Peer Learning Groups

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Mentoring Seminar

Overview—Peer Learning Groups

- Cross, KP, Steadman, MH. 1996.
 Classroom Research: Implementing the Scholarship of Teaching. San Francisco: Jossey-Bass. Pgs. 172-182.
- Peer learning group "features"
- Benefits of peer learning groups
- Implementation of peer learning groups
- Possible readings

"Features" of Peer Learning Groups: Motivation

Motivation

- Active learning and involvement
- Improving peer interactions through peer motivation and support (Students are teachers)
- Elaborate and employ new concepts/techniques

"Features" of Peer Learning Groups: Examples

- Collaborative Learning
- Cooperative Learning
- Pairs (Pair and share)
- Small group discussion
- Peer tutoring

- "Reciprocal Teaching"
- Study groups
- Small groups
 - Case Studies
 - Course assignments
 - Research projects

"Features" of Learning Groups: Cooperative vs Collaborative

- Both enable students to learn through sharing of ideas
- Cooperative
 - More teacher involvement giving more student accountability
 - Originated in k-12
 - Group grades (eliminate class competition)
 - □ Proponent: Bruffee, 1995

Collaborative

- Less teacher involvement giving less student accountability
- Seen more in higher ed
- Individual grades
- Proponent: Cooper,Robinson, andMcKinney, 1994

Benefits: Is the group activity time well spent (e.g. compared to lecture time)?

- Reinforcing main points vs trying to pack in details
- Big question: "Who does most of the complicated, difficult thinking in the classroom" (Cooper,1995, p8)—What do you want as a balance?
- See the processes behind the final results, regardless of how messy they might be.
- Preparation, participation, and attendance become necessary

Benefits: Is the group activity time well spent (e.g. compared to lecture time)?

- Shift in job (wider description): Student's job becomes: "Question, explain, express opinions, admit confusion, and reveal misconceptions;...listen to peers, respond to...questions, question...opinions, share information or concepts that will clear up...confusion." (McKeachie, 1994, p149)
- Not fast vs slow learners, but "confused and unconfused benefit" (to help each other) (McKeachie, 1994, p149)

Benefits: More general

- Improved involvement and gains in achievement (Cooper & Mueck, 1992; Cooper, Robinson, & McKinney, 1994; Johnson et al 1981; Slavin, 1983)
- 200 college survey (Astin,1992): Studentstudent/student-faculty interactions important for retention
- Differing viewpoints help intellectual development
- Discipline vocabulary familiarity gotten from peers
 - "Often we [(e.g. faculty)] do not notice when we have stopped speaking plain English" (Nelson, 1994, p50)
 - Undergrad teachers' classes did better than faculty in discussion sections (Nelson, 1994)

Benefits: More general

- King's peer questioning-teaching students to ask deep questions deepens students (King, 1990)
- Article experiment (Benware & Deci, 1984)
 - Give students article
 - Tell half class they have a test on article
 - Tell half class they have to teach the article
 - "Teachers" had higher conceptual learning scores and felt more actively engaged
 - "pray to be a tutor, not to be tutored" (McKeachie, 1994)

Implementation of Peer Learning Groups: Promoting positive interdependence

- Promote individual responsibility for success of all
- Suggestions:
 - Assign different portions of material (e.g. reading)
 for students to *teach* it to others
 - Assign different portions of project (e.g. coding),
 building in interdependence as much as possible.

Implementation of Peer Learning Groups: Individual Accountability

Minimizing "freeloader" phenomenon

- Majority of credit on outside individual work
- Participation allowed only if (e.g.) a worksheet is produced showing they've prepared beforehand (Rau & Heyl, 1990)
- Assigning roles: Leader, recorder, reporter, presenter, writer, etc
- Ask what people have learned from others (to make sure they pay attention to each other's work)
 (Nelson, 1994)

Implementation of Peer Learning Groups Student Teamwork; Group-work skills

- Interpersonal skills: being friendly, listening to others, eye contact, speaking positively with no harmful forms of communication.
- Group management skills: organizing the work of the task, keeping members on task, taking time for group processing and analysis of effectiveness.
- Inquiry skills: asking clarifying questions, probing for additional information, critiquing ideas, probing assumptions, eliciting the views of other group members (helps promoted intellectual development and critical thinking).
- Conflict prevention, mediation, and resolution skills
- Presentation skills: oral and written communication, including summarizing, synthesizing, speaking before groups
- (Bosworth, 1994, pp27-28)

Implementation of Peer Learning Groups Student Teamwork

- Motivation: More prepared for job (Sharan, 1980)
- Inform students of "Group-work skills" which enhance their work (Bosworth, 1994)
- Demonstrate, model, talk through above skills (e.g. ask me a question) (Bosworth, 1994)

Implementation of Peer Learning Groups Group assignment

- Consider students' majors, ages, abilities (personally assign)
- Study on correlations with worst vs best group experiences (Fiechtner and Davis, 1992)
 - Self-chosen groups bad (on basis of not having evenly spread talents like computers)
 - Constantly switching groups bad

Implementation of Peer Learning Groups: Practical Advice

- Don't go too far too quickly (i.e. our first time, don't be too idealistic)
 - One suggestion: Asking students to make up questions is good (not much overhead, easy for us to do and for them)
- Tell students why we're doing the groups (why they are productive and valuable)
 - Goals and rationale
 - Benefits of group learning
 - Fair grading

Implementation of Peer Learning Groups: Practical Advice

- Be organized and explicit: "You can never be too explicit"
- More explicit in beginning, less explicit later

Implementation of Peer Learning Groups: Practical Advice

- Learn something...not just do something
 - Busy work vs work with a point
 - Personal teacher probing (just asking them deeper questions)...communicate that "the team's work is never done until all members have mastered the skills that underlie the cooperative learning activity" (Cooper, Robinson, & McKinney, 1994, p93)

Conclusions

- Extent of "Peer learning groups"
- How they can be beneficial
- Things to consider when implementing them

Suggested Reading

- Bosworth, K, Hamilton, SJ. Collaborative Learning: Underlying Processes and Effective Techniques. New Directions for Teaching and Learning, no. 59. San Francisco: Jossey-Bass, 1994.
- Cooper, JL, Robinson, PR, McKinney, M. "Cooperative Learning in the Classroom." Changing College Classrooms: New Teaching and Learning Strategies for an Increasingly Complex World. San Francisco: Jossey-Bass, 1994.
- Davis, BG. Tools for Teaching. San Francisco: Jossey-Bass, 1993.
- Goodsell, A, Maher, M, Tinto, (eds.). Collaborative Learning: A Sourcebook for Higher Education. University Park, Pa.: National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA), 1992.

- Astin, AW. What Matters in College: Four Critical Years Revisited. San Francisco: Jossey-Bass, 1992.
- Benware, CA, Deci, EL. "Quality of Learning with an Active Versus Passive Motivational Set." American Educational Research Journal, 1984, 21, 755-765.
- Bosworth, K. "Developing Collaborative Skills in College Students." In K Bosworth and SJ Hamilton (eds.), Collaborative Learning: Underlying Processes and Effective Techniques. New Directions for Teaching and Learning, no. 59. San Francisco: Jossey-Bass, 1994.
- Bruffee, KA. "Sharing Our Toys: Cooperative Learning Versus Collaborative Learning." Change, 1995, 27(19), 12-18.
- Cooper, JL. "Cooperative Learning and Critical Thinking." Teaching of Psychology, 1995, 22(1), 7-9.

- Cooper, JL, Mueck, R. "Student Involvement in Learning: Cooperative Learning in the Classroom Instruction." In A Goodsell, M Maher, V Tinto (eds.), Collaborative Learning: A Sourcebook for Higher Education. University Park, Pa.: National Center on Postsecondary Teaching, Learning, and Assessment, 1992.
- Cooper, JL, Robinson, PR, McKinney, M. "Cooperative Learning in the Classroom." In DF Halpern and Associates, Changing College Classrooms: New Teaching and Learning Strategies for an Increasingly Complex World. San Francisco: Jossey-Bass, 1994.
- Fiechtner, SB, Davis, EA. "Why Some Groups Fail: A Survey of Students' Experiences with Learning Groups." In A. Goodsell, M Maher, V Tinto (eds.), Collaborative Learning: A Sourcebook for Higher Education. University park, Ps.: National Center on Postsecondary Teaching, Learning, and Assessment, 1992.

- Johnson, DW, Maruyama, G, Johnson, RT, Nelson, D, and Skon, L. "Effect of Cooperative, Competitive and Invidualistic Goal Structures on Achievement: A Meta-Analysis." Psychological Bulletin, 1981, 89, 47-62.
- King, A. "Enhancing Peer Interaction and Learning in the Classroom Through Reciprocal Questioning." American Educational Research Journal, 1990, 27(4), 664-687. Slavin, RE. "When Does Cooperative Learning Increase Student Achievement?" Psychological Bulletin, 1983, 94, 429-445.
- McKeachie, WJ. *Teaching Tips*. (9th Ed.) Lexington, Mass.: Heath, 1994.
- Nelson, CE. "Critical Thinking and Collaborative Learning." In K Bosworth, SJ Hamilton (eds.), Collaborative Learning: Underlying Processes and Effective Techniques. New Directions for Teaching and Learning, no. 59. San Francisco: Jossey-Bass, 1994.

- Rau, W, Heyl, BS. "Humanizing the College Classroom: Collaborative Learning and Social Organization Among Students."
 Teaching Sociology, 1990, 18, 141-155.
- Sharan, S. "Cooperative Learning in Small Groups: Recent Methods and Effects on Achievement, Attitudes, and Ethnic Relations." Review of Educational Research, 1980, 50(2), 241-271.
- Slavin, RE. "When Does Cooperative Learning Increase Student Achievement?" Psychological Bulletin, 1983, 94, 429-445.

Definition of reciprocal teaching

Reciprocal Teaching: a teaching strategy in which "students are involved in summarizing, question-generating, clarifying, and predicting as they read texts and observe phenomena...[and] both teacher and students share the responsibility for the conduct of the discussion" (Palincsar & Brown, 1985) www.nde.state.ne.us/READ/FRAMEWORK/g lossary/general_p-t.html