Cooperative Learning

Positive Interdependence

Task Interdependence
1. Factory-line
2. Chain Reaction

Identity Interdependence
Mutual identity (name, motto, etc.)

Resource Interdependence
1. Limit resources (one set of materials)
2. Jigsaw materials
3. Separate Contributions

Environmental Interdependence
1. Designated classroom space
2. Group has special meeting place

Duty (Role) Interdependence
Assign each member a role and rotate them

Fantasy Interdependence
Hypothetical interdependence in situation ("You are a scientific/literary prize team, lost on the moon, etc.")

Reward/Celebration Interdependence
1. Celebrate joint success
2. Bonus points
3. Nonacademic rewards (Food, free time, etc.)
4. Single group grade (when fair to all)

Outside Challenge Interdependence
1. Intergroup competition
2. Other class competition

Goal Interdependence (essential)
1. All members show mastery
2. All members improve
3. Add group member scores to get an overall group score
4. One product from group that all helped with and can explain

Individual Accountability

Ways to ensure no slackers:

- Keep group size small
- Assign roles
- Randomly ask one member of the group to explain the learning
- Have students do work before group meets
- Have students use their group learning to do an individual task afterward
- Everyone signs: "I participated, I agree, and I can explain the information"
- Observe & record individual contributions

Ways to ensure that all members learn:

- Practice tests
- Edit each other's work and sign agreement
- Randomly check one paper from each group
- Give individual tests
- Assign the role of **checker** who has each group member explain out loud
- Simultaneous explaining: each student explains their learning to a new partner

Face-to-Face Interaction

Structure:

- Time for groups to meet
- Group members close together
- Small group size of two or three
- Frequent oral rehearsal
- Strong positive interdependence
- Commitment to each other's learning
- Positive social skill use
- Celebrations for encouragement, effort, help, and success!

Karl A. Smith
University of Minnesota
(612) 625-0305
ksmith@umn.edu
http://www.ce.umn.edu/~smith

Cooperative Teamwork Skills

Forming Skills
Initial Management Skills

- Move Into Groups Quietly
- Stay With the Group
- Use Quiet Voices
- Take Turns
- Use Names, Look at Speaker
- No "Put-Downs"

Functioning Skills
Group Management Skills

- Share Ideas and Opinions
- Ask for Facts and Reasoning
- Give Direction to the Group's Work (state assignment purpose, provide time limits, offer procedures)
- Encourage Everyone to Participate
- Ask for Help or Clarification
- Express Support and Acceptance
- Offer to Explain or Clarify
- Paraphrase Other's Contributions
- Energize the Group
- Describe Feelings When Appropriate

Formulating Skills
Formal Methods for Processing Materials

- Summarize Out Loud Completely
- Seek Accuracy by Correcting/Adding to Summaries
- Help the Group Find Clever Ways to Remember
- Check Understanding by Demanding Vocalization
- Ask Others to Plan for Telling/Teaching Out Loud

Fermenting Skills
Stimulate Cognitive Conflict and Reasoning

- Criticize Ideas Without Criticizing People
- Differentiate Ideas and Reasoning of Members
- Integrate Ideas into Single Positions
- Ask for Justification on Conclusions
- Extend Answers
- Probe by Asking In-depth Questions
- Generate Further Answers
- Test Reality by Checking the Group's Work

Teaching Cooperative Skills

1. Help students see the **need** to learn the skill.
2. Help them **know how** to do it (T-chart).
3. Encourage them to **practice** the skill daily.
4. Help them **reflect on**, process, & refine use.
5. Help them **persevere** until skill is automatic

Monitoring, Observing, Intervening, and Processing

Monitor to promote academic & cooperative success

Observe for appropriate teamwork skills: praise their use and remind students to use them if necessary

Intervene if necessary to help groups solve academic or teamwork problems.

Process so students continuously analyze how well they learned and cooperated in order to continue successful strategies and improve when needed

Ways of Processing

Positive Feedback:

1. Have volunteer students tell the class something their partner(s) did which helped them learn today.
2. Have all students tell their partner(s) something the partner(s) did which helped them learn today.
3. Tell the class helpful behaviors you saw today.

Group Analysis:

1. Name 3 things your group did today which helped you learn and work well together.
2. Name 1 thing you could do even better next time.

Cooperative Skill Analysis:

1. Rate your use of the target cooperative skill:

   Great! - Pretty Good - Needs work - I Forgot

2. Decide how you will encourage each other to practice the target skill next time.

Start: *"Tell your partners you're glad they're here."*

End: *"Tell your partners you're glad they were here today. Thank them for helping."*

REFERENCES

D.W. Johnson, R.T. Johnson, & E. Holubec, 1993. Circles of Learning, 4th ed.; Edina, MN; Interaction Book Company.

D.W. Johnson, R.T. Johnson, & K.A. Smith, 1998. Active Learning: Cooperation in the College Classroom; Edina, MN; Interaction Book Company.