Collaborative Learning – a CET Resource

- What is collaborative learning and why should I incorporate it into my class?
- *How* might I go about incorporating collaborative learning into my classroom?
- How can I use collaborative learning to positively affect students with special needs or ESL challenges?
- What questioning techniques promote the most active and engaged learning? And what are some best practices for teaching/meeting facilitating to ensure an outcome that most closely meets my objectives?

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CET has compiled this collection of articles on the theories behind collaborative learning and the implications of including it in classroom teaching for instructors who may considering including a collaborative pedagogy in their classroom. The articles have been chosen to answer such basic questions as determining what collaborative learning is (and is not) and its relationship to cooperative learning and groupwork. Additional articles provide more direct instructional support to teachers who understand the *what* and *why* of collaboration but would like more concrete ideas and guidelines for implementing it in their classroom. The third section of this resource contains information on how collaborative learning can be an important pedagogical practice for teachers working with students who have special needs or ESL challenges.
Finally, the final section provides some best practices and questioning techniques that may be useful for teachers wanting to engage their class in active learning and participation and facilitate an effective learning experience or meeting.

What is collaborative (or cooperative) learning and why should I incorporate it into my class?

Fulfilling the Promise of the "Seven Principles" Through Cooperative Learning: An Action Agenda for the University Classroom.
Millis, Barbara J., Journal on Excellence in College Teaching. 1991, 2, 139-144.
This article clarifies how "students teaching students", is one of the best methods for implementing the widely-accepted Seven Principles of Good Practice in Undergraduate Education*, published in 1986.*

Seven Principles of Good Practice in Undergraduate Education
Chickering,& Gamson, 1986, reprinted online.

Building Bridges Between Cooperative and Collaborative Learning.
Matthews, Roberta S., Cooper James L., Davidson, Neil and Hawkes, Peter, Change. 1995, 27 (4), 35-40.
The authors attempt to situate cooperative and collaborative learning with the intention of increasing cross-understanding between two somewhat similar though separate, and sometimes confused, ideas.

Sharing Our Toys: Cooperative Learning Versus Collaborative Learning
Bruffee, Kenneth A., Change. 1995, 27 (1), 12-18.
This article gives a good overview of the differences between cooperative and collaborative learning, the levels/ages at which each is employed and to what purposes they are used. Bruffee discusses how each type of learning undercuts the other and how teachers can work with these ideas to produce the 'reacculturation' of students in their classrooms.

Collaborative Learning and the "Conversation of Mankind"
Bruffee, Kenneth A., College English. 1984, 46 (7), 635-652.
Bruffee addresses collaborative learning in the English classroom and discusses the history of its development. He then outlines the rationale for collaborative learning and the relation of that rationale to classroom practice. Finally, he discusses some not-fully-developed implications of the practice of collaborative learning. Although much of this is directly intended for English teachers, he also brings up science, philosophy, and how knowledge is negotiated in all disciplines.

Consensus and Difference in Collaborative Learning.
Trimbur, John, College English. 1989, 51 (6), 602-616.
Trimbur explores the meaning of consensus in collaborative learning and argues that consensus does not violate the individual but enables individuals to empower each other through social activity. He discusses the theories of discourse presented by Bruffee and Rorty and then looks at the idea of consensus in terms of conflict rather than agreement. He discusses the need to look at the inexhaustible amount of difference that exists between our lives and says that the utopian form "the conversation" should be one with heterogeneity without hierarchy.

Collaborative Learning: Shared Inquiry as a Process of Reform
Jean MacGregor, New Directions for Teaching and Learning, no 42, Summer 1990, Jossey-Bass Inc., Publishers.
MacGregor discusses the roots of collaboration in education and some of the real challenges that teachers face as the classroom dynamic changes from one where information is distributed to one where knowledge is created. There is a particularly interesting section entitled Collaborative Learning and Epistemological Theory*. In addition, the section on* Designing for Collaborative Learning*, takes readers through the steps teachers can take to rethink their classes and see opportunities for collaborative learning and knowledge creation where they might not have before.*

Using Collaborative Work Technology to Support Active Learning
Papps, Vicki C., Krothe, Joyce Splann, Adair, Lorinda P., Journal of Research on Computing in Education, Fall 1998, Volume 31, No. 1.
This research article examines the benefits and drawbacks or failings when teachers use a technology-enhanced collaborative classroom similar to the Collaboratory at SFSU.

Understanding Computer-Supported Group Work: The Effects of Interaction Frequency on Group Process and Outcome.
Jessup, Leonard M., Egbert, Joy L., and Connolly, Terry, Journal of Research on Computing in Education. 1995-1996, 28 (2), 190-207.
This research paper argues that students who frequently interacted via technology while performing a brainstorming activity were more productive than groups working more individually or with less frequent interaction. Interestingly, the groups who performed best felt hurried and interrupted. This addresses the question of how teachers can best use GSS systems with their classes to get the most ideas from a brainstorming session.

A Case Study for Promoting Collaboration on Online Project-Based Learning
Yan, Young-Sun, Association for the Advancement of Computing in Education. June 2002
This study attempts to analyze teaching strategies for planning collaborative learning and teaching through a case of online project-based learning in inter-universities. The researcher also attempts to observe the degree of students' learning experience, collaboration and participation with their expectancy and satisfaction on the collaborative online project-based learning.

Computer-Mediated Communication in the University Classroom: An Experiment with On-Line Discussions.
Althaus, Scott L., Communication Education. July 1997, 46, 158-174.
This in-depth article suggests that computer mediated discussions can enhance the traditional face-to-face classroom discussions. The author explains in detail the results of an optional additional computer mediated discussion that went along with a face-to-face class.

Cooperative Learning Returns to College: What Evidence Is There That It Works?
Johnson, David W., Johnson, Roger T., & Smith, Karl A. Change, July/August 1998.
This article investigates the rich theoretical base for cooperative learning and the five basic elements critical to cooperative work in classrooms: positive interdependence, individual accountability, face-to-face promotive interaction, social skills, and group processing. Looking at the research that has been conducted on the subject, the authors conclude that: collaborative learning is cost-effective, the research studies are a combination of theoretical and demonstration studies and that the research on cooperative learning has a validity and generalizability rarely found in educational literature.

How might I go about incorporating collaborative learning into my classroom?

Articles under this heading address these specific questions:

- How do I decide which assignments/activities to make collaborative?
- How do I divide students into groups?
- How can I help students learn to work in groups?
- How can I deal with conflicts within the groups?
- How do I grade collaborative work?
- In what ways can technology support the goals of collaborative learning?
- How can I assess a class of collaborative learners?

Guidelines for Successful Implementation of Group Work.
Kinsella, Kate and Sherak, Kathy. 1994.
A set of 20 basic guidelines provide a framework for teachers to use when incorporating collaborative activities into their classroom. This piece also includes a self-assessment form for teachers to use when evaluating their incorporation of group work into the classroom.

Cooperative Learning in the College Classroom: Three Structures and Seven Activities.
Vermette, Paul J. and Erickson, Deborah B., College Student Journal. June 1996.
This article focuses on three features of the cooperative learning model, proper implementation of designing groups, alternatives for grading and assessment, and options for governing or monitoring the groups. The authors also include a seven part taxonomy for designing different types of engaging and challenging group activities for the classroom.

Commonly Asked Questions about Teaching Collaborative Activities.
From chapter II of The Penn State Teacher II: Learning to Teach; Teaching to Learn.
http://www.psu.edu/celt/PST/collab2.html
This piece answers some very specific questions for instructors who want to set their classroom up for Groupwork.

Developing Collaborative Skills in College Students.
Bosworth, Kris, New Directions for Teaching and Learning. Fall 1994, 59, 25-31.
This article addresses the issue that most all college students come to school successful navigators of the competitive academic model. It takes work to help these students develop the skills they need to participate collaboratively in an academic environment. This chapter describes the role of collaborative interpersonal and social skills in the facilitation of successful collaborative processes in the college classroom. The author defines a taxonomy of collaborative skills, and outlines a process for explicitly teaching these skills.

Assessing Effectiveness in the Collaborative Classroom.
Cramer, Sharon Farago , New Directions for Teaching and Learning. 1994, 59, 69-81.
This article gives teachers options for assessing students in groups and individually. The author provides specific examples of effective methods for assessing process and product progress and outlines the learning environments of collaborative classrooms.

Nine Principles of Good Practice for Assessing Student Learning
American Association for Higher Education, 2003. Article can be found at
http://www.aahc.org/assessment/principl.htm
These principles were designed especially for the improvement of assessment in postsecondary education and address the issues surrounding the why teachers assess their students and what the goal of the assessment is. This list is brief and helpful.

Group-Worthy Tasks
Lotan, Rachel, A. Educational Leadership, March 2003.

This article details five design features of all group-worthy tasks and asserts that all group-worthy tasks are as close as possible to genuine dilemmas and authentic problems. Teachers can develop group tasks that are open-ended and take into account many real-life uncertainties and complexities. The author discusses evaluation criteria for students, the importance of group design and making students feel that they are addressing significant content.

Cooperative Learning Strategies for University Students
The Office of Instructional Consultation, UC Santa Barbara website.
http://www.id.ucsb.edu/IC/Resources/Collab-L/strategies.html
This single web-page gives four ideas for instructors who want to quickly get started setting up cooperative learning in the classroom. The ideas outlined in this piece are: Think-Pair-Share, Three-Step Interview, Simple Jigsaw, and Numbered Heads Together.

How can I use collaborative learning to positively affect students with special needs or ESL challenges?

Promoting Greater Educational Access and Mobility with Learning to "Learn Across the Disciplines"
Kinsella, Kate , A faculty development workshop conducted at The Center for Enhancement of Teaching on August 21, 1996.
This Power-Point presentation from CET's faculty development workshop is a valuable resource for ESL teachers or faculty members with international students in their class. It gives useful suggestions on catering to individual learning styles, classroom activities, and strategies which promote language and concept development.

Learning Styles in the ESL/EFL Classroom.
Reid, Joy M., Heinle & Heinle Publishers, An International Thomson Publishing Company. 1995
Reid offers teachers insights into the use of student and teacher learning styles and provides classroom teachers with learning styles instruments that they can use with their students. This excerpt is the preface to the book, available in the library.

Understanding and Empowering Diverse Learners in the ESL Classroom
Kinsella, Kate. (1995). J.M.Reid (Ed.), *Learning Styles in the ESL/EFL Classroom*.
Boston: Heinle & Heinle. pp. 170–195.
Chapter 15 of the book, Learning Styles in the ESL/EFL Classroom, Kinsella here offers insight into learning styles, perceptual strengths and learning styles, left-brain and right-brain functions and teaching, classroom work style and much more. She discusses administration and implementation of teaching strategies and how to develop self-aware, adaptable and empowered learners. The article includes a self-assessment form for educators to check their learning style accommodation.

Teaching Strategic Reading.
Janzen, Joy , TESOL Journal. 6-9. 1996
Janzen highlights useful strategies for reading and comprehension in the ESL classroom. Additionally, she gives suggestions on how to approach group reading exercises, student reading, and teacher modeling.

Using Technology in Foreign Language & ESL Programs.
Biz Northrop and Cindy Tracey , Media & Methods, May/June 1998.
The authors highlight the current technology available for the ESL classroom and provide suggestions in choosing the right software for your classroom, noting the software should provide a wide range of materials addressing all levels of difficulty and diversity in appeal, and that teachers should provide instruction in a variety of formats.

New Opportunities for Learning: Styles and Strategies with Computers.
Bickel, Beverly and Truscello, David, TESOL Journal. Autumn 1996, 15-19.
The authors discuss the necessity of teachers' understanding the diverse needs of learners and the ways in which technology can be utilized differently by different individuals to meet their unique needs and meet their learning preferences and move them forward to meet new learning challenges. Many forces influence the way a learner approaches a task and while a teacher can't know what all of them are, he or she can use technology to continue to challenge and build skills and confidence in students in new and interesting ways.

What questioning techniques promote the most active and engaged learning?

Techniques for Asking Questions in the Face-to-Face Discussion
Facilitation Skills Workshop, Practical Management Inc., August 1998.
As a facilitator or instructor, the most important tool you have for leading discussions is "the question." These are some fundamental techniques to consider, uses and sample questions for you to use.

What Questions Discourage Active Learning, Critical Thinking and Language Output?
This is a good piece on questioning in the classroom that gives teachers ideas about what questioning techniques are successful and what ones are not. Although it is not related directly to collaborative learning, it promotes active learning and keeping students involved during class.

What are some best practices for teaching/meeting facilitating to ensure an outcome that most closely meets my objectives?

The Importance of Facilitator Role Behaviors: Implications for Training Facilitators and Teachers to Use GSS. *(Group Support Systems)*
Journal of Teaching in International Business, 7:4, 1996, pp. 7-30. Bostrom, Robert P., Clawson, Victoria K., and Watson, Richard T.
This paper argues that critical meeting facilitation skills and the appropriate use of Group Support Systems' (GSS) tools support the collaborative meeting and learning paradigm. These skills and tools greatly enhance the teacher's ability to create effective collaborative situations. The use of GSS tools with the case study methodology is discussed as one example of blending facilitation and technology to teach people to work together more productively.

The Application of Electronic Meeting Technology to Support Strategic Management.
Tyran, Craig K., Dennis, Alan R., Vogel, Douglas R., and Nunamaker, Jr., J.F.,
MIS Quarterly. September 1992, 313-334.
This article explores some of the natural barriers to executing Strategic Management within an organization and discusses the ability of Electronic Meeting Technology to help overcome them. The research, done in the form of five case studies, was conducted using GroupSystems software and points out the usefulness of incorporating several communication channels and exploring the group behavior and interaction during each type. This authors, while seeming at first to have a very business oriented focus, later present information on group interaction and communication which has value when evaluating the benefits of electronic communication in a variety of circumstances.

Facilitating an Effective Meeting.
Wachs, Joy E., AAOHN Journal. 1992, 40 (6), 294-296.
This article contains basic meeting protocol and ideas which can be put into practice in a variety of situations.