

International Association for the Study of Cooperation in Education



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Dear Colleagues,

IASCE is pleased to bring you the second member newsletter of 2015.

In this issue, we provide a variety of updates and information about the October 2015 conference that will take place in Odense, Denmark, Cooperative Learning: Meeting the Challenges of the 21st Century. We anticipate posting details about the conference program in mid-August. Please visit the conference website at <u>http://</u> <u>iasce2015.ucl.dk/</u> and join us on Facebook at <u>https://</u> <u>www.facebook.com/pages/IASCE-Conference-</u> 2015/816475428371239 to learn more.

As you have come to expect and depend on, this issue of the newsletter includes a variety of abstracts that describe work from multiple continents and contexts related to cooperative learning, including articles by board members Celine Buchs, Rich Cangro, and Robyn Gillies. This issue also includes a review of a special journal edition plus an announcement about a peer-learning themed issue of the international magazine **Better**. The editor of **Better** is Robert Slavin; one of the guest editors of the special journal edition is Neil Davidson. Both are former IASCE Presidents. Neil Davidson will be joining us in Odense; Robert Slavin joined us in 2013 in Scarborough. In each of the past three issues of the newsletter, we have included reviews of special journal editions focused on cooperative learning. These special projects and the wealth of abstracts speak well to the robustness of the field.

I would like to thank Lalita Agashe and Celine Buchs for creating an interesting and informative interview about Celine. Celine is one of our newest board members and is also the IASCE Secretary.

I also want to thank you—our members and readers. As always, we encourage you to share your newsletter with colleagues as one way to support your own work and professional networks.

We hope to see you in Odense.

Cooperatively yours,

Lynde Baloche

How to Subscribe to the CL List	Below is a glimpse of another "special edition" related to cooperative learning.								
Want to dialogue with	Better: Evidence Based Education								
others about your use of CL? Then, you might wish	Special Edition on Peer Learning (Volume 7, Issue 1)								
to join the CL List, an internet discussion group	Editor in Chief, Robert Slavin								
about cooperative learning.	Table of Contents:								
leanning.	*Learning together and aloneDavid and Roger Johnson								
Well-known CL experts as well as "just folks" belong.	Cooperative learning structures—Spencer Kagan								
Currently, the CL List isn't a busy group, but when	<i>Cooperative learning: It's more than group work</i> —Bette Chambers								
discussions do take place, they are often	<i>Improving group work in the classroom</i> —Peter Blatchford and Ed Baines								
enlightening. Furthermore, you can	*How can teachers' questions contribute to the cooperative classroom?—Yael Sharan								
receive updates on CL related events.	*Cooperative learning for creative collaborations—Lynda Baloche								
To subscribe, send an email to	*Engaging reluctant students in cooperative group work— Celeste Brody								
CL_Listsubscribe@yahoogr	Cross-age peer tutoring—Peter Tymms and Christine Merrell								
oups.com. You should very quickly receive an email	Engaging students in others' mathematical ideas—Noreen								
reply with simple instructions.	Webb and colleagues								
If that fails, just send an email to george.jacobs@gmail.com	*Working together to implement cooperative learning— Wendy Joliffe								
and he'll do the necessary.	(*) indicates authors who will be attending the IASCE conference in Odense.								
Talk to you soon!	For additional information about Better , visit www.betterevidence.org.								

Writing for This Newsletter

There are so many things happening world-wide related to cooperative learning! Help others find out about them by writing articles or short news items for inclusion in this newsletter, and by submitting abstracts of published work for inclusion in the *From the Journals* section of the newsletter. Short pieces (1000 words or less) are preferred.

The newsletter appears three times a year. Please email submissions or questions about them to the editor of the IASCE Newsletter, Jill Clark at <u>jilliandc@gmail.com</u>. Put "IASCE Newsletter" on the subject line of the email, please.

Thank you for your submissions.

Small-Group Learning in Higher Education: Cooperative, Collaborative, Problem-Based, and Team-Based Learning

Reviewed by Lynda Baloche

When I started teaching at a university 26 years ago, the chairs were in rows and there was a lectern and an overhead projector at the front of each classroom. The first week I was on campus, the dean distributed a memo to all faculty "reminding" them that all classrooms were to be left in "standard lecture format" at the conclusion of every class. So for the first year my students dutifully reconstructed the required lecture format at the conclusion of each class. The second year, after the dean distributed his memo, I sent him a note citing some literature about "alternative" teaching approaches—but I made sure my classrooms looked "right" after each class. By the third year, I just left the chairs in whatever smallgroup formation (usually base groups) we were using at the end of class. Nobody complained until about five years ago when I was teaching a class of 65 students. This was the first time I had taught that many students in one section and, when I looked at the classroom I had been assigned, my heart sank. The first evening I put the students into base groups and, deciding to trust the wisdom of the group, I asked them to figure out how to rearrange the room so that they could sit "eye-to-eye" with their base groups and so that the two exit doors were not obstructed. I was impressed that in less than 10 minutes they had the room rearranged and functional. A week later a colleague complained, noting that she had a group of 60 so had to have the classroom set up in lecture format. My class obliged—as they had 20 years earlier.

Former IASCE President Neil Davidson has recently collaborated with Claire Howell Major and Larry Michaelsen to guest edit a special focus issue of the **Journal of Excellence in College Teaching**. This special edition was a massive undertaking. It includes four sections—with three articles each that explore cooperative learning, problem-based learning, and team-based learning—plus two synthesis articles and an Introduction. Collectively, the articles represent the work of 31 authors, 30 of whom are based in the United States. Some of the approaches originated in higher education; others focused originally with younger students but have a research base and applicability across age groups. Each examines the challenges of learning and teaching in higher-education settings. Collectively they serve as a valuable and provocative resource—for faculty who want to make their lectures more effective, for faculty who want to tip the balance of talk and knowledge construction away from themselves and towards their students, and for faculty who want students to break out of the class-room and university walls. The abstract of each article (marked with an asterisk) is included in the *From the Journals* section of this newsletter.

The co-editors begin by exploring the origins and goals, plus theoretical and research bases, of each approach to small-group learning. They also examine the similarities and differences amongst the approaches. I found the discussion of origins and theoretical foundations particularly interesting. In the synthesis article "Boundary Crossings . . ." the editors/authors seek to help their readers understand the differences amongst cooperative, collaborative, and problem-based learning. One way they do this is by including a table where they list key questions faculty might consider when engaging in each approach. While I like the idea of examining key questions, I found the cooperative-learning questions to be rather limiting and the questions about metacognition, learner autonomy, co-construction of knowledge, authentic interactions, and information literacy that are used to characterize collaborative and problem-based learning more interesting and intricate. In the second synthesis article, "Team-Based Learning Practice and Principles in Comparison With Cooperative Learning

and Problem-Based Learning," the editors/authors note that the "size of the tent" varies in the four approaches to small-group learning. This is a critical point. Cooperative learning is such a big tent that it is sometimes hard to explore that tent without missing a room or two and some connecting corridors. I think to some extent that explains the limitations of the questions used to characterize cooperative learning in the previous article.

Cooperative Learning

Contrary to what some might think, studies of cooperative learning in higher education are fairly common. For instance, in a brief review of the "From the Journals" section of eight IASCE newsletters from 2009, 2010, and 2011, 35 abstracts described studies focused on children from pre-school through age 18 while 40 abstracts described studies focused on university and vocational settings. (Baloche, 2011). At IASCE conferences, it is always possible to attend multiple sessions that focus on cooperative learning in higher education. At the 2015 IASCE conference for instance, presentations will include board members Jill Clark—who has written extensively about the challenges of cultural diversity and small-group learning in higher education in New Zealand, and Celeste Brody—a former instructional dean and Fulbright Scholar who spent six months working with higher-education faculty in Thailand.

Each of the three articles in this section provides a different view of what a higher-education classroom might look and sound like. Of the authors, Karl Smith and Barbara Millis are the most well-known for work specifically focused on higher education.

Johnson, Johnson, and Smith ("Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory") work from the foundation of social-interdependence theory and provide a brief review of 100 years of studies that compare cooperative, individual, and competitive learning formats. They suggest that an instructor might utilize (a) "formal" groups for projects, experiments, and the like; (b) "informal" groups for lectures and other direct-teaching episodes; and (c) "base" groups for social support and classroom connections. Their description suggests that the college classroom could include a variety of instructional and learning modalities and small-group configurations. This article could serve as a useful primer for anyone interesting in applying the Johnson and Johnson work in higher-education settings.

Kagan ("Kagan Structures, Processing and Excellence in College Teaching") reviews research from neuro science and focuses on six principles to build the case for integrating frequent processing into lecture classes. The principles include that processing (a) clears working memory; (b) stores content in long-term memory; (c) produces retrograde memory enhancement; (d) creates episode memories; (e) creates novel stimuli, increasing alertness; and (f) activates many parts of the brain. He describes his structural approach and provides four structures as examples of how structures might be used to develop the type of processing necessary to maximize learning. None require reorganizing the classroom space or significant preplanning or special materials; they are content neutral and suitably varied. Kagan cites three examples of research to underscore the efficacy of his structural approach with college and adult learners; each was published in the *Kagan On-line Magazine*.

Millis ("Using Cooperative Structures to Promote Deep Learning") explores how cooperative learning can support and encourage deep learning. She provides a brief research review and discussion of deep learning and suggests three strategies—Double Entry Journals, Character Traits Graphic Organizer, and Pro-Con Caveat Grid. Two strategies combine individual, pre-class assignments with group work and each relies on a graphic organizer. She briefly discusses how individual preparation and group work might fit into the overall grading scheme of a course.

Collaborative Learning

As with the previous section, the three articles in this section provide varied views of what a university classroom might look and sound like. These views range from interactive lectures and group projects to students breaking through the walls of the classroom and campus to engage New York City and each other.

Cooper and Robinson, well-known names in the dialogue about small-group learning in higher education, describe how they have used "group work as a core technique and have developed additional procedures that seem to potentiate the power of group work." In "Using Classroom Assessment and Cognitive Scaffolding to Enhance the Power of Small-Group Learning," they describe a variety of strategies, which they call Quick-Thinks, each of which is designed to help students process material during a lecture or other presentation format. They also emphasize the importance of cognitive scaffolding and provide several examples of how faculty can provide temporary cognitive supports when presenting new material or making assignments. They conclude by providing a rich example of what a "typical" lecture might look like when using Quick-Thinks and cognitive scaffolding.

The articles by Jones ("Examining the Influence of Structured Collaborate Learning Experiences for Graduate Students") and Love, Dietrich, Fitzgerald and Gordon ("Integrating Collaborative Learning Inside and Outside of the Classroom") describe learning collaborations that take place both inside and outside of the classroom. Jones explores the benefits and pitfalls of group projects with graduate students while Love et al. describe a series of learning communities in which all undergraduates enroll at Wagner College in New York City. I found the article from Wagner College to be particularly exciting. In their learning communities, students engage members of the larger community and explore issues within the context of the city. The guiding questions are interesting and broad and students experience considerable autonomy within the collaborative environment. Wikis are utilized to allow for both asynchronous work and peer collaboration. Group processing and feedback are ongoing. The faculty emphasize that (a) students learn to trust their academic skills and (b) faculty must learn to trust students and the processes of their investigations.

Problem-Based Learning

The three articles in this section form a coherent and helpful primer for Problem-Based Learning. I did want a fourth however—one that would present an example/scenario of a PBL case and class.

Savin-Baden's article ("Using Problem-Based Learning: New Constellations for the 21st Century") provides an overview and analysis for a variety of views and practices that might typically be seen as problem-based learning. This analysis includes considerations of level of interaction, form of facilitation, type of learning emphasized, and focus of assessment; the content origins of each are considered. She also examines gaps in the literature and ongoing and new challenges. As I read this article, I couldn't help but think that most approaches could benefit from such thoughtful and seeming-ly bias-free analysis.

The Marra, Jonassen, Palmer, and Luft article ("Why Problem-based Learning Works: Theoretical Foundations") examines the history, key foci, and theoretical underpinnings (constructivism and situated learning) of PBL. They also explore the challenges of developing authentic cases and strategies for monitoring students' metacognitive skills. This later discussion, while linked to a specific program, offers valuable insights for all faculty interested in providing deep feedback and processing opportunities to students.

The Albanese and Dast article ("Problem-Based Learning: Outcomes Evidence From the Health Professions") analyzes more than 20 years of research in PBL. The authors discuss both what the research suggests and what remains unclear. The authors comment that interpreting research can be a challenge since the "descriptions include variable and often incomplete descriptions of the nature and extent of the PBL employed."

Team-Based Learning

The three articles in this section, combined with the synthesis article "Team-Based Learning Practices and Principles . . . " whose first author is Larry Michaelsen a key name in TBL, offer a compelling set of resources for TBL.

"'Now, What Happens During Class?' Using Team-Based Learning to Optimize the Role of Expertise Within the Flipped Classroom" by Wallace, Walker, Braesby, and Sweet explores the concept of the flipped classroom and how TBL might be utilized to maximize the value of "in class" time. Of course, anyone who has ever taught and assumed that students would come to class "prepared," knows that this can be an assumption that leads to frustration, inefficiency, and failure. The authors describe a "Readiness-Assurance Process" which sets clear performance expectations for preparedness, provides formative assessment data of student understanding, and eliminates frustration for both the student and faculty. The authors describe several levels of application activities that are increasingly complex in design, emphasize critical thinking, and lead students to think like experts. They reference the principles of task design (4S) in TBL which include (a) significant problem, (b) specific choice, (c) same problem, and (d) simultaneous report, and elaborate on each.

"Effective Class Design for the TBL Classroom" by Roberson and Franchini is an excellent companion article to Wallace et al. They too reference the principles for task design (4S) and describe multiple levels of application. They reference Bloom's Taxonomy to emphasize the differentiation amongst the levels and offer multiple examples from a variety of disciplines. They offer additional principles and management advice that would serve as good "tips" for a variety of active classrooms. These include: (a) focus tasks on concrete actions; (b) worksheets are for individuals, decision are for teams; and (c) plan the debrief when you plan the task; (d) give clear directions for each task in writing; (e) use time limits and make them visible; and (f) practice team tasks from day one.

The Haidet, Kubitz, and McCormack article, ("Analysis of the Team-Based Learning Literature: TBL Comes of Age") provides an interesting review and perspective on the TBL literature. While the research in cooperative learning spans many decades, the research in TBL, like PBL, is more recent. The authors describe challenges and early findings. They make the case that TBL is at an important and exciting juncture, and careful planning of additional questions and research has the potential to positively impact development, implementation, and understanding.

Reflections

As I read the articles in this volume, I kept thinking about my own teaching experiences. I also thought about conversations I have had with colleagues as we worked together to design new courses and programs and to build assessment systems that were varied, authentic, and robust. These conversations changed dramatically in the past decade, due to the explosion of possibilities for on-line communication, economic realities and ecological concerns, and changes in the student as "consumer." It has become increasingly important to consider what value is added by asking students to "show up" in a particular room at a particular time and to consider what that room and time should look, sound, and feel like.

The articles in this special edition provide a rich set of resources to consider such questions. Some articles suggest possibilities that may require relatively minor changes in a lecture-format course and yet may yield significant positive results—both in student achievement and satisfaction. My former dean would approve. When I characterize these adjustments as minimal, I do not mean to trivialize these approaches. Indeed, faculty need robust resources and encouragement to make such changes and this volume offers a variety of such resources. The possibilities suggested in other articles would require moving the furniture. Still others break-through the classroom walls—to on-line modalities and into the surrounding community—while ensuring that the students remain focused by the course, the faculty, and each other.

No matter the name—cooperative, collaborative, problem-based, or team-based learning—each article and each approach depends on (a) faculty actively engaging students so that their learning becomes visible and audible both to the faculty and students themselves; (b) students working together regularly in thoughtfully-constructed, non-competitive environments; and (c) faculty helping students to engage in thorough reflections on their learning processes. Keeping these critical commonalities in mind, this volume offers a rich resource for readers to explore and expand their repertoire of possibilities.

I would be remiss if I did not thank Neil Davidson, Claire Howell Major, and Larry K. Michaelsen for their vision, expertise, and perseverance. I would also like to thank the editors of the **Journal on Excellence in College Teaching** for the considerable commitment this volume represents. IASCE members please note: for a short time, this issue of the *Journal* is available as a free download at http://celt.muohio.edu/ject/.

Reference

Baloche, L. (2011). A brief view of cooperative learning from across the pond, around the world, and over time. [UK] *Journal of Co-operative Studies* 44(3), 25-30.

MEET THE BOARD

Celine Buchs interviewed by Lalita Agashe



This is the third of three interviews of new IASCE board members. Lalita Agashe interviews Celine Buchs, who tells us about her work in cooperative learning in Switzerland and France.

When and how did you first come across CL?

I came across CL at the beginning of my Ph.D. in experimental social psychology at the end of the 1990's. I was starting to teach psychology students at university and wondering about pedagogical ways to engage my students when I discovered articles on the effects of CL. I decided to orient my Ph.D. around CL; my supervisor, Fabrizio Butera, was working in the social influence area and let me find my way. In the summer of 2001, I had the chance to attend two workshops organized by David and Roger Johnson in Minneapolis (one on CL and the other on creative conflict).

There were two major reasons that prompted me to conduct my thesis on cooperative learning. First, it represented a good way to connect research and teaching and that was important for me. I found it very insightful to use experimental methods (comparing different formats of CL in my own teaching) to better understand the efficacy of each format. It helped me to find some strategies to improve my own teaching. Second, working on peer learning was a wonderful opportunity to articulate cooperative learning and social influence with fertile reciprocal contributions, especially regarding sociocognitive conflicts and the way conflict regulation affects learning. This allowed me to work with Gabriel Mugny who became my co-supervisor.

At the beginning of my Ph.D. I wanted to investigate all the CL principles and to experimentally test their effects on social and academic outcomes. But our early results surprised us so much that we decided to explore further the effects of the distribution of information in groups. The main question in my Ph.D. was "under what conditions is it more beneficial to ask students to work on identical or complementary information? Why?" Thanks to the benevolence of my supervisors, the goodwill of both the teaching staff in social psychology and the students from the University of Grenoble, and the help of some Masters' students, I conducted four studies during three workshop sessions and three additional laboratory studies. Together these studies underline that, notwith-standing a cooperative learning setting, very few interactions are sufficient for students to interpret the competence of partners as a threat to their own competence. This threatening social comparison is responsible for the detrimental effect of working on identical information. On the other hand, the positive interactions that take place when students work on complementary information favour learning only when the quality of the partner's input is good.

How did you come in contact with IASCE and what role have CL and IASCE played in furthering your educational understanding and aspirations?

I came in contact with IASCE thanks to Yael Sharan. In 2010, she read that, along with Fabrizio Butera, we had received the Outstanding Contributions to Cooperative Learning Award from the American Educational Research Association and she sent us an e-mail informing us about the IASCE conference in Brisbane. Of course we sent a proposal and I travelled to Brisbane. I arrived in Brisbane three days before the conference as I wanted to have time to meet with Robyn Gillies. I had just arrived when the phone rang in my room; Yael invited me to join a small informal group to tour the area. So I met her for the first time along with Maureen Breeze and her husband Nick. It was a real pleasure to spend some time with such friendly and interesting people.

I was completely enthusiastic about my first IASCE conference and I really appreciated efforts the board and the local organizers (especially Robyn and Michael) had put in for facilitating contacts between people (I remember that the board brought flags from all participants' countries and proposed that we find at least one person from each country during the conference). I was doubtful at the beginning but convinced at the end by the request to make the audience active during a 20-minute presentation! I also liked the opportunity of attending some workshops during the conference and actually enjoyed attending them.

For all these reasons I was very glad to become an IASCE member. I continued to follow the activity of the association through the newsletter and attended the conference in Scarborough. IASCE represents for me a very good interface between teachers and researchers and the conference provides an excellent space for rich exchange around cooperation in education. In 2015 I joined the board and I am trying my best as a (non-native English speaking) secretary. It is a real pleasure to get involved in this cooperative network.

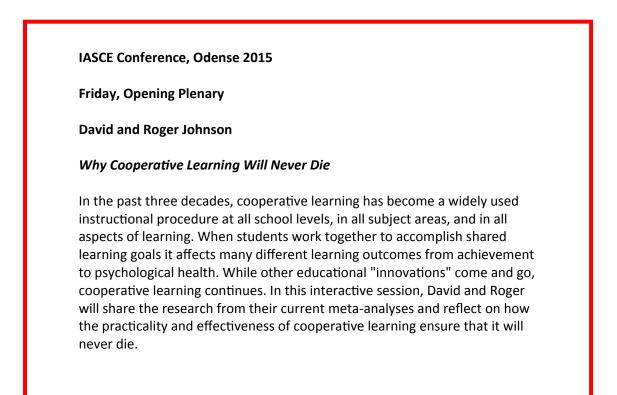
Please tell us about your present work and future plans in relation to CL.

In our previous work, we identified some mechanisms that may hinder cooperation, in particular those (like sociocognitive conflict) that may turn a potentially constructive interaction into a power struggle, with the hope that this work may contribute to make cooperative learning even more effective. From that research program we conceptualized cooperative learning as a fantastic tool based on values of tolerance and benevolence, but a tool that has to operate in a competitive society that may challenge CL implementation and efficacy.

I'm now a senior lecturer in the department of educational sciences at the University of Geneva and am involved in pre-service and in-service teachers' education. I do my best to inform teachers about cooperative learning, how it can be implemented in different learning situations and what the research tells us.

Regarding my present research, I am following two major directions:

- 1. We propose that an effective preparation for cooperative learning should explain why and how to cooperate to accomplish a specific academic task. I recently developed some interventions to test whether short training on targeted cooperative rules and skills relevant for the task favour constructive interactions and improve learning. These interventions concern either middle school students working on argumentative texts (with Mijal Golub) or university students learning statistics (with Ingrid Gilles). People interested can read a synthesis of this work in Buchs, C., & Butera, F. (in press). Cooperative learning and social skills development. In R. Gillies (Ed.), *Collaborative learning: Theory, strategies and educational benefits.* Hauppauge, NY: Nova Science. I am currently collaborating on an intervention for boosting primary students' learning of fractions by structuring interactions in triads (with Virginie Wiederkehr, Dimitra Filippou, Nicolas Sommet and Céline Darnon).
- 2. I am participating in a Swiss National Research Foundation project named "The Struggle for Competence in Academic Selection" (http://www3.unil.ch/wpmu/struggle/). Dimitra Filippou, a Ph. D. candidate, and I intend to better understand why cooperative learning remains so marginal in classrooms. The objective is to study how both practical challenges and societal values may interfere with the implementation and effectiveness of cooperative learning in the classroom. We hope to be able to share the findings in Odense at the 2015 IASCE conference.



IASCE Conference 2015 Cooperative Learning: Meeting the Challenges of the 21st Century 1-3 October, Odense Denmark



IASCE conferences are a unique opportunity to learn, network, and have purposeful fun. The IASCE Planning Team has been hard at work to ensure that the conference will be welcoming, lively, and diverse. The conference schedule includes:

- 30 September (evening): A pre-conference get-together. The conference planning team invites all participants to come together and engage in cooperative activities.
- 1-3 October: Presenters from 26 countries and opportunities to engage in informal conversations and networking during refreshment and lunch breaks.
- 3 October: An interactive closing activity. Participants will be invited to reflect on the conference and consider the future.

Our co-sponsors at University College Lillebaelt have organized a variety of opportunities to explore the local area. These include:

- 30 September: A day of visits to Danish schools.
- 1 October: An evening awards reception at a beautiful old building, the Odense City Hall.
- 1 October: Networking dinners at area restaurants.
- 2 October: The conference dinner.
- 3 October: Guided tours of Odense. Choices include: (1) A Trip around Odense with a Watchman;
 (2) A Guided Bike Ride in Odense; (2) In the Footsteps of Hans Christian Andersen.
- 3 October: A restaurant dinner to sample local cuisine.

For the first time at an IASCE conference, IASCE will sponsor a series of sessions designed to empower conference participants in developing their skills to lead others through engaging cooperative experiences. Whether you are wondering how conference ideas apply to your classroom or to your work with teachers, or to your national research agenda, there is a workshop for you! These sessions are presented primarily by IASCE board members who have a wealth of experience in creating effective interactive presentations and highly engaging workshops and conferences. One session draws on the research of the last three decades to promote thinking through talk among students at all levels. Participants will leave these sessions with toolkits and strategies, energized to take these ideas back to their colleagues and students.

Designing Presentations and Lectures for Active Participant Engagement

Presented by Board Members Celeste Brody and Celine Buchs

How can presenters actively engage an audience in conference presentations? This workshop will use strategies to create intentional, interactive moments during a typical paper session. These processes are similar to those used in engaging students in lecture-type classes. We will make active connections to those learning environments.

Effective Workshop and Presentation Design: A Cooperative Learning Toolkit

Presented by Board Members Lalita Agashe, Don Plumb, and Yael Sharan

A highly effective way to make your workshops and presentations more engaging and motivating is to build cooperative learning into your design so as to create an interactive environment. Come and join us in this "workshop about workshops" and experience a variety of strategies that will expand your repertoire of ways to have your audiences learn cooperative learning by experiencing cooperative learning.

Walking the Talk: Creating Cooperative Conferences. Strategies to Facilitate Engagement, Participation and Community

Presented by Board Members Maureen Breeze and Kathryn Markovchick with Pam Flood

Crafting a conference on cooperative principles will help facilitate authentic engagement and relationships among participants, whilst increasing the opportunities for joyful memories and participant connections that last well beyond the event. This session will explore and model conference organization strategies that bring to life the intent of cooperative learning into the activities, workshops and interactions experienced by conference attendees. These strategies can help build a sense of community, belonging, and sharing of learning that will deepen attendee experiences.

The Role of Talk in Promoting Thinking

Presented by Board Member Robyn Gillies with Rachel Lotan and Rosa Maria Pons

Research over the last three decades indicates that students have much to gain when they work cooperatively in groups where they learn to listen to what others have to say, discuss different ideas, and respond to others' requests for help or perceived need for help. In so doing, they learn that talk is a way of sharing their thoughts and developing new understandings. The presenters will draw on their experiences to illustrate how talk can promote thinking among students at all levels, including university settings.

From the Journals Contributors: Jill Clark, George Jacobs and Yael Sharan



*Albanese, M. A., & Dast, L. (2014). Problem-based learning: Outcomes evidence from the health professions. *Journal on Excellence in College Teaching, 25*(3/4), 239-252.

Over the past 30 years, problem-based learning (PBL) has become a major force in health professions education and even in the broader educational world. This article focuses on the outcomes that have been found from using PBL in the health professions based on at least 20 reviews done since 1990. The outcomes identified in these reviews are described as well as the strength of the evidence used in their support. These review results are augmented with results from selected articles that elaborate on how PBL can produce the identified outcomes.

Cangro, R. (2015). Student collaboration and standards-based music learning: A literature review. *Update: Applications of Research in Music Education*, 8755123314568794.

This article is a review of relevant literature on collaborative, standards-based music learning. The review is organized as follows: (a) historical perspective, (b) collaborative music learning, (c) collaboration and creating, (d) collaboration and performing, (e) collaboration and responding, and (f) conclusions. In an effort to bridge the gap between developing well-rounded musicians and addressing the need for students to view their learning as coparticipating in a real, in-the-world social practice, this article provides scholarship that focuses attention on the importance of providing opportunities for music students to collaborate through creating, performing, and responding.

Chan, K.W. (2014). Cooperative learning in a Hong Kong primary school: Perceptions, problems and accommodation. *Intercultural Education*, *25*(3), 216-228.

Some educators may see cooperative learning as a Western pedagogy that is difficult to use in Eastern countries with a Confucian Heritage, while others argue that the philosophy of Confucius parallels the elements of cooperative learning. This article reports the key findings of a 2-year longitudinal study that investigated the perceptions of cooperative learning and pupils' problems with cooperative learning in a Hong Kong primary school. A school-based staff development programme was conducted to help teachers prepare students for using cooperative learning in their classes. Pupils were interviewed at various stages of the study, and classroom observations were conducted to see how they worked in cooperative groups in the core subjects. The results showed that pupils' perceptions of cooperative learning were generally positive though they encountered some problems in working together. The results are discussed with reference to the influence of Confucian heritage culture on pupils' perceptions of CL, and recommendations are made for accommodating cooperative learning accordingly.

*Cooper, J. L., & Robinson, P. (2014). Using classroom assessment and cognitive scaffolding to enhance the power of small-group learning. *Journal on Excellence in College Teaching, 25*(3/4), 149-161.

The authors describe several types of classroom assessment techniques (CATs) and cognitive scaffolding procedures that they have developed over the years. They then bring the procedures together in a sample lecture/group learning class presentation.

*Davidson, N., & Major, C. H. (2014). Boundary crossings: Cooperative learning, collaborative learning, and problem-based learning. *Journal on Excellence in College Teaching*, 25(3/4), 7-55.

Since the 1960s, there has been growing and sustained interest in small-group learning approaches at the school level and in higher education. A voluminous body of literature in this area addresses theory, research, classroom practice, and faculty development. The approaches most highly represented in the literature are cooperative learning, collaborative learning, and problem-based learning (PBL). In this vvvarticle, the authors compare and contrast these approaches through answering questions such as the following: What are the unique features of each approach? What do the three approaches have in common? How are they similar, and how are they different?

De Backer, L., Van Keer, H., & Valcke, M. (2015). Exploring evolutions in reciprocal peer tutoring groups' socially shared metacognitive regulation and identifying its metacognitive correlates. *Learning and Instruction, 38*, 63-78. doi: 10.1016/j.learninstruc.2015.04.001.

The present study contributes to the emerging research on socially shared metacognitive regulation (SSMR). It investigates which regulation behaviour (i.e. particular skills and low- versus deep-level regulation) is associated with a socially shared regulation focus and identifies time-bound evolutions in individually-oriented metacognitive regulation, co-regulation, and SSMR. More specifically, higher education reciprocal peer tutoring (RPT) groups are studied. All sessions of a semester-long RPT- intervention of five randomly selected RPT-groups were videotaped (70h of recordings). Time-bound evolutions are studied by means of mixed models for logistic regression analysis allowing change points, whereas binary logistic regressions are used to examine the relation between RPT-groups' socially shared regulation focus and their regulation skills and approaches. The results indicate that RPT-groups demonstrate a significant positive evolution in SSMR and tutee-prompted co-regulation, and a significant negative evolution in tutor-prompted co-regulation. Their socially shared regulation focus is particularly correlated with orientation, monitoring, and deep-level regulation.

 Golub, M., & Buchs, C. (2014). Preparing pupils to cooperate during cooperative controversy in grade 6: A way to increase positive interactions and learning? *European Journal of Psychology of Education*, 29(3), 453-466. doi.org/10.1007/s10212-013-0207-0.

Research has underlined the necessity to prepare pupils to cooperate in order to boost cooperative learning benefits. However, this kind of training may appear very demanding. The present study aims to demonstrate that a short preparation related to social support and targeted cooperative rules relevant for the task increases constructive interactions. Thirty-two pupils from grade 6 (11.8 years) were involved in dyadic cooperative controversy (Johnson and Johnson 2007) on argumentative texts for one

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session. All pupils were presented with three targeted rules for controversy. Half of the pupils had a short intervention related to the demonstration of social support, and the three targeted cooperative rules for controversy were explained and discussed (listening carefully while affirming understanding, criticizing ideas, but not people, and focusing on common goal). The pupils' interactions during cooperative controversy were videotaped and coded and the individual learning regarding the content of the studied texts was assessed. Results indicated that those pupils who had been prepared to cooperate displayed more support, asked more questions, and paid more attention to their partner. The overall quality of cooperation inside the dyad was also evaluated as more positive, though no difference in learning outcomes was observed. In summary, a short preparation for cooperation elicited more constructive interactions.

Gommans, R., Segers, E., Burk, W. J., & Scholte, R. H. J. (2015). The role of perceived popularity on collaborative learning: A dyadic perspective. *Journal of Educational Psychology*, 107(2), 599-608. doi:http://dx.doi.org/10.1037/a0037851

The current study investigated how perceived popularity and collaboration quality were associated with knowledge gain of adolescents during a collaborative learning task. Participants included 264 children ages 10–12 years (52.3% boys), who collaborated 3 times in same-sex dyads on a computer assignment. Results indicated that the knowledge of the more popular member at Time 1 predicted knowledge gain of the less popular member at Time 2. Furthermore, mutual listening, reported by either member of the dyad, had a positive effect on the knowledge gain of the less popular member, whereas dominance of the more popular member negatively affected the knowledge gain of the less popular member affects the learning of the less popular dyad member and that the quality of the collaboration between both dyad members appears to affect the outcome for the less popular dyad member; more mutual listening and less dominance presumably ensures equal participation and likely increases the chances of the less popular dyad member to participate sufficiently in the collaboration process.

*Haidet, P., Kubitz, K., & McCormack, W. T. (2014). Analysis of the team-based learning literature: TBL comes of age. *Journal on Excellence in College Teaching*, 25(3/4), 303-333.

Team-based learning, or TBL, is an application-oriented teaching method that combines small- and large-group learning by incorporating multiple small groups into a large group setting. It has been increasingly used in postsecondary and professional education over the past two decades. Given this increasing usage, many faculty wonder about the effects TBL has on learning outcomes. The authors performed a review and synthesis on the educational literature with respect to TBL to examine the quality of their descriptions of core TBL elements, then constructed narrative summaries of these selected articles. Their analysis demonstrated early evidence of positive educational outcomes in terms of knowledge acquisition, participation and engagement, and team performance. The authors conclude that the TBL literature is at an important maturation point, where more rigorous testing and study of additional questions relating to the method are needed, as well as more accurate reporting of TBL implementation.

*Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in College Teaching*, 25(3/4), 85.

Cooperative learning is an example of how theory validated by research may be applied to instructional practice. The major theoretical base for cooperative learning is social interdependence theory. It provides clear definitions of cooperative, competitive, and individualistic learning. Hundreds of research studies have validated its basic propositions and demonstrated that cooperative learning (compared with competitive and individualistic learning) increases students' efforts to achieve, encourages positive relationships with classmates and faculty, and improves psychological health and wellbeing. Operational procedures have been derived from the validated theory to implement cooperative learning in university classes, including those needed to implement formal cooperative learning, informal cooperative learning, and cooperative base groups.

*Kagan, S. (2014). Kagan structures, processing, and excellence in college teaching. *Journal on Excellence in College Teaching*, 25(3/4), 119-138.

Frequent student processing of lecture content (1) clears working memory, (2) increases long-term memory storage, (3) produces retrograde memory enhancement, (4) creates episodic memories, (5) increases alertness, and (6) activates many brain structures. These outcomes increase comprehension of and memory for content. Many professors now understand the importance of frequent processing, and are including simple processing techniques like "Turn and Talk." Unstructured processing like this, however, necessarily increases the achievement gap. In contrast, highly structured interaction sequences called Kagan Structures decrease the achievement gap and increase overall achievement. Empirical data, rationale, and sample Kagan Structures are presented.

 Lin, T., Jadallah, M., Anderson, R. C., Baker, A. R., Nguyen-Jahiel, K., Kim, I; Kuo, L; Miller, B. W.; Dong, T; & Wu, X. (2015). Less is more: Teachers' influence during peer collaboration. *Journal of Educational Psychology*, 107(2), 609-629. doi:http://dx.doi.org/10.1037/a0037758

This study examined the influence of teachers' instructional moves on students' relational thinking during small-group collaborative discussions. One hundred and twenty 4th grade students and 6 teachers participated in a series of 10 discussions, generating a video-recorded corpus containing 32,511 turns for speaking. A microanalysis of a subset of the corpus showed that teacher prompts for relational thinking, rather than lower level prompts or prompts for evaluation, had an immediate effect on student relational thinking, triggering further relational thinking from students over several speaking turns. Students were unlikely to emulate a teacher's relational thinking strategy but highly likely to emulate another student's. Behavioral management but not cognitive management increased the likelihood of relational thinking. Specific praise for cognitive or social strategies enhanced relational thinking, and the bidirectional association between praise and relational thinking suggested a transactional model of teacher–student interaction. The results underscore the importance of teacher influences in peer collaboration, even when the absolute rate of teacher talk is low.

*Love, A. G., Dietrich, A., Fitzgerald, J., & Gordon, D. (2014). Integrating collaborative learning inside and outside of the classroom. *Journal on Excellence in College Teaching*, 25(3/4), 177-196.

Wagner College's academic program emphasizes interdisciplinary study, experiential learning, and reflection on theory and practice. The curriculum is enhanced by a rich array of opportunities in New York City. In the course of their undergraduate studies, students enroll in three learning communities, two of which include experiential learning and reflective writing. Many learning communities incorporate the use of student groups to take advantage of the social and academic dynamics fostered in learning communities, and to add another element to students' reflection. Working in groups allows students to reflect on their own perceptions, assumptions, and new understandings, and those of their peers.

*Marra, R., Jonassen, D. H., Palmer, B., & Luft, S. (2014). Why problem-based learning works: Theoretical foundations. *Journal on Excellence in College Teaching*, 25(3/4), 221-238.

Problem-based learning (PBL) is an instructional method where student learning occurs in the context of solving an authentic problem. PBL was initially developed out of an instructional need to help medical school students learn their basic sciences knowledge in a way that would be more lasting while helping to develop clinical skills simultaneously. Although PBL addresses this specific need, it is also based in sound educational theories and paradigms. The author addresses those theoretical foundations of PBL, which, in turn, help readers to understand why PBL can be effective as well as enable them to diagnose and improve PBL applications when things are not going quite as planned.

*Michaelsen, L. K., Davidson, N., & Major, C. H. (2014). Team-based learning practices and principles in comparison with cooperative learning and problem-based learning. *Journal on Excellence in College Teaching*, 25(3/4), 57-84.

The authors address three questions: (1) What are the foundational practices of team-based learning (TBL)? (2) What are the fundamental principles underlying TBL's foundational practices? and (3) In what ways are TBL's foundational practices similar to and/or different from the practices employed by problem-based learning (PBL) and cooperative learning (CL)? Most of the TBL vs. CL and PBL comparisons are organized in relation to the size of and strategies for forming groups/teams, the strategies for ensuring that students are familiar with the course content, the nature of the group/ team assignments, the role of peer assessment, and the role of the instructor.

*Millis, B. J. (2015). Using cooperative structures to promote deep learning. *Journal on Excellence in College Teaching*, 25(3/4), 139-148.

The author explores concrete ways to help students learn more and have fun doing it while they support each other's learning. The article specifically shows the relationships between cooperative learning and deep learning. Readers will become familiar with the tenets of cooperative learning and its power to enhance learning--even more so when it is carefully structured and sequenced to promote deep learning. Concrete examples also offer some practical applications.

*Roberson, B., & Franchini, B. (2014). Effective task design for the TBL classroom. *Journal on Excellence in College Teaching*, 25(3/4), 275-302.

Group and team tasks are the culminating outputs of student learning in team and collaborative learning environments. How they are conceived and designed, therefore, can directly determine the success of the pedagogical strategy. A key design issue for creating effective tasks is how best to focus student knowledge, observation, and analysis toward a concrete action that makes thinking visible. Actions in the shape of clear decisions applied to complex scenarios, within a restricted framework of options, are most likely to channel student thinking toward higher-level goals. The authors provide principles and examples for designing group tasks in any discipline.

*Savin-Baden, M. (2014). Using problem-based learning: New constellations for the 21st century. *Journal on Excellence in College Teaching*, 25(3/4), 197-219.

The author argues that there is still too much teaching to the test, and the consequence is growing constellations of problem-based learning (PBL), some of which are useful, and some of which are not. Today, what passes for PBL practice often seems more like guidelines than any kind of reasoned pedagogy. While at one level the range of variations shows the value and flexibility of PBL as an accommodating, adaptable, and culturally relevant approach to learning, there is relatively little understanding of the impact of these different constellations on student engagement and learning. Nevertheless, these diverse constellations of PBL need to be delineated and understood. The author outlines the constellations, but also suggests that there are a number of issues that have not been considered in relation to the use of PBL.

Slavin, R.E. (2014). Making Cooperative Learning powerful. *Educational Leadership*, 72(2), 22-26.

Just about everyone loves the "idea" of cooperative learning, children working productively and excitedly in groups, everyone getting along and enthusiastically helping one another learn. This article presents five strategies that teachers can use to get the greatest benefit possible from cooperative learning and ensure that collaboration enhances learning. They are: (1) Form interdependent teams--composed of diverse students who care about helping one another learn; (2) Set group goals--a target, product, or indicator, that shows a team has done a good job of getting every member to perform at his or her personal best; (3) Ensure individual accountability--all team members must master the targeted content or skills; (4) Teach communication and problem-solving skills--team members need to know how to make good use of the opportunity to work with one another; and (5) Integrate cooperative learning with other structures-- effective class lessons might also include teacher instruction, media-or computer-based activities, and individual assessments of various kinds. Research finds that if teachers make the five elements discussed here part of group learning, students learn more, feel more successful, love school, and enjoy the subject they're studying.

Sormunen, E., Tanni, M., & Heinström, J. (2013). Students' engagement in collaborative knowledge construction in group assignments for information literacy. *Information Research 18*(3), 1-16.

<u>Introduction</u>. Information literacy instruction is often undertaken in schools as collaborative sourcebased writing assignments. This paper presents the findings of a study on collaboration in two school assignments designed for information literacy.

<u>Method.</u> The study draws on the models of cooperative and collaborative learning and the task-based approach to study information seeking and use. Data were collected by interviewing seventeen groups of upper secondary school students during and after their group projects.

<u>Analysis</u>. Thematic analysis revealed how students cooperated and collaborated, and built a basis for joint meaning making from sources and knowledge building in their own texts.

<u>Results.</u> Few student groups worked closely together (collaborated) in all activities: planning the work, searching, assessing and reading sources, and writing the article. Some other groups started similarly but drifted to loosely coordinated cooperation at the stage of reading and writing. About a half of the groups divided the work into independent, personal text writing tasks but failed to merge texts into a coherent article.

<u>Conclusions</u>. The case suggests that in the present school culture group assignments may turn into loosely connected individual efforts and waste much of the group work potential both in learning about the topic area and information literacy.

Tadesse, T., & Gillies, R.M. (2015). Nurturing cooperative learning pedagogies in higher education classrooms: Evidence of instructional reform and potential challenges. *Current Issues in Education*, *18*(2), 1-17.

This article presents a pilot study that examined instructional practices and student outcomes of two courses designed using cooperative learning (CL) pedagogies in Ethiopian university context. The participants included 58 undergraduates and two teachers. The quantitative results showed that four inter-correlated pedagogical factors: Cooperative interaction, task orientation, academic challenge, and teaching effectiveness, together accounted for 69% and 52% of the variance in students' satisfaction and gains scores, respectively. Each factor significantly predicted students' satisfaction and gains, B > .27. Also, the qualitative results demonstrated that the teachers were able to incorporate CL pedagogies to existing instructional practices. Correspondingly, students found that they were more focused on their learning, experienced more interaction and enjoyment, and gained more academically than they had achieved before being involved in this initiative. However, the academic culture and local constraints put negative influence on implementation; findings illustrate how shifting the focus of instruction from a content-centered form to a learning-centered form greatly impacts not only the learning in class but also other important indicators of students' success.

*Wallace, M. L., Walker, J. D., Braseby, A. M., & Sweet, M. S. (2014). "Now, what happens during class?" Using team-based learning to optimize the role of expertise within the flipped class-room. *Journal on Excellence in College Teaching*, 25(3/4), 253-273.

If instructors desire students to gain a deeper understanding of the content and begin thinking like experts, then they need class time for active, collaborative learning. In the flipped classroom, primary knowledge acquisition occurs before class, which creates space for students to practice applying the information of the discipline with their peers. Team-based learning is an effective in-class, instructional -strategy that (1) assesses and enhances student content acquisition from pre-class study, and (2) uses the majority of class time for activities that enable them to discuss, take-risks, and make mistakes while developing their expertise.

Xu, J., Du, J., & Fan, X. (2015). Students' groupwork management in online collaborative learning environments. *Journal of Educational Technology & Society*, *18*(2), 195-205.

The present study investigates empirical models of groupwork management in online collaborative learning environments, based on the data from 298 students (86 groups) in United States. Data revealed that, at the group level, groupwork management was positively associated with feedback and help seeking. Data further revealed that, at the individual level, groupwork management was positively associated with feedback, peer- and learning-oriented reasons, help seeking, and the number of online courses. In addition, older students were found more frequently to manage online groupwork. The findings are discussed in the context of related literature in the field. Our study suggests directions for practice and future research regarding online groupwork management.

* These articles are referred to in Review of Small-Group Learning in Higher Education: Cooperative, Collaborative, Problem-Based, and Team-Based Learning.

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The IASCE, established in 1979, is the only international, non-profit organization for educators who research and practice cooperative learning in order to promote student academic improvement and democratic social processes.

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