Creating a Collaborative Learning Environment

a guidebook

Center for the Integration of Research, Teaching, and Learning
Creating a Collaborative Learning Environment is a project of the Center for the Integration of Research, Teaching, and Learning (CIRTL). CIRTL is a National Science Foundation (NSF)-sponsored initiative committed to developing and supporting a learning community of STEM faculty, post-docs, graduate students and staff who are dedicated to implementing and advancing effective teaching practices for diverse student audiences. For more information, visit http://www.cirtl.net or e-mail info@cirtl.net.

CIRTL
1025 W. Johnson St., Suite 552
Madison, WI 53706
(608) 263-0630

The drawing on the cover is the learning diagram created by a CCLE team in 2003-04. This collaborative activity is a central aspect of the process and content of the program.

This guidebook was written and compiled by Chris Carlson-Dakes.
Creating a Collaborative Learning Environment

First Year Team
Dear Colleague:

Those of our graduate students who choose to pursue academic careers may be doing research and teaching for more than 30 years. We know that your university has prepared your students to be superb researchers. We hope to assist you in preparing them to also be excellent teachers throughout their careers.

This guidebook stems from the work of a community of research-active faculty, graduate students, post-doctoral researchers, and academic staff in science, engineering, mathematics, and social sciences. We believe that the improvement of teaching and learning is a dynamic and ongoing process, just as is our disciplinary research. Our core idea is that improving our students’ learning is a research problem to which each of us can effectively apply our research skills in an ongoing way. We see the goals of preparing our graduate students and post-docs to be skilled in research and in teaching as complementary, and as increasing the impact of a graduate education.

We are exploring these ideas by creating, implementing, and evaluating a program at the University of Wisconsin – Madison called the Delta Program in Research, Teaching, and Learning. This learning community comprises graduate courses, small-group facilitated discussions among graduate students through faculty, monthly dinners, teaching-as-research internships (both on and off campus), workshops in portfolio development and broader impact statements, and an overarching certificate program. (See www.delta.wisc.edu.)

Three core ideas form the foundation of both our learning objectives for participants and the overall design of our program: Teaching-as-Research, Learning Community, and Learning-through-Diversity. Very briefly, teaching-as-research uses research methods to advance teaching and learning through an ongoing process of discovery and change. Learning communities bring people together to share in their learning and discovery. Learning-through-diversity uses the rich array of backgrounds, skills and ideas in the community to enhance the learning of all.

We invite you to make use of this guidebook as best suits your needs. We provide complete programs that can be followed in detail if you wish. We anticipate that, in the spirit of all three core ideas, you will experiment and find new approaches to this work. We look forward to hearing your results so that we can continue the development of our programs and help others do the same.

On behalf of all of my colleagues, I wish you every success and look forward to hearing of your challenges and accomplishments!

Sincerely,

Robert D. Mathieu
Professor of Astronomy
Director, CIRTL
University of Wisconsin – Madison
# Table of Contents

I. Introduction ......................................................................................................................... 1  
   A. Three Pillars .................................................................................................................. 3  
      1. Teaching-as-Research ............................................................................................. 3  
      2. Learning Community ............................................................................................... 3  
      3. Learning-through-Diversity ..................................................................................... 4  
   B. What is CCLE? .............................................................................................................. 6  
   C. Using the guidebook ..................................................................................................... 6  
   D. General thoughts about facilitation ............................................................................ 7  
   E. Program start-up ......................................................................................................... 9  
   F. Program maintenance throughout the year .............................................................. 12  
   G. Assumptions underlying the structure of collaborative working groups .......... 13  

II. Introductory Participant Information .................................................................................. 15  
   A. Background of program ............................................................................................... 17  
   B. A unique approach to professional development ....................................................... 17  
   C. What this program is and is NOT... ............................................................................ 18  
   D. Underlying Assumptions ............................................................................................ 18  
   E. The process of CCLE .................................................................................................. 18  
      1. Continuity ................................................................................................................ 19  
      2. Constancy ................................................................................................................ 19  
      3. Commitment ............................................................................................................ 19  
   F. Description of program activities ................................................................................ 19  
      1. Roundtable dinners ................................................................................................. 19  
      2. Selected readings .................................................................................................... 20  
      3. Your reflections ....................................................................................................... 20  
      4. Process checks ........................................................................................................ 20  
      5. Individual statement of direction ............................................................................ 20  
      6. Team statement of direction ................................................................................... 20  
      7. Individual learning diagram ................................................................................... 20  
      8. Group consensus learning diagram ......................................................................... 21  
      9. Course module design ............................................................................................. 21  
   G. Participant Outcomes .................................................................................................... 21  
   H. Top 10 Reasons We Ask You to Draw/Construct the Learning Process .......... 23  

III. Program Syllabus .............................................................................................................. 25  

IV. Weekly detailed guide to facilitation .................................................................................. 35  
   A. Week 1 ....................................................................................................................... 38  
      1. Constructive and Destructive Group Behaviors ..................................................... 44  
      2. Participant Agenda ................................................................................................. 45  
      3. Consent Agreement ................................................................................................. 46  
   B. Week 2 ....................................................................................................................... 48
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Week 3</td>
<td>52</td>
</tr>
<tr>
<td>D. Week 4</td>
<td>56</td>
</tr>
<tr>
<td>1. Process Check Details</td>
<td>58</td>
</tr>
<tr>
<td>2. Process Check</td>
<td>59</td>
</tr>
<tr>
<td>E. Week 5</td>
<td>60</td>
</tr>
<tr>
<td>F. Week 6</td>
<td>64</td>
</tr>
<tr>
<td>G. Week 7</td>
<td>66</td>
</tr>
<tr>
<td>H. Week 8</td>
<td>68</td>
</tr>
<tr>
<td>I. Week 9</td>
<td>70</td>
</tr>
<tr>
<td>J. Week 10</td>
<td>72</td>
</tr>
<tr>
<td>K. Week 11</td>
<td>76</td>
</tr>
<tr>
<td>L. Second Semester</td>
<td>78</td>
</tr>
<tr>
<td>M. Semester 2, Week 1</td>
<td>80</td>
</tr>
<tr>
<td>N. Semester 2, Remaining Weeks</td>
<td>84</td>
</tr>
<tr>
<td>1. Consensus Learning Diagram</td>
<td>84</td>
</tr>
<tr>
<td>2. Putting it all together</td>
<td>87</td>
</tr>
<tr>
<td>O. Semester 2, Final Week</td>
<td>90</td>
</tr>
<tr>
<td>V. Program Evaluation</td>
<td>93</td>
</tr>
<tr>
<td>A. Evaluation Process</td>
<td>95</td>
</tr>
<tr>
<td>1. Individual statement of learning</td>
<td>95</td>
</tr>
<tr>
<td>2. Process checks</td>
<td>95</td>
</tr>
<tr>
<td>3. End of semester wrap up discussions</td>
<td>96</td>
</tr>
<tr>
<td>4. End of year wrap up discussions</td>
<td>97</td>
</tr>
<tr>
<td>VI. Journal article: &quot;A New Starting Point for Faculty Development in Higher Education: Creating a Collaborative Learning Environment&quot;</td>
<td>99</td>
</tr>
<tr>
<td>VII. References</td>
<td>119</td>
</tr>
</tbody>
</table>
Section I:

Introduction

Using the guidebook and general facilitator information
The Three Pillars of the Center for the Integration of Research, Teaching, and Learning (CIRTL)

The Delta Program is founded on three interrelated core ideas. The Teaching-as-Research (TAR) approach is explored via Learning Community (LC) opportunities that are based on inclusive models of Learning-through-Diversity (LtD).

Teaching-as-Research

The improvement of teaching and learning is a dynamic and ongoing process, just as is research in any Science, Technology, Engineering and Mathematics (STEM) discipline. At the core of improving teaching and learning is the need to accurately determine what students have learned as a result of teaching practices. This is a research problem, to which STEM instructors can effectively apply their research skills and ways of knowing. In so doing, STEM instructors themselves become the agents for change in STEM teaching and learning.

Teaching-as-research involves the deliberate, systematic, and reflective use of research methods to develop and implement teaching practices that advance the learning experiences and outcomes of students and teachers.

Participants in teaching-as-research apply a research approach to their teaching practice. Conceptual steps in the teaching-as-research process are:

1. Learning foundational knowledge. (What is known about the teaching practice?)
2. Creating objectives for student learning. (What do we want students to learn?)
3. Developing a hypothesis for practices to achieve the learning objectives. (How can we help students succeed with the learning objectives?)
4. Defining measures of success. (What evidence will we need to determine whether students have achieved learning objectives?)
5. Developing and implementing teaching practices within an experimental design. (What will we do in and out of the classroom to enable students to achieve learning objectives?)
6. Collecting and analyzing data. (How will we collect and analyze information to determine what students have learned?)
7. Reflecting, evaluating, and iterating. (How will we use what we have learned to improve our teaching?)

The application of teaching-as-research is meant to lead STEM instructors to a continuous process of discovery and change throughout their careers.

Learning Community

Learning communities bring people together for shared learning, discovery, and the generation of knowledge. Within a learning community (LC), all participants take responsibility for
Section I: Introduction

achieving the learning goals. Importantly, learning communities are the process by which individuals come together to achieve learning goals. These learning goals can be specific to individual courses and activities, or can be those that guide an entire teaching and learning enterprise.

The following four core ideas are central to the learning community process:

- **Shared discovery and learning.** Collaborative learning activities where participants share responsibility for the learning that takes place help the development of a learning community. Rather than relying on traditional “expert centered” lecture formats, practitioners should include collaborative learning techniques so learners can see their contribution to the learning goals.

- **Functional connections among learners.** Learning communities develop when the interactions among learners are meaningful, functional and necessary for the accomplishment of the “work” within the courses or learning activities (rather than serving as “window dressing” or simply as a “feel good” activities). Moreover, meaningful connections must extend throughout the entire learning community—for example, among students, post-docs, faculty, and staff—rather than simply among cohort- or role-related peers.

- **Connections to other related learning and life experiences.** Learning communities flourish when implicit and explicit connections are made to experiences and activities beyond the course or program in which one participates. These connections help situate one’s learning in a larger context by solidifying one’s place in the broader campus community of learners and life experiences. These connections decrease one’s sense of curricular and personal isolation.

- **Inclusive learning environment.** Learning communities succeed when the diverse backgrounds and experiences of learners are welcomed in such a way that they help inform the group’s collective learning. Whenever possible, activities should be sought that help participants reach out and connect with others from backgrounds different from their own.

**Learning-through-Diversity**

The literacy and engagement of all students in science, technology, engineering, and mathematics is a priority goal for U.S. higher education. The Center for the Integration of Research, Teaching, and Learning (CIRTL) seeks to contribute to this goal by enabling present and future STEM faculty to enhance the learning of all students whom they teach irrespective of, but not limited to, preferred learning styles, race, ethnicity and culture, gender, sexual orientation, disabilities, religion, age or socioeconomic backgrounds.

CIRTL’s contributions to diversity in STEM are founded on the principle that excellence and diversity are necessarily intertwined. Faculty and students bring an array of experiences, backgrounds, and skills to the teaching and learning process. Effective teaching capitalizes on these rich resources to the benefit of all, which we call “learning-through-diversity”. At the same time, CIRTL recognizes the reality that existing social and educational practices do not always promote equal success for all learners. Thus, creating equitable learning experiences and environments requires intentional and deliberate efforts on the part of present and future faculty. CIRTL is committed to developing a national STEM faculty who model and promote the equitable and respectful teaching and learning environments necessary for the success of learning-through-diversity.
To achieve these goals, CIRTL provides development experiences, programs and resources that promote the abilities of present and future faculty to:

- Know the diverse backgrounds of their students and their implications for learning.
- Identify curricular, teaching and assessment practices that promote learning for all.
- Draw upon the diversity of their students to enhance and enrich the learning of all.
- Recognize existing inequities, and promote an equitable, inclusive and respectful climate for learning.

These aims require specific attention of the practitioner to:

- **Practitioner-participant interactions** - such as inclusion and engagement of the ideas of all participants; respectful teaching behaviors; accessibility for all participants; mentoring of less experienced practitioners.
- **Participant-participant interactions** - such as welcoming and respectful inclusion in collaborative work; respect for the ideas of all and recognition of their value; accessibility in activities that occur outside of the primary learning environment.
- **Participant-content interactions** - such as how participants experience content; how content can be adapted and varied; and how exploring novel contexts for presentation can enrich the experience of participants and practitioners alike.
What is CCLE?
Creating a Collaborative Learning Environment (CCLE) is a process-based professional development program that centers on small group construction of knowledge about the learning process as a precursor to talking about teaching. CCLE provides a support structure for groups to use their experiences as learners to make meaning of educational literature in preparation for practitioner action in the classroom. Participants are asked to make a weekly, ninety-minute commitment to attend meetings for an academic year.

CCLE began in 1993 by Dr. Katherine Sanders as part of her Industrial Engineering dissertation. It has since evolved from a pilot program in the College of Engineering to be one of the longest standing teaching and learning professional development programs at the University of Wisconsin-Madison. CCLE offers a unique approach that has proven to be successful at UW-Madison, and adapted at Texas A&M University and the University of South Australia. This guidebook is designed to assist you in your local adaptation of the program to fit your campus needs and culture.

Using the guidebook
This CCLE facilitator’s guidebook is intended to be just that — a guide — an invitation to take lessons learned over the years of facilitating CCLE and to adapt the program for your use. It’s not THE way to facilitate a first year CCLE group, but it is a compilation of suggestions based on over 10 years of experience with roughly 30 teams and 10 facilitators. The general ideas laid out in this section also apply to facilitating subsequent CCLE groups beyond the first year experience. The details of “advanced” teams will be incorporated into future iterations of this guidebook.

This guide is laid out with embedded levels of detail and complexity. To get started, this first section has some general thoughts and tips for facilitation including thoughts on time commitment, process and product, program start-up (recruitment and scheduling) and program maintenance (communication and evaluation). Section 2 and 3 include an overview of the program’s background and general approach, and a syllabus that maps out a suggested weekly progression. These two sections are very similar to the introductory section included in the CCLE Resource Book used by participants.

Section 4 offers week-by-week detailed guidance on the logistics of how each week can be implemented. Details for each week are laid out using the following main headings:

- Main objectives for the week
- Outline of main activities and how they connect to the three pillars of CIRTL (Learning Community, Teaching-as-Research, Learning-through-Diversity)
- Assignments for the week
- Facilitator preparation before the meeting
- Materials for facilitator to take to meeting
- Details of the main activities and implementation guides
- Issues and sticky situations to anticipate and prepare for
- Handouts and materials needed for each week

As the year goes on, participants and facilitators get more familiar with the process, so less guidance and fewer details are needed. In writing this, we walked a fine line between providing just enough detail to get you started and giving so much detail that it seemed overly prescriptive. For some, this level of specificity may seem constraining. For others, this may be a useful tool to move ahead. Please use it in whatever way is most helpful for your context.
Modify when and where it makes sense and put your own touch on the framework presented here.

Section 5 details the evaluation process and instruments used to gather formative data about the program. Also included are representative data collected in Fall 2004 to provide a voice from the participants. Section 6 is an article published in To Improve the Academy in 1996 when CCLE was a relatively new program. It gives you a glimpse into the early years of the program and some of the insights we had. Finally, Section 7 is a reference list of all articles and resources we use throughout the program. Because of copyright limitations, we are unable to provide copies of the articles used.

We welcome your thoughts on how useful this guide is. Please contact us with any feedback at cgcarlso@wisc.edu or 608/263-4259.

General thoughts about facilitation

Time commitment

One of the first questions that gets asked is, “how much time will this take?”, so let’s get that out of the way first. The total time commitment for facilitating a CCLE group is roughly 3-4 hours per week. In addition to the weekly contact time of 1.5 hours, you can expect an additional 1-2 hours of prep time (responding to emails, doing assignments, one-on-one consultations that may come up). Additionally, it is very helpful to meet with other facilitators to talk through your experience and bounce ideas around. Time is a realistic constraint, but if this is a priority, you’ll be able to find the time and be rewarded for it many times over.

Process and product

For programs like CCLE, facilitation is much more about the process of the participants’ experience than it is about conveying a certain body of knowledge or a set of skills. There is no “right” way to facilitate, but there are some approaches that have been more effective than others for this type of program. Our general approach is if we don’t know what to do, we do what feels right. You can’t possibly foresee all potential situations, so when you’re not sure what to do, rely on intuition and gut more than this guide, or your knowledge and training.

Each CCLE group will take on its own feel and personality based on the people in the group, the facilitator’s approach, and a whole host of external factors beyond your control. It helps if you adopt a “no fault” clause that states that if a team ends up dysfunctional, it is through no fault of a single individual, but rather a set of circumstances that led to the downfall. It’s hard to not take it personally if someone drops out or if a team doesn’t function well, but as a facilitator, you are just one part of the whole dynamic.

It also helps if you are able to release your expectations for how a meeting or group “should” go, and instead focus on the core aspects of the process. Your role as facilitator is to be intentional and explicit while remaining flexible and not overly prescriptive. You can only do so much as a facilitator — to a large extent it is up to the participants to take ownership of their own learning, especially since this program is designed for adults. Individual ownership, self-reflection, and shared discovery and learning are where the deepest learning will occur for this particular type of program. Other assumptions and guiding principles from the literature that help frame this program are included in the final page of this section.

As challenges and normal group dynamics surface, the group will look to you to “fix” the problem. But part of your role is to help others see that they are responsible for the “fixing” also. You can help them realize this by holding on tightly to the following core ideas of group dynamics (and periodically reminding the team of them):
• Respectful interactions are essential (listening, non-judging, non-dominating, genuine questioning, etc.).

• Relevant tangents that tie back to central topic/issue/question are fine, but don’t let them derail the central purpose.

• You need to keep moving ahead, but there is no need to push the schedule if it seems the group needs time to reflect or slow down. (If you slow down or skip something, you can anticipate that participants will feel as if they are “behind” or missing out, so reassure them this is normal and the initial schedule is only a guide.)

• Discussions of the readings are intended to find value in what the reading has to offer, not be an academic critique— we engage in that all too often. This is an opportunity to engage in a different kind of constructive discourse. No single article is totally right, but pieces of each can be used for each person to construct their own meaning of what this program has to offer.

• If you try something and it doesn’t go well, don’t abandon it right away. Step back and think about what went wrong, talk to the group, learn from it and try it again. It often takes a time or two to get the group warmed up to something new. This is the process of teaching-as-research applied to the program, and can be explicitly called out as you model it yourself.

• Discomfort and silence are ok, but with a clearly stated context and purpose. Silence may seem like a waste of time in meetings, but it gives people a chance to think, digest, and reflect. Allow for a few silent breaks before, during, and at the end of a meeting.

• You’ll walk a fine line between being a facilitator and a participant, but the others will look to you for guidance and structure. Don’t be afraid to step up and be a facilitator when needed— that’s what you’re there for.

• Make it easy, rewarding, and fun for people to participate, and encourage others to do the same for each other. Simple things like friendly reminders of meetings, coffee, and follow-up calls to check in with someone if they miss a meeting, all send the message that you care. It makes it easy for them to participate.
Program start-up

Recruiting and scheduling

The timing of recruiting depends on the schedule and rhythms of your campus. The first week of the program should be 2-3 weeks into the semester to avoid first week chaos. To start in the Fall semester, an initial recruiting message should come out mid-Summer. This allows for time to follow up with a more specific recruiting effort in late summer if the program doesn’t fill or if there are specific areas on campus from which you’d like more participation. You should plan on cutting off recruiting efforts two weeks prior to the beginning of the semester so participants can block out the weekly meeting times before their schedules fill up with other commitments. Several people will trickle in after the cut off, so do your best to accommodate everyone.

We’ve found that there is no single best way to recruit. Mass emails work for some, flyers and direct mailings work for others, while word of mouth is effective once you’ve built up a core of past participants. Departmental presentations are also an effective forum to recruit, though they are quite time intensive.

You can plan on roughly 25% of the people initially interested to ultimately decide not to participate. Therefore, initial groups should include 10 or 11 people with the assumption that two or three will drop out leaving an ideal size group of seven or eight.

Suggested timeline for Summer and Fall recruiting and scheduling

<table>
<thead>
<tr>
<th>Timing</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-summer</td>
<td>Send mass email to wide audience (see below for an example of an invitational message).</td>
</tr>
<tr>
<td>As replies of interest come in</td>
<td>Request schedule of times people are NOT available so you can schedule a meeting time that works for everyone. Email works for initial request, but follow-up phone calls may also be needed.</td>
</tr>
<tr>
<td>Two or three weeks before start of program (and once you’ve heard from everyone interested)</td>
<td>Identify options for meeting times that work for everyone (there may only be one choice) and ask for preferences. Be prepared for people’s schedules to have changed since their initial response, so what was once open may not be anymore. This process requires patience and multiple iterations to find a time that works for everyone. Ask them for patience through this process.</td>
</tr>
<tr>
<td>As soon as you’ve heard back from everyone</td>
<td>Confirm time and find location (see below for thoughts on appropriate locations).</td>
</tr>
<tr>
<td>One week prior to first meeting</td>
<td>Confirm date, time, location, and expectations for what participants should do prior to first meeting. (See Section III for assignments the first week.)</td>
</tr>
<tr>
<td>Day before first meeting</td>
<td>Send BRIEF friendly reminder about time, location, and assignment.</td>
</tr>
<tr>
<td>Day of first meeting (roughly 2-3 weeks after the first day of classes)</td>
<td>Have fun!</td>
</tr>
</tbody>
</table>
Choosing a meeting location

When choosing a location to meet, some questions to ask yourself include:

- Is the location central for people coming from all across campus?
- Do you have priority access to the room to avoid frequently getting bumped by another group?
- Can you reserve the space so you have the same location each week?
- Is it fun and open, conducive to creative thinking (different from a stuffy, traditional conference room)?
- Do you have access to equipment you will need (white board, flip charts, overhead projector, etc.)?

Ground rules or community agreements

At the beginning of your work together it is helpful to make sure everyone has similar expectations. Some things to consider discussing at the first meeting include (see Week 1 details for more information): confidentiality, respectful discourse, do we want to bring treats, do we have a note taker, how many people do we need to hold a meeting, start time/end time, email communication, use of meeting summaries, communicating absences, making up missed meetings, how will the group make decisions, anything else that may seem important to your group.
Draft invitational message

Dear colleagues,

You are invited to participate in an exciting new program offered by the Delta Learning Community (http://www.delta.wisc.edu). Please read below for more information about the year long program Creating a Collaborative Learning Environment (CCLE) or contact Chris Carlson-Dakes at cgcarlso@wisc.edu.

CCLE is designed to help you develop yourself professionally, no matter where you are in your career, and to strengthen our community of colleagues pursuing teaching and research as part of their profession. We will begin the program in mid-September with meeting times scheduled around your availability. Space is limited, so please respond with interest as soon as possible.

CCLE is a year-long program for you to meet weekly with a group of 7-9 colleagues (graduate students, post-docs, faculty and staff) to collaboratively explore learning and its implications for your teaching. Using teaching-as-research as a framework for asking new questions about your teaching, a facilitator will help guide you through readings, activities, and discussions to learn about the complexities of the learning process, different learning styles, and individual differences. At the end of the program, the group will collaboratively design a course module to put into action all that was learned throughout the year.

The motivation behind this program is the assumption that before we can appropriately focus on new approaches to teaching, we must first have a fundamental understanding of the complexities of learning. The program is designed to expand upon the existing literature by using each individual’s personal experiences with learning, and to do so in a collaborative setting where all voices can be heard. For more information, or to register for CCLE, you can go to http://www.delta.wisc.edu/ccle.html.

We hope you can join us this year. If you have questions, please contact Chris Carlson-Dakes at cgcarlso@wisc.edu, or 263-4259.

Chris

(The Delta program strives to be inclusive for anyone interested in participating in our activities, programs, and courses. If you have accessibility needs, please let us know so that we may make the necessary accommodations.)
Program maintenance throughout the year

Email communication

Communication is key to good facilitation— you want to make it easy for them to participate. If times and location change, people will stop showing up, or will go to the wrong place, get frustrated, and head back to their office. The habit, regularity, and continuity make it easy for them to participate fully rather than putting energy into the logistics of participation. Weekly brief reminders of meeting time and place, main activities, assignments, etc. are helpful especially in the early weeks as they get comfortable with the patterns of the program.

Formative evaluation

Program evaluation is a critical component to the process of CCLE. Section 5 includes details of the evaluation process, instruments, and data. Process checks are a commonly used format to gather information about how the team is doing, make mid-course corrections and give you formative feedback as part of your team evaluation (see Process Check details in Week 4 of Section 4). This is a formal and intentional way of engaging in teaching-as-research at a programmatic level about your own practice, and helps model it for the participants as they make the translation to their own teaching context.

On another level, it is also helpful during the meetings to periodically stop to ask “What’s going well with this group?” “What’s not going so well?” “What can we do to get back on track?” If people have a chance to write their thoughts first, before discussing them, it allows them time to think and reflect more and you will get more valuable feedback from the group. Record not only their spoken comments, but also collect their written thoughts. Some may write something that they don’t want to say to the group.
Assumptions underlying the structure of collaborative working groups
(Adapted from K. Sanders and J. Elliott, 1999)

- When people help create rules/action plans/agendas (consensus decision making instead of following policies constructed by someone else), they are more likely to understand and implement them. (Lawler)
- Given the opportunity to be creative and involved in decision making, people will choose to work harder, put more energy into a project, and will feel more responsible for the outcome. (McGregor)
- Meaningful work—work that engages your internal motivation, making you care deeply about the project and “own” the outcome—includes having control over what you do, when you do it, feedback from the people you are serving, and some level of responsibility for the outcome. (Herzberg, Hackman & Oldham)
- Control over decision making at the instrumental level must lie with the people doing the work. In order to make good decisions, they need to have information and authority delegated to them. (Lawler)
- Responsibility without control leads to stress, frustration and anger. (Karasek)
- “Role ambiguity,” that is, not knowing specific responsibilities or decision-making authority—essentially, who’s doing what—leads to stress, frustration, and anger. (Hackman & Oldham)
- When people are frustrated or confused, they tend to withdraw from a collaborative effort—that is, they deny ownership, they look out for themselves and their immediate concerns, and try to control what they can and leave the rest up to a vague notion of “someone else.” When this happens, we no longer have true collaboration, but rather, a division of labor, where some people are responsible for making decisions and the consequences of those decisions, and the rest of the people can claim (rightly so), relative levels of ignorance. This can lead to confusion, miscommunication, and mistakes, and generally also affects the flow of information between group members. (Our experience)
- Having social support from peers can reduce stress! (Our experience)

The challenge for you as a facilitator is to create a situation where everyone feels that they know what is going on, and how to affect what is going on, regardless of whether they choose to exercise those rights.
Section II:

Introductory Participant Information

Program background, approach, activities, and expectations
Background of program

Welcome to Creating a Collaborative Learning Environment (CCLE), one of the core program experiences of the Delta Program in Research, Teaching, and Learning! We are pleased that you have set aside the time required to regularly meet with us and your colleagues to learn about learning, reflect on your teaching, and explore the campus. We hope that you find this experience stimulating and challenging and that it opens some doors that may not have been apparent to you in the past. Your involvement with this program is one of the many opportunities you have to become involved in Delta. Throughout the year, we will help make connections between this experience and other opportunities available to you. For more information about other Delta offerings, please visit the web at www.delta.wisc.edu.

CCLE is an adaptation and combination of two programs that originated with the office Creating a Collaborative Academic Environment (CCE). The roots of CCLE are not in education theory, but rather from Dr. Katherine Sanders Industrial Engineering dissertation in 1993. Over the years, CCLE evolved from a program in the College of Engineering to be more inclusive for anybody interested in creating a learning community of people interested in personally and professionally developing themselves and others as teachers.

The office of CCE no longer exists, yet the people involved and the energy from the programs remain strong. In 2003, we adapted and merged these programs to develop a core program that brings together the three fundamental pillars of the Delta Learning Community: 1) to help you learn about learning and concepts of teaching-as-research, 2) in a learning community environment, 3) that is diverse and inclusive for people interested in exploring these issues.

The emphasis on learning about learning remains central to the program— the assumption being that before one can appropriately develop themselves as a teacher, they must first understand the complexities of the diverse experiences and learning processes of their students. The framework we’ll use to learn about learning comes from the concept teaching-as-research. By approaching teaching with an eye towards research, reflection, and inquiry, we can align ourselves with the skills we have developed as researchers, but apply it to our teaching. Doing so in a cross-disciplinary, diverse community environment allows us to expand our understandings of others, and learn about the experiences, options and opportunities of others.

We understand the political issues associated with language and how it can invite people in or shut people out. We invite you to join this conversation - whether or not you have the “correct” vocabulary (e.g. education jargon, politically correct phrases). We believe you’ll find the same idea expressed in a number of ways by different people throughout the year together. So please use the language that makes you feel most comfortable, while remaining open and allowing others to do the same.

A unique approach to professional development

It might seem strange that this program was designed by, and evolved from, engineers. However, its roots in human factors engineering naturally lead to the study and design of work so that it is more satisfying, healthy, and productive for the individual and the organization. The approach we’ve used in the design and implementation is surprisingly unique in professional development, both in its structure (voluntary, team based, cross-generational, with weekly meetings over an entire academic year) and in its content (activities designed to
draw on participant creativity and personal experiences, bringing together teaching and research, and using both verbal and visual mediums).

Typically, professional development has been focused on providing short-term skill training and techniques or resources, and has primarily focused on instruction, not learning or research. We have found that deeper changes in work and the culture of learning and teaching take place when beliefs and conceptualizations about learning are examined first, before jumping ahead to sampling and acquiring new techniques in teaching. With this adaptation of CCLE, the experiment now is to see what happens when we introduce a research component to strengthen the concept of teaching-as-research.

**What this program is and is NOT...**

CCLE is not a quick fix to higher education reform, nor is it a “Teaching Technique” program. We won’t give you a list of ten pet tricks for teaching and send you on your way. What we will do is create a space for structured activities and open dialogue for reflection on learning and teaching (in that order) with a constant emphasis on reflection, inquiry, and research.

**Underlying Assumptions**

While we do not posit that there is “one right answer” to improve learning and teaching, there are a number of underlying assumptions in the program’s philosophy. First, whether you have been teaching for many years, or are still a student, it is assumed that participants have considerable exposure to, and experience with, the traditional teaching and evaluation methods of lecture, homework assignments, class projects, midterm and final examinations. The program activities are structured to introduce you to alternative approaches to learning and teaching, by creating a non-traditional experience for you as a learner. For some of you, this will be a familiar format, for others, it might be different from your previous experiences. We hope to stimulate thought about the appropriateness and value of collaborative, constructivist, and cooperative approaches to teaching and learning. For those of you already experienced in these methods, we hope to provide an opportunity for further reflection, extension, and application to new settings.

We have built the program on the premise that many of us learn from sharing and reflecting on individual and collective experiences as learners and teachers in a supportive community. You will also find that we ensure some voices from the research literature are heard with respect to diversity in learning, teaching, and research. We explicitly draw out those conversations, though our experience is that diversity discussions naturally arise at some level and scope even without our intentional efforts. We will also try to form teams so that there is as much diversity of background, experience, and discipline because we have found that the diversity of a group helps to ensure that the benefits of collaboration are truly evoked.

**The process of CCLE**

We are commonly asked (by potential participants and other people in professional development), why does this type of program require so much time? Why the weekly structure and format? Why the collaborative activities? Why the focus on consensus? Why don’t you just tell us what we need to know?

We have found that the process of the program is as important, if not more important, than the content covered. We have experimented with a number of meeting lengths and frequencies over the past nine years, and our experience is that 1.5 hours per week results in a good balance. It is time intensive, yet do-able for people who truly are interested in exploring a complex subject, creating a common understanding, and getting to know colleagues in a deep and meaningful way.
If you are a list-type person, you can think of it with respect to “3 C’s”: continuity, constancy, and commitment.

**Continuity:** One of the most important attributes of this approach is the value of the relationships between participants and the depth of the conversations sustained over time. We have found that meetings held once or twice per month are too infrequent for relationships and conversations to develop and deepen. The issues we explore are sometimes sensitive, and we try to structure the process to create the safe environment participants need so they may open up and explore new and challenging ideas. Weekly meetings help maintain the continuity of the conversation and experience despite occasional absences (i.e., if meetings were held once every two weeks and a participant had to miss a meeting, s/he would not be part of the conversation for an entire month.).

**Constancy:** By meeting weekly, these conversations become a regular part of the work week. It is not seen as an add-on to the “real” weekly duties. The constancy also models the notion that professional growth is an on-going process rather than a set of isolated experiences. It is part of working in this organization, and is seen as just as valuable as other responsibilities. The weekly meeting enables the groups to pick up where they left off without taking as much time out to refresh themselves on the progress from the previous meeting, and it makes it likely that people remember where to go, when to be there, and what to expect. A predictable schedule does not introduce ambiguity or discomfort, and allows the substance of the conversations to remain central so participants can direct their energy towards participating in the conversations.

**Commitment:** Significant personal and organizational change is not a short term process. Commitment to the process of remaining open, exploring new ideas, getting to know colleagues, and making meaning of new experiences is essential. It does not happen in the space of one meeting, one week, or even one semester. Insights continue to build and expand upon each other. Over time, unlearning can occur to make room for new learning. In our experience, participants who feel that learning something new is a priority for them at this point in their careers are willing to make the time investment of weekly meetings. Without that commitment, it is typical for professional development experiences to result in short term interest with little to no sustained changes in attitudes, behaviors or values. This is not to say that people can’t or don’t benefit in some ways from shorter term experiences, or that this time commitment is necessary or desirable for every person. But this program is designed to be an intense experience that requires a larger amount of energy than other options might.

**Description of program activities**

The learning activities are intended to support the collaborative process and our social-constructivist perspectives. Each team will progress through the year guided by the timeline at the beginning of the CCLE Resource Book. Within this general timeline and framework, individual teams may take different paths based on differing interests, or substitute new learning experiences and materials along the way in order to best address the learning interests of the group members. We will experiment with varied types of activities and formats with different groups. We have learned that each person engages in a topic differently, so we will attempt to create experiences that can bring everyone into the activities throughout the year. The learning activities that we will use to frame the year include:

**Roundtable dinners:** Throughout the academic year, for one evening per month over dinner, we will have a large group gathering of anybody involved in the various Delta Teaching and Learning Community programs, activities, and courses. During these dinners, an invited guest will introduce a topic of general interest or a provocative issue for discussion. Guiding
Questions will be posed to facilitate discussion at each roundtable. These are intended to be fun, festive occasions to strengthen our community and learn from others.

**Selected readings:** We have selected the readings in the resource book with a variety of purposes in mind. In part, we hope to expose you to different perspectives and ideas about teaching, learning, and research. The articles that we selected do not necessarily reflect our values or perspectives. Some do, some don’t. We encourage you to read these with an open mind, to reflect on their meaning and messages, and decide for yourselves if and how they fit with your beliefs.

**Your reflections:** As we read a number of articles together, it is important that we find an effective way to share our reactions, concerns, and insights. At times, we will ask you to reflect on the readings and jot down your thoughts before we talk about them. Past participants have underscored the importance of these reflections, but found it difficult to find the time to write them. So, most weeks we will carve out time during the meetings for you to begin to write. The entries are not intended to be lengthy summaries or critiques of the readings. Rather, they are intended to help you center your thoughts before you forget what you’ve read and discussed and to give you the impetus to make connections between your teaching and learning and your practices. Some guiding questions are in the syllabus, but additional questions that you might want to reflect upon include:

- What about the reading matched or reinforced what you already knew or believed?
- Are you thinking differently about this topic than you were before this activity?
- Did anything challenge your ideas or surprise you?
- What questions did this reading prompt?

**Process checks:** Periodically we will take time during the weekly meetings to do a process check. These checks provide a forum for you to give feedback to the facilitator and other team members about the progress the team is making, the dynamics of the group, and things you may wish to do differently. Sometimes we may ask you to take a few minutes to write out your thoughts before sharing them with the group, while other times we will just open it up for discussion.

**Individual statement of direction:** Toward the end of the Fall semester, you will be asked to write a personal statement of your vision of what you would hope the student experience would be (i.e. what you want the students to experience, know, be able to do, or wonder about when they leave this institution). These statements will be shared with the team and discussed as a basis for the development of a team statement of direction.

**Team statement of direction:** The team statement of direction builds on the individual personal statements of direction. It is the first collaborative task, and it requires the group to reach consensus on a statement of direction for their work in the program. The activity will generate a focus for the group, which will be revisited throughout the year. Your group’s statement of direction will help frame some of the discussions that will follow, with respect to learning and teaching. Please remember that this is a learning activity. It is not a “do-or-die” exercise, and the world does not rest on it being the “perfect” statement. You will understand what we mean when you get to this activity.

**Individual learning diagram:** (See the last page of this section for answers to the question, “Why do we draw?”) The individual learning diagrams will be used as a basis for the group consensus diagram to be developed in the Spring semester. It requires personal reflection, use of personal experiences, synthesis of education information from early discussions, and deep thought about how people make meaning. You will be asked to put some thought into this individual diagram over Winter break and bring it to the first meeting of the Spring semester. The first meeting will be dedicated to individual presentations of your diagrams. The diagrams should represent the complexities of the learning process, yet remain general enough to
explain learning experiences such as learning to: ride a bike, play a musical instrument, learn multiplication tables, or a foreign language. Oftentimes, people find it helpful to use a metaphor as a framework for their diagrams. Included in the diagrams should be an approximate time sequence of events (if any), contexts that help/hinder learning, and ways to address the questions: how do people forget? where do misconceptions come from? how can misconceptions be undone? how do you know when you have learned something? Again, this is a learning activity, and the process of reflection and thoughtful discussion is more important than coming up with the “perfect” diagram.

**Group consensus learning diagram:** (See the last page of this section for answers to the question, “Why do we draw?”) Using the individual learning diagrams as a starting point, the team will collaboratively create a consensus depiction of how people learn and what might help/hinder learning. We will start by identifying common themes from each of the individual diagrams, and use these as a foundation upon which the team diagram can grow. It will take many iterations through various metaphors, tangential discussions, and scrapping old work for a new idea to arrive at consensus. We encourage you to be open and patient (we know this process can be frustrating). Ultimately, the team diagram should include all of the issues detailed in the description of the individual learning diagram, and have consensus approval from every team member.

**Focus on course design:** After Spring Break, you can choose to wrap up your involvement with CCLE, or continue for the remaining weeks of the semester to focus on pulling it all together into application to your particular teaching context. We will use the learning diagram as the basis to ask the question, “How do I know where my students are in the learning process”, and move to core principles, activities, and approaches to implementing all we have learned through the year. Since each person will be coming to this with different teaching contexts, this will require each of us to play dual role of presenter of individual ideas and peer reviewer of other’s ideas. As you work on this course design, you will be required to synthesize new understandings of learning, and apply that knowledge in planning the course activities and objectives. We encourage you to be as creative as possible in translating your learning diagram into teaching activities/structures.

**Participant Outcomes**

It is difficult to anticipate what you may expect for outcomes— for each participant, the experience will be different. Our experiences in this and other related programs, however, tell us that by the end of the year, you may expect to have expanded your:

- willingness and ability to continually re-examine and articulate beliefs and conceptions about the processes by which people learn and by which you teach (*learn about learning*);
- ability to collaborate and learn from and with a group and defer to the group's best interests when reaching consensus (*learning community*);
- understanding of other people’s learning and teaching experiences so you can better connect with a wider, more diverse student body (*learning-through-diversity*);
- interest to explore education literature and discuss it with colleagues from diverse backgrounds based on a common language and basic understanding of the learning process (*learning community and learning-through-diversity*);
- ability to engage in teaching-as-research to review and evaluate teaching techniques based on objectives and underlying assumptions about learning, in order to determine if a technique is appropriate for use or modification in your own classroom and/or discipline (*teaching-as-research*);
Section II: Introductory Participant Information

- ability to implement changes in the classroom (in pedagogy and/or content) while envisioning possible/probable student outcomes (*teaching-as-research*);
- awareness of the value of multiple and diverse approaches for the assessment of student learning and evaluation of classroom practices (*learning-through-diversity and teaching-as-research*).
Top 10 Reasons We Ask You to *Draw/Construct* the Learning Process

- You can summarize/represent multiple ideas at a single glance. Visuals are a much richer format than text and can show relationships and complex interconnections much more "concisely" than pages of explanatory text.
- Many learners are visual.
- Visuals can show relationships that are non-linear and can show contexts for learning. They can be used to hypothesize about cause-effect relationships (E.g., if this stage of the learning experience does not occur, what is the likely outcome?).
- Visuals help to preserve the complexity of the issues we are discussing. Although it may not be precise or complete, it shows more naturally the complexity of the discussions held over the course of a year. It will evoke important themes and issues immediately.
- Representing it visually requires the translation of temporal discussions into a symbolic format: the team's own conceptualization of "truth" about how learning happens. To do this, it is necessary for individuals to describe in detail which concepts are to be included, and how they might be represented. People must explain themselves fully, and in those explanations might more clearly explain concepts and relationships to themselves.
- The task is a challenging one, requiring multiple in-depth discussions. It is well-suited for a creative group. The group creates its own language, culture and priorities through generating/discard conceptualizations. (This is an obvious example of the social construction of knowledge!)
- In a group of this size, it is easier (perhaps) and more fun to reach consensus on a visual representation than on precise use of text and sentence structure.
- It encourages multiple perspectives, use of creativity, and a new way of imagining the learning process.
- The process helps create and develop metaphors that are retained in long term memory. It is likely the images can be recalled in the future without seeing the model, as opposed to the greater difficulty in recalling pages of text.
- Because we said so.

And finally...

We’ll close by saying that we understand that teaching, learning, and research cannot be pulled apart. Our separation of them to emphasize learning first, then more explicitly bringing in teaching and research is artificial at best. However, participants have told us that this temporary demarcation is useful, and in fact, helps them step back from teaching to reconsider their ultimate goal— student learning. In doing so, we hope that you will have fun and be intellectually challenged. CCLE is intended to be stimulating, thought provoking, educational, sometimes a bit uncomfortable, and hopefully fun, all wrapped up in one program. We hope that you find it so.
Section III:
Program Syllabus
## Creating a Collaborative Learning Environment, 2005-06

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation before meeting</th>
</tr>
</thead>
</table>
| Sep 19  | Welcome, Delta Overview, Program Overview, Begin Teambuilding | Introductions, program overview, group roles and community agreements | ◊ Read Section 1 of Resource Book (sent out ahead of time)  
◊ Read Article 2-1, “Introduction to Teamwork,” Sanders, 1995  
◊ Individual statement of learning (assigned ahead of time) |
|         | Introduction – Learning Communities – Group Dynamics | Activity of your tendencies for constructive and destructive group behavior.  
Reflection: What is your learning style?  
What are the implications of the common and divergent themes from our individual learning experiences? | |
| Sep 26  | Teamwork | Address any questions about program and activities.  
Discussion about teamwork, listening, and talking circles. Share a story about when you felt listened to or when you were silenced. | ◊ Read Article 2-2, “Talking Circles: A Native American Approach to Experiential Learning”, Wolf, 2003.  
### Diverse Learning Styles

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>How does what you have experienced as a learner relate to the theories and models we have recently read and discussed? How does it differ?</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>What are the implications of different learning styles on how you teach?</em></td>
<td></td>
</tr>
</tbody>
</table>
### Week of | Topic | Description of activities | Preparation before meeting |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 31</td>
<td>Learning-through-diversity</td>
<td>Facilitator note: May want to read Solomon article about “discourse of denial” with accounts of faculty reactions to the inventory. Discuss identity, learning environment, and learning as both a teacher and as a learner—Walk ‘n talk, pair ‘n share. Reflection: <em>In what ways are you privileged? What does that mean to you?</em></td>
<td>Preparation ◊ Read Article 4-2, “Values American Live By,” Kohls, 1984. ◊ Read Article 4-3, “White Privilege: Unpacking the Invisible Knapsack”, McIntosh, 1989. ◊ Take the Privilege Inventory.</td>
</tr>
<tr>
<td>Nov 14</td>
<td>Learning-through-diversity</td>
<td>Watch first half of “The Color of Fear.”</td>
<td>Preparation ◊ None.</td>
</tr>
</tbody>
</table>
Nov 21

**No Meetings...Happy Turkey Day!**

*(For those who want to, we can get together to watch the second half of the “Color of Fear”)*

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation before meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 28</td>
<td>Individual to Group Consensus Statements</td>
<td>Discuss Individual Statements in a framework of LtD and LC to bring together in a collaborative model. Time is short, so do what we can. Bring ideas and common themes from Individual Statements together to create a Team Statement.</td>
<td><strong>Preparation</strong> ◊ Write an Individual Statement describing your vision of the learning experience you would like students to have, i.e., what do you want students to experience, know, be able to do, or wonder about when they leave the UW?</td>
</tr>
<tr>
<td>Dec 5</td>
<td>Team Statement Semester wrap-up</td>
<td>Find common elements from individual statements. Talk about transitions and breaks and introduce activities for next semester. End of semester process check.</td>
<td><strong>Preparation</strong> ◊ Read Article 5-1, “What is Education For?”, Orr, 1990.</td>
</tr>
</tbody>
</table>

**Winter Break—No meetings!**
### Spring Semester, 2005-06

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation before meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 23</td>
<td>Welcome back! Share Individual Learning Diagrams</td>
<td>Regroup from being gone, talk through plans for semester, and clarify the purpose of learning diagrams. Pictionary to get creativity going. Identify main and common themes among each individual diagram. Reflection: <em>Did you experience anything over Winter break that is of significance to our discussions in this group?</em></td>
<td>Preparation◊ Create individual learning diagrams (details sent around during break).</td>
</tr>
<tr>
<td>Jan 30</td>
<td>Begin Group Learning Diagram</td>
<td>Discuss article. Talk about discussing articles in the context of working on the learning diagram… different process where discussions are part of the work, not discussions by themselves. Work with main and common themes of individual learning diagrams as a basis for the collaborative work. Reflection: <em>What new questions do you have regarding student learning? How might you go about answering them?</em></td>
<td>Preparation◊ Read Article 5-2, “Adjusting Teaching to the Rhythms of Learning”, Brookfield, S. (1990).</td>
</tr>
<tr>
<td>Feb 13</td>
<td>Group Learning Diagram</td>
<td>Continue work on learning diagram Reflection: <em>What is still missing from the learning diagram?</em></td>
<td>Preparation◊ Read article of group’s choice.</td>
</tr>
<tr>
<td>Feb 20</td>
<td>Group Learning Diagram</td>
<td>Continue work on learning diagram.</td>
<td>Preparation◊ Read article of group’s choice.</td>
</tr>
</tbody>
</table>
Section III: Program Syllabus

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation before meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 27</td>
<td>Finish Group Learning Diagram</td>
<td>Finish work on learning diagram.</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>Write about the collaborative process you just went through to create the learning diagram.</em></td>
<td>◦ Read article of group’s choice.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>◦ Team members volunteer to meet outside of the regular meeting time to create an electronic version of the learning diagram.</td>
</tr>
</tbody>
</table>

### Teaching-as-research: From abstract to concrete...concept to change

<table>
<thead>
<tr>
<th>Mar 6</th>
<th>Teaching-as-research</th>
<th>Introduce more formal definition of Teaching-as-research.</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>How do you know where your students are in the learning process?</em></td>
<td></td>
</tr>
</tbody>
</table>

| Mar 13  |                                            |                                                                                            |                                                                            |
|---------|--------------------------------------------|--------------------------------------------------------------------------------------------|                                                                            |
|         |                                            |                                                                                            |                                                                            |

### Spring Break-No Meetings!

<table>
<thead>
<tr>
<th>Mar 20</th>
<th>Teaching-as-research</th>
<th>Visual Explorer Activity.</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Images of Research-your own and others</td>
<td>TAR 1-pager and how it applies to your course AND CCLE as a model.</td>
<td>◦ Revisit Article 5-5, “Teaching-as-research: A systematic approach to teaching-for-learning”, Conrad, in press.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>In what ways are you already engaged in teaching-as-research?</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mar 27</th>
<th>Teaching-as-research</th>
<th>Use learning diagram and team statement to frame discussion of teaching-as-research.</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>If there were no constraints on time, money, or resources, what questions would you like to explore about your teaching and your student’s learning?</em></td>
<td></td>
</tr>
</tbody>
</table>
# Section III: Program Syllabus

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Description of activities</th>
<th>Preparation before meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 3</td>
<td>Teaching-as-research</td>
<td>Teaching-as-research in your classroom.</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Process check for rest of semester. People have the option to continue the next 2 weeks to move to more specifics about their courses and core principles for first day, syllabus, content, process, and evaluations, or wrap up now for rest of semester.</td>
<td>◊  Read Article 5-7, “From Teaching to Learning: A New Paradigm for Undergraduate Education”, Barr &amp; Tagg, 1995.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>How might you go about researching the question you raised in your reflection two weeks ago? What questions do you still have about how to research it?</em></td>
<td></td>
</tr>
<tr>
<td>Apr 10</td>
<td>Focus on courses</td>
<td>Use the learning diagram as a basis, and teaching-as-research as a framework, to focus on specific courses.</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>◊  TBD</td>
<td></td>
</tr>
<tr>
<td>Apr 17</td>
<td>Focus on courses</td>
<td>Continue work on course specifics.</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>◊  TBD</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection: <em>Facilitators come up with something appropriate here.</em></td>
<td></td>
</tr>
<tr>
<td>Apr 24</td>
<td>Team Wrap-Up Meeting</td>
<td>Reflect on your time in the program.</td>
<td>Preparation</td>
</tr>
<tr>
<td></td>
<td>Closing Comments</td>
<td>◊  Write a new individual statement of learning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>◊  Compare and contrast to earlier statement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>◊  Identify implications for change in your practices or broader organizational change. What factors might constrain or inhibit you? What will enable you?</td>
<td></td>
</tr>
</tbody>
</table>

Happy Summertime!!
Section IV:

Weekly Detailed Guide to Facilitation
Introduction to Section IV

This section offers week-by-week detailed guidance on the logistics of how each week can be implemented. It is written with references to some issues particular to UW-Madison, but these can easily be adapted or interchanged with similar efforts on any campus.

Each week is laid out using the following main headings:

- Main objectives for the week
- Outline of main activities and how they connect to the three pillars of CIRTL (Learning Community (LC), Learning-through-diversity (LTD), and Teaching-as-research (TAR)
- Assignments and expectations for participants for the week
- Facilitator preparation before the meeting
- Materials for facilitator to take to meeting
- Details of the main activities and implementation guides
- Issues and sticky situations to anticipate and be prepared to address
- Versions of any handouts or materials needed for each week

As the year goes on, participants and facilitators get more familiar with the process, so less guidance and fewer details are needed. In writing this, we walked a fine line between providing just enough detail to get you started and giving so much detail that it seemed overly prescriptive. For some, this level of specificity may seem constraining. For others, this may be a useful tool to move ahead. Please use it in whatever way is most helpful for your context. Modify when and where it makes sense and put your own touch on the framework presented here.
Section IV: Guide to Facilitation

CCLE
Week 1 Facilitator's Guide

(NOTE: The guide for the first week is much more prescriptive than subsequent weeks, and is much more facilitator-led than participant-led. As the weeks go on, the weekly guides will become less detailed, and the facilitator's role becomes less central.)

MAIN OBJECTIVES
1. To get to know each other and set a tone of inclusion, respect, and deep learning for the group
2. To give an overview of program background, activities, and expectations

MAIN ACTIVITIES AND CONNECTION TO PILLARS
It's likely you won't get through all of this...that's ok. Community agreements can easily be discussed next week.
1. Visual Explorer ice breaker (Visual Explorer is a set of about 300 color photos from the Center for Creative Leadership, http://www.ccl.org/CCLCommerce/index.aspx. These photos can be used to stimulate discussion and critical thinking.) (LC, DIV)
2. Introduction to program background, activities, and expectations (LC, DIV, TAR)
3. Constructive and destructive behaviors (LC, DIV)
4. Pictionary game (or something to get them actively engaged) (LC, DIV)
5. Community agreements (LC, DIV)
6. Wrap up and look ahead to next week

ASSIGNMENTS (sent out ahead of time)
- Read Section 1 of Resource Book
- Read Article 2-1, "Introduction to Teamwork", Sanders, 1995.
- Write an individual statement of learning

MATERIALS TO TAKE
- Talking stone
- Name tents and markers
- Behaviors handout (see attached page)
- Visual explorer
- Program literature (Roundtable Dinner flyers, Wisconsin Week inserts)
- Participant agenda (see attached page)
- Resource books (choose the tape or comb binding they want)
- Consent forms (see attached)

SET UP BEFORE MEETING
- Set name tents and markers out on table
- Have resource books and agendas out and ready to distribute (we won't have an agenda for most meetings, but for the first one, it helps since there is so much to go over)
- Lay out the Visual Explorer photos on a big table (about 50-60 pictures should be plenty)
Section IV: Guide to Facilitation

- Arrange the table(s) so there is no obvious “head” of the table. We want people to be sitting in a circle as much as possible.

**AS PEOPLE COME IN**
They'll see the photos and ask “what’s up with the pictures”, so tell them it's a way to introduce themselves and invite them to look through them to choose a picture that represents a memorable learning experience from the summer.

Also, invite them to write their name on a name tent.

**GETTING STARTED**

1. **Visual Explorer** *(use this as a way to do introductions and get people connecting with each other.)*
   - After everyone is there, invite people to get up out of their chair, look through the photos and choose one that represents for them a memorable learning experience from the summer.
   - Have everyone get their photo, grab a seat, and get started with introductions.
   - Mention that introductions may take a while, but we'll be together for an entire year, so it’s nice to get to know people from the start. Also encourage them to not ramble on forever.
   - Introductions can take the form of:
     1. Name
     2. Department
     3. Why they decided to participate in CCLE
     4. What is one thing from their individual statement of learning they would like to share with the group?
     5. Why they chose the picture they did?

2. **Introduction to program background, activities, and expectations**
   - Confirm that meeting time works for everyone (often times you'll need to tweak it a bit, but try to avoid a full fledged rescheduling unless this time just does not work).
   - Background of the program (this is very UW specific, but these are the types of things that should be touched on to provide background and context to the program).
     1. National Science Foundation-funded initiative
     2. Improve STEM education and success for all students
     3. By creating a learning community of graduate students through faculty
     4. Using the concept of teaching-as-research, or raising the awareness of skills and inquiry about teaching and learning in the same spirit as we engage inquiry as researchers
     5. Point to the one-page description/definitions of the pillars in the first section of the CCLE Resource Book.
     6. Refer to the flyer from Wisconsin Week newspaper for more info (or comparable Teaching and Learning program information from your institution).
Section IV: Guide to Facilitation

7. As a program, we try to offer multiple opportunities for anyone to find a match with their interests, time commitment, and needs.
8. We do this Delta work through a combination of courses for credit, volunteer programs like this one, internship opportunities, special events and workshops, and collaborations with other organizations on campus.
9. Throughout the year, we’ll try to connect participants to other offerings so they know what is going on about campus and can find what would be helpful.
10. Because you are registered for this program, you are on our email list for future offerings.

- Resource book overview with history of program
  1. CCLE emerged from Kathy Sanders’ UW-Madison dissertation study in Industrial Engineering designed to look at faculty stress.
  2. Has since evolved into a much larger context (detailed in the intro section they read for today)
  3. Discuss how your institution connects to CCLE, Delta and the whole CIRTL project.
  4. Discuss layout of the syllabus and activities emphasizing the progression of themes and main elements of the intro text (hopefully they read it).
    - Throughout the year, the activities progress from readings/discussions and individual beliefs to collaboration, consensus and group work, to action and implementation (at the very end!).
    - Start with strong emphasis on learning process with eventual explicit connections to teaching by using TAR as framework. As questions come up about teaching, they are not discounted, but they are put aside for now until a foundation for learning has been established.
    - We encourage you to write reactions/reflective writings, each week. You can use sheets between articles for notes if you want, or a journal book if that works better.
    - This is a research project and we collect data on the project* (NOT on how good they are at teaching, but how effective our programs are at helping people engage in teaching improvements). As such, they may be asked to be interviewed, or for permission for us to use some of what they write.
    - They may also be interested in class observations (if desired). We can do them, but better yet, the participants can observe and review each other’s courses.
    - We will have process checks throughout the year.

- Weekly meeting plan
  1. I’m talking much more today than any other week.

* The Center for the Integration of Research, Teaching, and Learning (CIRTL) is funded by the National Science Foundation to create an interdisciplinary program to prepare graduate students, post-doctoral researchers, and current faculty and staff to meet the future challenges of science, technology, engineering, and mathematics (STEM) higher education. An evaluation of the Delta program is being conducted at the University of Wisconsin-Madison. Information is being collected from participants in events sponsored or co-sponsored by the Delta program in order to improve the implementation of the program and to report on its effectiveness.
2. Each week will follow roughly a similar plan.
3. Role of facilitator will go from centrally involved in structuring and guiding to much more participant driven, especially in the second semester.
4. Start with reflective writing time to center thoughts...2-3 minutes (doesn't mean you can come late, but it gives you a time to relax and be fully present for the next 90 minutes).
5. Then go ahead with discussion or activity for the day.
6. Close with wrap up or closing comments (depends on what group agrees to).

3. **Constructive/destructive behaviors**— this activity helps individuals learn about each other as well as reflect on their own group behaviors.
   - Pass out “Constructive/destructive behaviors” handout (see handout).
   - Give them a minute to read it.
   - Ask them to pick their favorite or most common constructive and destructive behavior and write it on the back of their name tent (as a reminder to themselves about the destructive ones).
   - You don't have to go in order, but make sure everyone has a chance to share their behaviors. This process makes it public and makes it fun.

4. **Pictionary Game**— do this if there seems to be low energy, or if you feel as if you have been talking too much without any active engagement from the rest of the group.
   - Think ahead of time about 10-15 items, emotions, things, concepts related to teaching and learning (teacher, student, test, learning, school, study group, library, fear, excitement, classroom, laboratory, experiment, textbook, etc.).
   - Write them on strips of paper or index cards.
   - Shuffle them up and lay them out face down on the table.
   - Have people pair up.
   - One person chooses a card and has 60 seconds to draw it while the other person guesses.
   - It's just for fun and a way to get people to loosen up, prime them for future activities where there is creative drawing, and help people to think and act differently in a work setting. This helps them have a different kind of experience so they enter this program with a different mindset than is typical.

5. **Community agreements**— this is a way to talk about expectations and get people on the same page about central issues related to commitment and participation in a group. Discuss these as a group and let them come to agreement, but if they stall out and don't know where to go, offer some suggestions.
   - Confidentiality— what is said here, stays here unless explicitly stated otherwise.
   - Food and coffee— rotate snack duty each week if people want something.
   - Role of note taker and meeting summaries— not detailed minutes, but to rotate the role of documenting major decisions, homework, or announcements to the group.
   - Number of people required for meeting— and the need to communicate absences so we know whether we'll cancel or not.
Section IV: Guide to Facilitation

- Start/end time— start on time, or wait until everyone is there?
- Email communications— it’s used frequently…is this the best mode of communication?
- Communicating absences— let the group know.
- Making up missed meetings— most likely we won’t make one up if cancelled, but will blend two together.
- Sharing reflective writing— up to the group if they want to share their reflective writings (like they had assigned for today), or if it’s just for them. We’d like to collect some of them along the way for our own program development, but it’s up to them to share with group or not.
- Closing comments.

6. Wrap up and look ahead to next week
   - Read Section 2-2 and 2-3 (emphasize that each of these articles is short).
   - Refer to the assignment they had for this week to write an individual statement of learning. Many people likely didn’t do it, so encourage them to do it and pack away in their CCLE materials for future reference. This will be revisited to see progress over time. Ask people if they would be willing to turn in their statements so we can have records for our research. If they don’t want to, it’s not a requirement.
   - Remind them that this is a research program and that we research effectiveness of the program (not how good they do in the program). Hand around the consent forms and ask them to read it and bring in signed consent forms next week. It will likely take a few weeks to collect them all, but be persistent to get them all returned.

THINGS TO ANTICIPATE

1. People may come unprepared.
   - This is a larger concern for future weeks when there are reading and writing assignments, but plan on at least a couple of people who didn’t do the reading or didn’t do a reflective writing.
   - You will need to have a plan in place for them so they can still participate, but it is known what is expected.
   - Most people can still contribute to the discussion, but find gentle reminders of the importance of coming prepared, and that you get out of this what you put in to it.

2. People will miss meetings and it can be disruptive when they return.
   - Some of this is taken care of with the community agreements and clarifying expectations.
   - Discuss how you would like people to communicate absences.
   - How many people are too few to have a meeting?

3. Grad student/faculty dynamic
   - For many students, this will be the first time they’ve been in a learning situation like this with other faculty, students, post docs, or academic staff.
• Be aware of who's dominating, who's being left out, and whose voices seem to be deferred to. Ideally, everyone's voice is equally valued, but it may need some intentional attention to achieve this.
• Refer back to the "Constructive and Destructive" behaviors activity if it becomes an issue.
Constructive and Destructive Group Behaviors

Constructive Group Behaviors

Cooperating: Is interested in the views and perspectives of the other group members and is willing to adapt for the good of the group.

Clarifying: Makes issues clear for the group by listening, summarizing and focusing discussions.

Inspiring: Enlivens the group, encourages participation and progress.

Harmonizing: Encourages group cohesion and collaboration. For example, uses humor as a relief after a particularly difficult discussion.

Risk Taking: Is willing to risk possible personal loss or embarrassment for the group or project success.

Process Checking: Questions the group on process issues such as agenda, time frames, discussion topics, decision methods, use of information, etc.

Destructive Group behaviors

Dominating: Takes much of meeting time expressing self views and opinions. Tries to take control by use of power, time, etc.

Rushing: Encourages the group to move on before task is complete. Gets "tired" of listening to others and working as a group.

Withdrawing: Removes self from discussions or decision making. Refuses to participate.

Discounting: Disregards or minimizes group or individual ideas or suggestions. Severe discounting behavior includes insults, which are often in the form of jokes.

Digressing: Rambles, tells stories, and takes group away from primary purpose.

Blocking: Impedes group progress by obstructing all ideas and suggestions. "That will never work because..."

Section IV: Guide to Facilitation

Creating a Collaborative Learning Environment (CCLE)

As you come in and get settled, look through the images around the room and choose one that represents a memorable learning experience from the summer. This will be used as part of our introductions.

Welcome and introductions
- Name, department
- Why did you decide to participate in CCLE this year?
- Is there something from your individual learning statement you would like to share with the group?
- Why did you choose the image you did?

The story of CCLE

Resource book overview

Basic flow of weekly meetings

Constructive/destructive behaviors

Community agreements
- Confidentiality
- Snacks
- Note taker
- Commitment and attendance (number of people to hold a meeting, communicating absences, etc.)
- Start and end time
- Making up missed meetings
- Sharing reflective writings
- Talking circle
- Closing comment (how to end the meetings?)

Preparation for next week
- Read Section 2-2 and 2-3
- Teaching and learning philosophy statement
- Signed consent form

Closing thoughts/questions?
Center for the Integration of Research, Teaching, and Learning (CIRTL)
Human Subjects Informed Consent Agreement for
Classroom Observations, Documentation, and Interviews

The Center for the Integration of Research, Teaching, and Learning (CIRTL) is funded by the National Science Foundation to create an interdisciplinary program to prepare graduate students, post-doctoral researchers, and current faculty and staff to meet the future challenges of science, technology, engineering, and mathematics (STEM) higher education. An evaluation is being conducted of CIRTL at the University of Wisconsin–Madison by researchers at the Wisconsin Center for Education Research. Information is being collected from participants, potential participants, and other university officials through interviews, classroom observations, and questionnaires. This information will be used to improve the implementation of CIRTL and to report on the effectiveness of the project to meet its goals.

Classroom observations will be conducted in selected classrooms, with the consent of the instructor. Each selected classroom will be observed approximately for 45–90 minutes each time. Classroom observations will be conducted by no more than two researchers, who will view classroom student and teacher interactions from a location in the classroom designated by the instructor. Data from classroom observations will be documented through field notes only.

An interview will require approximately 60 minutes to complete. Tape recording of any interview is optional. If participants choose not to be recorded, the interview will not be recorded. All data from interview notes and tapes will be held confidential. Tapes are stored in a secured office, and electronic copies of interviews are stored on a secured computer network.

Your participation is voluntary. There is no penalty or loss of benefits for nonparticipation; you can end your participation at any time without penalty or loss of benefits. By participating, however, you will provide valuable information that will contribute to the improvement of CIRTL and the general understanding of effective teaching and learning in STEM.

There are no risks in participation. Your responses will be treated confidentially. Confidentiality will be maintained by not using names. If information that might be attributed to you is included in any evaluation report, you will be asked to read draft pages containing that information and to indicate your approval or disapproval of the use of that information by signing and dating the pages in question or to indicate that that information may not be included.

For further information about the study, please contact WCER evaluation team leader Norman L. Webb at the address above, by telephone (608-263-4287), or by e-mail (nlwebb@facstaff.wisc.edu). If you have any questions regarding your rights as a research participant, please contact the University of Wisconsin–Madison Education Research Institutional Review Board by phone (608-262-9710) or e-mail (kwalsh@education.wisc.edu).

<table>
<thead>
<tr>
<th>Printed Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
</tr>
<tr>
<td>Date</td>
</tr>
</tbody>
</table>
Section IV: Guide to Facilitation
CCLE
Week 2 Facilitator's Guide

MAIN OBJECTIVES
1. To continue to build group cohesion
2. To answer questions about program background, activities, and expectations
3. To introduce and practice the talking circle process
4. To gain experience in how the group will engage in discussions throughout the program

MAIN ACTIVITIES AND CONNECTION TO PILLARS (details follow)
1. Take a minute to catch your breath and focus on this gathering (LC)
2. Revisit introductions (LC)
3. Discuss articles about teaching in community and talking circle (LC, DIV)
4. Revisit discussion about their statements of learning (DIV)
5. Give a minute to reflect on today’s meeting (TAR)
6. Wrap up and prepare for next week

ASSIGNMENTS
• Read Section 2-2 and 2-3 (Talking Circles by Wolf, Teaching as Community Property by Shulman).
• Bring in teaching and learning philosophy statements to share and turn in (if they want to).
• Bring in signed consent forms.

MATERIALS TO TAKE
• Talking stone
• Name tents and markers from last week
• Copies of handouts for those who missed last week
• Consent forms

SET UP BEFORE MEETING
• Arrange the table(s) to be as round or square as possible (avoid long rectangular tables where there is a “head” of the table)
• Handouts for people who missed last week

GETTING STARTED
As people come in, ask if anyone went to the Roundtable dinner*. Start off the conversation with a brief discussion about who went, what they learned, and anything they would like to share with the group. This is a good way to get other people involved in Roundtable dinners. If it is a particularly relevant topic, have a longer discussion about it, but since it is so early in the year, the main thing is to encourage attendance at the dinners for future meeting discussions.

* See Section 2 for a description of Roundtable dinners.
1. Revisit introductions
   - One more brief round of introductions (name, department, “now that you have a better sense for what CCLE is, what am I hoping to get out of it?”, or “what questions do you have?”).
   - If they have questions, don’t address them right away. This gives them a chance to get them all on the table from the whole group, and then you can address them after introductions are done. This avoids getting derailed by one question and not having time to get to the others.
   - I don’t suggest doing a talking circle (see activity below) here because this is an easy question for them to self monitor in terms of staying brief and not getting into a free flowing discussion. You don’t want to overuse the stone, but only when it’s appropriate (like the following discussion of the article).
   - Collect consent forms from last week and see if there are any questions.
   - Revisit any main decisions regarding community agreements (or if you didn’t finish them last week, discuss them to start off today). If you did not do them last week, please find details at the end of this section.
   - Hand out and give a quick overview of the handout from the article “Barriers to Communication” by Bolton (see supplemental reading list at end of the reference section of this handbook). This can serve as a quick, friendly reminder about group behaviors, and give them one more thing to refer to in the future if group dynamics become difficult. You can refer back to the, “remember in the first and second week when we talked about group dynamics and communication patterns? Let’s take a minute to reflect on how things have been going recently.” It gives you something to come back to in the future.

2. Talking Circle— If you want to have fun and take a bit of a risk, try to just open up the meeting with a talking circle, assuming everyone read the article and can make meaning out of it. If you’re not quite that certain it will go over well, you can give a brief intro to the process of the talking circle as an intro to discussing the article about it.
   - The purpose of a talking circle is to give voice to everyone and to avoid domination, (*this may be a time to bring up the grad student and faculty dynamic and different roles people play with equally valuable perspectives*).
   - This process provides space for listening.
   - The rules are simple, but hard to follow.
   - Only speak when you’re holding the stone.
   - There is no time limit, but it is understood that people will honor the needs of others to have time to speak.
   - This is NOT a time to debate, critique, or engage in discussion about someone else’s remarks, but rather to be as open and honest about your ideas about the questions/topic/issue on the table.
   - The focus questions for any circle can be anything you feel will bring out personal and individual responses with no right answer. The reflection question
in the syllabus can be used, or you can ask "What stood out for you from the reading, or what questions came to mind from the discussion?"

- For this particular reading, a good question may be, "What are your initial reactions to being part of the talking circle process as described in the article?"
- Invite anyone who wants to begin the circle and hand them the stone. Wait several seconds before jumping in, but if nobody volunteers to start, you can begin. Be cautious not to always start the circle each week—they need to develop comfort doing it.
- After you have completed the talking circle, open it up to a brief discussion about how that process felt.

3. Discuss Shulman article about “Teaching as Community Property”
   - You can ask them if they want to use a talking circle for this. If there is interest, go for it and build on a good experience. If the first one was a bit rough, let it go for this week, but be sure to revisit it next week. You don’t want them leaving with a double experience that isn’t positive.

4. Talk about their statements of learning and teaching
   - Again, you can use the talking circle here if you haven’t already done it twice, but do not overuse it. Having said that, it may not be needed here since it is a round robin of everyone’s statements.
   - If you do a round robin discussion, be sure to mention BEFORE starting that you’d like to withhold discussion until after everyone has had a chance to share their statements. This avoids getting off on a tangent about a particular statement and not having time for everyone else’s.
   - Go around and ask people to briefly share their philosophies of LEARNING first, and then if time, talk about teaching.
   - As others share theirs, ask everyone to listen for:
     1. What seems familiar and resonates with you?
     2. What seems foreign or new to you?
     3. What seems new that peaks your curiosity?
   - Let this be a bit free flowing and observe patterns of behavior in the people.
     1. Who shuts down?
     2. Who dominates?
     3. Who’s looking to others for approval and direction?
     4. Who takes risks?

5. Wrap up and prepare for next week
   - Read Section 3-1.
   - This is a very personal story from the author. The article is chosen to help open people up to sharing personal stories and to have something that most everyone can easily connect.
   - Ask them to reflect on how/if they see themselves in the article.
THINGS TO ANTICIPATE
People may resist the talking circle.

- Acknowledge it may be uncomfortable, but many learning situations are uncomfortable and it helps put them back in the seat of their students learning and experiencing something new.
- Invite them to give it a try and cast aside any doubts to see what happens. Ask them, “What’s the worse that can happen if we try it?”

You may lose one or two people.

- Usually two or three weeks in is when people who were not fully committed decide not to participate any further.
- This is normal, so don’t take it personally.
- Once they come to the first three meetings, you’ve pretty much got them committed for the duration (unless things significantly change for them next semester).
CCLE
Week 3 Facilitator’s Guide

This is the first week of the second theme, “Diverse Styles of Learning”. We take the first two weeks to build some group cohesion and commitment before getting into any new “material” or “content”. We start off with a topic of learning styles because it is something everyone can relate to, and is a safe way to build up to the more contentious issues raised in the next theme on diversity. This is also a way of “leveling the playing field” because many people will not have even considered the notion of diverse learning styles, so this can be eye opening for some, and reassuring to others.

MAIN OBJECTIVES
1. To begin reflecting on different learning styles based on research and personal experiences.
2. To continue to build group cohesion.

MAIN ACTIVITIES AND CONNECTION TO PILLARS (details follow)
1. Opening reflection time
2. Discussion of readings (LC, DIV)
3. Activity using Richard Felder’s short excerpt articles, “Susan and Glenda”, and “Stan and Nathan” (see supplemental reading list in the reference section for complete reference)
4. Wrap up and prepare for next week

ASSIGNMENTS
• Read Section 3-1 (Through the Lens of Learning, Brookfield).
• This is a very personal story from the author. The article is chosen to help open people up to sharing personal stories and to have something that most everyone can easily connect.
• Ask them to reflect on how/if they see themselves in the article.

MATERIALS TO TAKE
• Talking stone
• Copies of Felder articles, “Stan and Nathan”, and “Susan and Glenda” (see supplemental reading list)
• Name tents and markers from last week (use the tents for one or two more weeks if people aren’t sure of names yet)
• Copies of handouts for those who missed last week

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
Section IV: Guide to Facilitation

- Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle about the articles.
- They can look over the articles, jot down some thoughts, or just sit and chill.

2. Discussion of readings
- Invite them into the first talking circle by posing a question to the group about the reading.
- Remind them of the “ground rules” for the talking circle. Possible questions to get going include:
  1. What stands out for you when you read this article?
  2. In what ways did you see yourself reflected in this article?
  3. In what ways did you see your students reflected in this article?
  4. Have you had a similar experience when learning something new?
- After the talking circle, open it up for general discussion for a few minutes.
  1. Spin the discussion around issues of uncomfortable and new learning experiences.
  2. What's the role of discomfort in learning?
  3. How do emotions fit in?
  4. Is it ok to always try to cater to dominant learning styles, or stretch students to be uncomfortable? How much is too much?

3. Felder article discussion activity
- When there is a good break point, say you'd like to switch gears a bit and hand around either the Felder, "Stan and Nathan" article, or the "Susan and Glenda" article. These are short scenarios of two “typical” students and introduce the concepts of global and sequential learners, visual and auditory processor, etc. It's a good, short, and fun way to get into learning styles discussion.
- Give them the article and give them 5 minutes to read it.
- Break them up into pairs for one person to take on the perspectives of one person in the article, the other person takes on the other. They discuss how they do, or do not relate to that particular learning style.
- Do this for about 5-7 minutes.
- Bring it back to the large group and ask, “OK, everyone who was Stan, what do you think? What about those who were Nathan?” Let the conversation go long enough to get the main concepts out on the table, but you won’t have a full discussion here. Remind them that this is just one of many ways to look at it.

4. Wrap up and prepare for next week
- Read Article 5-5: Teaching-As-Research: A Systematic Approach to Teaching-for-Learning (Conrad & Gupta). It is out of order, but we will revisit it later in the year when we focus on “teaching-as-research” in Section 5 of the resource book. This article was chosen because it is a nice combination of an overview of the concept of TAR as well as a nice summary of learning styles and a focus on learning rather than teaching.
Section IV: Guide to Facilitation

• Consider only reading the first part of the article before it gets into an action oriented discussion. The first part of the article is a nice summary of the concept of TAR as well as an overview of learning styles and a focus on learning, rather than teaching.

THINGS TO ANTICIPATE

1. “This article [the Felder one] is fake...I don't know anyone like this!” Or, something like, “This is too generalized. Nobody is this black or white.” A constructive response to these issues is to say that discussions are not intended to be a critique of the article, but rather a discussion of what fits, what doesn't fit, and what's missing. To which you can respond something like, “OK...these aren't intended to be all encompassing profiles, but are there aspects of Stan or Nathan that you see in yourself or others? Let’s start from there. What seemed familiar? What seemed foreign? (That's very different than asking, "What in this article is right and what is wrong?")

2. It's also likely that someone will critique any of the models put forth in any article or by a person in the group. That's fine, but try to make it a constructive critique for what's missing, or how does it not fit with your understanding, or how it doesn't capture the complexities of learning, rather than focusing on a minute detail over appropriate wording or an academic argument about the subtleties of a concept.
   • If all else fails, remind them, “All models are wrong...but some are useful”, then steer them into finding what is useful in this model.
   • Remind them this is a time for listening and questioning for clarification, but not for critique or to “correct” someone.
   • They should speak from their experience and emotions as much (if not more so) than from their intellect and scholarship.
MAIN OBJECTIVES
- To continue reflecting on different learning styles based on research and personal experiences
- To begin reflecting on the process of learning
- To introduce the concept of Teaching-as-research
- To reflect on the experiences of participants in the program to date

MAIN ACTIVITIES AND CONNECTION TO PILLARS (details follow)
1. Opening reflection time
2. Discussion of reading (LC, DIV, TAR)
3. Process check-if appropriate (TAR)
4. Wrap up and prepare for next week

ASSIGNMENTS
- Read Article 5-5 (Teaching-as-Research: A Systematic Approach to Teaching-for-Learning by Conrad and Gupta)

MATERIALS TO TAKE
- Talking stone
- Teaching-as-research one pager (included in the CCLE Resource Book and the opening section of this handbook)
- Name tents and markers from last week (use the tents for one or two more weeks if people aren't sure of names yet)

SET UP BEFORE MEETING
- Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
   - Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle.
   - They can look over the articles, jot down some thoughts, or just sit and chill.

2. Discussion of readings
   - Invite them into the first talking circle by posing a question to the group about the reading. Possible questions to get going include:
     1. What stands out for you when you read this article?
     2. In what ways are you already engaged in teaching-as-research?
   - After the talking circle, open it up for discussion.
     1. Remind them this is not a critique of the article. Ask them what is useful?
2. As much as possible, have them speak from their experiences, not their intellect, and bring in the emotional piece as well as the theoretical pieces of their experience.

3. When it seems like conversation is dying down or needs a shift, introduce the Teaching-as-research one page "definition" in the front section of the CCLE resource book. You may want to take a few extra copies for people who do not have their book with them.

4. Give them a few minutes to read it silently, then a few minutes to reflect on the question, "in what ways am I already engaged in TAR?"

5. This shifts the conversation from a discussion of the article to a discussion of their experiences.

6. Be careful to not have this become a teaching techniques discussion, but keep the focus on learning, and how the TAR process can be used to learn about learning and give formative feedback to you about your teaching.

3. Process check with 15 minutes remaining (if appropriate)
   - It may seem too early in the year to do a process check, but if you do it this week, see below for details.
   - If you don't do a process check this week, then with about 15 minutes remaining, jump in and remind them of the time, and ask if there are things that someone wants to get on the table that they have not had a chance to do yet. This is a gentle way of saying, "those who have dominated, back off and allow space for others to speak".

4. Wrap up and prepare for next week
   - Read Section 3-3 and 3-4. Article 3-3 is chosen because it is a classic model of intellectual development upon which much of our current higher education curriculum is based. It resonates with many people and is a good way to introduce the concepts of stages of learning, comfort with ambiguity, and desired "end points" of learning. Article 3-4 is a reaction piece to 3-3 and critiques Perry's whole scheme in a way that makes you wonder the faults of how we conceptualize our current system.

THINGS TO ANTICIPATE
This is likely the first time that there will be significant differences of opinion and reactions to a reading, so be prepared to revisit some of the community agreements about listening and talking without judgment.
Section IV: Guide to Facilitation

Process Check Details
Periodically throughout the semester, we build in several process checks to see how people feel about the process, flow, and group dynamics. It's not about the content of what's been discussed, but rather the manner in which the program is unfolding for them. Below are the steps to take to do this, as well as some guiding questions to use. The following page is a template of some questions that can be used.

1. Give everyone a handout with the questions on it (see next page) and give them 3-5 minutes to write their responses. If you want, and have it planned ahead enough, you can email them the questions and ask them to come prepared with their written responses to save time in the meeting, but chances are a few people won't do their homework and you'll end up waiting anyway.

2. It may be the case that they want to write something they don't want to say, so let them know you'd like to collect their written responses for ongoing program evaluation. This is another way that you can gather data about their experiences in their own words rather than your notes that interpret what they said.

3. After they've had time to write, have an open discussion about what they wrote. A talking circle can work here, a round robin, or just an open discussion.

4. Let them know that all feedback is helpful, but not every suggestion can be implemented. For example, it's rather common that someone says, "I'm tired of talking about learning, let's talk about teaching techniques" in which case I'd say they've signed up for the wrong program. More politely, you can acknowledge their interest in talking about techniques, and refer them to other groups/programs on campus that take that approach and are complementary of CCLE's focus on learning. At UW, we have the Center for Biology Education brown bags, the Teaching Academy events, other Delta workshops, etc., so connect with what's available on your campus.

5. If there are issues that come up about the process, this is a time to address them as a group without pointing fingers. For example, if someone feels as if someone is dominating, this is a time to revisit the ground rules, communication, and teamwork discussions from earlier weeks.

6. It may be that someone says, "I just don't have the time to do the reading and come prepared". That's fine, and a response is to engage at the level that works for each person individually, but they'll get much more out of it if they can at least do a cursory reading of the articles before hand.
Process Check

Please write out responses to the following questions. After we have all had a chance to write, we'll take some time to talk about each question.

1. What is going well in this group so far?

2. What is not going so well in this group so far?

3. How do you feel about the structure, activities, and format of the group so far?

4. Do you feel as if everyone has ample time to share their thoughts and contribute? If not, what other approaches may help to make it better?

5. How do you feel about the topics we've discussed so far? What have we not gotten to yet that you would like to explore?
Section IV: Guide to Facilitation

CCLE
Week 5 Facilitator’s Guide

MAIN OBJECTIVES
1. To continue reflecting on different learning styles based on research and personal experiences with an eye toward the process of learning, not just styles.
2. To begin reflecting on specific issues of diversity (in this case, gender as a dimension of diversity)
3. To begin making connections between diverse learning styles and personal approaches to teaching

MAIN ACTIVITIES AND CONNECTION TO PILLARS (details follow)
1. Opening reflection time
2. Discussion of readings (LC, DIV)
3. Process check (if not done last week) (TAR)
4. Wrap up and prepare for next week

ASSIGNMENTS
• Read Section 3-3 and 3-4 (Perry’s Model by Culver and Hackos, Women’s Ways of Knowing by Hogsett).

MATERIALS TO TAKE
• Talking stone
• Name tents and markers from last week (This may be the last week you need to use the tents if you think people know each others names. Keep in mind that you know them better than they know each other).

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
   • Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle.
   • They can look over the articles, jot down some thoughts, or just sit and chill.

2. Discussion of readings - Article 3-3 is chosen because it is a classic model of intellectual development upon which much of our current curriculum is based. It resonates with many people and is a good way to introduce the concepts of stages of learning, comfort with ambiguity, and desired “end points” of learning. Article 3-4 is a reaction piece to 3-3 and critiques Perry’s whole scheme in a way that makes you wonder the faults of how we conceptualize our current system. This is likely the first time that there will be significant differences of opinion and reactions to a
Section IV: Guide to Facilitation

reading, so be prepared to revisit some of the community agreements about listening and talking without judgment.

• Invite them into the first talking circle by posing a question to the group about the readings. You can discuss them one reading at a time, or together. Possible questions to get going include:
  1. With regard to your own learning about learning styles, where do you find yourself in the sequence of the model of intellectual development presented in the paper?
  2. In what ways do the two articles say the same thing? In what ways do they portray significant differences?
  3. What stands out for you when you read these articles?
  4. How does what you have experienced as a learner relate to the theories and models we have recently read and discussed? How does it differ?
  5. Are you beginning to see connections between your approach to teaching and our readings and discussions about learning?

• After the talking circle, open it up for discussion.
  1. Remind them this is not a critique of the model (all models are wrong...some are useful). Ask them what is useful?
  2. As much as possible, have them speak from their experiences, not their intellect, and bring in the emotional piece as well as the theoretical pieces of their experience.
  3. If it doesn't come up, bring in questions like:
     • Which of the two articles resonated with your more? Why?
     • Is learning really as linear as it is portrayed in the Perry article?
     • Is it uni-directional, or do you go back and forth?
     • Are you at the same point of development in all aspects of learning?
     • What happens when you hit the end of the cycle? Are you finished? Do you start over?
     • Is there a way that you can validate both approaches/models presented in each article?
     • Bring out issues of gender as they relate to the article. Is it a gender issue? Or just another style of learning?

3. Process check with 15 minutes remaining (if not done last week)
  • If not done last week, do a process check. See Week 4 guide for details.
  • If you don’t do a process check this week, then with about 15 minutes remaining, jump in and remind them of the time, and ask if there are things that someone wants to get on the table that they have not had a chance to do yet. This is a gentle way of saying, “those who have dominated, back off and allow space for others to speak.”
4. **Wrap up and prepare for next week**

- Read Section 4-1. This is a new theme and we begin to focus more specifically on diversity issues.
- You've touched on it already with issues of learning styles, and last week with beginning to talk about gender issues.
- Now it gets more explicit about other dimensions of diversity.
- Ideally, the group has connected by now and people feel safe expressing themselves, but it may be helpful as you wrap up this week to look ahead and ask people to reflect on the earlier discussions about teamwork, group dynamics, respectful interactions, listening, etc.
CCLE  
Week 6 Facilitator's Guide

MAIN OBJECTIVES
1. To begin to transition to more explicit discussions of diversity

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Opening reflection time
2. Discussion of reading (LC, DIV)
3. Discuss case study from Diversity Institute Case Study book (LC, DIV).
4. Wrap up and prepare for next week.

ASSIGNMENTS
- Read Article 4-1 (Four Ideas and a Funeral by Hodari).

MATERIALS TO TAKE
- Talking stone
- Copies of a case study from Diversity Institute Case Study Book

SET UP BEFORE MEETING
- Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
   - Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle. They can look over the articles, jot down some thoughts, or just sit.

2. Discussion of readings
   - Invite them into the first talking circle by posing a question to the group about the reading. Possible questions to get going include:
     1. What stands out for you when you read these articles?
     2. In what ways did you, or did you not, connect with the article?
   - After the talking circle, open it up for discussion.
     1. Remind them this is not a critique of the article, but a discussion about what stood out and what may be useful.
     2. As much as possible, have them speak from their experiences, not their intellect, and bring in the emotional piece as well as the theoretical pieces of their experience.

3. Case Study from Diversity Institute Case Study Book – this is a resource available on line at http://www.cirtl.net/DiversityInstitute/. Full details of how to facilitate a discussion from these case studies is available on the web, so details are not presented here. These cases are a great way to introduce real life situations
Section IV: Guide to Facilitation

that have no right or wrong answer, but serve as ways to get people engaged in the
difficult ambiguities of diversity in the classroom. There are several to choose
from, so depending on the types of issues that have come up in the group, you can
choose one that is most appropriate for your group.

4. Wrap up and prepare for next week - The readings for next week are rather
controversial to some people. Article 4-2 on American Values is used because, agree
with it or not, this is what the government used (and to a large extent still uses) to
help foreign visitors to the US understand our culture. Every item listed in this
article can be debated as being stereotyped, generalized, or just flat out wrong.
That's ok, but the purpose of this article here is to say that this is how Americans
are portrayed and perceived throughout the world. A good question to ask is, “how
are these values portrayed in our educational system?”

The second article, 4-3 on White Privilege is really the first time that we ask people
to publicly disclose their biases. It is an inventory that makes people think about the
privileges they have (earned and unearned), and brings into question the implications
for this on the way we approach our educational system.

THINGS TO ANTICIPATE
Be prepared for some people to react rather strongly to these readings. As a
facilitator, you may want to read an article an article by Solomon, et. al, “The discourse
of denial: How white teacher candidates construct race, racism, and 'white privilege”
(see supplemental reading list in Section 7 of this book for complete citation). This
article has accounts of several hundred faculty’s reactions to taking the privilege
inventory. This may help you anticipate some of the reactions and issues that will come
up during the discussion.
CCLE
Week 7 Facilitator's Guide

MAIN OBJECTIVES
1. To be more explicit about discussions of diversity
2. To begin to explore individual and personal biases

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Opening reflection time
2. Walk-n-talk (LC, DIV)
3. Discussion of readings (LC, DIV)
4. Wrap up and prepare for next week.

ASSIGNMENTS
• Read Articles 4-2 and 4-3 (Values Americans Live By by Kohls, White Privilege by McIntosh).
• Take the White Privilege Inventory.

MATERIALS TO TAKE
• Talking stone

SET UP BEFORE MEETING
• Make sure you remind people a day or two in advance to complete the inventory. Otherwise, you’ll need to take time during the meeting.
• Be prepared for some people to react rather strongly to the readings this week. As a facilitator, you may want to read an article an article by Solomon, et. al, “The discourse of denial: How white teacher candidates construct race, racism, and ‘white privilege’” (see supplemental reading list in Section 7 of this book for complete citation). This article has accounts of several hundred faculty’s reactions to taking the privilege inventory. This may help you anticipate some of the reactions and issues that will come up during the discussion.
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
   • Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle. They can look over the articles, jot down some thoughts, or just sit.

2. Walk-n-talk
   • To change things a bit, you can consider engaging in the discussion using a “walk-n-talk” process. This just means that people pair up with someone else and take 15 minutes to walk around to discuss one on one. You pose a question to the group to discuss while they walk. A good one for this week
would be, “What were your individual reactions when you took the privilege inventory?”

• There are many purposes for doing a walk-n-talk.
  1. It gets people moving if the sitting and discussion routine has
     become stale.
  2. It helps those who process complex issues while moving rather than
     just sitting (engages another learning and processing style).
  3. Since this is an especially sensitive topic, one where people are
     sharing at a new level, it may help some to do so on a one-on-one
     basis before bringing it to the whole group.
  4. The White Privilege article in particular lends itself nicely to this as
     it is a good topic to discuss while walking.

3. Discussion of readings
   • When you come back from the walk-n-talk, have a large group discussion
     about what was discussed while walking.
   • If you’re just not up for the walking, you can invite them into the first
     talking circle by posing a question to the group about the reading. Possible
     questions to get going include:
     1. What stands out for you when you read these articles?
     2. What was your score from the privilege inventory, and what are your
        reactions to it?
     3. How accurately, or inaccurately, do you think American values are
        portrayed in the article?
   • After the talking circle, open it up for discussion.
     1. With the two articles for this week, it makes sense to address them
        one at a time at first, then end up with discussion that brings then
        both together.
     2. Remind them this is not a critique of the article, but a discussion
        about what stood out and what may be useful.
     3. As much as possible, have them speak from their experiences, not
        their intellect, and bring in the emotional piece as well as the
        theoretical pieces of their experience.

4. Wrap up and prepare for next week
   • Read Section 4-4, “Teaching in a diverse environment”. This article is chosen
     because it expands the discussion of diversity beyond race, gender, and
     learning styles. It includes dimensions such as age, sexuality, disabilities,
     etc.
CCLE
Week 8 Facilitator’s Guide

MAIN OBJECTIVES
1. To continue discussions and understandings of diversity.
2. To introduce additional dimensions of diversity beyond race and gender.

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Opening reflection time
2. Discussion of readings (LC, DIV)
3. "Non-facilitating" behaviors (LC, DIV)
4. Wrap up and prepare for next week

ASSIGNMENTS
• Read Section 4-4 (Teaching in a diverse environment, Van Note Chism)

MATERIALS TO TAKE
• Talking stone
• Copies of "non-facilitating" behaviors worksheet
• Excerpt from James Rhem's article on Social Class as a dimension of diversity that is often times not considered

NOTE: We do not have copyright permission for neither the "non-facilitating" behaviors article nor the Rhem article, so they are not included in this guidebook. If you are interested in using these materials, please contact the authors of this guidebook (contact information is on the inside of the front cover) and we will arrange to forward a copy to you.

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a "head" of the table).

GETTING STARTED
1. Opening reflection time
   • Open up with a minute to sit and collect thoughts about the readings before getting into a first talking circle. They can look over the articles, jot down some thoughts, or just sit.

2. Discussion of readings
   • Invite people into the first talking circle. Possible questions to get going with the first talking circle include:
     1. What reactions did you have to this article?
     2. Of all the dimensions of diversity brought out in the article, which ones seem the most comfortable for you to address? Which ones seem the most difficult? Why?
   • After the talking circle, open it up for discussion.
1. Remind them this is not a critique of the article, but a discussion about what stood out and what may be useful.

2. As much as possible, have them speak from their experiences, not their intellect, and bring in the emotional piece as well as the theoretical pieces of their experience.

3. Two activities for further discussion— if you choose, an option to deepen the discussion is to use either of the following two activities/resources.
   - **Non-facilitating behaviors**: this short article (available if you contact the authors of this guidebook), is a succinct way for people to acknowledge that they likely unknowingly engage in non-facilitating behaviors that can exclude students. It can be approached similar to the activity in Week 1 on constructive and deconstructive group behaviors where you ask them to read the page, reflect on their behaviors, then share with the group.
   - **Discussion of social class based on James Rhem's short article**: there is a short essay about how social class is an often neglected or ignored dimension of diversity that has strong implications for the learning environment. It takes just a few minutes to read, and contains a few discussion questions to use. It is an effective way to get people's real time reactions to a difficult issue rather than reading it ahead of time and formulating their thoughts.

4. Wrap up and prepare for next week
   - There is nothing to prepare for next week— it's movie time! They have been sitting and talking for many weeks now, so it may be time for a change of pace.
   - This can be timed such that it falls the week before, or the week of Thanksgiving in the Fall semester. That's a good time to take a break and breathe new life into the group with a different thing.
   - There are a bunch of great films out there that deal with diversity issues; you may have some in your library to view. A favorite of mine is the documentary film, "The Color of Fear". It follows a group of men on a weekend retreat as they grapple with issues of racism in America. It is equally split into two 45 minute parts. First is a focus on white privilege as one member of the group becomes the focus point for the discussion. The second part deals with inter-cultural racism and how it occurs within a single race or ethnicity (blacks against blacks, Hispanics against Hispanics, etc.).
CCLE
Week 9 Facilitator's Guide

MAIN OBJECTIVES
1. To continue discussions and understandings of diversity
2. To reflect on individual experiences with diversity and racial identity
3. To change the pace of the group to re-energize with a new format of meeting

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Open reflection time (LC)
2. Watch a movie. (DIV, LC)
3. Discuss the movie. (DIV, LC)
4. Wrap up and prepare for next week.

ASSIGNMENTS
• None!

MATERIALS TO TAKE

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).
• Arrange for the video, VCR, or projector as needed.

GETTING STARTED
1. Opening reflection time— introduce the video and the purpose for watching it.
2. Watch the movie
3. Discuss the movie
   • Using a talking circle, or just open discussion, engage in open discussion about the movie. Chances are this will be a rather emotionally charged discussion, so be prepared to ask people to slow down, step back, and revisit the respectful community agreements.
4. Wrap up and prepare for next week
   • No meeting next week for Thanksgiving
   • For those who want to get together to continue discussion about the video, or to watch the second half, we can arrange that, but no expectation to meet during the week of Thanksgiving.
   • In two weeks, we start to move into collaborative work— not just individual discussions of articles.
• We'll start by writing an individual statement. Refer them to the syllabus in the resource book for an explanation of what this is.
• These statements will be used for pulling out themes of learning for use as a group to build on.
MAIN OBJECTIVES
1. To begin to synthesize all we've done to date
2. To reflect on individual thoughts about the purpose and aspirations of learning in higher education system
3. To transition from individual learning to collaborative learning

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Opening reflection time
2. Share individual statements. (LC, DIV, TAR)
3. If time, begin pulling out main themes for team consensus statement. (LC, DIV)
4. Wrap up and prepare for next week.

ASSIGNMENTS
• Individual statement (see details below)

MATERIALS TO TAKE
• Talking stone

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Opening reflection time
   • Open up with a minute to sit and collect thoughts about the individual statements they wrote. The circle can be them reading their statements to everyone, or summarizing what they wrote, but try to have it be some way to bring their individual ideas to the group.

2. Share individual statements— the purpose of this individual statement is to have them reflect on, and articulate their vision of the learning experience they would like their students to have. What do they want their students to experience, know, be able to do, or wonder about when they leave their class? This is intentionally a very open ended activity, and people will engage it at very different levels. To help guide it, ask people to be as succinct as possible. If they write on for many pages, they can easily lose focus, but if they are asked to limit it to a statement (rather than an essay), it forces them to really focus on the issues and beliefs they hold as critically essential.

   It is a good idea to revisit the page in the opening article on teamwork by K. Sanders (Section 2-1), specifically the part about consensus.
Section IV: Guide to Facilitation

- This is the first activity where there is a need to reach an agreement as a group.
- Consensus does not mean that everyone is 100% happy with everything.
- It does mean that everyone can live with the decision and that there are not any huge barriers that make someone feel as if they just cannot agree on it.

A good way to get them to share is to have them read their statement to the group, then focus on the main issue/concept they thought about when they wrote it.
- At this point, don’t get into a discussion of them (unless there is a need for clarification), but this is not the time to debate or critique them.
- Get all of the statements out on the table, and then have an open discussion about what each person heard in other people’s statements.
- Try to guide them toward pulling out main themes, or common elements they hear among many people.

3. If you have time, begin pulling out main themes for team consensus statement.
- Encourage them to have fun with the collaborative nature of this.
- The objective is NOT to come up with the PERFECT statement, but rather to engage in a process of understanding from different perspectives, and arrive at consensus on something that is agreeable to everyone.
- If they swirl around too much trying to find the PERFECT statement, remind them that this is intended to be fun, and that really nothing is riding on this statement. It is more about the process of discussion than the actual final statement. If they become too product focused, they lose sight of the purpose of the activity.
- Make connections between their statements from this week, their original learning philosophy statements from the first week, and new questions that may be emerging in their thinking. These are the early stages of TAR for themselves.
- What common themes did you hear across the group?
- What stood out for you that seemed new, foreign, or different than the way you were thinking about this?
- What seemed to resonate with you?
- What is the common ground upon which we can build a team consensus around a central purpose for our future work with this group? This is a central question to move the group ahead and build on what is common.

4. Wrap up and prepare for next week
- Read Section 5-1, “What is Education For?” and encourage them to write a response to this article. It typically stirs some people up, so a bit more preparation and reflection to lead the discussion next week may help it be a constructive conversation rather than a bitter one. This article is chosen as a way to connect an individual class and learning situation to a larger vision of “What is Education For.”
• Next week, we'll build on common themes from the individual statements and 
  start working on a team statement.
• We'll have an end of semester wrap up discussion and look ahead at next 
  year.
• If they don't make big progress on the group statement, that's ok...actually, 
  it's quite normal. Let them know that you'll pick up where you left off and 
  that they are NOT behind! You'll be surprised at how many people feel as if 
  they failed, or as if they are behind because they didn't finish.

THINGS TO ANTICIPATE
It is common for attendance to drop off the last few weeks of the semester. If that 
 happens, check in with those who miss to make sure they intend on sticking with it next 
 semester.
CCLE  
Week 11 Facilitator’s Guide

MAIN OBJECTIVES
1. To continue to synthesize all we’ve done to date
2. To formally transition from individual learning to collaborative learning
3. To wrap up the semester work and look ahead at next year

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Schedule meeting time.
2. Opening reflection time
3. Revisit individual statements (if needed). (LC, DIV)
4. Work on group statement. (LC, DIV)
5. Wrap up process check discussion for semester.

ASSIGNMENTS
• Read Section 5-1, "What is Education For?" and encourage them to write a response to this article. The response can be a response to how they would answer the question, "What is Education For?"
• Bring you calendar so you can schedule meeting time for next semester.

MATERIALS TO TAKE
• Talking stone
• Process check forms
• Blank schedule form

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Schedule meeting time for next semester
   • As people are coming in, pass around blank schedule form (see attached) and ask people to X out times they CANNOT meet next semester. Whatever is open is the time to meet. Ask people to be as flexible as possible.

2. Opening reflection time
   • Open up with a minute to sit and collect thoughts about the article for the day.

3. Revisit individual statements (if needed)
   Possible questions to get going with the first talking circle include:
   • “What is education for” for you?
   • What is your response to this article?
If people missed the meeting last week, this is a chance for them to share their individual statement with the group.

4. Group statement
   - After the talking circle, open it up for discussion for a bit about the article, but not the whole time.
   - Help them understand the shift they'll experience more next semester where the discussions of the articles are a means to inform the other activities they are doing, NOT for the sake of pure discussion about the article. Here it is to inform the statement. Later the readings will be used to inform the learning diagram.
   - Link the discussion to the individual statements from last week and any common themes or common ground the group came up with last week.
   - Spend at least half of the meeting (hopefully an hour if possible) on discussion of a team statement of purpose/intent that builds on individual contributions from last week.
   - If they seem to be swirling with the team statement concept, walk through this process to begin group consensus:
     1. Brainstorm the key common themes that came from the individual statements.
     2. Have someone write these up on a board or flip chart. It should be someone from the group, not you!
     3. From this list, what are the 2 or 3 that seem to be all encompassing for the group? (For example, if people say women in science, and another person says retention, and another says everyone gets a chance, then the common theme for all of these could be inclusive and supportive learning environments for all. Another example could be issues of motivation, curiosity, and pursuit of authentic interests, the common theme could be helping develop the skills for lifelong learning.)
     4. Don't push too hard, but it is your job to hear multiple voices and try to synthesize them into a common theme.

5. Wrap up and look ahead to next semester.
   - While you have everyone together, schedule a meeting time for next semester.
   - The first meeting of next semester should be the 2nd or 3rd week of classes.
   - If there is time, do at end of semester process check (see Week 4 for process check details).
   - If you run out of time, tell them you'll email them the process check form and ask them to send in responses during Winter break. It is likely that you will need to provide a few reminders about this so that everyone responds.
Section IV: Guide to Facilitation

CCLE
Second Semester Facilitator’s Guide

The second semester of the program starts to take on a different feel that requires a shift in approach from the facilitator. It is likely that you will once again lose one or two people who are unable, or choose not to, continue participation. Again, that is normal, so try not to take it personally!

For those who continue, they are committed, and your role as a facilitator becomes much less central as the group is more self-directed. You become more of a sideline guide to keep things going, as well as bring in a voice or perspective that is not represented by the group.

Unlike the first semester when the group needed a bit more guidance and each week was rather prescriptive with designated readings and activities, the second semester is much more open-ended. The first week of the second semester is similar to the past—you will have a central role in getting them back in the mode of thinking about CCLE and getting the group moving again. After that, there are really four primary activities for the remainder of the semester.

1. Individual contributions—you’ll need some time to regroup after being gone for Winter break and have a chance for everyone to contribute their individual thoughts and ideas about the learning diagram before taking on the group activities.

2. Group consensus learning diagram (see front cover for example of a diagram for a previous group) — this can be the most creative, fun, energizing part of the program if people allow themselves to play, have fun, and let the creative process take hold of their work. If they become too involved in developing the "perfect" product, they’ll lose out on the value of the activity. Your role is to keep them creative, moving ahead, and learning from the process of creation rather than a total focus on the final product.

3. Putting it all together—using the framework of teaching-as-research, the final several weeks of the semester are spent pulling everything together from the year to frame it all in the concept of teaching-as-research, and by helping people make intentional, explicit, and direct connections to their particular teaching contexts.

4. End of program evaluations and wrap up discussion—this is much like the end of semester process check after the first semester, but is more cumulative for the entire year.

Each of the four activities above should occur in the order presented, but the time required for each of them will vary by group. Each one could, if allowed, take the entire semester, so be mindful of striking a balance between continuing to move the group ahead while not feeling as if you are rushing them.

Toward the end of the semester, usually a couple of weeks after Spring Break, the enthusiasm for the program typically begins to dwindle. Nice weather, fatigue, and realities of end of semester crunch hit, and CCLE can take a back seat to other obligations. I suggest giving people the opportunity to wrap up their involvement in CCLE after the discussions...
about teaching-as-research are complete. Chances are, everyone will continue their involvement, but by giving them the option, it becomes their choice to continue, rather than doing it out of obligation (which can impede their enthusiasm in the program).

The following detailed notes are intended to help you facilitate the group through these four activities. This is a very creative, non-linear process, so the way it is presented below is not "the" way to do it, but is rather a "best guess" at how things may unfold.

Stay loose, have fun, and balance flexibility with structure to keep the group moving ahead.
MAIN OBJECTIVES
To get people’s heads back in CCLE-mode
To reconnect with where you left off last semester

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Reconnect with last semester and catch up from break.
2. Review the basic direction you’re headed this semester.
3. Revisit individual statements and pull out main themes for the group statement. (LC, DIV)
4. Wrap up and prepare for next week.

ASSIGNMENTS
• No assignments this week

MATERIALS TO TAKE
• Talking stone

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

GETTING STARTED
1. Reconnect with last semester and catch up from break
   • The first talking circle can be something like “what did you do over break”, or “did anything come to you over break you want to share with the group?”
   • Or, just open friendly chit chat as people are coming in and getting settled.

2. Basic direction we’re headed this semester
   • Revisit the earlier discussions about group work, constructive and destructive group behaviors, the whole forming, storming, norming, and performing gig, and that all of what they are experiencing is normal group process.
   • Reminder to check themselves about dominating or withdrawing and reminders about the importance of being inclusive and respectful.
   • Walk through the basic main steps of the semester work:
     1. Ignore the syllabus and don’t worry if you are “behind” the planned schedule.
     2. Finish consensus team statement this week or next week. This will drag on as long as you let it, but if you set a deadline, people will be ok with where you are at the time you are to be finished.
3. Individual learning diagrams (encourage them to read the intro section of their resource book for more information about this activity)
4. Team learning diagram (encourage them to read the intro section of their resource book for more information about this activity)
5. Teaching-as-research emphasis on how it all connects to their courses (putting it into practice)
6. Wrap up discussion.

3. Team statement
   - Depending on how far you got last semester, revisit the team statement, refine it, and make sure all are in agreement. If you find yourself at a stand still, remind people that the world doesn’t depend on this statement, it’s merely for something to come back to next semester to remind them of the core things the group discussed and found of common value, and to help keep them on course when they get into the creative work of the learning diagram.
   - If needed (though I don’t suggest starting out with this), you can offer them some of the statements from past years as examples, but not as one to use. They need to come to this on their own.
   - Pull out main themes, phrases, concepts that are critical.
   - Listen for people saying the same thing, but using different words, and offer a unifying language to pull it together (for example, if one person says learn skills for ongoing learning, another says it’s about content AND skills for learning beyond the class, another says they want to instill ongoing curiosity, then you see if they can all agree on a phrase like lifelong learning).
   - Alternatively, if one of the individual statements jumps out that everyone grasps onto, work with that as a base and add/tweak it as needed.
   - If you continue to swirl, or if you feel you need to wrap up, ask if 2 or 3 people are willing to get together between meetings to summarize it and draft up a statement they’ll circulate to the group for feedback so you can pick up next week and finish.
   - As you are wrapping up, ask if 2 or 3 people are willing to get together before next week to summarize it and draft up a statement they’ll circulate to the group for feedback.
   - Don’t offer to do this yourself—this needs to come from the group!

4. Wrap up and prepare for next week
   - Try to diffuse any frustration over this process— it can be very frustrating! It is hard because it’s the first time they’ve had to come to consensus and collaborate on anything as a group.
   - Point to this experience as a reason why we draw or use visual imagery for the learning process in the next section of the program rather than writing a statement of how learning occurs.
• Ask if 2 or 3 people will work outside of the meeting to type this up and circulate to the group for final approval next week. You don't want this to drag on any longer.

• If you feel as if they are ready, invite them to do their individual learning diagrams for next week. But, it may be a good idea to wait until next week when you can introduce it and they can have time during the meeting to get started on it.
Section IV: Guide to Facilitation
CCLE
Second Semester Facilitator's Guide

Each of the remaining three main activities (consensus learning diagram, pulling it all together, and evaluation) are presented below in more detail.

Remember to reserve the final week for a wrap-up discussion and final process check!

MAIN ACTIVITY #1: Consensus Learning Diagram
Creating the group consensus learning diagram will likely take 5-7 weeks depending on how cohesive the group is. It unfolds in roughly the following main stages (followed by more details about each stage). As the group latches on to certain issues or concepts, the weekly diagram discussions can be supplemented by readings and discussions to help inform their diagram work. Refer to the reference list at the end of the guidebook for suggested supplemental readings to consider.

1. Share individual learning diagrams.
2. Identify main themes, concepts, and metaphors for the group to work with.
3. Choose a metaphor to work with, and begin to draw – see where it goes!
4. Work with the original metaphor until it has been taken to the extreme and begins to break down.
5. Start over with another metaphor (repeat steps 3-5 a couple of times).
6. Select a metaphor or theme to stick with and refine it (remember...you’re not looking for the “perfect” diagram).
7. Have one or two people meet outside of the meeting to clean it up (ideally convert it to electronic format).
8. Bring back to team for "approval" and final refinements.
9. You’re done!

Details for each step

1. Share individual learning diagrams.
This step follows a similar process as you did for the individual learning statements in Week 10 (refer to Week 10 for details). The main difference here is that we’re asking people to draw rather than write. This can make some people uncomfortable and you’ll hear things like, “I’m not an artist”, or “I haven’t done that since kindergarten”. To which you can refer them to how much fun kindergarten was, and remember how much they learned! It may also help to refer to the “Top 10 reasons we ask you to draw” page in the introduction section of the CCLE resource book.

As they are discussing their individual diagrams with each other, your role is to pull out themes that are common across several people and bring those to the group. It is likely that people are saying the same thing, but using different terms to describe it, so your job is to help them see those common elements.

• Use the same process as you did for the individual statements where people do it individually, share with group, main themes are pulled out, and then the group works on it together.
• Take a minute during the meeting to read the description the activity in the introduction section of the CCLE resource book (ignore references to working on it over Winter break).

• Refer to the “Top 10 Reasons Why We Draw” page in the introductory section if people are wondering why we draw rather than talk or write about this.

• If people seem resistant or don’t know where to start, think about a quick game of Pictionary (see details in Week 1).

• Talking points for how to introduce the group consensus learning diagram activity:
  1. The main point is to visually represent the process of learning.
  2. For now, start somewhere and build the complexity from there (don’t wait for the “perfect” idea to come…just start with something).
  3. Release the need to be “right” and encourage creativity.
  4. Refer them to frustration students feel when they are posed with an open ended problem and ask for specific direction for the “right” way to do it.

• Some things that may help get started
  1. Time sequence of learning (what starts/stimulates new learning? What does it look like to be in the middle of learning something new? How do you know when you’ve learned something?)
  2. Metaphor – choose a metaphor for learning and draw it as a basic concept, then add detail and complexity (navigating through a forest—first draw a forest, then add in things like paths, landmarks, reminders, places where you may get lost, etc.)

• If people get bogged down in the complexity of it and say, “this is too complex, I can’t do it in one drawing,” or “I can’t be limited by an 8x11 piece of paper,” just ask them to get started. We’ve got several weeks as a group to discuss, process, and add detail.

2. Identify main themes, concepts, and metaphors for the group to work with.
  • After everyone has shared their individual diagram, turn your focus to pulling out main themes, central concepts, or useful metaphors for moving ahead.
  • Give them a minute to write down their thoughts about the main issues brought out by the group.
  • It helps if someone gets up at the board or overhead projector with a blank transparency and starts to draw their thoughts.
  • It is important to find some way to keep each revision of the diagram along the way to remind people of past conversations and work. Blank transparencies are an easy way to share with the group on the screen, as well as edit and add to along the way. Paper can be constricting and difficult to share with a group beyond a couple of people.
  • It is easier for the group to respond to something that exists rather than try to all get on the same page before putting anything down on paper.
It is likely that they will resist this, or that nobody will volunteer to stand up and take the lead to start. Wait it out—eventually someone will do it, but it should NOT be you!

If they struggle with visual image, begin with words (motivation, new information, conflict with existing understanding, “aha” moment, etc.).

Once they have a list of words, ask them to draw the words. How do you draw motivation?

The first meeting of this process may be a bit awkward, but stick it out and encourage them to have fun and be creative. Once they start, the process will take off on its own.

3. Choose a metaphor to work with, and begin to draw—see where it goes!

- It is likely they will choose a metaphor to work with. A growing tree is common, or a meandering stream, a journey through the forest, a puzzle etc.
- Encourage someone to put it out there, and then have the group add to it and draw it.
- The drawing will likely become messy—that’s ok! Encourage mess and chaos early on.

4. Work with the original metaphor until it has been taken to the extreme and begins to break down.

- After a meeting or two of using the original metaphor, people will begin to see the limitations of it. For example, if a single tree is the metaphor, people will begin to ask, “what about the influence of other trees and species?” At that time, it’s time to ask them what could work better. They may come up with a forest metaphor or something totally new.
- Don’t let them abandon an idea just because it’s not the “perfect” metaphor, but also don’t let them beat a dead horse if it has gone as far as it can go.

5. Start over with another metaphor (repeat steps 3-5 a couple of times).

6. Select a metaphor or theme to stick with and refine it (remember: you’re not looking for the “perfect” diagram).

- Eventually, you need to select something and stick with it, despite its limitations. Remember this is about the process as much as it is about the product.
- Come to consensus on which metaphor to use, then go with it and avoid discussion about “what if” we had chosen something else.
- Remind them that the world does not revolve around this diagram, and the discussions they are having are the useful part of the process.
- Refer to the list of questions at the end of this section. You can bring these up with the group to take the diagram to a deeper level.

7. Have one or two people meet outside of the meeting to clean it up (ideally convert it to electronic format).

- When you get to the point where it is relatively complete (meaning that the energy for this activity is dwindling), ask for a pair of people to get together outside of the
meeting to convert the diagram to an electronic form that can be easily stored, retrieved, and disseminated.

- Having something that is in this form is a good way to put closure on the activity and people have something to walk away with.

8. **Bring back to team for “approval” and final refinements.**
   - After it is converted electronically, bring it back to the group for final approval and refinements.
   - This can open up a whole new discussion about the limitations of the model you developed, but try to avoid that and acknowledge that it's not perfect, but it is a useful tool to use for reminders of the discussions.

9. **You’re done!**

**MAIN ACTIVITY #2: Putting it all together**

The final several weeks of the program come in two main stages. First is a focus on teaching-as-research (TAR) as a way to approach all of what we have done to date. Second is an explicit discussion about what it means to move to action on all that we’ve done.

**Focus on Teaching-as-research.**

Taking a few weeks to focus on TAR can take the form of meetings earlier in the program where there were readings and discussions. Article 5-4, "Classroom research: Helping professors learn more about teaching and learning" by Patricia Cross is a good introduction to the concept of TAR (though she does not use the phrase TAR). It is also helpful to revisit Article 5-5, "Teaching-as-research: A systematic approach to teaching for learning" by Clif Conrad. This article was read and discussed earlier in the program, but now they have more context to make sense of it and it helps to revisit it with a new lens.

Inevitably the question will come up where someone will ask, "All of this sounds good, but there is a lot of content to cover. How do I do both?" Article 5-6, "On the persistence of unicorns: the trade-off between content and critical thinking" by Craig Nelson is a good article to address that question.

Finally, a nice way to wrap up this portion of the program is to read Article 5-7, "From teaching to learning: A new paradigm for undergraduate education" by Barr and Tagg. It may not seem revolutionary to the group by this time, but it is a nice way to be reassured and affirmed that they are headed in the right direction.

**Moving to action**

This is about the time when the enthusiasm for the program begins to dwindle. Nice weather, fatigue, and realities of end of semester crunch hit, and CCLE can take a back seat to other obligations. I suggest giving people the opportunity to wrap up their involvement in CCLE after the discussions on TAR are complete. Chances are, everyone will continue their involvement, but by giving them the option, it becomes their choice to continue, rather than doing it out of obligation (which can impede their enthusiasm in the program).
These final few weeks really take on the life of the group and depend on their needs, interests, questions, and desires to move forward. All of it can be framed by the general question, "OK, so now we’ve spent almost an entire academic year together. How do we take what we’ve learned and apply it in our teaching contexts?"

Below are a few general guidelines to use to address this question. The details of how to do it are really up to you to determine.

1. Brainstorm as a group responses to the question, “What are the core fundamental concepts, ideas, or elements of a learning environment that are critical to learning?”
   a. Don’t take too long on this, but get a list of 10 or so critical items.
2. Have each person reflect silently on a particular course, or aspect of a course they would like to focus on over the remaining few weeks of CCLE.
3. Ask them to individually reflect on how the “critical items” list the group identified are, or are not reflected in their course as it currently exists.
4. Have each person BRIEFLY present to the group their specific course, or issue in their teaching they would like to focus on over the next few weeks.
5. Have them work in groups of 2 or 3 for the remainder of the meeting to work through how these issues may be resolved.
6. At the next meeting, ask each pair or threesome to BRIEFLY report out what they discussed or resolved the previous week.
7. Ask them what questions still remain and use the rest of the meeting times to continue these discussions.

Ideally, by the end of it, they have resolved some issues based on their work with CCLE through the year, but have also raised new questions that they may not have thought about prior to involvement in the program.
Section IV: Guide to Facilitation
CCLE
Final Week Facilitator's Guide

MAIN OBJECTIVES
1. To wrap up the program and look ahead at future opportunities for continued growth and development

MAIN ACTIVITIES AND CONNECTIONS TO PILLARS (details follow)
1. Wrap up discussion and program evaluations

ASSIGNMENTS
• None

MATERIALS TO TAKE
• Final evaluation forms
• Materials to hand out about future opportunities

SET UP BEFORE MEETING
• Arrange the table as round or square as possible (avoid long rectangular tables where there is a “head” of the table).

ACTIVITIES
See Section 5, “Program Evaluation” for typical questions to ask during the final evaluation. The process for this discussion is similar to any of the process checks in the past. Try to make it celebratory so that the group ends on a high note and looks forward to future work. It is likely that the group will say they want to stay together through the summer, or into next year. I would support any of these efforts, but in reality, it often times does not happen as schedules and priorities shift over the summer.
Questions to ask during learning diagram activity—these questions can be used during the process of developing the learning diagram to take it to a deeper level and raise issues the group may not self generate. It may not be effective to go through each question one at a time, but this can give you a guide of some things to insert into the discussions as they develop.

1. What does each of the elements of the diagram represent?
2. How is the time sequence of learning represented?
3. How can time be represented in here? Is there a time sequence? What does it look like early in the process? What happens in the middle? Is there an end? How do you know if you are at the end?
4. Where does learning begin? Do you always start at the beginning?
5. How do you know you are progressing as a learner?
6. How is forgetting represented?
7. How are misconceptions represented?
8. How can misconceptions be corrected?
9. How do people fail to learn? Is that represented in it?
10. Given the same exposure, why do some people learn a topic while others do not?
11. Where/how is the physical environment represented?

Pictionary Game—this activity can be used if people are resisting or feeling uncomfortable drawing their ideas. Often times, this is the first time people have engaged in this type of creative activity, so making a game out of it can help boost their comfort and enthusiasm for it.

- Have each person quickly jot down on scraps of paper 2 or 3 main concepts you have been discussing regarding the learning diagram.
- Put them all in the middle of the table.
- Have people pair up.
- One person chooses a card and has 60 seconds to draw it while the other person guesses.
- It’s just for fun and a way to get people to loosen up and prime them for drawing more in a public venue for the whole group. This helps them have a different kind of experience so they enter this activity with a different mindset than is typical.
Section V:
Program Evaluation
Process, Instruments, and Data
Evaluation Process

The teaching-as-research process is embedded throughout the CCLE program for dual purposes: (1) to provide ongoing formative program evaluation and (2) to model the TAR process for participants to see it in action to adapt for their use. Starting from the first day all the way through the final meeting, we gather data in multiple formats. Some of the evaluation instruments and processes described below are well developed while others are in their infancy.

Individual statement of learning

Participants are asked to prepare for the first meeting by writing an individual statement of learning that describes their understanding of the learning process. These statements are used by the facilitator to gauge the extent to which the group has thought about these issues, and to understand the spectrum of experiences and beliefs about learning held by the group. An excerpt from an individual’s statement of learning from the 2004-05 academic year is:

My philosophy of learning is that every person is intelligent in their own right. This intelligence may take different forms and flourishes differently. Mostly, I subscribe to Gardner’s Theory of Multiple Intelligences. Gardner proposed that intelligence can be broken up into 8 categories that all people possess in varying degrees (linguistic, logical-mathematical, spatial, kinesthetic, musical, intrapersonal, interpersonal, and naturalist). I also believe that students understand concepts better when they are given the opportunity to explore the theory at their own pace, in a student-centered learning environment.

In the final week of the year, participants are asked to write a new statement that they then compare to their initial statement. Then they are asked to reflect on the changes. The intent is not to “grade” participants on how well they did, but rather to provide them an indication of how their understanding of the learning process has developed throughout the year. This year is the first time we will use this form of evaluation, so the results remain to be seen, but we hypothesize that the final statements will reflect a wider perspective of learning with more sophisticated concepts integrated throughout. For example, had we done this last year, it would be interesting to see if the person who wrote the above excerpt still subscribes so strongly to Gardner’s Theory of Multiple Intelligence, or if new insights have led them in another direction.

Process checks

Midway through each semester, we have a formal process check to reflect on the process of the program, not the content of what we’re learning. It is also common to have a brief process check discussion any time there is a transition between topics or themes, or when the facilitator feels like the group needs to step back and reflect on their experience in order to move ahead. Details of the process are provided in Week 4 of Section 4.

These discussions typically do not lead to drastic changes in the program, but rather provide a venue for participants to ask questions about the process and for the facilitator to make adjustments based on particular group dynamics. For example, if particular individuals are dominating the group it is a good time to revisit community agreements. It is also typical for people to feel frustrated because they have not found “the answer” and they want to focus on teaching techniques. As these concerns emerge, it becomes an opportunity for the facilitator to revisit the purpose of the program and to point people to other opportunities that do offer what they are looking for that complement the CCLE experience. This is not an opportunity to make drastic changes to the core purpose of the program.
Section V: Program Evaluation

End of semester wrap-up discussions

At the end of the first semester, we devote the entire meeting to a wrap up discussion. Like the process checks, participants are given a few minutes to write their responses to the questions, and then the group discusses their responses. Below are the questions used at the end of the Fall 2004 semester, followed by a brief statement of the general themes that emerged from the group. These questions were developed to reflect formative feedback we wanted to gather about how well we were addressing our three core pillars (learning community, learning-through-diversity, and teaching-as-research).

Q1. What are the one or two things that stand out most for you about what you learned from each other this semester with the CCLE group? The group pointed to the opportunities for self-reflection and insights they gained from others that helped them develop a stronger understanding of themselves and others.

Q2. How connected do you feel with other teaching and learning opportunities on campus (Delta, non-Delta, within and outside of your department)? Did this group have any role in your connections with other opportunities? For the most part, the group felt very connected and pointed to Delta as an important element in creating these connections.

Q3. To what extent did this CCLE group address the three core elements of the Delta Program: learning community, learning-through-diversity, and teaching-as-research? Please comment separately on each of the three. Learning community and diversity were very well integrated and addressed. TAR was implicit, but not very well addressed.

NOTE: This is the first year that CCLE has integrated TAR into the program, and it is the focus of the final quarter of the program that we had not yet experienced. While this result is not surprising, it is useful feedback as we continue to better integrate the three pillars, and is a clear indication that we need to address TAR more up front rather than leaving it until the end.

Q4. What, if anything, do you think you will do (or do differently) as a result of this experience? Participants pointed to being more open, reflective, and intentional about their teaching with a focus on how their actions affect learning. There are signs that people are starting to connect their insights into new actions, but sustained change in behavior is a longer term result.

Q5. What do you wish this experience offered or did that it did not? A common request at the end of the first semester is to have more clarity on how to connect their insights to their actions. There is, however, strong indication that participants are open to being patient and engaging in the process and their desire to come to resolution is not so detrimental that it is getting in their way of learning.

Q6. As you finish this semester in CCLE, what questions or issues do you still have that you hope we can help you address next semester, or in future Delta or non-Delta offerings? Related to Q3 above, there is significant uncertainty about the concept of teaching-as-research and the upcoming activity of the group learning diagram. Again, this is to be expected as TAR is not well integrated into the early parts of CCLE, and the learning diagram is, by design, an open ended, ambiguous project that they have not yet begun. Nevertheless, this is indication that we need to be more explicit about these two aspects of the program so that the uncertainty doesn’t interfere with their learning.

Q7. What else would you like to write about that wasn’t asked? Mainly there were no responses other than a reiteration of where is our group now, and where are we headed?
**End of year wrap-up discussions**

Similar to the end of the first semester, at the end of the year we devote the entire meeting to a wrap up discussion with more summarizing questions. Below is a sample of the questions we ask.

Q1. What are the one or two things that stand out for you the most about what you learned this year with CCLE?

Q2. In addition to what you wrote in Q1, what have you learned in this year in CCLE about:
   - teaching?
   - specific techniques? (Did you try anything new in your classroom this semester? If yes, why did you choose to try it? How did it work? Will you try it again?)
   - diversity?
   - teaching-as-research?
   - teamwork?
   - yourself?
   - what did you learn from others?
   - what did you learn about others?

Q3. How well do you feel connected with other teaching and learning opportunities on campus (Delta, non-Delta, within and outside of your department)?

Q4. What, if anything, do you think you will do (or do differently) as a result of this experience?

Q5. Are there ways that we could make this program better in the future?

Q6. What do you wish the program offered or did that it did not?

Q7. As you finish this semester in CCLE, what questions or issues do you still have that you hope we can help you address in the future?

Q8. What else would you like to write about that wasn’t asked?
Section VI:

Journal article: "A New Starting Point for Faculty Development in Higher Education: Creating a Collaborative Learning Environment"
A New Starting Point for Faculty Development in Higher Education: Creating a Collaborative Learning Environment

Katherine Sanders
Christopher Carlson-Dakes
Karen Dettinger
Catherine Hajnal
Mary Laedtke
Lynn Squire

University of Wisconsin-Madison

Traditional faculty development approaches often focus on teaching faculty skills to use in their classrooms. In order to have a deeper cultural impact, we have found it useful to start the conversation at a different point than teaching skills; that is, to have faculty learn how...
people learn by experiencing a learning environment that is substantively different than their previous classroom experiences. Our program, Creating a Collaborative Learning Environment (CCLE), has been successful in helping faculty from diverse disciplines at a major research institution to work together to learn about learning and redesign teaching.

What do we need to do to encourage, facilitate, and support learning in our classrooms? One starting point is to help faculty imagine and experience a non-traditional classroom environment. At the University of Wisconsin (UW-Madison), we have designed a faculty development program that creates a collaborative learning environment for faculty. We help them learn about learning and reflect on their beliefs about learning and learners by guiding them through a set of activities designed to help them rediscover and articulate how people learn. We feel that this program sends a consistent message to faculty about experiential, collaborative learning by "practicing what it preaches." We don't hold it out as "the answer," but we do find that it does well what it has been designed to do.

We offer faculty volunteers information resources and a structured set of activities to help them learn about learning and to reflect deeply on their teaching while collaborating with colleagues from across disciplines. Our program has been named by the faculty participants, "Creating a Collaborative Learning Environment" (CCLE). It has served over 85 faculty volunteers from 34 departments as diverse as Mechanical Engineering, Atmospheric and Oceanic Sciences, History of Science, Urban Planning, Nursing, Math, Law, and African Languages.

In this paper, we discuss the program background, mission, theoretical foundation, structure, activities (with an emphasis on the first year of participation), and its effects on faculty views of the teacher's role. We describe these changing views as a progression of insights that faculty tell us they discover through their participation in CCLE.

Background

The theoretical approach and applied structure of CCLE were developed in an Industrial Engineering dissertation (Sanders, 1993) that studied faculty in the College of Engineering. Faculty volunteers changed their attitudes towards teaching, increased their motivation for teaching, and changed their classroom behaviors as a result of participating in an experimental collaborative program. A comparison group of faculty who attended only teaching workshops changed neither their attitudes nor their classroom behaviors. Following the dissertation study, the small group of enthusiastic faculty participants submitted a proposal to the Dean requesting that existing grant monies earmarked for undergraduate education improvement be used to continue the program college-wide. He approved their proposal and the pilot program was created in the College of Engineering, lasting from September 1993 through August 1995.

After a successful two-year pilot program serving over 40 engineering faculty, CCLE was awarded a three-year grant from the Department of Education Fund for the Improvement of Post-Secondary Education (FIPSE) to expand its services across a number of colleges at UW-Madison. The program is currently housed in the Wisconsin Center for Education Research and serves faculty from Engineering, Letters & Science, and Agricultural & Life Sciences.

Faculty volunteers and their enthusiasm for program continuation have been the driving force behind CCLE's success. From its inception, CCLE was designed to be a collaborative approach to the redesign of faculty work built on a grassroots, faculty-driven effort. It was never a program that was instituted in a hierarchical manner. Instead, administrative support was provided as a response to a need expressed by faculty. In combination with CCLE's structured activities and built-in evaluation processes, these unique origins have proven to be important factors in the program's success.

In this paper, we describe the structure of the program, with emphasis on the activities in Stage 1: Facilitated Learning Teams, in which faculty spend considerable time learning about learning and experiencing a special type of collegial collaboration. We feel that this beginning is the crucial step for getting faculty on the "same page" in
continuing discussions. Finally, we summarize one of the major themes faculty describe to us as they move through the program: the changing view of the teacher’s role.

Program Mission

Creating a Collaborative Learning Environment (CCLE) is a process that centers on the construction of knowledge in faculty teams. CCLE provides a support structure for group work, exposure to general educational information, and preparation for practitioner action in the classroom. Volunteers are asked to make a commitment to attend team meetings; to share their experiences in teaching and learning; to cooperate with other faculty; to consider new ideas, perspectives, and techniques; and eventually to be a resource for other faculty participants.

CCLE provides an ongoing learning experience for intense reflection, group knowledge construction, and, in the advanced stages, guided practice and continued exploration for participants. Thus, there is a higher probability that faculty will sustain and continue innovation in teaching and course development.

CCLE is not a quick fix to higher education reform, nor is it a “teaching technique” program. As one of the faculty advisors frequently says, “CCLE does not give you a list of ten pet tricks for teaching.” What CCLE provides is a set of structured activities and a regular time period for faculty dialogue and reflection on learning and teaching. CCLE also helps faculty create their own systematic framework for examining learning and teaching so that relationships and interdependencies can be examined at a deep level.

While CCLE does not posit that there is “one right answer” to improve learning and teaching, there are a number of underlying assumptions in the program’s philosophy. We assume that faculty participants have considerable exposure to and experience with the traditional teaching and evaluation methods of lecture, homework assignments, and midterm and final examinations. CCLE is structured to introduce faculty participants to alternative approaches to teaching by creating a nontraditional experience for them as learners. We hope to stimulate thought about the appropriateness and value of collabora-

tive and cooperative approaches to teaching and learning; and for those faculty already experienced in these methods, we hope to provide an opportunity for further reflection, extension, and application to new settings.

Theoretical Foundation

Our approach to faculty development is based on theory from diverse disciplines. The foundation is built upon theory and research in: (1) the characteristics of learning organizations (Argyris, 1989; Brown & Sommerlad, 1992), (2) job design and enrichment theories (Herzberg, 1970; Hackman, Oldham, Janson & Purdy, 1975), (3) organizational design and employee ownership structures (Lawler, 1986), (4) action research models of professional development (Zuber-Skerritt, 1991; Schratz, 1993), (5) action research practices in teacher education (Zeichner, 1993; Altrichter & Posch, 1989), (6) action research applications in educational reform (Kemmis, 1991), (7) and peer review structures in higher education (Hutchings, 1996; Quinlan, 1996).

Action research is a phrase used to describe research done by practitioners to improve their own work. In this case, the action researcher we refer to is the classroom teacher. Based on Lewin’s work (1947a, 1947b), action research consists of a spiral of experimentation activities: analysis, conceptualization, planning, implementing change, re-analysis, re-conceptualization and re-planning, etc. The intent is to generate social knowledge by causing change and then studying its effects on social dynamics (Marrow, 1969).

A common theme across these disciplines is the salience of designing professional development experiences that are meaningful and stimulating to the employee. Thus, jobs are redesigned or experiments are performed by the employees themselves, the people doing the work, in order to make the work more effective and satisfying. In the context of higher education, the “work” we refer to is teaching, and the people performing the work are the faculty themselves. When designing a development program from this type of theoretical foundation, faculty are assisted in their efforts to develop themselves as
teachers while they are involved in changing and reflecting on their own teaching.

The goal of CCLE is higher education reform from the inside; that is, by faculty practitioners. This goal is shared by some education reform efforts in K-12. For example, Ken Zeichner has created a professional development action research program for K-12 teachers and preservice teacher education students (Zeichner, 1996; Zeichner & Liston, 1996). In such approaches, practitioners (teachers) are given the charge of redesigning pedagogy and curriculum to improve student learning. They are provided with opportunities to gather and interpret information and then given the power to make their own decisions and act on them. Thus, organizational change moves from the bottom (i.e., the classroom level) up through the curricular and administrative levels.

In addition to the cross-disciplinary foundations that underlie CCLE activities, we find that our approach to program development is also key to our success. CCLE staff continually solicit in-depth structured feedback from faculty participants to learn what parts of the program are most effective, which need adjustment, and what needs to be created. This input is used in program development so that CCLE continually evolves to meet participants’ needs.

Program Structure and Objectives

The combination of learning activities that make up CCLE’s structure are many times likened by faculty to a “class.” This professional development “class” is broken up into two distinctly different experiences—Stage 1: Facilitated Learning Teams and Stage 2: Advanced Teams.

The two stages of CCLE each have different emphases (see Figures 1 & 2). Stage 1 consists of participation in two semesters of a cross-disciplinary team experience that increases awareness of the need for change and provides possibilities for changes in teaching by studying and discussing learning in-depth. Faculty have the opportunity for reflection, learning, and reinterpreting theory and practice for their own practical use. Additionally, faculty discuss and practice collaborative skills, such as achieving consensus and working constructively toward a team goal.

Stage 2 provides a framework for planned and recursive classroom experimentation. In this stage, faculty may choose to be involved in a Classroom Experimentation Team where they are grouped for action in the classroom using peer mentoring, observation, and formative feedback. Or, they may elect to participate in an Advanced Learning Team to study in-depth any topic of the group’s choosing. Advanced Learning Teams differ fundamentally from Classroom Experimentation Teams in that they focus on a group project, similar to Stage 1 Facilitated Teams. Classroom Experimentation Teams provide a forum for faculty to advance their own personal goals with assistance from their colleagues.

The structure of CCLE allows faculty to rotate in and out of Stage 2 teams indefinitely as their interests and schedules permit. The only requirement for entering either type of Stage 2 group is successful completion of a Stage 1 Facilitated Team. That is, you cannot become part of a Stage 2 group without completing one academic year working in a team that is engaged in deep discussion and exploration to learn about learning. We have found that the majority of faculty who do not have a “successful” Stage 1 experience do not have the collaboration skills, language usage, understanding of the learning process, or comfort with the group process required to function successfully in the less structured environments of Advanced Teams.

In this paper we concentrate in-depth on the activities of Stage 1. This is not to say that the advanced stages are unimportant; in fact, we have found them to be a very effective ways of supporting faculty as they implement and assess changes and continue to explore new concepts. However, we believe that one of the major reasons CCLE has been successful in attracting and retaining faculty participation at a major research institution without use of release time, stipends, or any other extrinsic reward is because the Facilitated Learning Team helps faculty invent a fresh view of learning and collaboration. It is not uncommon for faculty in advanced stages of the program to tell us that they “miss their original team.”
FIGURE 1: Program Structure-Stage 1

Facilitated Learning Teams

Emphasis: in-depth study of learning and collaboration skills
Meeting Frequency: 1.5 hours weekly for one academic year
Activities: group project, the construction of a diagram of the learning process

Outcomes:
* Ability to read education literature and discuss with colleagues using a common language
* Ability to collaborate in a group and defer to group’s best interests
* Ability to critique and evaluate teaching based on assumptions about learning
* Ability to implement classroom changes
* Awareness of the need for multiple approaches to student assessment

FIGURE 2: Program Structure-Stage 2

Classroom Experimentation Teams

Emphasis: planned implementation of pedagogical or course change
Meeting Frequency: 1 hour a week for one or two semesters
Activities: planning/assessing individual changes and mentoring colleagues

Advanced Learning Teams

Emphasis: in-depth study of a topic of the group's choice
Meeting Frequency: 1 hour a week for one academic year
Activities: focused group project of their choosing
Recruitment of Participants

Now that CCLE has established a presence on campus, our approach to recruiting participants has changed. In order to garner support and interest in the first two years of the pilot program, the CCLE Director made a personal visit and brief presentation at the first department meeting in each of the nine departments in the College of Engineering. She was accompanied by a faculty participant from the first CCLE team who shared his thoughts about participation. Participation has always been purely voluntary, and there were never any external rewards provided, such as release time or stipends. In addition to the departmental meeting visit, each faculty member received a flier that contained a description of the program and registration form. The fliers were sent out several weeks before the beginning of the Fall semester, and teams were formed based on scheduling availability.

The program expansion has required a change in recruiting methods. Participation remains strictly voluntary, and we continue to rely heavily on fliers which are sent out to every faculty member in the Physical Sciences Division and the Teaching Academy (see Appendix: Recruitment Flier). However, because of the large number of departments, CCLE staff and participants are no longer able to visit each department meeting. As a result, the intimacy of the personal testimonials from the CCLE staff and faculty participants has been lost. In place of the departmental visits, we rely on the critical mass of participants who support and advocate participation in the program at their own department meetings. We ask them to talk with their friends about CCLE. Recently, because of these informal channels of communication, the Schools of Nursing, Business and Veterinary Medicine have asked us to advertise to their faculty. As we became established, we are increasingly able to rely on our reputation as a stimulating, rewarding, and fun faculty development experience.

CCLE Stage 1 Participant Outcomes

We have emphasized the importance of a successful Stage 1 experience. From our perspective, success means that at the end of an academic year in a Stage 1 CCLE Facilitated Learning Team, faculty will have had an experience that augments and enriches their previous understandings of learning and teaching and helps them to expand their:

- willingness and abilities to re-examine continually and articulate beliefs about the process by which people learn.
- abilities to collaborate in a group and defer to the group’s best interests when reaching consensus.
- interest in exploring education literature and discussing it with colleagues based on a common language and basic understanding of the learning process.
- abilities to critique and evaluate teaching techniques based on underlying assumptions about learning to determine whether a technique is appropriate for use or modification in their own classroom and/or discipline.
- ability to select and implement changes in the classroom (pedagogy and content) while envisioning possible/probable outcomes for a diverse student body.
- awareness of the value of multiple and diverse approaches for the assessment of student learning and evaluation of classroom practices.

The goal of CCLE is to help faculty to question critically their own teaching and that of others so they can make informed choices about how to increase the potential for learning in their classrooms and throughout the curriculum. CCLE does not explicitly advocate any one approach or content over another, but it does model a collaborative learning environment that encourages diversity and multiple ways of knowing. However, CCLE does not review or emphasize “traditional” pedagogical approaches or techniques. We assume that university-level faculty have been exposed to such approaches (e.g., lecture) and that many of them are experts in traditional methods. Faculty who express interest in learning about traditional techniques, or any techniques in-depth, are referred to other campus resources. CCLE attempts to open doors to perspectives and approaches that faculty may not have been exposed to before and to create a collegial environment of exploration and excitement.
CCLE Stage 1 Program Activities

Stage 1 requires two semesters of weekly participation in a Facilitated Team (see Stage 1 Activities in Table 1). It begins with two, one-and-one-half-hour sessions in which participants read and discuss learning and teaching theories. Faculty also discuss teamwork skills that apply to their own CCLE team and perhaps also to student teams in their classrooms. Following the discussions, faculty participants begin attending weekly one-and-one-half-hour team meetings. The teams of seven to eight faculty members are facilitated by a CCLE staff member. CCLE provides the facilitator, a collaborative task that requires the involvement of all team members, and a structured process that allows teamwork skills and learning to evolve. It is important that the task chosen for teamwork illustrates connections between organizational and individual contributions to teaching improvement.

In the first three weeks of team meetings, each team creates its own ground rules for meetings and defines a group problem statement describing a specific reason for improving undergraduate education. This problem statement serves as a rationale for the group’s collaborative work. One team problem statement was:

Our educational system does not encourage or enable students to (a) synthesize knowledge, (b) solve problems creatively, and (c) think critically. Consequently, many of our students do not acquire ownership of knowledge, expand their views of the world, or alter the way in which they think about it. (‘A Team,’ 1994)

In contrast, another team’s problem statement was,

UW students deserve an experience that motivates them to learn, love learning, and engage and challenge their world. (‘Iota Team,’ 1996)

You might notice that the second problem statement was not stated as a negative statement. The Iota team was our first group comprised completely of Letters & Science faculty (no engineering faculty). This group was very diverse, with members from the sciences, math, history, languages, and law. The greater number of faculty from the social sciences and humanities affected their interpretations of a “problem statement.” Although it is a common phrase in engineering,

### TABLE 1
CCLE Stage 1: Facilitated Team Activity Overview

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductions/Start-up</td>
<td>Team introductions, Groundrule setting</td>
<td>Meet colleagues and reach agreement on how the group will function</td>
</tr>
<tr>
<td>Activity A: Teamwork and Education Overview</td>
<td>Read and discuss assigned materials</td>
<td>Exposure to general information on collaboration, learning styles, teaching approaches</td>
</tr>
<tr>
<td>Activity B: Team Problem Statement</td>
<td>Generate consensus statement on problem in higher education</td>
<td>First collaborative task, establishes some common language and themes, provides group focus for future discussions and activities</td>
</tr>
<tr>
<td>Activity C: Problem Context Diagram</td>
<td>In pairs, create team cause/effect diagram using problem statement</td>
<td>Larger collaborative task, gives overview of factors contributing to problems in higher education, shows possibilities for impacting problem</td>
</tr>
</tbody>
</table>

NOTE: Almost always, a deep understanding of how people learn and the attributes that affect learning can impact the problem statement. CCLE concentrates on learning so that faculty can create teaching approaches and curricula to address a multitude of current and future challenges.

| Activity D: Individual Learning Diagrams | Individual create a drawing of how people learn and what might help/hinder learning | Requires personal reflection and deeper thought about how people make meaning; requires use of personal experiences and some synthesis of background information; creates basis for team diagram |
| Activity E: Collaborative Learning Diagram | Using individual drawings, create a consensus depiction to show how people learn and what might help/hinder learning | Major activity of the program, requires team to create visually and verbally, develop and explore new ideas, articulate their deepening understandings of learning; requires development of language and new concepts |
| Activity F: Fall Semester Meeting | Show and discuss team’s work to date with CCLE participants (Stages 1 and 2) | Provides forum to see the work and meet other faculty teams, opportunities to give feedback to faculty advisors and staff |
TABLE 1, Continued

| Activity G: Collaborative Course Module Design | Using the learning diagram, collaboratively design a course module of their choice | Helps synthesize new understandings of learning, allows group to apply knowledge in overall course planning and class session activities |
| Activity H: Spring Semester Meeting | Discuss team’s work with other CCLE groups | Shares team’s work with others, provides closure, opportunity for feedback, and planning for the future |

Stage 1 concludes by explicitly tying the learning process to the teaching process. Faculty identify the elements of their team’s learning process diagram that are most essential for learning to take place. These are the key points they will keep in mind as they transition to the role of the teacher. The team “graduates” Stage 1 by using what they have learned to design a section of a hypothetical course. The course section can be anything of the group’s choosing that all team members have interest in and can contribute to. (The more diverse the team members’ disciplines, the more creative they must be in choosing a course topic.)

In addition to participating in a facilitated team, faculty members are also observed in the classroom by CCLE staff and provided with periodic formative feedback. This feedback is used only as a basis for discourse about teaching goals, not for evaluative purposes, and is completely confidential. The conversation during the feedback session allows faculty to hear perspectives on their classroom activities that are different from that of their peers or students. It also allows the CCLE staff to get to know each of the faculty participants on a one-to-one basis.

Why do we begin with the topic of learning instead of beginning with conversations of teaching? We have found that when we focus attention on learning, we help commonalities across disciplines to emerge. Additionally, unless participants are able to make effective connections between learning experiences, conversations about various teaching methods will be scattershot. We feel that in order for faculty to have deep conversations about teaching, they must first be able to explain for themselves why some teaching methods may work better than others given certain constraints and why all methods are not equally effective for all students. This understanding lays the foundation for faculty to develop their own approaches to teaching, appropriate assessment techniques, and evaluation methods.

To design a truly collaborative learning experience, the central task must be difficult enough to require the creativity of an entire group, yet rely on a combination of personal reflection and experience that can be contrasted and combined with theory and literature. Everyone must be able to contribute, and there must be more than one possible answer. In fact, when working with faculty, we emphasize an
Effects on Faculty Attitudes and Practices

We evaluate the effectiveness of CLE by studying faculty responses and looking for patterns and common themes within and across teams. Our intent is to understand the participants' experiences so that the team members can be responsive and reflective to the feedback they receive. Faculty are interviewed at the beginning of their participation in CLE and again at the end of each semester. Interviews are fully transcribed, interpreted, and analyzed by CLE staff.

In our experience, faculty attempt to reshuffle directly into changing specific teaching techniques without an initial teaching strategy. They tend to ignore the larger issues, they are likely to make minor adjustments about learners and learning, they are likely to neglect minor adjustments about teaching, and they are likely to make major adjustments about the larger issues. Their behavior is more complex and less predictable than we expected. They do not always align with our initial expectations. In many cases, their behavior is different and the influence on our own consciousness in teaching and learning is significant in some cases. In such cases, we find that our expectations are not met. In other cases, we find that our expectations are met and that we have learned a lot from the experience.
staff. In these interviews, faculty describe their learning and give input for program improvement. Teams also have a semi-structured feedback discussion at the end of each semester in which they make recommendations to CCLE staff. To document and evaluate behavioral change, faculty are observed in the classroom, and descriptive information on teaching approach and content is compared across semesters of participation.

By documenting and tracking faculty learning, feedback, and activities, CCLE staff continuously evaluate the program's progress and success in serving faculty needs for professional development. This formative program evaluation has led to a number of innovations and refinements. Ongoing formative evaluation also allows CCLE staff to respond to faculty needs for personal attention and feedback from CCLE facilitators (who many times are viewed as "teachers").

Our interpretative phenomenological analysis of interviews with CCLE faculty since 1993 shows participation in the program to be an intense learning experience with lasting effects on faculty attitudes, motivation, and practice. Phenomenological research and its subsequent findings lead to the development and presentation of themes which emerge from the data, rather than "results" which are commonly reported in other forms of research.

The themes that emerge from our work are fluid. Just as faculty are continuously developing new understandings regarding teaching and learning, our understandings of how faculty learn and change in CCLE continue to grow and deepen. As our understanding of the faculty experience develops, so do the themes we use to tell their stories. Therefore, we consider our themes as work-in-progress, constantly unfolding. Throughout our conversations with faculty, we have heard descriptions of a number of transformations in their views which have led to several themes: the evolution of collaboration, of self-reflection, of peer mentoring, and the evolution and expansion of the teacher's role. Although these themes are listed as distinct entities, they are in actuality very highly related and interdependent. Only one of these themes will be discussed in this paper: the evolution and expansion of the teacher's role.

Theme: Evolution and Expansion of the Teacher's Role

The theme, *Evolution and Expansion of the Teacher's Role*, implies a progression or development in perspective. We have chosen to present this progressive theme as we might typically hear it discussed by faculty, in their voices (i.e., in the first person). The following discussion is related as a progression of questions/concerns that reflect a transformation from teacher-centered to student-centered pedagogy. We begin with a typical statement from a "novice" in CCLE.

A. Learning is complex and has many variations. What should I do to address the diverse learners and learning styles in my classroom?

The first time that faculty are asked about their learning in CCLE, they are likely to remark that learning is "complex" and much more involved than they had ever imagined. Often at this stage in their experience, they feel paralyzed by their exposure to the variety of learning styles and their first attempts at clarifying the complex process of learning itself. A typical remark during the first semester of Stage 1:

I guess what I've learned about teaching is that I have to think about learning more because I know that not everyone is going to learn the same way that I learn. (Stage 1 Participant)

At this point, participants have not begun to make changes in their classrooms. Even for an award-winning teacher, the wealth and depth of new knowledge can be overwhelming. The majority of participants move beyond this initial confusion within a month or two of working in the program. Most are very eager to find "the" answer to improving their teaching.

B. Learning is a process of making connections and testing them, but I'm still confused about how to help stu-
Section VI: Journal Article

To Improve the Academy

dents do this in my classroom. How and what are the students learning?

This is the point in CCLE when faculty begin to experiment in the classroom. They are usually tentative and seldom can verbalize exactly why they chose one technique over another. Goals for the student experience are fuzzy. Faculty usually oscillate back and forth between their own perspectives as teachers and the students' experience as learners. However, this is also the point when faculty begin to verbalize what they believe the process of learning to be. They speak of "connections," "associations," "naturally inductive," "a circular, recursive process," and "unique to every individual."

Gathering information from the students, information that is usually collected informally and is relatively unfocused in nature, is one of the most common themes in this stage. One might characterize this stage in experimentation as "fishing." If something works well, faculty are excited and try it again. If something does not work as expected, they cannot yet explain potential reasons to themselves and, therefore, usually are convinced that a technique "won't work for my discipline/course/room/students." There is not yet an underlying "theory" to explain how, when, or why learning takes place sometimes and not other times. Much remains mysterious, but faculty are stimulated by the new information and the potential for a positive student response.

Faculty typically slow their pace; interact with students; and have students do board work, give talks, write summaries, and demonstrate homework problems. The assumption is that, if the teacher knows where confusion arises, she/he can clarify or intervene. Also, by interacting with the students, many faculty attempt to develop a more informal and less intimidating learning environment in which students feel comfortable asking questions and contributing to discussions.

C. I know how to help students make associations and connections in my classroom. How are my new approaches working?

Typically, the next story faculty tell us is about an increase in their confidence about what learning is and how it takes place. These faculty are becoming comfortable with their own understanding of learning and have many ideas for helping students learn. Learning now takes on some stronger associations with teaching techniques, and this is where a variety of techniques are developed and implemented, with the emphasis on having students "active" or "engaged" with the material. Many faculty try to design student activities that help students make connections between theory and practice, or they try to illustrate explicitly some positive connections and associations for students.

Faculty continue to gather information about how and what the students are learning, but this time with respect to more specific goals for student learning. They are more tenacious when things don't work as planned. They collect feedback, refine their ideas, and try again. They have an underlying explanation for themselves, a framework of how learning happens that they draw on when things don't work as planned. Evaluation tools are either informal or formal, and may be periodic or end of semester. This is when the excitement begins for faculty. They experience some success in the classroom and start to view the classroom from the learner's perspective on a consistent basis. They are able to express their emphasis on and commitment to active learning.

...I think the group activities are really worthwhile. People should be able to interact with their peers. And, you know, learning, helping your peers, teaching them, and learning from your peers, that is one of the best ways to learn. I really think that is helpful whenever I can build that in. (Stage 1 Participant)

What I need to work more on is getting them to kind of talk about their accountability and how they came up with the solution as a group... I wanted more discussion about how you arose at this [answer] as a group, if you did or did not. And as I made my expectations more clear, they did improve. (Stage 2 Participant)

At this point it is typical for faculty to use techniques that provide a context for the course content, such as demonstrations, videos, simulations, examples, and industrial applications. They consider student backgrounds by asking students for information about their skills and experiences. Some try to tailor activities and examples to
particular student interests with the intent of engaging students and helping them connect the new knowledge to previous learning.

D. The collaborative process of asking our own questions and constructing our own answers is working for us in CCLE. How can I help students to ask their own questions and build their own connections from their own experiences?

This question is asked by faculty certain of the long-lasting effects and high value of having learners create connections from their own understandings and experience. (This is a mirror of the collaborative knowledge construction in CCLE.) However, as this possibility is explored, there is conflict. The trade-off between pace and content versus students developing, exploring, or creating seems almost overwhelming. Faculty start experimenting to find a balance between what they know is a powerful learning experience and the requirements of “covering” material.

This is a difficult point in growth as a teacher, and many of the questions of balance reoccur when transferring learning to another course or another set of topics. Evaluations of the classroom usually become more formal and sophisticated at this point, with faculty working hard to develop and focus their own specific tools for feedback about course content and structure. Student feedback is directly incorporated into the course.

Not all faculty have made this connection between CCLE and their own classrooms, but for those who do, it’s a powerful personal discovery. In the words of two CCLE participants who see their experiences as “students” in CCLE as a model for possibilities in their own classrooms:

And I’d say the process that you can expect is - the process that you as an instructor go through is the process that we expect our students to go through. So it [CCLE] mirrors what we do in the classroom to some extent. And maybe to put it another way, if it’s successful for us then maybe the classroom ought to mirror what we go through....I suppose that one thing you can expect to get out of this is to learn how you learn and to ask the question, “Why am I teaching differently than the way I learn?” (Stage 1 Participant)

So, in one sense, you become the person that we’re interested in trying to help. But in another sense, you also are part of this group that is trying to help yourself understand some aspect of the process better than you do now. If you believe what our group believed about learning, that [deep] understanding is more likely to come if you’re involved in the development of your own understanding, rather than if it is presented to you as a completed work where you say, “Read it. That’s it.” (Stage 1 Participant)

At this point it is common to see faculty asking students to teach each other. They use group techniques with and without roles, for constructing exams, and think/pair/share to work on problems and provide feedback to each other. The group activities take place in the classroom, in labs, and outside the classroom with homework assignments, group projects, and case studies. Faculty also use classtime for students to practice skills and give input into assignments so that the instructor and fellow students can give feedback and encouragement. They spend more time getting students to design classroom activities. As one professor describes:

This time, I used much more [student] input in designing the debate, designing the issues that we want to talk about. So instead of making just a handout assignment, I had the class help define the assignment. I laid the groundwork or the framework and then the details on the issues and the grading and the structure of it as a group process. (Stage 1 Participant)

When these faculty have some success and feel somewhat comfortable with getting student input into the design of classroom activities, some of them make one last conceptual transition. They change their underlying philosophy of who “owns” the classroom. That is, they move past getting students to participate in the design of activities nested within a structure they created to the more complex issue of how to create student-directed learning environments. In the following section, we hear faculty discuss the implications of de-centering themselves as “the teacher” and authority figure.
E. I am a resource provider and co-learner in our classroom. How can I create a place for students to direct their own learning experience?

At this point, faculty are quite sophisticated in their questioning of teaching approaches. They have a very specific goal and underlying philosophy in mind, based on the assumption that students as learners should direct the learning experience. The teacher’s role becomes whatever is necessary to provide resources or support for students to learn. Students control the majority of decision making and take on added responsibilities for which they are explicitly prepared. The distinction between “teacher” and “student” is blurred, with everyone in the classroom responsible for contributing to a successful learning experience.

Additionally, faculty are more comfortable with the choice, implementation and interpretation of classroom evaluation information. They are certain that periodic evaluation is important. They are more likely to use a combination of formal and informal, targeted techniques. Finally, they begin to reassess their traditional methods for assessing student learning. They are very curious about other avenues of assessment that are more consistent philosophically and practically with student ownership.

This final transition might be described as a shift in the vision of the classroom. Faculty shift ownership from my classroom and wondering how to get students to behave in specific ways, to talking about our classroom and their role as resource providers. The students and faculty are both teachers and learners in the classroom.

The question has become, “What can I do for students to help them learn in our classroom?” The answers are sophisticated in that they give students control of the agenda and process at differing levels dependent on context (e.g., level of course, confidence and background of students) but global in that they are implemented with the express desire to provide structure and resources to assist students to empower themselves. The following comment describes this blur between the roles of teachers and learners in the classroom:

[My role is] to provide an environment where [students are] comfortable to explore and let the concepts emerge, [a place that] motivates them to do that, with restraint of your ego, not that you have to show them the way, [but instead] let them find the way and question along with them. (Stage 2 Participant)

In these classrooms, the focus is on students as partners in the classroom. Though the teaching approaches might look similar in nature to those mentioned in the previous conceptualizations of teaching and learning, they differ in level and content of student activity. Students have ownership of their own learning, and the teacher sees himself or herself as a resource provider and co-learner. Teaching is not something that is done to the students, but rather something that is shared. Techniques in the classroom include collaborative learning groups, asking students to choose course content, having students write their own exams, and having them teach each other and grade themselves and each other.

In general, change is common across all CCLE faculty classrooms, regardless of faculty descriptions of teaching and learning. The most common and immediate change is the increased solicitation of student input and feedback. A number of faculty take advantage of the CCLE staff’s experience in questionnaire administration and interpretation, while others write and interpret their own surveys based on examples from colleagues. Regardless of how the information is collected, faculty are very motivated to seek student feedback on teaching approach and student learning frequently throughout the semester. As faculty understanding of student learning grows throughout the program, they seek out student voices more often and feel more comfortable interpreting those voices. They begin to ask the students what is working and what is not. They no longer feel a need to be seen as the distanced education expert. They recognize that change is evolutionary for themselves and their students. And we find that faculty tend to build from their successes, just as all learners do.

Effects on Curriculum

Connections to curriculum innovation are also underway. In 1994, the first team of CCLE faculty “graduates” and the CCLE Director collaborated to create and teach “Introduction to Engineering.” This course was initiated in conjunction with an ARPA grant awarded
through the National Science Foundation to the Engineering Research Center for Plasma-Aided Engineering. Its goal is to give engineering freshmen an opportunity to discover engineering by working in small design teams on a real engineering cross-disciplinary consulting project. Additionally, students get to know engineering peers and faculty in a more intimate and exploratory environment. The intent is to attract and retain a more diverse group of engineering students and to allow students to more accurately decide whether an engineering career might be of interest for them.

The course was successfully piloted during the 1994-95 academic year with approximately ten percent of the 800 engineering freshmen and was expanded in 1995 to include 220 students. The CCLE director and nine faculty volunteers who have all “graduated” from Stage 1 of CCLE continue to re-design and teach the course. (For more information about the development and evaluation of “Introduction to Engineering,” see Corradini et al., 1995; Courter & Millar, 1995.)

When CCLE Works and When It Doesn’t

The majority of CCLE participants change their attitudes toward learning and teaching, and their teaching practices. As we mentioned in the previous section, some have begun to change the curriculum. After studying learning, many faculty make a relatively quick determination that effective teaching enables and/or empowers students to question and learn. Their descriptions of “good teaching” move from a laundry list of mechanistic teaching behaviors or characteristics (e.g., fairness, enthusiasm, content mastery) toward an emphasis on designing an environment and activities for engaging students’ questions, imagination and reasoning. They begin seeing the teacher’s role as more complex, varied, and interesting. Teaching becomes intellectually challenging and exciting again. In one participant’s words:

The large part of it [teaching] would be emphasis that teaching has to focus on learning. You’re a resource provider if you know what the learners need. You define parameters in the sense that you say, “Here’s the topic we’re going to be learning about,” but beyond that you’re largely a resource provider, whether that’s information, direction, suggestions, organization, or whatever. It’s someone who sets up the framework for learning, but you don’t make learning happen. You can

obviously inhibit it. So I have a somewhat different view on what the role of the teacher is. It’s not simply to present information, but maybe a much broader role than that. Not nearly so narrow. (Stage 1 Participant)

However, not all faculty find that CCLE meets their needs. Faculty most likely to receive the greatest benefit from CCLE are those volunteers who are willing to reflect on their own belief systems and to see themselves and others from different perspectives. Those participants who feel that they enter CCLE with “the answer” and are waiting for others to catch up, or work from a perspective that there is one truth (one answer that must be converged upon), find that participation is frustrating and does not lead to their desired outcome. They find the program frustrating.

Even so, faculty show a broad range of reactions to this frustration. Some participants stay in the program, even if frustrated, because they do value the interaction with colleagues. These people may come to realize that the nature of teamwork itself is sometimes frustrating, while others may become so frustrated that they end participation. When asked what new participants might expect during their first year in CCLE, this engineering professor said:

What I would tell them to expect is a lot of frustration because you will be intimately working with people with ideas and convictions as strong as yours. You will have the charge of coming up with something, the [group] of you, with equally strong convictions and inputs coming. Expect that you cannot go in there if you go in with a set agenda or a set preconceived notion of what you will get out of it. [If you do,] you will not necessarily get that, and you will be frustrated as a result. So, it’s kind of like you must go in with an open mind and let it take you where it goes. Enjoy and learn from the ride, and take it as that without expecting something certain. (Stage 1 Participant)

Individuals are able to adjust their expectations to varying degrees. An inability or unwillingness to compromise original expectations of either progress (in reaching their own individual goal) or process (expectation of what the program should be like) is a sure-fire sign that a great deal of frustration is on the way. Everyone becomes frustrated at times (facilitators included), even within the most “suc-
To Improve the Academy

References


---

**A New Starting Point for Faculty Development in Higher Education**

Contact:
Katherine Sanders
Wisconsin Center for Education Research
University of Wisconsin-Madison
1025 West Johnson Street, Room 345
Madison, WI 53706 USA
(608) 263-4257
(608) 263-6448 FAX

Katherine Sanders, Director and creator of CCLE, is an Associate Scientist in the Wisconsin Center for Education Research and an Instructor in the Department of Mechanical Engineering. Her Bachelors, Masters and Doctorate are in Industrial Engineering from UW-Madison, specifically Human Factors and Sociotechnical Systems Engineering. Since her dissertation work she’s been studying professional development and its links to organizational learning and institutional culture in higher education. She enjoys staying connected to students and her engineering colleagues by teaching *Introduction to Engineering*.

Christopher Carlson-Dakes is the Assistant Director of CCLE and is currently working on a Ph.D. in Industrial Engineering, Human Factors Division, from the University of Wisconsin-Madison. He has a Bachelor’s Degree in Mechanical Engineering from Carnegie Mellon University and a Master’s Degree in Mechanical Engineering from Pennsylvania State University.

Karen M. Dettinger, P.E. has a Bachelor’s Degree in Industrial Engineering and a Masters Degree in Human Factors Engineering from UW-Madison. She was the Assistant Director of Creating a Collaborative Learning Environment from 1994-1995. She has over ten years of experience in the private sector in facilities planning, process improvement, workforce participation and organizational design. She is currently working on a Ph.D. in Industrial Engineering focused on developing an understanding of the student culture in undergraduate engineering education.

Catherine Hajnal has recently completed her Ph.D. at the UW-Madison. Her main interests are organization and individual development, and the impacts of emerging technologies on human resource functions. She is currently involved with action research and teaching at the University of New Brunswick - Saint John Campus (Canada).

Mary E. Laeldke, OTR, has a Bachelor’s Degree in Occupational Therapy from the University of Wisconsin-Madison and a Master’s Degree in Health Fitness Management from American University, Washington, D.C. She was a team facilitator for Creating a Collaborative Learning Environment from 1995-1997. She is a Lieutenant Colonel in the United States Army and is stationed at the U.S. Army Center for Health Promotion and Preventative Medicine, Aberdeen, MD. She is currently
working on a Ph.D. in Industrial Engineering from the University of Wisconsin-Madison.

Lynn L. Squire is currently an educational researcher with the Learning through Evaluation, Assessment and Dissemination (LEAD) Center, University of Wisconsin-Madison. Prior to working with LEAD, she was a researcher for Creating a Collaborative Learning Environment (CCLE). She received her Bachelors Degree in English Literature and a Masters Degree Educational Administration from the University of Wisconsin-Madison. Her interests include faculty development and the assessment of student learning.

Acknowledgments

This work has been supported in part by grant P116B50459-96 entitled "A Process for Curriculum Reform Through Faculty Development in the Physical Sciences and Engineering" from the Fund for the Improvement of Post-Secondary Education (FIPSE) and in part by the IBM/TQM Partnership with the UW-Madison College of Engineering. Our warmest thanks to our friendly and nurturing FIPSE program officer, David Johnson, and our IBM colleague, Bill Geoghegan. We are grateful for the insight and support of our co-Principal Investigator, Associate Vice Chancellor Robert Skloot. Our thanks also to Professors Michael J. Smith, Andrew Porter, Nancy Diekelmann, Ken Zeichner, Clifton Conrad, Sandra Courter, Michael Corradini and Dean John Bollinger for their vision and input. Finally, and with great affection, we thank the CCLE faculty advisors, Patrick Farrell, John Mitchell, and David Nelson and all the CCLE participants.
Section VII: References
REFERENCES FOR WEEK 2
Introduction - Learning Communities - Group Dynamics


SUPPLEMENTAL READINGS


REFERENCES FOR WEEK 3
Diverse Learning Styles


SUPPLEMENTAL READINGS


Cerbin, B. (1996). What do active and interactive learning actually mean?


Langford, D. Levels of Learning.


**REFERENCES FOR WEEK 4**

**Learning-through-diversity:** Creating a safe and respectful climate for all to learn


**SUPPLEMENTAL READINGS**


in College Classrooms: Innovative Responses for Curriculum Faculty Institutions. New Directions for Teaching and Learning, 52, Winter.

McIntosh, P. (1992). White privilege and male privilege: A personal account of coming to see correspondences through work in women's studies. Race, Class, and Gender, 73-75, 80.


REFERENCES FOR WEEK 5
Teaching-as-research


SUPPLEMENTAL READINGS


