

# *Cooperative Learning*

## An Overview

David W. Johnson  
The Cooperative Learning Center  
University of Minnesota

<http://www.co-operation.org>



The Cooperative Learning Center at  
The University of Minnesota



# *Three Ways of Structuring Student-Student Interaction*

- ★ Competitive
- ★ Individualistic
- ★ Cooperative



# Old & New Teaching Paradigms

<i>Factor</i>	<i>Old Paradigm Of Teaching</i>	<i>New Paradigm Of Teaching</i>
<i>Knowledge</i>	Transferred From Faculty To Students	Jointly Constructed By Students And Faculty
<i>Students</i>	Passive Vessel To Be Filled By Faculty's Knowledge	Active Constructor, Discoverer, Transformer of Own Knowledge
<i>Faculty Purpose</i>	Classify And Sort Students	Develop Students' Competencies And Talents
<i>Relationships</i>	Impersonal Relationships Among Students And Between Faculty And Students	Personal Transaction Among Students And Between Faculty And Students
<i>Context</i>	Competitive/Individualistic	Cooperative Learning In Classroom And Cooperative Teams Among Faculty
<i>Assumption</i>	Any Expert Can Teach	Teaching Is Complex And Requires Considerable Training





# *Peer Teaching and Learning*

“The best answer to the question, ‘What is the most effective method of teaching?’, is that it depends on the goal, the student, the content and the teacher. But the next best answer is, ‘Students teaching other students.’ There is a wealth of evidence that peer teaching is extremely effective for a wide range of goals, content, and students of different levels and personalities.”

Teaching and Learning in the College Classroom

Wilbert McKeachie, et al (1986, p.63)



# *Not all groups are cooperative!*

## *Sign-Posts of “Is Not”*

- ★ Lack of Group Maturity
- ★ Uncritical Dominant Response
- ★ Social Loafing
- ★ Free Riding
- ★ Groupthink
- ★ Lack of Heterogeneous Skills and Abilities
- ★ Inappropriate Group Size and Resources



# *Cooperative Learning*

## Presentation Agenda

- ★ The origins of cooperative learning
- ★ What is cooperative learning?
- ★ Why use cooperative learning?
- ★ The 5 elements of cooperative learning
- ★ The three types of cooperative learning
- ★ Cooperative learning and faculty



# *Theoretical Approaches to Cooperation*

- ★ Behavioral Perspective
- ★ Cognitive-Developmental Perspective
- ★ **Social Interdependence Perspective**
  - Kurt Koffka
  - Kurt Lewin
  - Morton Deutsch
  - David Johnson
  - Dean Tsjvold



# *Research Rationale*

- ★ First study was conducted in 1897!
- ★ Over 550 Experimental Studies
- ★ Over 100 Correlational Studies
- ★ High Generalizability
- ★ Multiple Outcomes
- ★ Responsible Practice

See Johnson, R. & Johnson, D. (1990) Cooperative Learning Methods: A Meta-Analysis

<http://www.co-operation.org/pages/cl-methods.html>





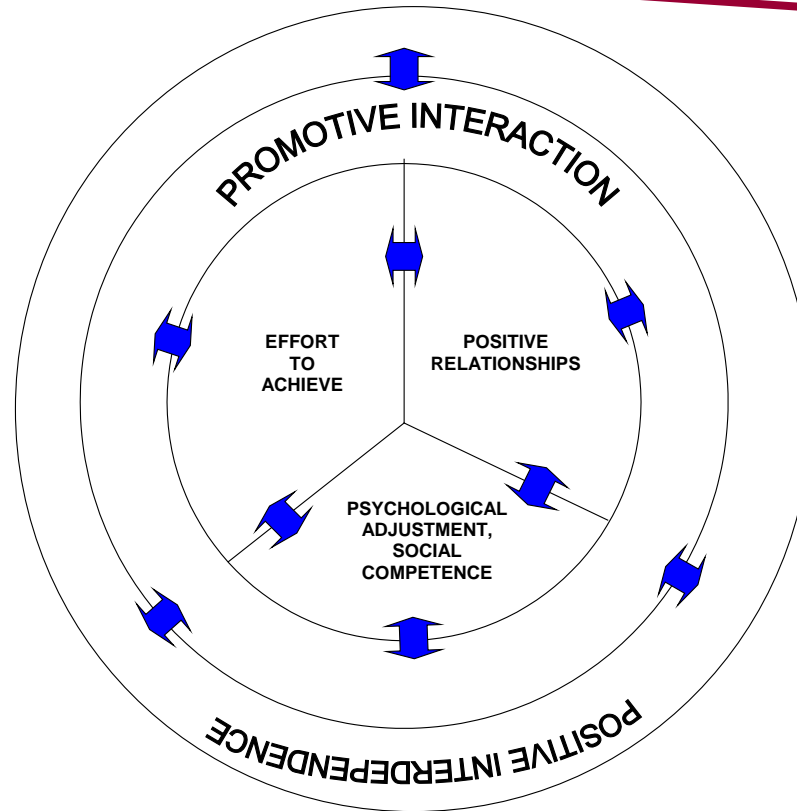
# Research Outcomes

Effort To Achieve	Positive Relationships	Psychological Health
Achievement	Esprit-De-Corps, Cohesion	Psychological Adjustment
Long-Term Retention	Liking For Each Other	Social Competencies
Higher-Level Reasoning	Heterogeneity	Self-Esteem
Intrinsic Motivation	Academic Support	Shared Identity
On-Task Behavior	Personal Support	Coping With Stress

Johnson, R. & Johnson, D. (1990) *Cooperative Learning Methods: A Meta-Analysis*  
<http://www.co-operation.org/pages/cl-methods.html>



# *Outcomes of Cooperation*



# *Astin's Research On Colleges*

## POSITIVE

- ★ Student-student interaction
- ★ Student-faculty interaction
- ★ Discussing ethnic issues with other students
- ★ Hours devoted to studying
- ★ Tutoring other students
- ★ Socializing with ethnically diverse students
- ★ High socioeconomic student body
- ★ College emphasis on diversity

## NEGATIVE

- ★ Living at home, commuting
- ★ Watching television
- ★ Large class size
- ★ Lack of community among students
- ★ Participating in intercollegiate athletics
- ★ Frequent use of TAs
- ★ Students valuing materialism and status
- ★ Full-time employment off-campus



# *Social Interdependence Theory*

GOAL STRUCTURE  
(INTERDEPENDENCE)



INTERACTION PATTERNS



OUTCOMES



# *Three Kinds of Learning Goal*

## ★ Competitive





# *Competition:*

## *I Swim, You Sink; I Sink, You Swim*

One person can obtain her goal if, and only if, the others fail to obtain theirs; negative correlation among goal attainments.

- ★ Individual goals, work alone
- ★ Comparative (norm-referenced evaluation), i.e. graded on a curve or ranked from "best" to "worst"
- ★ Winners are rewarded, rewards are limited



# *Three Kinds of Learning Goal*

★ Competitive

★ Individualistic





# *Individualistic:*

## *We Are Each In This Alone*

Each person's goal attainment is unrelated to the goal attainments of others; no correlation among goal attainments.

- ★ Individual goals, work alone
- ★ Criteria-referenced evaluation, i.e. evaluated by comparing performance to preset criteria
- ★ Strive for own success, own success is celebrated, rewards are viewed as unlimited





# *Three Kinds of Learning Goal*

- ★ Competitive
- ★ Individualistic
- ★ Cooperative





# *Cooperation:*

## *We Sink Or Swim Together*

When one person achieves his goal, all others achieve their goals; positive correlation among goal attainments.

- ★ Group goal, work together (in small, often heterogeneous groups)
- ★ Criterion-referenced evaluation, evaluated by comparing performance to preset criteria
- ★ Strive for all group members' success, joint success is celebrated, rewards are viewed as unlimited



# *What Makes Cooperation Work?*

## **5 Key Elements**

- ★ Positive Interdependence
- ★ Individual Accountability
- ★ Promotive Interaction
- ★ Social Skills
- ★ Group Processing



# *3 Types of Cooperative Groups*

- ★ Formal Cooperative groups
- ★ Informal Cooperative groups
- ★ Cooperative Base groups



# *Formal Cooperative Groups*

- ★ Medium-term (one or several class sessions), heterogeneous cooperative groups to achieve shared learning goals
  - Provide the foundation for all cooperative learning procedures
- ★ Agenda:
  - Setting up the task & cooperative structure
  - Task performance
  - Group processing
- ★ Class groups only



# *Teacher's Role*

- ★ Make pre-instructional decisions
- ★ Explain academic task and cooperative structure to students
- ★ Monitor learning groups and intervene where necessary
- ★ Evaluate academic learning and have groups process their effectiveness

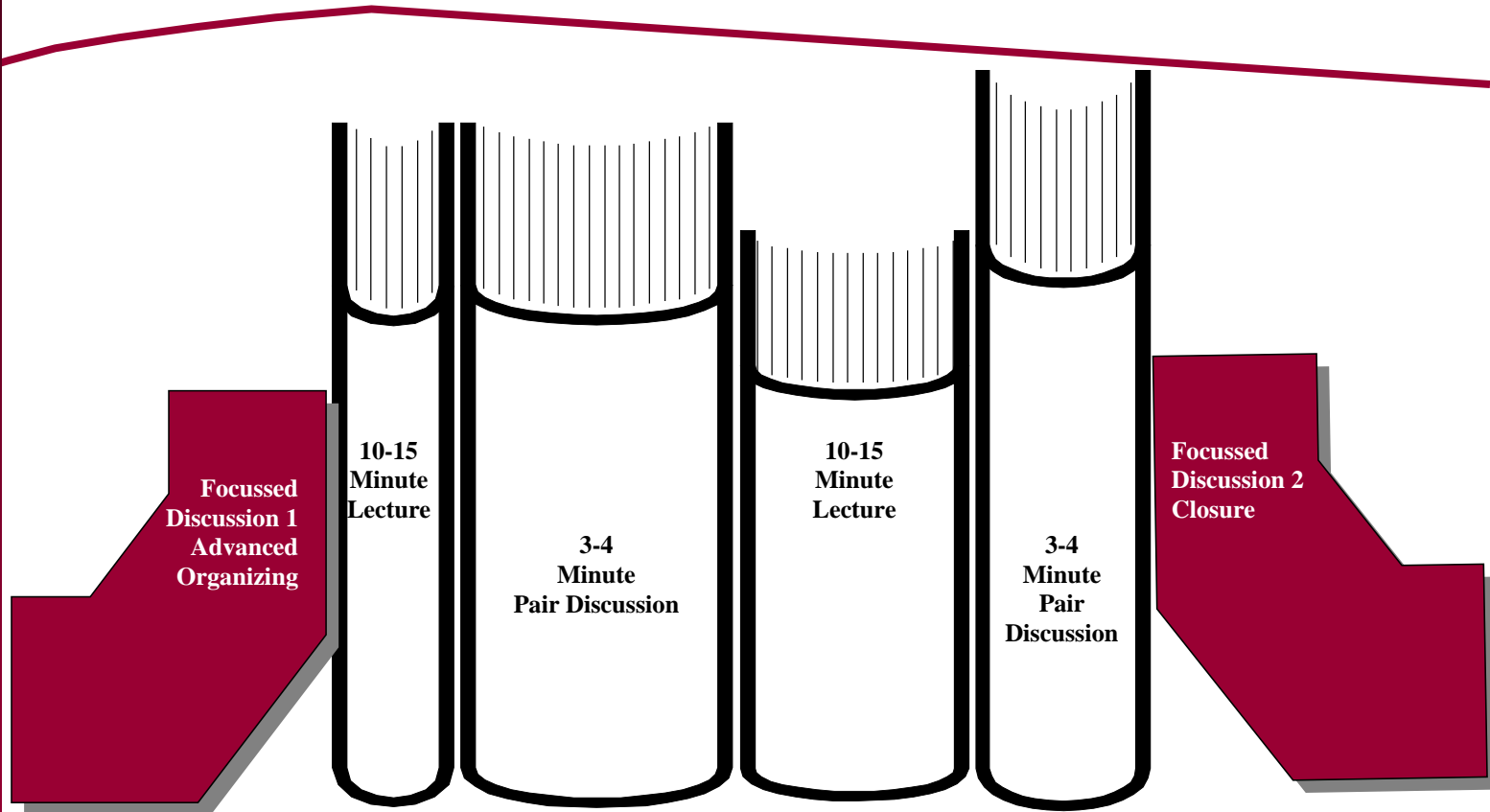


# *Informal Cooperative Groups*

- ★ Students work together to achieve a joint learning goal in temporary, ad-hoc groups that last from a few minutes to one class period
- ★ Every 10 to 15 minutes, students should be asked to discuss/process what they are learning
- ★ Breaking up lectures with short cooperative processing times will give you slightly less lecture time, but will help counter what is proclaimed as the main problem of lectures: *"The information passes from the notes of the professor to the notes of the student without passing through the mind of either one."*



# *Informal Cooperative Groups: Bookends*





# *Cooperative Base Groups*

- ★ Long-term, heterogeneous cooperative groups with stable membership to ensure all members make academic progress
  - Provide support, encouragement and assistance in completing assignments
  - Hold each other accountable for striving to learn
- ★ Agenda:
  - Academic support tasks
  - Routine tasks
  - Personal support tasks
- ★ Course or programme base groups or both



# *Three Types of Cooperative Learning Groups*

## ★ Formal Learning Groups

- Groups that last several class sessions to complete units, assignments, projects

## ★ Informal Learning Groups

- Temporary, ad hoc groups that last for only one discussion or class period

## ★ Base Groups

- Permanent/stable learning groups that provide long term support, encouragement and assistance



# *Integration of all three types in a lecture*

- ★ Start with Base Group meeting at beginning of lecture
- ★ 20 minute lecture using informal cooperative learning
- ★ Jigsaw or Project
- ★ Mini-lecture (~10 mins)
- ★ End with Base Group



# *Implementation: getting started*

- ★ Start with informal cooperative groups
- ★ Move on to formal cooperative groups throughout a unit within a course
- ★ Finally move on to Base Groups when you're ready



*And Finally ...*

## *Cooperative Teaching*

- ★ Just as cooperation works better for your students, it works better for you as a teacher
- ★ Teaching will be more fun, more interesting, more successful
- ★ Have one, two or three colleagues that you can
  - Talk to about your teaching
  - Plan lessons with
  - Go into each other's classes to observe and give feedback
  - Form your own base group; collegial teaching team



# *Cooperative Teaching Groups*

Through Cooperative  
Teaching Groups the joy of  
teaching will be enhanced

