identify attitudes that they bring to team discussions. It should be used during the early stages of team development.
Richardson, J. (December/January 1999). Checklist for resolving conflicts. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 5.	This tool provides a worksheet for an individual team member to use in preparation for meetings to resolve conflicts with one or more team members.

Effective Communication

According to Joan Richardson (2002), both Robert Garmston (1999) and Dennis Sparks (2001) note in their work that a good starting point for developing effective collaborative learning teams is to have teachers and principals focus on their conversations. Although these new skills need to be learned, the skills must not be done in isolation. Rather, they should be put into the context of daily work, focused on teaching and student learning. One way to monitor improvement in the use of good communication skills is to provide a regular reminder during the check-in or end of team meetings.

Learning Tools Index

Title of Learning Tool	Use
Richardson, J. (October/November 2002). Listen fully. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 3.	This tool provides a process for team members to practice fully listening to another colleague, and practice being fully listened to.
Richardson, J. (October/November 2002). Measuring collaborative norms. *Tools for Schools*. Oxford, OH: National Staff Development Council, pages 4-5.	This tools provides an inventory to use in gaining awareness of members' use of collaborative norms, and to identify areas for improvement.
Richardson, J. (October/November 2002). Three forms of paraphrasing. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 6.	This tool provides statements to help team members focus on their use of three forms of paraphrasing, which include acknowledge/clarify, summarize/organize, and shift/conceptual focus.

Conzemius and O'Neill (2002) state that there are four different types of communication, which include: sharing, discussion, dialogue, and active listening. The following table (Figure 15) identifies some ways that a team can share information, and provides some examples that collaborative teams can use for sharing within and across teams in a school.

Figure 15. Information Sharing Techniques and Examples

Information Sharing Techniques	Examples
Maintain accurate minutes of team meetings.	• Share minutes electronically via e-mail or post online, such as on a wiki. • Keep minutes in a notebook accessible to all team members.
Check in with team members between meetings.	• Ask questions of colleagues as they arise between meetings. • Share current successes or problem solve between sessions.
Share information about team discussions and decisions with other colleagues in school.	• Share what CLT is learning about characteristics of effective instruction. • Share what CLT is studying, and the changes that are occurring in classrooms.
Use different ways of communicating to accommodate different learner styles of team members.	• Use flipchart or white board to write what is being discussed so all team members can view it. • Use round robin method of sharing so everyone has an opportunity for their voices to be heard. • Provide material both verbally and in writing.

Figure 15. Information Sharing Techniques and Examples. Adapted from *The Handbook for SMART School Teams* by A. Conzemius and J. O'Neill, 2002, p. 47. Copyright 2002 by the National Educational Service [Solution Tree],

Discussion is the usual way teams interact. The basic discussion skill is being able to express ideas clearly. During discussion other skills are often used, which include clarifying and summarizing.

Dialogue goes beyond just having conversations, but rather exploring and creating mutual understanding, which creates a need between speaking and listening, reflection and assertion, and advocacy and inquiry. (Conzemius & O'Neill, 2002, p. 49) distinguish between advocacy and inquiry with these two definitions: "Advocacy includes stating your assumptions and describing your underlying reasons for your assumptions, and talking about how you feel about the topic or issue, being careful to distinguish the data from your own interpretation of the data. Inquiry is asking others to make their thinking, perspectives, assumptions, and feelings visible. Inquiry involves asking for and then listening deeply to someone else's point of view and seeking to understand why he or she sees the situation in that way."

Active listening involves hearing and understanding what someone else is saying. Conzemius and O'Neill (2002) provide three strategies for active listening, which include paraphrasing (listener repeats or summarizes what has been heard), perception checking (listener draws conclusion or makes an interpretation and then checks with speaker for accuracy), and probing (going deeper in understanding, getting clearer about meaning, unearthing assumptions, exploring applications).

Figure 16. Learning Tool: Listening and Asking Clarifying Questions

Essential Questions

- How do you define "effective listening" and "asking clarifying questions"?
- How can effective listening and asking clarifying questions contribute to collaborative team development?

In what ways might you improve your own listening and asking clarifying questions skills?

Learning Strategy: Think, Pair, Share

Directions:

- Think about the definition of the two collaboration skills: listening and asking clarifying questions
- Share definitions with your partner
- Agree on common definitions for listening and asking clarifying questions
- Discuss the importance of both skills for good communication and collaboration
- Share pair's definitions with other team members
- Reach agreement on the following two questions:
    - What is a good listener doing when he/she is really listening?
    - What does the speaker experience when a team member is really listening to him/her?
- Generate 5-7 examples of clarifying questions that can be used by team members in gathering additional information on a topic, clarifying how someone feels about a topic, or further explaining a complex idea.

Notes for facilitator:

Clarifying questions should be open, neutral questions that further draw out the other person's point of view and deepen your understanding.

Examples:

- Can you tell me a little more about…?
- How do you feel about…?
- Can you help me understand why you feel that way?
- What are your concerns regarding…?

Personal and cultural differences and preferences impact listening and asking clarifying questions.

Practice Session

Learning goal: To demonstrate the ability to engage in active listening and asking clarifying questions.

Roles: Form triads if the number of team members permit—1 "storyteller", 1 listener, 1 observer

Learning Opportunity: Role Play

Directions:

1. Teacher talks about application of attribute in classroom for 2-3 minutes. During this time, the listener listens to colleague, asks clarifying questions as needed to gain more details and make feelings clearer. The observer observes the interaction between the teller and listener.
2. When the teacher is finished, the listener summarizes what he/she heard and asks additional clarifying questions if needed.
3. The observer shares with the teacher and listener his/her reflections on the interaction, providing warm and cool feedback to the listener. The teacher comments on how he/she felt about how well the listener was listening and if he/she captured the main points of the "story" in an accurate, non-judgmental way.
4. Repeat the process so all team members have a chance to practice all three roles and are able to get feedback on his/her listening and asking clarifying questions skills.

Closure/Reflection of Practice Session

- What did you learn about listening and asking clarifying questions?
- What was most challenging for you during this role play?
- How might you use these two skills to deepen your understanding about the Iowa Core as well as increase communication and collaboration among team members?

Figure 16. Learning Tool: Listening and Asking Clarifying Questions. Adapted from *Module 6: Listening and Asking Clarifying Questions* from http://www.uvm.edu, 2008. Copyright 2008 by the University of Vermont and PACER Center. (2008).

Decision Making

Ann Delehant (2007) states that although making decisions is often a difficult task, it is really the heart of the work within collaborative learning teams. The team needs to be able to make a collective decision. It is the role of the facilitator to ensure that the team uses some type of organized approach to making decisions. Delehant (2007, p. 1) states "the facilitator helps the group get clear about who is responsible for a decision, what is being decided, and how the group will reach a final choice on a matter."

There are a variety of methods for a team to use in making decisions, such as list reduction, nominal group process, criteria sorting, weighted voting, paired comparisons, and use of dots. No matter which decision method is chosen, it is important that everyone's opinion has been acknowledged and everyone on the team agrees to support the process as the team moves forward.

Learning Tools Index

Title of Learning Tool	Use
Jolly, A. (November/December 2008). The professional learning team decision-making cycle. Tools for Schools. Oxford, OH: National Staff Development Council, page 4.	This tool provides a decision-making cycle for teachers to use as a reference to help keep the team focused and on track when making decisions about the direction the team is taking in selecting and applying appropriate practices.
Von Frank, V. (November/December 2006). Decisive action: Crucial steps streamline decision-making process. Tools for Schools. Oxford, OH: National Staff Development Council.	This tool is an article that provides information about teams making good decisions and directions for a facilitator in use with different methods, such as brainstorming, criteria sort, weighted voting, and paired comparisons.
Data-Driven Dialogue Online at www.nsrfharmony.org	This tool is a protocol designed to build awareness and understanding of teachers' viewpoints, beliefs, and assumptions about data. There are three specific phases for the facilitator to use: 1) Predictions, 2) Observations, and 3) Inferences.

Iowa Collaborative Learning Team in Action

Purpose

The purpose of the "Iowa Collaborative Learning Team in Action" video segment (accessible through the Area Education Agencies' Eduvision [https://aea111.eduvision.tv/Default.aspx]) is to demonstrate the structures and processes needed to engage teachers in intentional professional learning around the Iowa Core. In the segment, a team of educators is studying one of the characteristics of effective instruction: assessment for learning. While viewing the segment, notice the depth of learning through effective collaboration, with the expectation that application in the classroom will result in improved student learning.

Skilled Facilitator

In the video segment, the facilitator engaged all team members in deep learning around one of the characteristics of effective instruction by

- setting the stage for learning,
- distributing role assignments,
- reviewing the ground rules,
- following a planned agenda using a variety of processes,
- setting expectations for classroom application, and
- reflecting on the learning and preparing for the next meeting.

Basics of an Effective Collaborative Learning Team (CLT)

Identify Team Members

- Size of group: 4
- Team membership: Multidisciplinary (across content areas)

Team Functions

- Ground Rules
  - Respect others
  - Share the air time
  - Be ready to learn
  - Suspend barrier thinking
- Time for Regular Meetings
  - Meeting time (45 min. to 1 hr.)
  - When: during common planning time, before or after school
- Role Assignments
  - Facilitator (skilled)
  - Scribe (chart recorder)
  - Recorder of minutes

Agenda and Minutes

Figure 17. Sample Collaborative Learning Team Agenda: Collaborative Learning Team

Collaborative Learning Team Agenda

Purpose: Collaboratively build knowledge and skill base that enables effective teaching and assessment by extending the theory, demonstration, practice, and collaboration from the workshop into the workplace.

Characteristics of Effective Instruction Focus: Assessment for learning (Module 5)

Learning Goals (Module 4)

- Gain a theoretical understanding of learning progressions and their relationship to the Iowa Core
- Practice developing a learning progression from an essential concept in the Iowa Core
- Gain an understanding of how learning progressions represent progressively more complex ideas
- Practice providing descriptive feedback on learning progressions based on a feedback protocol

Success Criteria (Module 4)

- I can explain learning progressions and their relationship to the Iowa Core.
- I can develop a learning progression from an essential concept in the Iowa Core.
- I can represent learning progressions as progressively more complex ideas.
- I can provide descriptive feedback on learning progressions based on a feedback protocol.

Date: _____ **Location:** _____

Start time: _____ **End time:** _____

Minutes by: _____

Materials Needed:

- Practice profile for Module 5: Planning for assessment for learning
- Article to read: *Learning Progressions* by Margaret Heritage, CRESST. Retrieved January 2010 from: http://www.ccsso.org/projects/scass/projects/formative_assessment_for_students_and_teachers/11541.cfm
- Article to read: *Developing and Using Learning Progressions as a Scheme for Measuring Progress* by Karin Hess, National Center for Assessment. Retrieved January 2010 from: http://www.nciea.org/publications/CCSSO2_KH08.pdf
- Learning progression, learning goals, and success criteria from January meeting
- Poster paper and markers

Setting the Stage for Learning (check-in)

- Review ground rules for all CLT meetings
- Identify roles (facilitator, recorder of minutes, etc.)
- Place a copy of the practice profile on the wall. Invite members to place a sticker on the level where they currently see themselves for *Developing Learning Progressions* and *Using Learning Progressions*. Identify the current state for the majority of the group. Identify at least one action the group will take to help move all members to the left on the scale. Record the action in the minutes.

Learning Focus: Learning Progressions

The following learning opportunities may be useful in deepening your understanding of the zone of proximal development.

Learning Opportunity #1

- Read two articles for discussion (Learning Progressions by Margaret Heritage and Developing and Using Learning Progressions as a Scheme for Measuring Progress by Karin Hess.)
- Use Venn Diagram to compare and contrast the Characteristics of Learning Progressions from Margaret Heritage and Guiding Principles of Learning Progressions from Karin Hess.

Learning Opportunity #2

- Facilitator's directions to team members
- Identify commonalities between the definitions for learning progressions
- Pair up with a partner to discuss shared ideas
- Share partners' ideas with whole team
- Write a definition that would help Iowa teachers best understand learning progressions

Closure:

- Summary of learning
- Reflection of use of norms

Planning for Classroom Application and Next Meeting

- Classroom application to take before the next meeting
- Preparation for the next meeting

Next Meeting Date: _____ **Time:** _____

Facilitator: _____ **Location:** _____

Minutes

- Attendance
- Decision made
- Summary of what was discussed and learned
- Summary of data analyzed
- Identify any unanswered questions or issues

Figure 17. Example of an agenda used for a collaborative learning team.

Artifacts from the Collaborative Learning Team Meeting

The four team members did a self assessment of their perspectives of current status with two attributes: developing learning progressions and using learning progressions.

All four members of the team identified themselves at the novice level for developing learning progressions and at the non-implementation level for using learning progressions. The following table describes the team's assessment of their current level.

Figure 18. Results from Self-Assessment Using Assessment for Learning Practice Profile

Component: Learning progressions define the pathway along which students are expected to progress in a domain. They identify the specific knowledge and skills students need to reach the learning goal, as well as provide a map of future learning opportunities.		
Attribute	**Current Level**	**Description**
Developing Learning Progressions	Novice	I understand the value of using learning progressions and have begun to look for existing examples of learning progressions that relate to my teaching. • We are planning to establish a group to review existing research on learning progressions. • We are planning to establish a group that will develop learning progressions consistent with the Iowa Core.
Using Learning Progressions	Non-Implementation	I am not yet familiar with how learning progressions will assist in planning instruction or assessing students.

Figure 18. Results from Self-Assessment Using Assessment for Learning Practice Profile.

Learning Opportunity 1: Use Venn Diagram to Compare Content of Two Articles

Figure 19. Comparison of Content about Learning Progressions from Two Articles

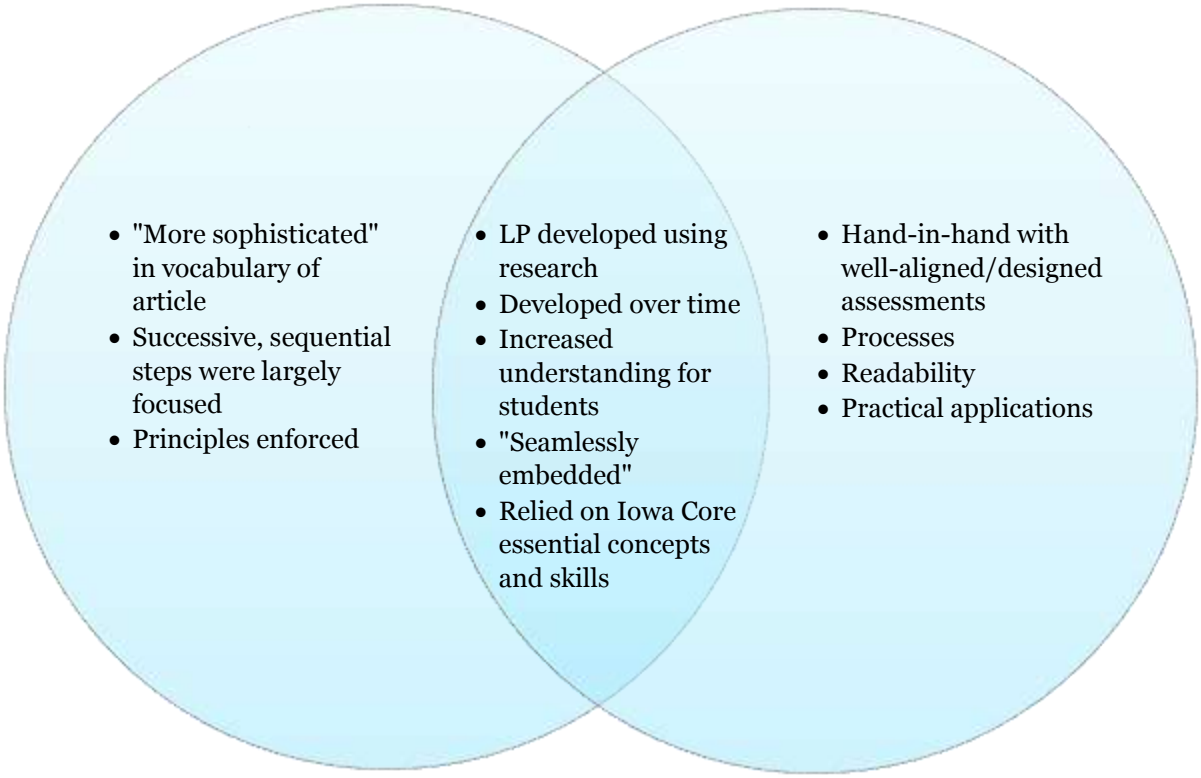

Figure 19. Comparison of Content about Learning Progressions from Two Articles.

Learning Opportunity 2: Definition of Learning Progressions (LP)

Learning progressions are research-based descriptions of skills, understanding, and knowledge that become increasingly complex over time. "They provide the big picture of what is to be learned, and they help teachers locate students' current learning status on the continuum along which students are expected to progress" (Heritage, 2007, p. 142).

Video Segment: Exemplar Collaborative Learning Team (CLT) in Action

Learning Goal: Examine how a skilled facilitator engages all team members of a CLT in studying one of the characteristics of effective instruction: assessment for learning.

Time: 20 minutes

Directions for Facilitator: State the purpose of viewing the video segment of a CLT.

> "The purpose of the video segment is to demonstrate the structures and processes needed to engage teachers in intentional professional learning. You will see a team of educators who are studying one of the Characteristics of Effective Instruction. As you watch, notice the depth of learning through effective collaboration, with the expectation that application in the classroom will result in improved student learning."

- View the video segment as a team, stopping when appropriate, taking notes, etc.
- Review each of the components of an effective meeting as viewed in the video segment
- Set the stage for learning
- Distribute role assignments
- Review the ground rules

- Follow a planned agenda using a variety of processes
- Set expectations for classroom application
- Reflect on the learning and prepare for the next meeting
- Engage team members in a learning opportunity using a Venn Diagram to compare and contrast components viewed in the video segment, and current structures and processes of own team

Figure 20. Learning Tool: Venn Diagram Template

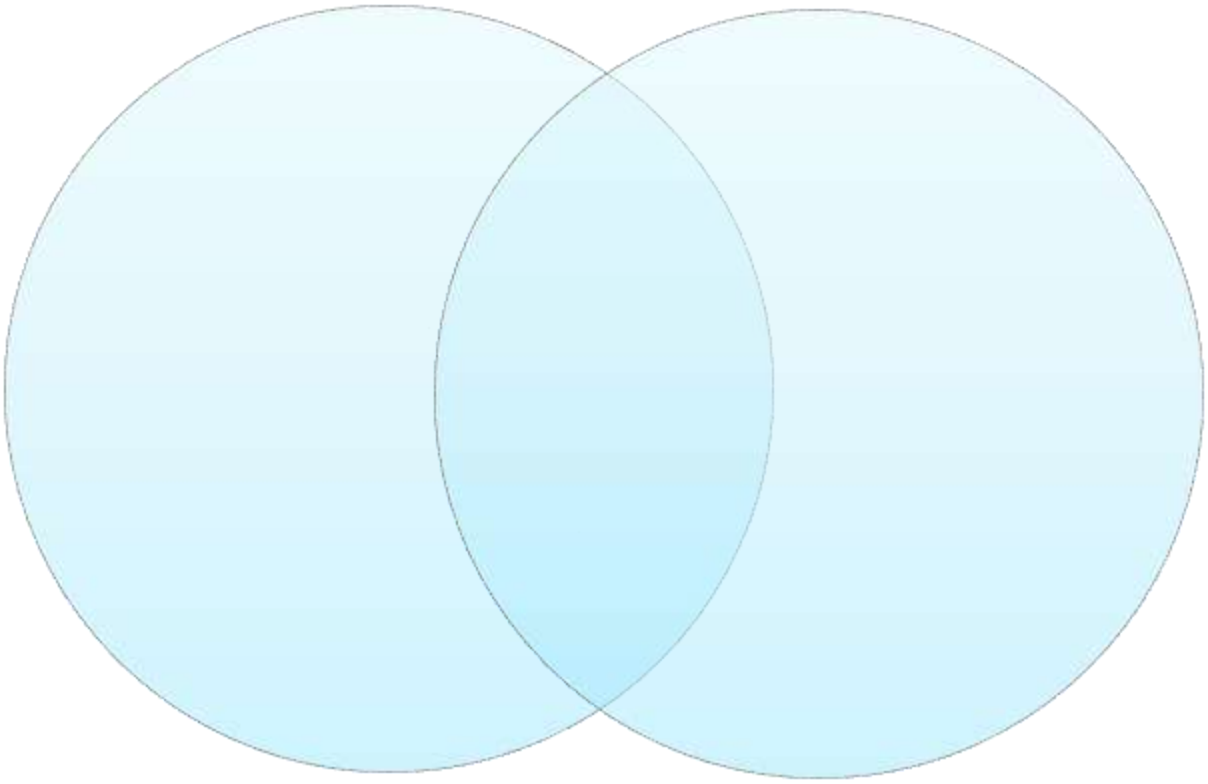

Figure 20. Learning Tool: Venn Diagram Template

Chapter 5: Teaching and Learning

Overview

Job-embedded professional learning in collaborative learning teams (CLTs) focuses on improving teaching and learning to increase student achievement. This aligns with the ongoing components of the Iowa Professional Development Model, which include training/learning opportunities, collaboration/ implementation, and ongoing data collection (formative evaluation). To focus their learning in CLTs, teachers should

- prioritize the study of the characteristics of effective instruction based on Iowa Core implementation plan, self-study, and other data;
- gain new knowledge and skills by studying the definition and the attributes as identified in the briefs, studying current practices aligned with research addressed in the literature reviews, viewing video segments/clips, examining units, engaging in dialogue about the attributes of characteristics of effective instruction, and engaging in self reflection and dialogue about current level of implementation of the attributes of effective instruction identified in the innovation configuration maps;
- apply characteristics of effective instruction by implementing classroom practices based on new knowledge and skills, observing students during practice, examining student work with colleagues using protocols; and
- design lessons/units, implement in classrooms, reflect on student results, and revise units as needed.

Outcome 6: Instruction and Assessment—Educators implement effective instructional practices to ensure high levels of learning for each and every student.

- *Action 6.a.2 Educators acquire awareness of the characteristics of effective instruction.*
- *Action 6.b.2 Educators engage in professional development that follows the Iowa Professional Development Model (IPDM) to implement instructional strategies, models, and/or approaches supportive of the characteristics of effective instruction.*
- *Action 6.b.3 Educators implement selected instructional strategies, models, or approaches that demonstrate the characteristics of effective instruction.*

Essential Concepts and Skills

The Iowa Core provides a guide for delivering challenging and meaningful content to students that prepares them for success in life. The Iowa Core identifies essential concepts and skills for kindergarten through 12th grade in literacy, mathematics, science, social studies, and 21st century skills. It also includes direction for teachers regarding effective instruction and assessment.

The Iowa Core takes learning to a deeper level by moving students beyond superficial knowledge to deep conceptual and procedural knowledge. It also enhances student engagement by emphasizing interesting, robust, and relevant learning experiences.

The State Board of Education adopted the Common Core State Standards as part of the Iowa Core. The standards cover the areas of English language arts and mathematics only. With this adoption, the English language arts and mathematics sections of the Common Core will

replace the literacy and math sections of the Iowa Core. A final version of these sections will include all of the Common Core state standards, plus additional identified concepts and skills.

The Iowa Core Web site (http://www.corecurriculum.iowa.gov) is available to help educators better understand the statewide expectations for teaching and learning. The Web site will help educators navigate through the essential concepts and skills of the Iowa Core by content areas and grade spans: K–2, 3–5, 6–8, and 9–12. The Common Core standards for English language arts and mathematics are grade level specific for K–8.

Universal Constructs Essential for 21st Century Success

Introduction

It is necessary, even imperative, to think about 21st century skills and outcomes in terms of change: change in instructional practices, in content, and in expectations for teachers and students. The preface to Tony Wagner's book, *The Global Achievement Gap* (2008), summarizes his experiences and observations regarding change in education from when he was a doctoral student, through his work as a consultant for nonprofits, as a university professor and as an advisor to the education program of the Bill and Melinda Gates Foundation.

The schools he studied in 1988 and visited again ten years later, had not changed even though they were engaged in a variety of "reforms." Wagner suggests that teachers did not understand the reasons for these initiatives and did not feel a sense of urgency for change because their work isolated them from the "larger world of rapid change" (Wagner, 2008, p. xxvi). They had lived through so many failed education fads that their efforts were half-hearted and as a result, course curricula and instructional practices have remained pretty much the same for fifty years. Meanwhile, business leaders are frustrated because they see no evidence that students are leaving schools better prepared for the workplace; parents have anxiety about their children's futures in a world they see as much more competitive than the one they grew up in. Wagner presents a case for an updated context for schooling resulting from globalization, unlimited amounts of information, and the impact of media and technology on our work and our relationships.

Rather than the achievement gap between subgroups of students that educators typically discuss, Wagner's global achievement gap is the gap between what the best schools are teaching and testing and what all students need to succeed as learners, workers, and citizens in today's global knowledge economy. His conversations with business leaders led to the identification of what he calls the "Seven Survival Skills for the 21st Century." Among the skills he included are collaboration across networks and leading by influence; curiosity and imagination; initiative and entrepreneurialism; and agility and adaptation. Additionally, Wagner's walking tours of high schools with high student achievement and a University of Virginia study of elementary classrooms led him to conclude that (1) teachers are focused on the basics, and (2) students are not being asked to do much explanation of their thinking, analysis, synthesis, or reasoning: the primary skill being taught was memorization. It is up to school leaders, teachers, and administrators to provide the impetus for change, to build a culture of continuous improvement, and to support their colleagues during the process (Wagner, 2008).

Iowa's 21st Century Skills Story: Background and Process

The Iowa Department of Education established work teams to develop essential concepts and skills for the "twenty-first century learning skills which shall include but are not limited to civic literacy, health literacy, technology literacy, financial literacy and employability skills…" listed in Iowa Senate File 2216. The committees included representatives from K–12 and post-secondary education, county health services, consumer credit services, business and industry. The committees surveyed the literature, studied standards from relevant professional organizations, and developed the concepts and skills for 21st century skills, first for grades 9–12, then for grades K–8. The committees received feedback from several sources, edited the work, and the essential concepts and skills were adopted by the State Board of Education and became part of the Iowa Core.

Once this work was completed, the content of the Iowa Core for 21st century skills was in place. Those concepts and skills deemed essential had been identified and provided a mandate for Iowa districts to implement a guaranteed, viable curriculum for all students. Rather than confining the essential concepts and skills to specific courses, their integration throughout all content areas was a central theme of Iowa Core best practice. The characteristics of effective instruction had been identified, and tools were being developed to support student engagement, alignment, and assessment.

But something was missing: the types of student outcomes, habits of mind or dispositions that Wagner called "survival skills" had not been specifically included in the Iowa Core. Although some teachers might consider them to be important, and districts might cite them as competencies their students should possess at graduation, there had been no systematic process for identifying and defining these outcomes as an essential part of the Iowa Core. The Department established a work team whose challenge was to identify and define these outcomes for Iowa students. It was also about this time that Iowa became the thirteenth state to join the Partnership for the 21st Century, a national organization that has established a vision and comprehensive framework to support the acquisition of the competencies students need to be productive in our changing world.

The committee members represented a broad spectrum of stakeholders, similar to the membership of the teams that wrote the essential concepts and skills for the 21st century content areas listed in Iowa legislation. They surveyed current literature, as well as such sources as the 1992 SCANS report, and agreed that there were six outcomes, or constructs, that if intentionally taught in Iowa schools, would fill the global achievement gap identified and described by Wagner. The next step in the process was to expand the construct definitions in order to examine their complexity and identify the embedded concepts. To really teach something well, it is important to define it. If this stage is skipped, we may not really identify the characteristics of what must be taught, and they may not align with the demands of the world beyond school.

The committee, with assistance from the Department of Education, discussed at length a collective term to use in referring to the six outcomes. "Universal" implies that the constructs are significant for everyone and are comprehensively broad, pertaining to all content. A "construct" is a conceptual model or schematic: thus the term "Universal Constructs Essential for Success in the 21st Century" was adopted. Iowa's universal constructs are creativity, critical thinking, collaboration, complex communication, flexibility/adaptability, and productivity/accountability.

The Role of References in the Committee's Work

Wagner is not the only author to discuss student outcomes for the 21st century. Various sources do not use the same terms to refer to the same outcomes. They make a compelling case for attention to authentic workplace competencies in school curricula, and most cite research and statistics that create a sense of urgency for a response to the changing nature of the workplace and our global society. The committee used references to (1) expand their knowledge and understanding of the outcomes in order to write expanded definitions (2) develop a rationale for identification of specific outcomes that appeared across many sources, and (3) select those outcomes for inclusion in Iowa's framework that appeared across many sources. The committee members encourage Iowa school leaders to use a variety of references to build capacity among teachers and community members. This is an important step in understanding or developing a sense of how the universal constructs should look through a 21st century lens. A few key resources and main ideas follow.

- Arthur Costa (2009) defines a "habit of mind" as a pattern of intellectual behaviors that lead to productive actions. His habits of mind as "learning outcomes" include persisting; managing impulsivity; thinking flexibly; thinking about thinking (metacognition); striving for accuracy; questioning; and thinking and communicating with clarity and precision.
- In *Defining a 21st Century Education*, Craig Jerald (2009) answers the question, "What specific kinds of knowledge and skills will be most important in the 21st century?" He states that because of technology, globalization, and other competitive forces, companies have radically restructured how work gets done. Organizations are "flatter" and workers have less supervision, greater autonomy, and more personal responsibility for the work they do. They also have a greater burden of risk and responsibility for their personal well-being when it comes to things like job security, health care, and financial planning.
- Jerald and Wagner make a case for integrating the skills into rigorous content. In *The Global Achievement Gap*, Wagner (2009) stated that in the schools he visited, teachers who used academic content as a means to teach students how to communicate, solve problems, and reason were the exception—fewer than one in twenty. However, in the article "Rigor Redefined," Wagner (October 2008) cautions against putting content expertise first. In interviews he found that even engineers and technicians put asking good questions and engaging in good discussion in a collaborative environment ahead of content expertise.
- The Organization for Economic Co-operation and Development, OECD, used these criteria to select key competencies: (1) contribute to valued outcomes for society and individuals; (2) beneficial in a wide spectrum of contexts; and (3) important for all individuals, not just experts or those in certain occupations.

Although the report of the Secretary's Commission on Achieving Necessary Skills (SCANS) was first published in 1992, the committee members representing business and industry believed it still to be a significant, relevant source. It provides a three part structure for student competencies: (1) basic academic skills; (2) thinking skills such as decision-making, creativity, problem solving, reasoning; and (3) personal qualities such as integrity, responsibility, self-management, and adaptability. It is interesting to note, and might be a topic of discussion for school staff, that after eighteen years, we are still searching for ways to integrate these competencies or constructs into instructional practices that reach all students.

Using varied resources gave validity to the process and provided assurance that the selected outcomes were research-based. The committee discussed and found specific links to the characteristics of effective instruction. It is essential that teachers embrace the instructional component, that they ask and answer this question: "What did I do today to relate my lessons to the universal constructs?" The universal constructs should be embedded in rigorous curriculum and should permeate instruction.

It is important that teachers and students be able to expand on the definitions of the universal constructs and to articulate how they relate to authentic experiences and real-world situations, i.e. that they can operationalize the constructs. Given the elaborated definitions and supporting instructional and professional development materials, teachers will be able to integrate the constructs into content and instructional practice. If we are to make the necessary changes to close Wagner's global achievement gap, it is every teacher's responsibility to maintain a focus on the universal constructs and provide opportunities for all students to learn and develop these critical skills for success.

Definitions of 21st Century Universal Constructs

Critical Thinking

Critical thinking is the ability to access and analyze key information to develop solutions to complex problems that may have no clear answer. It incorporates reflective and visionary processes. Critical thinking utilizes abstractions and non-rules based strategies to guide behaviors and actions.

Twenty-first century critical thinking reflects:

- thoughtful questioning that challenges assumptions, promotes higher order thinking, leads to new insights, and validates perceptions;
- metacognition that supports reflective practice;
- processes that analyze, select, use, and evaluate various approaches to develop solutions;
- analysis and synthesis of multiple sources and points of information;
- intentional use of disciplinary frameworks to analyze complex issues and information; and
- suspension of judgment while collecting evidence to make determinations.

Complex Communication

Effective communication is based on the successful sharing of information through multiple means, including visual, digital, verbal, and nonverbal interactions. The message is purposeful, clear, and concise, leading to an accurate exchange of information and ideas.

Twenty-first century effective communication reflects

- negotiation processes that generate mutually satisfactory solutions,
- managing and resolving conflicts,
- interacting effectively with people of different cultures,
- selection and integration of various communication processes,
- integration of appropriate forms of information communication technology,
- understanding the interactions among modes of communication,
- meaningful and engaging interactions;

- focus, energy, and passion around the key message, and
- navigation through nuances of effective communication.

Creativity

Creativity incorporates curiosity and innovation to generate new or original thoughts, interpretations, products, works, or techniques. Entrepreneurial thinking and related risk-taking contribute to creative processing of ideas and information. Creativity is nurtured, advanced, and modeled through numerous approaches, including inquiry-based learning, abstract thinking, and student-focused learning.

Twenty-first century creativity reflects

- a disciplined process that includes skill, knowledge, imagination, inspiration, and evaluation;
- capturing or collecting new ideas for current or future use;
- combining seemingly unrelated ideas into something new;
- a respectful exchange of ideas;
- engagement in formal and informal learning experiences;
- divergent thinking;
- entrepreneurial thinking that encourages unique thoughts and applications;
- a comfort level with open-ended challenges that reflect multiple approaches and results;
- reconfiguration of current thought within a new context; and
- pattern recognition across disciplines, resulting in an innovative outcome.

Collaboration

Collaboration is working among and across personal and global networks to achieve common goals. It requires cultural competence and personal and civic responsibilities in all environments. Collaboration also requires open and flexible approaches to leadership.

Twenty-first century collaboration reflects

- non-hierarchal leadership based on individual skills;
- respect for a complex process that requires individuals to contribute and participate in meaningful interactions;
- the belief that group synergy enhances productivity;
- understanding and application of effective group processes to solve problems; and
- productive group interactions, which may include respectful disagreement.

Flexibility and Adaptability

Flexibility and adaptability include responding and adjusting to situational needs and changing to meet the challenges of new roles, paradigms, and environments. Intellectual agility, which fosters creativity and innovation, is an important component of flexibility and adaptability. Flexibility and adaptability include the thoughtful balance between an individual's core beliefs and appropriate reaction to change. These dispositions are nurtured through lifelong learning and continuous improvement.

Twenty-first century flexibility and adaptability reflect

- engagement in innovation and creativity,

- strategic agility,
- expecting and accepting emotions inherent with change while supporting those involved,
- embracing change,
- respect for unique qualities of others and self;
- purposeful and thoughtful response to disruption/change,
- acknowledging dissonance,
- reflecting on positive and negative outcomes of risk-taking, and
- proactive and reactive approaches to change.

Productivity and Accountability

Productivity is prioritizing, planning, and applying knowledge and skills to make decisions that create quality results in an ever-changing environment. Individuals and teams demonstrate initiative, self-direction, and personal responsibility to add value to the world around them.

Individuals demonstrate accountability through efficient time management, appropriate resource allocation, personal integrity, and self-monitoring to meet the demands of productivity. Individuals and teams recognize the interconnectedness of their actions at all levels.

Twenty-first century productivity and accountability reflect:

- ability to acquire new learning on one's own;
- application of appropriate processes and tools to facilitate task completion;
- self-sufficiency as required in a complex environment;
- identification of available opportunities;
- motivation and commitment to achieve;
- assuming leadership roles;
- building on prior learning and experience to apply knowledge and skills in a variety of contexts; and
- self-confidence and self-respect.

Learning Opportunities within Collaborative Learning Teams (CLTs)

Collaborative learning teams have the opportunity to deepen their understanding of the universal constructs by using guiding questions for team discussions, with the intent to apply new knowledge and skills to classroom practice.

Guiding questions and discussion prompts for the five universal constructs are provided below to give collaborative learning teams a choice in which ones best fit the design and focus of their CLTs. An example of how to use a Think Aloud for critical thinking is also provided as a learning tool.

Critical Thinking

The purpose of these questions is to begin a conversation about critical thinking. Given the progress of the district/school with collaborative learning teams, and their experiences with the universal constructs, facilitators should select the questions that will be most useful and likely to encourage deep conversation about the critical thinking outcome.

1. What is the key question you want your students to answer right now? What information do they need to address the question? How can you make sure the information is relevant and accurate? Is there another way students could interpret the information other than the method you have presented or the way the textbook is presenting? How does this content relate to students' lives in a significant way?
2. How do you develop critical thinking skills so that they are a habit of mind for your students?
3. How have I let my students know and understand that I am open to their interpretation, as long as it is well substantiated by research or facts?
4. What learning experiences, resources, and strategies do you incorporate into your instruction to instill and encourage divergent thinking in your students?
5. Under what circumstances do you think with a bias in favor of yourself instead of the students or other staff members? Do you ever become irritable over small things? Did you do or say anything "irrational" to get your way? Do you try to impose your will upon others? Did you ever fail to speak your mind when you felt strongly about something, and then later feel resentment?
6. Choose one intellectual trait—intellectual perseverance, autonomy, empathy, courage, humility, motivation, etc. Which trait is a strength for you? How can you develop those traits in yourself that are not currently strengths? What are some times when you find that your intellectual arrogance keeps you from learning? For example, when do you say to yourself "I already know everything I need to know about this subject?"
7. Make a list of three to five recurrent negative school contexts in which you consistently feel frustrated, angry, unhappy, or worried. Take some time and try to identify the root of the negative emotion by asking, "What exactly is the thinking leading to this response? What are some plausible alternatives to turn the negative responses into positive responses?"
8. Every collaborative team enforces some level of conformity. For this collaborative learning team, what are you "asked" to believe? Are these beliefs in accordance with your own expressed values and educational philosophy?
9. At what point today did you do your worst thinking? When did you do your best thinking? Did you allow any negative thinking to frustrate you unnecessarily? If you had to repeat today what would you do differently? Why?

10. What have you done today to further your long-term learning goals? If you spent every day this way for 10 years, would you at the end have accomplished your learning goals in that time?

Complex Communication

The purpose of these questions is to begin a conversation about complex communication. Given the progress of the district/school with collaborative learning teams, and their experiences with the universal constructs, facilitators should select the questions that will be most useful and likely to encourage deep conversation about the complex communication outcome.

1. Mike Summers, vice president of global talent managers at Dell Computers, stated he was "…routinely surprised at the difficulty some young people have in communicating…they have difficulty being clear and concise; it's hard for them to create **focus, energy, and passion** around the points they want to make…" (Wagner, 2008, p. 35; Jerald, 2009, p. 60). How would you define the terms "focus, energy, and passion" in language that students would understand? Could you model these attributes of effective communication for students? Is "passion" the same as the traditional concept of "voice?"
2. Summers stated, "You're talking to an exec, and the first thing you'll get asked if you haven't made it perfectly clear in the first sixty seconds of your presentation is, 'What do you want me to take away from this meeting?' They don't know how to answer that question" (Jerald, 2009, p. 60). What kinds of assignments could you give in your content that would help students practice the focus that Summers is talking about? Can you think of additional real-world examples where focused communication would be critical?
3. A traditional visual model of communication includes "Speaker/Writer"—"Information/Message"—"Receiver/Speaker" with an arrow labeled "Feedback" leading from speaker back to receiver. What might a communication model for the 21st century look like? Think digital media: IMs, Twitter, e-mail, texts, Facebook, video, forms of social networking, etc. How do these digital media options impact the message and the feedback?
4. How do you assess the impact of what you say (or write) on others? How can you tell if someone is really listening to you, or is engaged with what you are saying?
5. How does the addition of the word "complex" change the traditional concept of "communication"?
6. "…the growing complexity of work has made uncertainty and disagreement far more prevalent in the workplace. As a result, negotiation is a far more valuable skill…" (Jerald, 2009, p. 57). The universal constructs definition of complex communication states that it reflects "negotiation processes that generate mutually satisfactory solutions." Define negotiation within the context of complex communication and discuss how you would model the process for students.
7. Why is "managing and resolving conflicts" part of the expanded definition of complex communication?
8. Many Iowa students go on to postsecondary or employment environments that are more culturally diverse than their K–12 experiences. How do you prepare students to communicate and to interact with people of different cultures?
9. What kinds of experiences could you provide for students that would allow them to practice the "selection and integration of appropriate forms of information communication technology"?

10. Typically—when students are given assignments that require oral or written communication—we encourage them to choose familiar topics from their own experience, because we want them to focus on the technical parts of writing and speaking. What kinds of authentic communication experiences might we provide that would require engagement with rigorous content from their coursework so that they could practice focused presentations of more technical, complex information?

Creativity

The purpose of these questions is to begin a conversation about creativity. Given the progress of the district/school with collaborative learning teams, and their experiences with the universal constructs, facilitators should select the questions that will be most useful and likely to encourage deep conversation.

1. What are the controversies and significance behind the teaching of creativity as we are immersed in the 21st century? Why is thinking creatively more essential for student success now than in the past?
2. In most cases, young children come to school in full possession of their "creative spirits."
   - Do you believe this statement is true? If so, identify and discuss those educational processes or situations that encourage or enhance students' creative dispositions.
   - Which do you feel interfere with or diminish students' creative dispositions?
   - How do these processes and situations effect your disposition as a learner?
3. As you identify these processes and situations, reflect as a team on how this knowledge might change general teaching practices. How has this knowledge changed the way you teach?
4. What are the characteristics of a creative individual? Which of these characteristics are you modeling for students? What opportunities are you providing for all students to demonstrate these characteristics in your classroom?
5. In the book, *Flow: The Psychology of Optimal Experience*, author Mihaly Csikszenmihalyi (1990) defines flow as, "The state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it."
   - Discuss its importance to you and to those with whom you teach.
   - When do you experience flow?
   - What you do to help make students aware of its conditions and value?
   - Discuss what you do to foster this state in students.
6. Should we be focusing on teaching creativity to our students or teaching creatively?
7. What is your role in promoting creativity? Do parents have a role in promoting creativity?
8. How can you build novelty into teaching new information and knowledge?
9. In the book, *A Whole New Mind: Moving from the Information Age to the Conceptual Age*, author Daniel Pink (2005) argues for the importance of play for learning and creating. What can you do to include more play in your teaching and your students' learning?
10. How have your students been impacted by the culture of standardized testing? How has your teaching been impacted by this culture? Does this culture make it more difficult to be a creative teacher? Does it make it more difficult to design opportunities for all students to express their individual creativity?

Collaboration

The purpose of these questions is to begin a conversation about collaboration. Given the progress of the district/school with collaborative work teams, and their experiences with the universal constructs, facilitators should select the questions that will be most useful and likely to encourage deep conversation about the collaborative process.

1. What are the benefits to operating our school as an interdependent learning environment?
2. What structures do we need in order to support our best work together?
3. How can we use resources to support our best work together?
4. What are the essential skills for collaboration?
5. How do we want to learn to collaborate?
6. What attitudes or beliefs stand in the way of success for a collaborative learning team?
7. Is learning a part of the dialogue at every professional meeting?
8. How do we share responsibility?
9. How do we make decisions that yield mutual benefits for all?
10. What processes are available to engage in conflict constructively so we build relationships through conflict rather than destroy them?
11. What can be done to make our school a more creatively stimulating environment for staff and students?
12. What are the learning goals of our team?
13. What are we willing to commit to in order to reach these learning goals?
14. Where are we now with respect to our learning goals?
15. What progress are we making towards those goals?
16. How will we get to where we want to be with respect to those learning goals?
17. What will we have to change in our practice to serve students better? What will we need to learn in order to do that?
18. What are our success criteria for meeting those goals?
19. How will we know we have achieved our success criteria?
20. If we are successful at reaching these learning goals, what will we see students doing or hear them saying? How will we sustain our focus and momentum?
21. As a collaborative learning team, what is our contribution to the current state and what is our contribution for creating something different?
22. What benefits to our students will we be able to observe and measure through our work as collaborative learning teams?
23. How are you discerning the differences between collaboration and cooperation for your students?
24. How do we ensure that all students' thinking, voices, and ideas are heard and honored?
25. The idea of "amplification" occurs when a piece of work or an idea is shared with peers who collaborate to help the originator see what the possibilities might be. What do you do to amplify your colleagues' talents, passion, and gifts? What do you do to amplify your students' talents, passions, and gifts?

Flexibility and Adaptability

Moving from an era of hierarchal authority to an environment that is team-based, the increasing complexity of problems that teams and individuals face every day, and the intensifying rate of change in our society all illuminate the importance of agility and adaptability (Wagner, 2008).

The purpose of these questions is to begin a conversation about flexibility and adaptability. Given the progress of the district/school with collaborative learning teams, and their experiences with the universal constructs, facilitators should select the questions that will be most useful and likely to encourage deep conversation about the flexibility and adaptability outcome.

1. What's the quickest, and the toughest, mental transition you've ever had to make (Lombardo & Eichinger, 1992)?
2. How would you define cognitive or intellectual agility?
3. How would you help students understand this aspect of the definition: "Flexibility and adaptability include the thoughtful balance between an individual's core beliefs and appropriate reaction to change"? Is there an ethical component to this construct?
4. Have you ever tried to help someone try to act differently in different situations (Lombardo & Eichinger, 1992)?
5. Given the rapid pace of technological change along with the disappearance of well-defined jobs and long-lived careers, the ability to acquire new learning on one's own is increasingly important. (Jerald, 2009). Outside of having students do independent research, how do you operationalize "learning to learn" in your classroom?
6. Identify some external factors or influences that impact the way you think about and do your work. Has it been necessary for you to change your practices or processes? Explain.
7. How is this construct related to ambiguity? Disruption? Unpredictability?
8. Given the positive results associated with making learners aware of the learning goals of a course, many high school students have little experience with ambiguous expectations or success criteria. How can you help them to understand that we live in a world where there is often no one right answer, and if there is, it's right only for a "nanosecond?" How can you help them understand that it will often be up to them to figure out for themselves what to do next? How can you help your students understand the differences between an acceptable and an exemplary performance?
9. Discuss this part of the definition: 21st century flexibility and adaptability reflect acknowledging and responding to dissonance in productive ways.
10. Identify real-world examples that educators could use to illustrate these realities for students: (1) Businesses change their products and services all the time. (2) Jobs people are hired to do change, and they have to adapt. (3) Adaptability and learning skills are more important than technical skills (Wagner, 2008).

Productivity and Accountability

1. What are some of the most effective ways to keep tasks on track? What have you found most effective in measuring progress toward task completion? What benchmarks have you designed to measure students' progress?
2. Tell about a time you've helped students do something they probably didn't think they could do (without doing it for them). Tell about a time you got results that exceeded your own expectations (Lombardo & Eichinger, 1992). What was unique about that experience?

3. Who have you learned the most from about getting things done (Lombardo & Eichinger, 1992)? How do you get through situations where you are overwhelmed with decisions to make or obligations to fulfill?
4. What do you do when you are under a tight deadline and have to make a decision without complete information? How do you know when to stop analyzing data and make a decision (Lombardo & Eichinger, 1992)?
5. What happens to your performance when a lot of things are "up in the air," i.e., ambiguity? How do you work through those kinds of situations?
6. When several things are competing for your time, how do you decide what to do first? What is your process for deciding what is most important? Have you been in situations where your priorities changed because the context changed? Explain.
7. When faced with a complex or difficult task, do you ever move past it to something simpler that can be accomplished in less time? Do you think there is an element of insecurity or indecision in this tendency? What do you think is the best way for educators to help students who procrastinate?
8. What kinds of experiences could educators provide for students that would help them with planning, sequencing, estimating how much time things will take, and looking ahead to what the end result will be?
9. What guidelines would be helpful for educators to provide when they want students to work productively in groups? What are some suggestions to guide them in moving ahead when the group is not in complete agreement about the goals of the project or about the way the tasks will be accomplished?
10. This construct is also about the ability to "…act within the big picture, form and conduct life plans and personal projects, and… intrapersonal competencies that come down to being able to take responsibility for one's own future and acting in self-directed, self-sufficient ways…the research on what teachers can actually do to improve such competencies is incomplete…" (Jerald, 2009, p. 67). Identify some real-world applications of this construct. What suggestions do you have for engaging the school and larger community in a commitment to develop these competencies in young people? What part could extra-curricular activities, clubs, or service organizations play?

Learning Tool: Think Aloud

Background Knowledge

Metacognition is an important part of effective instruction and of successful learning. It could be defined as "thinking about your thinking," self-questioning, or self-regulating. Deep conceptual and procedural knowledge is enhanced when learners monitor their understanding. They are able to identify things they don't understand, and decide what to do about it. It is a voice inside their heads, talking while they're reading, listening, or thinking, that encourages active participation in the learning process.

A think-aloud is a metacognitive strategy. The learner articulates what he or she is thinking while reading a text or solving a problem. A think-aloud can involve stating prior knowledge, making predictions and self-correcting. Executing a think-aloud while studying the definitions of the universal constructs can give collaborative learning team members insight into each other's thinking and clears up misconceptions. It is good practice for modeling this critical, self-reflective process for students. The constructs are essential for 21st century success; teachers and students should be able to articulate their meanings.

Think-alouds are unique to the person performing them. What follows is an example of one person's thinking while reading the definition for critical thinking. The reader's thoughts are printed in italics following each part of the definition.

Sample Think Aloud for Universal Construct: Critical Thinking

(Deconstructing the Definition; Reflecting on the Attributes)

Critical thinking is the ability to access and analyze key information to develop solutions to complex problems that may have no clear answer.

Accessing and analyzing key information means I will find facts and data that are significant and relevant, discarding ideas or content that might be interesting, but won't help in this situation. I'll use the information to gain insight into the parts or origin of the problem. A complex problem could have many parts, or causes, and therefore requires that I consider various, open-ended solutions.

It incorporates reflective and visionary processes.

Reflection means to think about what I am learning or what I know, and how I can make connections to current problems or information. "Visionary" could mean having a picture of what the end result will look like, or imagining future developments.

It utilizes abstractions and non-rules based strategies to guide decisions, behaviors and actions.

The meanings of "abstractions," which could be ideas, words or concepts, aren't obvious, or straightforward. Most strategies for problem solving in math are rules-based. A rule is a statement that is true in most cases; a strategy is a plan of action. So critical thinking is guided by ideas that may not be concrete or easily defined. Actions that reflect critical thinking aren't bound by convention or don't follow customary standards. It must be "thinking-outside-the box!"

Twenty-first century critical thinking reflects:

Thoughtful questioning that challenges assumptions, promotes higher order thinking, leads to new insights and validates perceptions.

An assumption is something that is presumed to be true, so if I'm thinking critically, I'm not taking anything for granted. Using skills like appraising, assembling, designing, and formulating will help me figure out the true nature of a situation and to either confirm or invalidate my interpretations.

Metacognition that supports reflective practice.

If I think about what I know, how I learned it, and how everything connects, it will improve the quality of my work.

Processes that analyze, select, use and evaluate various approaches to develop solutions.

This means to use diverse methods to solve problems and then to make judgments about how effective they were.

Framing critical issues to develop innovative responses.

Framing can mean to put boundaries around something; but here it probably also means to formulate or express an important matter or problem in such a way that new answers or insights are generated.

Analysis and syntheses of multiple sources and points of information.

Analysis can mean comparing, contrasting, differentiating or examining; synthesis means combining separate parts to make a coherent whole. These processes need to be applied to many different sources and pieces of information in critical thinking.

Intentional use of disciplinary frameworks to analyze complex issues and information.

Social studies, math, science, and language arts are separate disciplines and each has its own structure or framework made up of rules or processes that can be used to examine complicated information and issues.

Suspension of judgment while collecting evidence to make determinations.

In other words, critical thinking involves studying the facts before drawing conclusions, i.e. no snap decisions!

Characteristics of Effective Instruction

Introduction

The characteristics of effective instruction (CEI) are an important component of the Iowa Core. This work grew out of a necessary shift in pedagogical practices in order to support the successful implementation of the Iowa Core. By changing students' experiences in school through this shift, the ultimate goal of increased student learning will be achieved. Moving from instructional practices that treat students as receptors of information toward instructional practices that support active student engagement in their own learning of essential concepts and skills is necessary as we implement the Iowa Core.

What Are the Characteristics of Effective Instruction?

The CEI are the infrastructure by which schools will operationalize the Iowa Core. How we teach students is as important as what we teach them. The essential concepts and skills are for all Iowa students. They are what all students need to know and be able to do by the completion of their K–12 experience in order to be prepared for the 21st century. However, in order for this to become a reality and ensure that all students are prepared for their future, we must improve instruction. The CEI provide important guidance for putting the concepts and skills into practice with students. They are not instructional methodologies or practices; they are traits, or features, of successful instructional practices. The five identified CEI are:

- Student-centered classrooms
- Teaching for understanding
- Assessment for learning
- Rigorous and relevant curriculum
- Teaching for learner differences

How Were the Characteristics of Effective Instruction Developed?

Recognizing the importance of creating synergy within existing initiatives and connections to the work of the Iowa Core, the Department of Education enlisted the help of state-wide initiative leads to engage in the process of attempting to identify common instructional elements. Their collaborative work resulted in the identification of five broad characteristics common across successful initiatives. From this initial exploratory work, a new team consisting of local education agencies (LEA), area education agencies (AEA), and Iowa Department of Education (IDE) members was formed to further develop the work of the initiative leads. During this process, the emphasis was on ensuring that the identified CEI were supported by a defensible evidence base.[1] The team reached consensus that the five characteristics of effective instruction should become the focus of the necessary shift in pedagogical practices to support implementation of the Iowa Core. With the foundational development of the CEI accomplished, the focus moved to extending and refining the work to support specific needs of Iowa's educational system.

[1] Learning Points contributed additional reviews and additional studies to further define and establish the characteristics of effective instruction.

How Can We Support Teachers in Implementing the Characteristics in Their Classrooms?

Through participation in ongoing, job-embedded, data-driven collaborative learning teams, teachers can explore tools and processes that will assist them in successfully embedding the CEI into their practice. They will engage in the kind of experiences we envision for students--experiences that are rigorous and relevant; allow for the development of deep conceptual and procedural knowledge; flex to meet the "right here, right now" needs of learners; and provide timely and specific feedback based on clear targets.

Collaborative learning teams will be instrumental in helping teachers design lessons and units that incorporate the CEI. As collaborative teams begin their work, they will have access to resources that support the CEI—literature reviews, briefs, innovation configuration (IC) maps, and facilitation materials. The literature reviews provide evidence and confidence in the credibility of the characteristics of effective instruction. They answer the question, "Why should we focus on these characteristics?" The briefs connect the theory and research provided in the literature reviews to the implementation in a typical classroom. They answer the question, "What are teachers and students doing when these characteristics are in place?" The innovation configuration maps illustrate the evidence of implementation of the characteristics. They answer the question, "What does this look like, sound like, and feel like during instruction?" The facilitation materials provide guidance on how to use the literature reviews, briefs, and IC maps. They answer the question, "How do collaborative teams engage in the materials to foster conversations about professional practice?"

As a result of engaging in collaborative conversation around this work, Iowa teachers will develop a deep understanding of the CEI. This work will help teachers reflect on their own professional growth and practice.

Conclusion

The CEI are not to be viewed as five discrete components, but rather as interwoven and inter-dependent elements. Successful instruction will include the intentional and planful integration of the characteristics into instruction. The scope of this work is large and crosses grade level and content-area lines to serve the needs of all teachers in Iowa. The characteristics are not an exhaustive list of quality traits embedded in effective instructional practices; however, they provide Iowa educators with a common or shared approach to teaching that has the support of an extensive research base.

Each collaborative learning team (CLT), school, and district, with their self study and implementation plan serving as a "road map" for their efforts, will determine their starting point in selecting and focusing their learning on the characteristics of effective instruction. The following examples are meant to help guide CLTs in planning meetings, studying content about CEI (i.e. briefs, IC maps, literature reviews, video segments, lessons/units) and implementing new knowledge and skills about CEI in the classrooms. More resource (e.g., protocols, video segments) will be accessible on the Iowa Core Statewide Resources Moodle site.

Student-Centered Classrooms

The purpose of focusing the learning for the collaborative learning team (CLT) is to gain a clearer understanding of what is meant by student-centered classrooms as a characteristic of effective instruction within the Iowa Core. To facilitate that learning, the following resources are available for the team to use to deepen their understanding: a brief, innovation configuration map, and literature review.

Resources

The following resources on student-centered classrooms are available on the Iowa Core Statewide Resources Moodle site under "Teaching and Learning":

- Brief
- Innovation configuration map
- Literature review

Example of a Collaborative Learning Team Meeting in Action

The following example is what a skilled facilitator might say and do to facilitate the learning of student-centered classrooms. This meeting was facilitated by Sarah Brown Wessling, 2010 Iowa Teacher of the Year and 2010 National Teacher of the Year.

Figure 21. Example: Facilitating Student-Centered Classrooms

Facilitator Action	Participant Action
Essential Question: How do you create "this kind" of a culture?	
Essential question posted on chart paper.	
Facilitator asked the question: "What is your passion?" Setting the Stage for Learning (check-in) • Protocol: Quick Write	Educators wrote individually for 5 minutes about their own passion.
Facilitator asked the question: "What do you do when you are in the midst of something?"	
Facilitator solicited responses from the group and wrote comments on flip chart.	Some examples given: talk to someone, put others before myself, share, do more reflection, investigate outside experts, plan and prepare, research.
Facilitator asked what the group saw as commonalities.	Some examples given: social, altruistic, investigation.
Facilitator asked the group to think about their own learning process and asked the question: "How do you create a culture of learning?"	
Facilitator stated that the studying and implementation of the five characteristics of effective instruction was about changing the culture. Teachers need to be able to do each characteristic well.	
Facilitator identified the learning focus for today: "The learning focus for today is on the characteristic student-centered classrooms."	

Facilitator Action	Participant Action
Facilitator asked the question: "How do you create a group?" She gave an example of what she did in her own classroom was usually forming students into groups of four. She identified other options of grouping that she used in her own classroom, which included having students form their own groups and sometimes using random selection of members. Facilitator asked the question: "What does a student-centered classroom look like?" • Additional questions asked by facilitator were: Where are the students' desks? • Where is the teacher's desk? • What kinds of resources/materials are available to students in the classroom?	
Facilitator formed the team into small groups to draw a physical layout of a student-centered classroom (learning opportunity).	The small groups were given a time limit for the activity (15 minutes). Small groups reported out to the whole group.
After looking at the drawings, the facilitator asked these two questions: • What is one important thing about a student-centered classroom? • What is one change that you could make in your classroom?	Some examples given: release responsibility of learning to students, teacher cares about each student, passion to get to essential concepts and skills, partnership, believe each student can learn. The group viewed a video segment of an interview with Sarah (classroom teacher) (learning opportunity; approximately 5–7 minutes).
Facilitator engaged the group using a strategy, Think Aloud, in reference to the content of the video segment viewed by the team. Facilitator asked the question: "What are the characteristics within a student-centered classroom?	Some examples given: relationships, constructive feedback, learning goal, choice, relevance/authenticity, no talking head, evaluate work based on success criteria, use of rubric.
Facilitator asked the group to do an investigation of an assignment as given to the students (learning opportunity). Facilitator asked the team members to think about what characteristics of effective instruction are included in the assignment.	

Facilitator Action	Participant Action
Facilitator posed these questions: • What does the paper look like when given to students? • Does the paper include the characteristics? Facilitator engaged the group in using a protocol, World Café, for reflection and inquiry.	Some examples given: project goals and objectives, relevance, criteria for evaluation, rigor, authentic, real-world application, problem solving, collaboration, creativity. Some of these examples were universal constructs.

Figure 21. Example: Facilitating Student-Centered Classrooms (plan).

Learning Tools: Protocols

Quick Write

Quick Write is a literacy strategy that provides individuals an opportunity to reflect on their learning using open-ended statements. The writing assessment can be used at the beginning, during, or end of a collaborative learning team meeting. Individuals are given 3–5 minutes to write in order to reflect on their learning, active background knowledge, define or explain, write about what was liked/disliked about activity/lesson, or how well content was understood (Louisiana Educational Television Authority, Louisiana Public Broadcasting [LETA/LPB], 2005).

Think Aloud

Think Aloud is a literacy strategy that provides individuals an opportunity to engage in learning as the facilitator thinks through 2 or 3 examples or to use a Think Aloud when reading or thinking through content material about effective instruction (LETA/LPB, 2005).

World Café

World Café is a protocol used to engage team members in dialogue to deepen understanding, create a shared purpose, and evoke collective intelligence to take effective action (LETA/LPB, 2005).

Teaching for Understanding

The purpose of focusing the learning for the collaborative learning team (CLT) is to gain a clearer understanding of what is meant by teaching for understanding as a characteristic of effective instruction within the Iowa Core. To facilitate that learning, the following resources are available for the team to use to deepen their understanding: a brief, innovation configuration map, and literature review.

Resources

The following resources on teaching for understanding are available on the Iowa Core Statewide Resources Moodle site under "Teaching and Learning":

- Brief
- Innovation configuration map
- Literature review

Learning Sequence

The collaborative team has an opportunity to engage in learning about teaching for understanding from Eric Hart. The video segments listed below provide a research perspective with additional resources available, such as presentations and humorous clips from popular media. The segments can be accessed through the Area Education Agencies' Eduvision (https://aea111.eduvision.tv/Default.aspx) and the Iowa Statewide Resources Moodle site. Additional suggestions for using these segments are found later in this section on the characteristic of teaching for understanding.

Order	Title	Length
1	Overview of Teaching for Understanding	6:14
2	The Nature of Understanding	6:36
3	Teaching for Deep Knowledge	4:33
4	Planning to Teach for Understanding	7:12
5	Research and Actions	6:37

Sample Agenda

Meeting #1: Learning Opportunities

- Study the brief to deepen understanding of the definition and the attributes of teaching for understanding
- View Video Segment 1: "Overview of Teaching for Understanding"

Figure 22. Sample Collaborative Learning Team Agenda: Teaching for Understanding

Collaborative Learning Team Agenda

Purpose: Collaboratively build knowledge and skills to enable effective instruction through theory, demonstration, practice, and collaboration.

Learning Goals

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Success Criteria

- I can…
- I can…

Date: _____ **Location:** _____

Start time: _____ **End time:** _____

Minutes by: _____

Materials Needed:

- Brief: Teaching for Understanding
- Access to Video Segment 1: "Overview of Teaching for Understanding"

Setting the Stage for Learning

- Opening (5 minutes): Use Roundrobin and two question prompts
  - What is understanding?
  - How do you teach for understanding?
- Review of norms (ground rules)
- Identify roles (facilitator, recorder of minutes, timekeeper, etc.)

Learning Focus: Teaching for understanding

Learning Opportunity #1

- Read Brief to study definition; critical attributes; and planning, instructing, and monitoring and assessment
- Engage in dialogue about the content of text by using one of the following protocols for engaging in text.
- Choose one protocol: The Making Meaning Protocol, Text Rendering Experience, or Four "A"s Text Protocol

Learning Opportunity #2

- View Video Segment 1
- Engage in discussion about question: "Do students learn by receiving or constructing knowledge?" (5 min.)
- Engage in dialogue about question: "Should teachers teach by telling or asking?" (5 min.)

Closure:

- Summary of learning
- Reflection of norms

Planning for Classroom Application and Next Meeting

- **Actions to take before the next meeting**: Review the definition for teaching for understanding and identify something that you currently do in your own classroom that supports teaching for understanding.
- **Preparation for the next meeting**: Come prepared to share your understanding of the definition and ways you teach for understanding. Bring specific ideas and/or artifacts.

Next Meeting Date: _____ **Time:** _____

Facilitator: _____ **Location:** _____

Minutes

- Attendance
- Decision made
- Summary of what was discussed and learned
- Summary of data analyzed
- Identify any unanswered questions or issues

Figure 22. Sample Collaborative Learning Team Agenda: Teaching for Understanding.

Learning Tools: Protocols

Any one or more of the following protocols may be utilized (Figures 23–25).

Figure 23. The Making Meaning Protocol

1. **Getting started**
   - Teachers read the research brief in silence, making brief notes about specific aspects of the text that relate to their own classroom teaching for understanding.
2. **Describing the text**
   - The facilitator asks the team, "What do you see in the text?"
   - Team members provide answers without making judgments about the quality of the text or their personal preferences.
   - If an interpretation or judgment emerges, the facilitator asks for evidence on which the statement was based.
3. **Asking questions about the text**
   - The facilitator asks the team, "What questions does this text raise for you?"
   - Team members state any questions they have about the research within the text.
   - The facilitator or scribe/chart recorder might want to take notes.
4. **Speculating about the meaning/significance of the text**
   - The facilitator asks the team, "What is significant about this text in relationship to your teaching for understanding?"
   - Teachers construct meaning about the insights, problems or issues that the text focused on based on research.
5. **Discussing implications for our work**
   - The facilitator invites all team members to share any thoughts about how the research within the text might influence their classroom practices in teaching for understanding.
6. **Reflecting on the making meaning protocol**
   - The team reflects on their reactions to using this protocol to discuss the research for teaching for understanding.

Figure 23. Learning Tool: The Making Meaning Protocol. Adapted from the Making Meaning Protocol by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/learning_texts.html

Figure 24. Text Rendering Experience Protocol

Purpose

To collaboratively construct meaning, clarify, and expand thinking about information in the research brief on teaching for understanding.

Roles

- Facilitator to guide the process
- Scribe to track the phrases and words shared by team members

Set Up

Read the research brief on teaching for understanding and mark the sentence, phrase, and word that you think is particularly important to your classroom practice in teaching for understanding.

Steps

1. **First Round**: Each person shares a sentence from the research brief that he/she thinks/feels is particularly significant to his/her classroom practice.
2. **Second Round:** Each person shares a phrase that he/she thinks/feels is significant to his/her classroom practice. The scribe records each phrase.
3. **Third Round:** Each person shares a word that he/she thinks/feels is particularly significant to his/her classroom practice. The scribe records each word.
4. The team discusses what they heard about teaching for understanding and what it says about the research on teaching for understanding.
5. The team shares the words that emerged and any new insights about research and classroom practices for teaching for understanding.
6. The team debriefs the use of the protocol.

Figure 24. Learning Tool: The Text Rendering Experience Protocol. Adapted from the Text Rendering Experience Protocol by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/learning_texts.html

Figure 25. Four "A"s Text Protocol

1. All team members read the research brief silently, highlighting important sentences/phrases and making notes to answer the following four questions:
   - What *assumptions* does the author of the research brief hold?
   - What do you *agree* with in the research brief?
   - What do you want to *argue* with in the research brief?
   - What parts of the research brief do you want to *aspire* to?
2. In a round, have each teacher identify one assumption in the research brief, citing the exact location within the text as evidence.
3. Either continue in rounds for each "A" or facilitate a conversation in which the team talks about the research brief in reference to each remaining "A:" What do teachers want to argue with, agree with, and aspire to within the stated research brief. Give each "A" time for full exploration by all team members.
4. End the session with an open discussion framed around the questions: "What implication does this research and our discussion mean for our classroom practices of teaching for understanding?"
5. Debrief the use of the protocol.

Figure 25. Learning Tool: The Four "A"s Protocol. Adapted from the Text Rendering Experience Protocol by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/learning_texts.html

Video Segments: Teaching for Understanding (Eric Hart)

Order	Title	Length
1	Overview of Teaching for Understanding	6:14
2	The Nature of Understanding	6:36
3	Teaching for Deep Knowledge	4:33
4	Planning to Teach for Understanding	7:12
5	Research and Actions	6:37

Video Segment 2: The Nature of Understanding

Suggestions for Planning Agenda:

- Brainstorm briefly about "The nature of understanding."
- Ask the following questions: 1) What is the nature of understanding? 2) What characterizes understanding? and 3) What is understanding? (5 minutes)
- Read Literature Review section on "What Is Understanding?" pp. 2–4 (stop at "Depth and Type of Knowledge.")
- View video segment: "What Is Understanding?"
- Engage in discussion related to new learning.

Video Segment 3: Teaching for Deep Knowledge

Suggestions for Planning Agenda:

- Show Ma and Pa Kettle Arithmetic (video segment)
- Pose question: Did the video clip illustrate deep conceptual and procedural knowledge?
- Discussion Points
  - **Conceptual knowledge?** Knowledge of number? Knowledge of operations? Any number sense? (An intuitive sense about numbers, their magnitude, structure, relationships, and operations.)
  - **Procedural knowledge?** Knowledge of how to compute? Using correct procedures? Which ones? Why or why not?
  - **Deep knowledge?** No evidence here!
- Use a more in-depth presentation for further study of deep conceptual and procedural knowledge

Video Segment 4: Planning to Teach for Understanding

Suggestions for Planning Agenda:

- View video segment
- Pose content questions:
  - What is it? (conceptual knowledge)
  - How to do it, compute it, operate on or with it? (procedural knowledge)
  - What is it good for? (relevance, application)
  - What is it connected to? (connections, structure, coherence)
- Pose teaching and learning questions:
  - **Common misconceptions:** What are they and how will I address/resolve them?

- **Questions:** What questions will I ask to probe and deepen student understanding?
- **Scaffolding:** What is just the right amount of support and structure I should provide for student learning?
- **Reflection:** How will I provide time and design opportunities for students' critical reflection?

Video Segment 5: Research and Actions

Suggestions for Planning Agenda:

- Engage teachers in giving examples and explaining each of the following seven recommendations for teaching for understanding across all domains.
  - Creating ambitious and meaningful tasks
  - Engaging students in active learning
  - Connecting to students' prior knowledge
  - Scaffolding the learning process
  - Assessing student learning continuously
  - Providing clear learning goals
  - Encouraging strategic and metacognitive thinking (Darling-Hammond, 2008)
- **Pose question:** Why do researchers call teaching for understanding a "sea change" in pedagogy?
- **Classroom Application:** What action will you take to promote more and deeper teaching for understanding in your own classroom?

Additional Learning Opportunities

Video Segments: Jennifer Johnson, 1st Grade

View the following video segments and engage in dialogue to deepen understanding of teaching for understanding. The segments can be accessed through the Area Education Agencies' Eduvision (https://aea111.eduvision.tv/Default.aspx).

Order	Title	Length
1	Whole Class Discussion	14:43
2	Explaining and Justifying Solution Strategies	6:40
3	Using Problem Solving to Meet the Needs of All Students	9:10
4	Engaging Students in a Problem-Based Instructional Task	28:43

Suggestions for Planning Agenda:

- After viewing the video segment with teacher interview, CLT examine the algebra unit designed by the teacher (Jennifer Johnson)
- Examine essential concepts and skills for mathematics (K–2)
- Examine the five lessons designed within the algebra unit
- Explore the focus on teaching for understanding.
  - What did the teacher do to plan meaningful instruction?
  - What does it look like in classroom practice?
  - What are the students learning?

Video Segments: Mary Martensen, 7th Grade

View the following video segment and engage in dialogue to deepen understanding of teaching for understanding. The segment can be accessed through the Area Education Agencies' Eduvision (https://aea111.eduvision.tv/Default.aspx).

Title	Length
Interview with Mary Martensen: Teaching for Understanding	3:15

Suggestions for Planning Agenda:

- View the video segment of the interview with Mary Martensen, a 7th grade math teacher
- Facilitator poses the question: How has the Iowa Core helped you as a teacher?
- Protocol: Roundrobin to hear all voices

Using the Innovation Configuration (IC) Map

An innovation configuration map describes what the instructional practice of "teaching for understanding" will look like in a classroom. An IC map can be used as a planning tool or as an assessment tool but not as an evaluation instrument.

The IC map identifies four attributes of this characteristic of effective instruction:

- **Attribute 1:** Instruction facilitates the construction of deep conceptual and procedural knowledge.
- **Attribute 2:** Instruction facilitates the development of representations and conceptual models.
- **Attribute 3:** Instruction inducts students into the discipline.
- **Attribute 4:** Instruction facilitates the application of new learnings and understandings in new and novel situations (transfer).

Each attribute is described on a continuum, the variations of use, ranging from the ideal (Level 1) to nonuse. The use of the IC map helps to answer two questions:

1. What does teaching for understanding look like in practice?
2. Has quality implementation occurred?

The following two learning tools can help teachers, collaborative learning teams, and building leadership teams determine current levels of practice (using the IC map as an assessment tool) and identify possible next steps for continuous improvement toward ideal (Level 1) for each attribute.

Learning Tool: Checking Progress

Purpose: Use the IC map to monitor progress, identify challenges to implementation, and seek input into needs related to the change in practice. This tool allows teachers to identify their current practice and compare it to the ideal state (Level 1).

Time: 30 minutes

Materials: IC map for each teacher and a copy of team scoring sheet

Directions:

1. The team reviews the descriptions for all levels and all attributes to ensure that all team members understand the meaning of the descriptions and purpose of self-assessment using individual IC maps.
2. Each teacher scores his/her own IC map as to his/her current practice for each of the attributes for teaching for understanding.
3. The team records the current status of each team member based on his/her self-assessment (Figures 26, 27).
4. The team engages in conversation about how to clarify understanding of the attributes and/or descriptions of each level. The team reaches consensus on strengths and/or challenges as a team in classroom practices related to the attributes for teaching for understanding.

Figure 26. Sample Completed Scoring Sheet

Team Member	Attribute 1	Attribute 2	Attribute 3	Attribute 4
A	Level 4	Level 3	Level 3	Level 2
B	Level 3	Level 3	Level 4	Level 2
C	Level 3	Level 2	Level 3	Level 2
D	Level 2	Level 2	Level 3	Level 2

Figure 26. Sample completed scoring sheet for checking progress using the IC map.

Figure 27. Scoring Sheet Template

Team Member	Attribute 1	Attribute 2	Attribute 3	Attribute 4

Figure 27. Scoring sheet template to use when checking progress using the IC map.

Learning Tool: Planning Chart for Action Ideas

Purpose: To identify current practices, as well as what is helping (opportunities) and hindering (barriers) the team in taking action steps so all teachers implement the attributes for teaching for understanding.

Time: 30–45 minutes

Roles:

- Facilitator to guide the process
- Scribe to record team members' input

Materials: Planning Chart for Action Ideas (Figure 28).

Figure 28. Planning Chart for Action Ideas: Teaching for Understanding

Attributes	What we are doing now (current practices)	What we want to do (movement toward ideal)	Opposing Forces (barriers)	Supporting Forces (opportunities)	Action Ideas
1. Instruction facilitates the construction of deep conceptual and procedural knowledge.					
2. Instruction facilitates the development of representations and conceptual models.					
3. Instruction inducts students into the discipline.					
4. Instruction facilitates the application of new learnings and understandings in new and novel situations (transfer).					

Figure 28. Planning chart for action ideas using the IC map for teaching for understanding.

Assessment for Learning

The purpose of focusing the learning of the collaborative learning team (CLT) is to gain a clearer understanding of what is meant by assessment for learning (formative assessment) as a characteristic of effective instruction within the Iowa Core. To facilitate that learning, the following resources are available for the team to use to deepen their understanding: a brief, innovation configuration map, and literature review.

Resources

The following resources on assessment for learning are available on the Iowa Core Statewide Resources Moodle site under "Teaching and Learning":

- Brief
- Innovation configuration map
- Literature review

Learning Sequence

The learning sequence for assessment for learning includes a series of six modules focused on the attribute embedded in the process of formative assessment. The six modules are developed for flexibility for both novice learners and beginning practitioners of the formative assessment process. The intent of the six modules is to deepen understanding and establish assessment for learning in daily classroom practice. Each module includes two or more units. Each unit includes activities designed to engage teachers within a collaborative learning team in the process or attribute, provide deeper understanding of the research-base or theory, and provide opportunities for demonstration, practice, and coaching. Based on the team's background knowledge, the collaborative learning team may choose some or all of the learning opportunities within the unit, but are encouraged to engage in practice and coaching using materials such as vignettes, innovation configuration (IC) maps, and practice profiles.

The following (Figure 29) is a guide to use for the units of study of the module "Assessment for Learning: Foundations." Other materials for this module can be accessed on the Iowa Core Statewide Resources Moodle site.

Figure 29. Guide for Use of the "Assessment for Learning: Foundations" Module

Unit	Activity	Materials Needed	Approximate Time
Introduction/ Setting the Stage	Review ground rules, roles, norms & agenda	Foundations Agenda Planner	Prep will vary. 10 minutes for review
	Anticipation Guide	Anticipation Guide	5 minutes
	Star Buddies	Star Buddies	5 minutes
Unit 1: Theoretical Research Base	Opening activity video	Link to video	10 minutes
	Learning Opportunity 1	Inside Black Box; article reflection	20 minutes 20 minutes
	Learning Opportunity 2	What Research Says T-Chart	10 minutes 15 minutes
	Learning Opportunity 3	Secondary Brief	30 minutes

Unit	Activity	Materials Needed	Approximate Time
	Learning Opportunity 4	Powerpoint process Writing learning progression Physical science learning progression Literacy learning progression Trig learning progression Economics learning progression	20 minutes 5 minutes 5 minutes 5 minutes 5 minutes 5 minutes
	Concluding Activity	AffinityDiagram Chart paper, markers, post-it notes	20 minutes
Unit 2: A Balanced Assessment System	Opening Activity	Scratch paper	5 minutes
	Learning Opportunity 1	Stiggins balanced assessment; article Jigsaw activity Users & uses	15 minutes 20 minutes 15 minutes
	Learning Opportunity 2	Assessment manifesto Spider map	15 minutes 15 minutes
	Practice	Sorting activity	25 minutes
	Concluding Activity	Scratch paper	10 minutes
Unit 3: Attributes	Opening Activity	Chart paper, Sticky notes	15 minutes
	Learning Opportunity 1	6 different colored highlighters Brief: Assessment for Learning Innovation Configuration Map LiteratureReview	40 minutes
	Learning Opportunity 2	Attributes Guided recriprocal questioning	25 minutes to 1 hour depending on the size of the CLT
	Practice	Ferreting Out vignettes	25 minutes to 1 hour depending on option chosen
	Practice	Innovation configuration map Peer Time to observe peer and reflect	Planning: 5 minutes Observation: Will vary; approx. 1 hour
	Concluding Activity	6 sheets of chart paper & sticky notes used in Opening activity	15 minutes
Unit 4: Zone of Proximal Development	Opening Activity	Turn to neighbor	20 minutes
	Learning Opportunity 1	Professional Development: Purdue Vygotsky Video link Activity	10 minutes 10 minutes 5 minutes 15 minutes
	Concluding Activity	Scratch paper	10 minutes
Closing	Self Assessment	Practice profile Use Practice profile	15 minutes Varied depending on use
	Next Steps	My Plan	10 minutes
Other Resources	Further Study	Choose as needed	As needed
Foundations Evaluation	Quiz for Data Collection	Foundations evaluation	10 minutes

Figure 29. Guide for use of the "Assessment for Learning: Foundations" module.

Video Segments: Margaret Heritage

The collaborative learning teams have an opportunity to engage in learning about assessment for learning from Margaret Heritage. The series of video segments is called "The Voyage of Assessment for Learning." The video segments listed below may be accessed through the Area Education Agencies' Eduvision (https://aea111.eduvision.tv/Default.aspx).

Margaret Heritage's comments have also been organized into six meaningful segments that are incorporated into the Assessment for Learning modules. These modules can be found on the Iowa Core Statewide Resources Moodle site.

Order	Title	Length
1	Assessment for Learning: The Voyage	2:16
2	Features of Assessment for Learning: Overview	5:13
3	Closing the Gap	2:49
4	Clear Learning Goals	2:14
5	Using the Evidence	1:04
6	The Progress: Learning Goals and Success Criteria	6:15
7	Mathematics Case Study	2:26
8	Eliciting Evidence of Student Learning	4:55
9	Making Decisions Based on Evidence	2:58
10	The "Just Right" Learning Gap: Zone of Proximal Development	5:21
11	Feedback/External: Teacher	3:40
12	Feedback/External: Peer-Assessment	2:19
13	Feedback/Internal: Self-Assessment	2:41
14	Case Study: "I Used to… But Now I…"	1:47
15	Assessment for Learning with the Iowa Core	5:43
16	Expectations for Teachers: Small Steps	1:30

Rigorous and Relevant Curriculum

The purpose of focusing the learning for the collaborative learning team (CLT) is to gain a clearer understanding of what is meant by rigorous and relevant curriculum as a characteristic of effective instruction within the Iowa Core. To facilitate that learning, the following resources are available for the team to use to deepen their understanding: a brief, innovation configuration map, and literature review.

Resources

The following resources on a rigorous and relevant curriculum are available on the Iowa Core Statewide Resources Moodle site under "Teaching and Learning":

- Brief
- Innovation configuration map
- Literature review

Learning Sequence

The collaborative learning team has an opportunity to engage in learning about rigorous and relevant curriculum from Bruce King. The video segments listed below may be accessed through the Area Education Agencies' Eduvision (https://aea111.eduvision.tv/Default.aspx).

Order	Title	Length
1	Rigor and Relevance: A Characteristic of Effective Instruction	7:22
2	What Is Rigor and Relevance?	3:44
3	What is Effective Professional Development to Support Rigor and Relevance?	2:36
4	Supporting Diverse Learners	2:07
5	The Iowa Core: An Opportunity for Education in Iowa	1:32

Sample Agenda

Meeting #1: Learning Opportunities

- Study the brief to deepen understanding of the definition and the attributes of teaching for understanding
- View Video Segment 1: This video segment focuses on the definition of rigor and relevance.

Figure 30. Sample Collaborative Learning Team Agenda: Rigorous and Relevant Curriculum

Collaborative Learning Team Agenda

Purpose: Collaboratively build knowledge and skills to enable effective instruction through theory, demonstration, practice, and collaboration.

Learning Goals

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Success Criteria

- I can…
- I can…

Date: _____ **Location:** _____

Start time: _____ **End time:** _____

Minutes by: _____

Materials Needed:

- Brief: Rigorous and Relevant Curriculum
- Access to Video Segment 1

Setting the Stage for Learning

- Opening (5 minutes)
- Review of norms (ground rules)
- Identify roles (facilitator, recorder of minutes, timekeeper, etc.)

Learning Focus: Rigorous and relevant curriculum

Learning Opportunity #1

- Read brief on rigorous and relevant curriculum
- Engage in dialogue about the content of text by using one of the following protocols for engaging in text (depending on prior study of this characteristic).
- Choose one protocol: Three Levels of Text (new information), Process of Developing Understanding: Reflection and Analysis (deeper understanding of the research), or Success Analysis (comparing success with research)

Learning Opportunity #2

- View Video Segment 1
- Compare your understanding of rigor and relevance to Bruce King's definitions presented in the video segment
    - Rigor: Higher order thinking, disciplined inquiry
    - Relevance: Application and understanding in real world setting
- Examine current classroom practices aligned with attributes of characteristic of effective instruction for rigorous and relevant curriculum

Closure:

- Summary of learning
- Reflection of norms

Planning for Classroom Application and Next Meeting

- **Actions to take before the next meeting**: Complete self-assessment using Innovation Configuration map for rigorous and relevant curriculum to determine current level of implementation for attributes.
- **Preparation for the next meeting**: Come prepared to share your understanding of the definition and ways you address higher levels of cognition in your classroom. Bring specific artifacts as evidence for the identified levels on IC map.

Next Meeting Date: _____ **Time:** _____

Facilitator: _____ **Location:** _____

Minutes

- Attendance
- Decision made
- Summary of what was discussed and learned
- Summary of data analyzed
- Identify any unanswered questions or issues

Figure 30. Sample Collaborative Learning Team Agenda: Rigorous and Relevant Curriculum

Learning Tools: Protocols

Any one or more of the following protocols may be utilized (Figures 31–33).

Figure 31. Three Levels of Text Protocol (New Information)

Purpose

To deepen understanding of a text and explore implications for classroom application

Roles

- Facilitator to guide the process
- Timekeeper

Time

30 minutes

Steps

1. Read the text ahead of time or during the team meeting. While reading the research brief, identify passages that you feel may have the most implications for more effective instruction
2. **Round 1** (5 minutes per each round, 3 minutes for one person; 2 minutes for group response)
    - Level 1: Read aloud the passage he/she has selected
    - Level 2: Say what he/she thinks about the passage (interpretation, connection to prior knowledge and/or past experiences)
    - Level 3: Say what he/she sees as implications for more effective instruction in his/her classroom (Total: 3 minutes)
3. Group responds to what has been said (Total for whole group: 2 minutes)
4. Repeat Steps 2 and 3 for some or all team members (Total 5 minutes per round)
5. Debrief the use of the protocol.

Figure 31. Three Levels of Text Protocol (New Information). Adapted from the Three Levels of Text Protocol by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/learning_texts.html

Figure 32. The Process of Developing Understanding: a Protocol for Reflection and Analysis

Purpose

To analyze how a new understanding has developed and the attributes of rigorous and relevant curriculum that have helped develop that understanding

Roles

- Facilitator to guide the process
- Timekeeper

Definition

Understanding is being able to use what you know flexibly in addressing new problems (Perkins, 1998).

Time

20 minutes per person

Steps

1. **Identify an understanding** (10 minutes)
   After reading the research brief, reflect and write a brief description of one new understanding that has developed or deepened. Think about: What took me beyond what I already knew? What confusions emerged and what helped with further clarification? What within the text specifically helped me to gain a better understanding?
2. **Presenter describes the understanding** (3 minutes)
   First person shares his/her new level of understanding about rigorous and relevant curriculum based on the research brief.

3. **Team members ask clarifying questions** (3 minutes)
    - What specifically helped you to reach a deeper understanding?
    - How is this information different or similar to what you have already read or heard about rigorous and relevant curriculum?
4. **Team reflects on the process of gaining a new level of understanding** (3 minutes) (Presenter does not participate but listens to colleagues discuss what they heard the presenter describe about his/her new level of understanding.)
5. **Presenter responds** (1 minute) Presenter briefly describes what he/she liked about responses from colleagues about his/her thinking and understanding.
6. Reflect on what made this learning experience beneficial to all colleagues.
7. Repeat for some or all team members.

Figure 32. The Process of Developing Understanding: a Protocol for Reflection and Analysis. Adapted from the Process of Developing Understanding: a Protocol for Reflection and Analysis by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/learning_adult_work.html

Figure 33. Success Analysis Protocol for Sharing Instructional Practice (Aligning Practice with Research)

Purpose

The purpose of this protocol is to engage colleagues in collaborative analysis of cases of instructional practices, in order to understand the circumstances and actions that made the practices successful, and then be able to apply this new understanding to future instructional practices.

Roles

- Facilitator to guide the process
- Multiple presenters

Definition

Success is defined as to the effectiveness in achieving the intended student outcomes.

Time

45 minutes to 2 hours

Steps

1. **Preparing cases** (can be done ahead of time; otherwise allow 15 minutes for preparation) Each teacher prepares a "case" by reflecting on an instructional practice where students were engaged in authentic work, using methods specific to their discipline, and applying what they know or are learning to solve complex problems.
2. **Sharing** (5 minutes): One teacher shares his/her case of successful practice orally or in writing (optional) while the other team members listen and take notes.
3. **Analyzing and discussing** (10 minutes)
    - The CLT as a team reflects on the success. Team members offer their own insights into what makes this case of instructional practice successful for students. The team specifically names factors that contributed to the success.
    - Team members can help the presenter reflect by using the following question prompts:
        - Why do you think . . . ?
        - What was different about . . . ?
        - Why did you decide to . . . ?
4. Repeat Steps 2 and 3 for each member of the CLT.
5. **Reflection** (10 minutes): The CLT lists the attributes that contributed to the success of the instructional practice for the characteristic of effective instruction: rigorous and relevant curriculum.
6. Debrief the use of the protocol.

Figure 33. Success Analysis Protocol for Sharing Instructional Practice (Aligning Practice with Research). Adapted from the success analysis protocols by the National School Reform Faculty, Harmony Education Center, n.d. Retrieved from http://www.nsrfharmony.org/protocol/success_analysis_adult.html

Using the Innovation Configuration (IC) Map

An innovation configuration map describes what a rigorous and relevant curriculum will look like in a classroom. The IC map identifies four attributes of this characteristic of effective instruction:

- **Attribute 1:** Higher order thinking (HOT) is performed by students during instruction.
- **Attribute 2:** Deep understanding and mastery of critical disciplinary concepts and skills are demonstrated.
- **Attribute 3:** Concepts and skills are applied to situations, issues, and problems in the world beyond school.

Each attribute is described on a continuum of the variations of use, ranging from the ideal (Level 1) to nonuse. The use of the IC map helps to answer two questions:

1. What does rigorous and relevant curriculum look like in practice?
2. Has quality implementation occurred?

Using an IC map as an assessment tool (not an evaluation instrument) will help teachers, collaborative learning teams, and building leadership teams determine current actions and identify possible next steps for continuous improvement toward ideal (Level 1) for each attribute.

Learning Tool: Checking Progress

Purpose: Use the IC map to monitor progress, identify challenges to implementation, and seek input into needs related to the change in practice. This tool allows teachers to identify their current practice and compare it to the ideal state (Level 1).

Time: 30 minutes

Materials: IC map for each teacher and a copy of team scoring sheet

Directions:

1. The team reviews the descriptions for all levels and all attributes to ensure that all team members understand the meaning of the descriptions, and the purpose of self-assessment using individual IC maps.
2. Each teacher scores his/her own IC map as to his/her current practice for each of the attributes for teaching for understanding.
3. The team records the current status of each team member based on his/her self-assessment (Figures 26, 27).
4. The team engages in conversation about how to clarify understanding of the attributes and/or descriptions of each level. The team reaches consensus on strengths and/or challenges as a team in classroom practices related to the attributes for a rigorous and relevant curriculum.

Learning Tool: Planning Chart for Action Ideas

Purpose: To identify current practices, as well as what is helping (opportunities) and hindering (barriers) the team in taking action steps so all teachers implement the attributes of a rigorous and relevant curriculum

Time: 30–45 minutes

Roles:

- Facilitator to guide the process
- Scribe to record team members' input

Materials: Planning Chart for Action Ideas (Figure 34).

Figure 34. Planning Chart for Action Ideas: Rigorous and Relevant Curriculum

Attributes	What we are doing now (current practices)	What we want to do (movement toward ideal)	Opposing Forces (barriers)	Supporting Forces (opportunities)	Action Ideas
1. Higher order thinking (HOT) is performed by students during instruction.					
2. Deep understanding and mastery of critical disciplinary concepts and skills are demonstrated.					
3. Concepts and skills are applied to situations, issues, and problems in the world beyond school.					

Figure 34. Planning chart for action ideas using the IC map for a rigorous and relevant curriculum.

Teaching for Learner Differences

The purpose of focusing the learning for the collaborative learning team (CLT) is to gain a clearer understanding of what is meant by teaching for learner differences as a characteristic of effective instruction within the Iowa Core. To facilitate that learning, the following resources are available for the team to use to deepen their understanding: a brief, innovation configuration map, and literature review.

Resources

The following resources on teaching for learner differences are available on the Iowa Core Statewide Resources Moodle site under "Teaching and Learning:"

- Brief
- Innovation configuration map
- Literature review

Additional resources, including videos and protocols may be found on the Iowa Core Statewide Resources Moodle site.

Chapter 6: Alignment

Introduction: Focus on Outcome 4

Outcome 4 of the Iowa Core Implementation Plan framework is focused on alignment. The term *alignment* is defined as the extent to which and how well the content found in all curricular categories (e.g., intended, enacted, assessed) work together to guide instruction and, ultimately, facilitate and enhance student learning (e.g., Webb, 1997). The alignment work of Outcome 4 requires the use of a continuous improvement process that involves teachers and administrators alike to collect data on and examine the results of the instructional content students are engaged with in their classrooms.

Outcome 4: District/School leaders and other educators monitor and use data to increase the degree of alignment of each and every student's enacted curriculum and other relevant educational opportunities to the Iowa Core Curriculum.

Targets	Actions
What are we trying to accomplish?	**What are we going to do to reach our targets?**
4.a District/School staff develops necessary alignment expertise.	4.a.1 Educators learn about alignment processes to implement the Iowa Core Curriculum.
4.b District/School staff prepares to implement alignment processes and tools.	4.b.1 Educators select the processes and tools that will be used locally (LEA).
	4.b.2 Educators learn to use the selected processes and tools.
4.c District/School staff implements alignment processes and tools.	4. c.1 Educators implement the alignment selected processes and tools.
	4.c.2 Educators use alignment data to help make decisions regarding the alignment of the enacted to the intended curriculum.

The purpose of Outcome 4 is to collect and use reliable and valid alignment data between what is supposed to be taught (i.e., intended curriculum, which is the essential concepts/skills of the Iowa Core) and what is actually taught (i.e., the enacted curriculum), and to use those data to make decisions across the entire district to pursue better equity for each and every student in their opportunity to learn what is in the Iowa Core. Embedded across all targets and actions for Outcome 4 is the requirement for districts to engage in this work on two fronts: (1) summative self-reflections by teachers on what they taught and how that aligns with the Iowa Core, and (2) observation and dialogue around what teachers are teaching.

Statewide Support Structure

Work continues in the alignment work team and the Iowa Core state network team to build the support structure around Outcome 4 work for AEAs and districts. Supports are provided to two main groups: (1) the state Iowa Core (IC) network, and (2) local school districts. In general, the support framework calls for AEAs to provide technical support to local school districts. Work for Outcome 4 and alignment follows this approach.

Support for the state IC network team is provided using two primary methods: (1) face-to-face, and (2) on the Iowa Core Statewide Resources Moodle site. For the 2010-11 school year, state IC network team members are increasing their knowledge and skills in the area of alignment.

State Iowa Core Network Resources

The courses below are located on the Iowa Core Statewide Resources Moodle site. Note that they are for IC network team members only, not for direct access by districts.

- Face-to-face & online learning resources: http://205.221.40.124/moodle/course/view.php?id=493
- IC network team support materials for using with districts: http://205.221.40.124/moodle/course/view.php?id=502

Local District Resources

A wiki has been developed by Heartland AEA 11 as the go-to resource for information for Heartland staff members and school districts. Although some of the information and resources are specific to Heartland, most of the information and resources can be used by anyone. Heartland-specific resources are labeled with the Heartland logo: 

If districts have questions or want to participate in online professional learning communities, the Heartland wiki is the place to go. Please note that each AEA is to provide their districts with Outcome 4 support. You should contact an AEA staff member at your AEA for specific resources and support.

Heartland AEA 11 Alignment Wiki: http://sites.google.com/site/aea11alignment/

Chapter 7: Monitoring and Evaluation

To ensure that structures are working, time is being utilized effectively, teachers are learning and changing practices, and, ultimately, student performance is improving, the building leadership team needs to be responsible for monitoring the implementation of Iowa Core.

Monitoring Implementation of the Iowa Core

The following instrument for observing a meeting (Figure 35) can be used by a process observer, which might be a collaborative learning team (CLT) member or a member of the building leadership team (BLT). The observer might focus his/her attendance on participation, decision making, communication, and group leadership. This will depend on the stage of development of the CLT and what type of feedback is needed or requested. The following table identified components for each key area of observation focus with blank areas for the process observer to write in behaviors that he/she observed while observing the meeting.

Figure 35. Observing the Meeting Form

Focus of Observation	Behaviors Observed
Participation • Did all members participate? • Did all have an opportunity to participate? • Did anyone dominate? • Did anyone remain silent? • Who kept things moving? • Did anyone make an effort to include a reluctant participant?	
Decision making • Did the group determine the decision-making process before the discussion? • What processes did the group use to come to a decision? • Did everyone accept the decision? • How did members influence the decision?	
Communication • What verbal behaviors were apparent: • Proposing • Building • Supporting • Seeking information • Giving information • Summarizing • Attacking • Did members interrupt one another? • Did members bring others into the discussion? • Did members demonstrate active listening? • Was anyone ignored? • What nonverbal communication was present?	

Focus of Observation	Behaviors Observed
Group leadership • How did the leaders assure involvement? • Did informal leaders emerge? How and when? • How did the recorder and timekeeper support the group in its task?	

Figure 35. Meeting for use when observing a meeting. Adapted with permission from "Observing a Meeting," by J. Richardson, September 2008, *The Learning Principal*, p. 5. Copyright 2008 by the National Staff Development Council.

Once the data are collected, it is important for the process observer to schedule time within a CLT meeting to provide nonjudgmental feedback from the observation. The group then needs to decide what change, if any, in behaviors, interactions, or processes need to change. This type of observation and feedback might be helpful for maintaining effectiveness of teams for those who have been working together, but not necessarily on the Iowa Core.

Joan Richardson (2006) states that classroom walk-throughs provide opportunities for an individual or team to observe teachers in their classrooms and provide specific, nonjudgmental feedback for the purposes of reinforcing attention on the collective focus on instruction, gathering data on instructional practices and student learning, stimulating collegial conversations about teaching and learning, learning through the experience of observations, and deepening understandings and practices based on continuous, constructive feedback.

Another form of collecting data might be the use of classroom videos of teachers applying what they are learning and students' responses to that learning. A reflection sheet could be developed and collected as another form of data collection. The following questions might be used on analyzing the classroom lessons:

1. **The Lesson**
   - What is the content of the lesson?
   - What are the parts of the lesson? How are they sequenced and organized?
   - What materials are used, and how?
   - What is the teacher's role in the lesson?
2. **The Teacher**
   - What is the teacher's goal? What does she want students to learn?
   - What are the teacher's beliefs—about the subject matter, they way students learn, the process of teaching, etc.?
   - What is the teacher's theory of teaching?
3. **The Students**
   - What expectations do students have? What skills/knowledge do they bring to the lesson?
   - What are students learning from the lesson?
   - How might learning experiences differ for students of different backgrounds or levels of preparation?
4. **The Context**
   - What are the other factors, broadly defined, that impact on the lesson?
   - What parts of the lesson would work differently if these contextual factors were different? (Richardson, 2007, p. 4).

Learning Tools Index

Title of Learning Tool	Use
Pitler, H. with Goodwin, B. (December/January 2009). Classroom walk-throughs. *The Learning Principal*. Oxford, OH: National Staff Development Council.	This tool is meant for collecting nonevaluative data from classroom observations to use in planning professional learning for teachers to enhance their instructional practices to improve student performance.
Richardson, J. (August/September 2006). Walk-through plan. *Tools for Schools*. Oxford, OH: National Staff Development Council, page 4.	This tool is meant to help observers develop a purpose and timeline through the use of a walk-through plan.
Richardson, J. (August/September 2006). Walk-through group feedback form. *Tools for Schools*. Oxford, OH: National Staff Development Council, pages 6-7.	This tool is meant as a form to be used after aggregating results from observing numerous teachers from the same CLT and then providing group feedback to the whole team.

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