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ABSTRACT

This document contains the materials required for two 6-hour workshop sessions designed to introduce educators working with adult basic education (ABE) and/or English-as-a-second-language (ESL) students to the use of cooperative learning in adult education classrooms by modeling. Included in the document are the following: introduction (overviews and timelines for each workshop session, preworkshop checklist, instructions for preparing for activities; materials and equipment checklist, critique sheet for trainers to use to give participants feedback); trainer's notes detailing all workshop activities; prereadings to be sent to participants before the workshop session; activities (including role cards, games, table signs); charts listing the workshop objectives; handouts containing all materials to which trainers will refer during the workshop; and transparencies (abbreviated textual and graphic elements of the training materials). Session 1 of the workshop and the prereadings present selected theoretical underpinnings to cooperative learning and specific strategies for organizing the learning environment. Session 2 provides participants with a broader theoretical framework and additional strategies for establishing a climate for student-centered learning. Among the specific topics examined are the following: differences between learning alone and in groups; team building; simple cooperative structures; individual accountability; positive interdependence; and strategies promoting interaction. (MN)

COOPERATIVE LEARNING

PROFESSIONAL DEVELOPMENT SERIES

Northwest
REGIONAL LITERACY RESOURCE CENTER

ALASKA IDAHO OREGON WASHINGTON

Lead Developers

Jennifer Aisenberg-Reese, Grays Harbor College, Washington
Maxine Frauman-Prickel, Lane Community College, Oregon
Shash Woods, Goodwill Community Learning Center, Washington

March , 1997

The Northwest Regional Literacy Resource Center is a cooperative venture of the states of Alaska, Idaho, Oregon, and Washington which focuses on the following:

- a mail order lending library, reached within the region at 1-800-238-1234
- training and resources to support instructional technology
- creation and support of professional development materials and systems
- interagency collaboration to support basic skills programs and students.

2120 South Jackson Street
Seattle, Washington 98144
Phone: (800) 238-1234
Fax: (206) 587-4900
E-mail: nwrlrc@otan.dni.us

Acknowledgments

The Professional Development Series grew out of a collaboration among the Northwest states. Originally, it was a partnership between Washington and Oregon. This partnership was executed by Oregon's Office of Community College Services and Washington's Adult Basic and Literacy Educators (ABLE) Network, funded through the Washington State Board for Community & Technical Colleges. This work was supported with funding under the National Adult Literacy Act of 1991 and Adult Education Act Section 353 grants. The product of this collaboration was a series of professional development training workshops developed and delivered by practitioners in the two states.

Many of the modules in the Professional Development Series were revisions of work undertaken by Pelavin & Associates (with San Francisco State University as subcontractor) under funding from the U.S. Department of Education, Office of Vocational and Adult Education. All modules benefit from the structure and content of the Pelavin modules, and this contribution is gratefully acknowledged. Other modules were extensions of the work of Pelavin and that of the ESL Teacher Institute, funded by the California Department of Education. Modules developed by the states of Connecticut, Illinois, and Mississippi helped to round out the complement of offerings with their focus on process and collaboration.

Further revision and development of the modules, along with establishment of a system for their implementation, was funded by the National Institute for Literacy. Through their support of the Regional Staff Development System, the partnership was expanded to include the states of Alaska and Idaho and within each state to include partners from other agencies, such as Social & Health Services and Employment Security. In addition to this initial support, NIFL provided funding to standardize the format of the modules and to make them available to a national audience. Without this support, the Professional Development Series would have had a much more limited audience and scope.

Finally, particular thanks go to the practitioners who developed and refined these materials, as well as the many teachers and leaders who provided resources and suggestions.

Regional Staff Development System and the Northwest Regional Literacy Resource Center

Basic skills programs in the Northwest have a long history of collaboration and shared focus. Beginning in the early 1980's, these states worked together on program evaluation, regional conferences, and a technology project that encouraged the use of computers to enhance basic skills instruction.

When funding became available for State Literacy Resource Centers, the Northwest states determined that they would use this funding to continue the partnership that had begun more informally, and the Northwest Regional Literacy Resource Center (NWRLRC) was established. The NWRLRC then sought and received funding from the National Institute for Literacy (NIFL) to create a regional staff development system. The vision for this system was that it would

- serve all providers and sponsors of basic skills programs in the region – education, employment & training, social services, corrections, etc.,
- enhance the quality of basic skills services through improved inter-agency communication,
- provide a forum for regional policy development on basic skills issues, and
- enable states in the region to share training resources.

These objectives are being accomplished in part through the shared work on the Professional Development Series. Training modules were created or revised by development teams with representation from different states and from different agencies. As a region and as individual states, we are working to recruit trainers from different agencies and to deliver training to participants from different agencies. Each state has its own team of trainers, but these trainers sometimes deliver the modules in other states if the need arises. The context for these activities is that staff development is viewed as a platform to help build inter-agency relationships. Working together on project development and participating together in training activities is helping basic skills providers and funders to view themselves as partners in a system to meet their common goal: to assist under-skilled adults to achieve their potential as workers, citizens, and parents.

The Northwest Regional Literacy Resource Center will provide further information about inter-agency staff development and will make referrals of trainers qualified and experienced in delivering modules of the Professional Development Series. For information, call the NWRLRC at 800/238-1234.

About the Professional Development Series

The target audience for these professional development activities includes not only educators, but all those committed to working collaboratively in serving adult basic skills students and clients. Developers of the series followed several basic principles to ensure that the materials would be useful for training in an interagency context:

- **All modules share an underlying conviction that basic skills is an essential component of pre-employment and welfare to work services.** As the field moves toward collaborative service delivery systems, the link between basic skills and effective performance on the job becomes increasingly clear. The extent to which practitioners in the labor and public assistance arenas have tools and resources to improve the basic skills of their clients is the extent to which those clients can be fully served by collaborative systems. Labor and public assistance professionals have the opportunity to work with basic skills educators in a partnership which transforms the process of serving undereducated and underemployedadults.

- **A multi-agency approach is used whenever possible.** The perspectives of employment, training and human services, along with education, are readily apparent in the modules especially designed for inter-agency audiences "Adults as Learners, Clients and Partners," "Collaborating for Client and Student Success," "Strategic Team Development," and "Staff Development: The Needs Assessment Process." These perspectives are also found in other workshops in the experiential nature of exercises, the use of examples from across systems and settings, and the multi-dimensional assumptions that are the foundation for strategies to address the needs of clients and learners.

- **The ultimate customer of the service delivery system – the learner – is viewed holistically.** Modules are based on the assumption that these clients have a variety of individual goals and may also be highly impacted by the goals of our communities and systems. The effective delivery of services to these clients must include attention to the multiple skills required for clients to be successful in their communities, families and workplaces. Involvement of participants from multiple agencies enhances the conversations about client needs within the workshop settings.

- **Professionals from all agencies benefit from the principles used in basic skills assessment and instruction.** Most of the content of these modules moves participants in the training sessions toward a useful awareness of the ways adults learn and process information and new insights to use in their day-to-day contact with clients. This change does not take the form of new tasks to be done, but instead is demonstrated in a more sophisticated approach to serving adults who have reading, writing, or math barriers to employment.

- **Workshops are viewed as components of a systems approach to professional development.** While units are designed as stand-alone products, the series is intended to provide a foundation for professional excellence. That commitment informs the choice of training topics. Techniques for addressing a single discipline such as mathematics, strategies for instruction such as cooperative learning, structural issues like integrating volunteers and paid staff, and strategies for building interagency relationships are all explored. The "systems" approach is also reflected as key information, strategies and approaches from each module inform and reappear in others.

The Professional Development Series also incorporates established principles for effective training:

- **Modules address topics and concerns of high interest to both providers and funders of basic skills.** These topics were identified through surveys, focus groups, and other information gathered from across the Northwest region including recommendations from experts in ABE and ESL instruction and interagency partners from Employment & Training and Social & Health Services.

- **Modules employ research-based components of effective staff development.** These components include pre-session preparation, introduction of contemporary theory, use of demonstration, opportunities for practice, structures for feedback, and application over time. In order to integrate these features effectively, most workshops provide pre-reading materials and are offered in two, one-day sessions, separated by two to four weeks for interim practice.

- **Modules are interactive**. They are grounded in the realities of professional practice and carefully balanced to offer both theoretical constructs and hands-on exercises and materials. There is a focus on useful and practical strategies appropriate in varied settings.

Implementing an Inter-agency Training System

Although quality training materials are a crucial part of a professional development system, they are not enough. The heart of success for the Regional Staff Development System in the Northwest is the cadre of trainers who present, tailor, and refine the training modules. Although each state has developed a culture and system appropriate to its environment, all of our efforts reflect a common commitment to the following critical practices. We strongly encourage other states considering the use of these modules to follow a similarly rigorous process to ensure the quality of the training they are sponsoring.

- **Inter-agency Advisory Group**
  A system which intends to serve practitioners from multiple agencies must be planned and governed by a board that has representation from all the agencies involved. These board members play a critical role in recruiting trainers, scheduling and publicizing training activities, relating training to key state or regional issues, and – perhaps most important – providing credibility to the training effort.

- **Trainer Identification**

  Trainers are identified from the ranks of practitioners and front-line providers, including agency partners who may not be basic skills instructors (social services caseworkers, employment and training counselors, etc.). Members of state training cadres represent a broad diversity of professional or volunteer experience, settings, and backgrounds. However, they share expertise in a given content area, proficiency in delivering training, and a willingness to increase both their expertise and proficiency. This diversity in combination with expertise in some aspect of the broadly-defined basic skills community increases the credibility of trainers in an inter-agency training environment.

  All states in the Northwest region recommend team delivery of training whenever possible. Team delivery maximizes the experiences of participants and trainers. However, since training modules have been designed to allow flexibility, they can be delivered by individual trainers. Two exceptions are "Adults as Learners, Clients and Partners" and "Collaborating for Client and Student Success." Both of these modules are specifically developed for presentation by a training team with at least one member drawn from a non-educational, partnering agency.

- **Training the Trainer**

  Series modules have been written so that good trainers who are knowledgeable in the subject can prepare independently and produce credible workshops. It is expected that these trainers will have well-developed content area expertise and training experience. However, within the Northwest region a three-step process has been developed for training the trainer. This process, which increases success for our systems, trainers, and participants, is strongly recommended.

  1) Trainers begin with a hands-on orientation to the module. Many actually assisted in developing the modules, but others get this orientation by enrolling in the workshop as a participant or by observing at least key pieces of the workshop.
  2) The second step is for a trainer to co-train with an experienced presenter, establishing a coaching/mentoring relationship that supports both individuals long after this experience is over.
  3) The final step is for a new trainer to present independently, sometimes with observation by a mentor. Following the first delivery of a workshop by a new trainer, the state training coordinators review workshop evaluations and discuss them with the trainer if appropriate.

Though the process is clearly outlined, it is also viewed as being flexible. The steps may be collapsed, extended, or varied to fit specific individuals or situations.

- **On-going Support**

  Reflecting our shared commitment to continuous improvement and to providing quality training, each state has created structures and mechanisms for on-going trainer support. These include a training coordinator in each state and a system to handle logistics such as travel, registrations, materials, facilities, etc. Some states have been able to provide for the trainers' own professional development and for networking activities among trainers. In addition, the region has sponsored supporting activities such as trainers' retreats, module revision task forces, and joint training and observation. Planning is underway to expand the use of technology to better link trainers across distance.

Structure and Format of the Modules

Modules in the Professional Development Series follow a standard format and include standard sets of materials:

Introduction: This section includes the Table of Contents, Overviews and Timelines for each session, a pre-workshop checklist, an instruction sheet to assist in preparing for activities, a materials and equipment checklist, and a critique sheet that allows the trainer to provide feedback on the success of various materials and activities.

Trainers' Notes: This section details every activity for the workshop, including intent, time allotted, a list of handouts and transparencies needed, and detailed instructions.

Pre-Readings: This section includes materials to be sent to participants prior to the workshop session.

Activities: Many of the modules include special materials to be used in activities, such as role cards, games, table signs, etc.

Charts: Charts are materials that should be visible throughout the workshop and typically include the workshop agenda and a list of workshop objectives. The copies included are a standard 8 1/2" x 11" and should be copied in a larger format.

Handouts: These are organized into participant packets for each workshop and include all of the materials to which the trainer will refer.

Transparencies: These are abbreviated textual and graphic elements that are meant to appear only briefly during the course of a training session.

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Workshop Overview

This is a two-part workshop designed for those working with ABE and/or ESL students. The purpose of these workshops is to provide a basic introduction to the use of cooperative learning in adult education classroom settings. The workshops are designed to model cooperative learning classrooms. Session One and the pre-readings present some theoretical underpinnings to cooperative learning with specific strategies for organizing the learning environment. The participants will have a three to four week interval between Session One and Session Two to allow time to apply and reflect on classroom practices. Session Two will provide participants with a broader theoretical framework, time to reflect on the interim assignment, and additional strategies for establishing a climate for student centered learning. At the conclusion of the workshops participants will have gained the understanding that incorporating cooperative learning structures, strategies, and techniques into their teaching plan is part of an on-going process of learning for them as professionals.

Each workshop session is 6 hours in length. Participants will be sent two pre-reading assignments at least one week prior to the first session.

OBJECTIVES: By the end of the workshops, participants will

- be exposed to theoretical frameworks and rationales for cooperative learning
- experience learning in a cooperative learning classroom model
- experience and apply simple class climate-building techniques
- practice and process simple cooperative structures for teambuilding, concept development, and content mastery
- practice strategies for establishing student centered learning
- experience and use the elements that distinguish cooperative learning from small group learning
- understand and design lessons which reflect the social and affective dimensions of learning

INTRODUCTION

Workshop Timeline:
Session One

Beginning Time	*Time Length*	*Training Activity # and Title*	*Trainer*
_____	(20 min)	#1: Workshop Overview, Introductions	_____
_____	(25 min)	#2: Setting Objectives	_____
_____	(15 min)	#3: Experiential Demonstration: Triangles	_____
_____	(35 min)	#4: Dance Card	_____
	(15 min)	BREAK	
_____	(25 min)	#5: Processing	_____
_____	(45 min)	#6: :Teambuilding: Uncommon Commonalities	_____
	(1 hr)	LUNCH	
_____	(40 min)	#7: Within Team Jigsaw	_____
_____	(10 min)	#8: Numbered Heads	_____
_____	(10 min)	#9: Team Evaluation and Calvin & Hobbes	_____
_____	(45 min)	#10: Assessment of Thinking Skills	_____
_____	(20 min)	#11: Lesson Planning: Content Review	_____
_____	(15 min)	#12: Wrap-up, Evaluation and Interim Assignment	_____

Workshop Timeline:
Session Two

Beginning Time	*Time Length*	*Training Activity # and Title*	*Trainer*
_____	(20 min)	#13: Workshop Overview, Introductions	_____
_____	(15 min)	#14: Agreements	_____
_____	(25 min)	#15: Introduction: Sharing Identity Objects	_____
_____	(40 min)	#16: Lesson-Sharing: Part A	_____
	(15 min)	BREAK	
_____	(35 min)	#17: Lesson-Sharing: Part B	_____
_____	(50 min)	#18: : Affective Filter	_____
	(1 hr)	LUNCH	
_____	(20 min)	#19: Social Skills	_____
_____	(15 min)	#20: PIGSS Face	_____
_____	(45 min)	#21: Expert Jigsaw: Part A	_____
	(15 min)	BREAK	
_____	(40 min)	#22: Expert Jigsaw: Part B	_____
_____	(10 min)	#23: Video: Witness	_____
_____	(10 min)	#24: Recommendations for Implementing & ...	_____
_____	(10 min)	#25: Final Reflections	_____
_____	(5 min)	#26: Wrap-Up and Evaluation	_____

Pre-Workshop Checklist

_____ Complete scheduling, marketing and registration process.

_____ Send acknowledgment, pre-reading materials, if applicable, to registrants approximately 2 weeks prior to the workshop.

_____ Following the directions on the Activities Instruction Sheet, assemble the required activities and distribute to the trainer.

_____ Enlarge and laminate all workshop charts. Distribute to the trainer.

_____ Create participant packets by copying and collating all workshop handouts. Distribute to the trainer.

_____ Copy or assemble transparencies. Distribute to the trainer.

_____ Obtain specific materials and equipment called for on Materials and Equipment Checklist. Ensure these are available on site, or distribute to the trainer.

_____ Plan to make refreshments available.

Activities Instruction Sheet

Training Activity pages: A1
For Training Activity #2: Evaluation and Goals
Instructions: Make one copy for each participant.

Training Activity pages: A-2 through A-9
For Training Activity #3: Structures
Instructions: One set for each participant, collated and stapled.

Training Activity pages: A-10
For Training Activity #6: Team-Building: Uncommon Commonalities
Instructions: One copy for every four (4) participants.

Training Activity pages: A-11
For Training Activity #16: Successes/Challenges
Instructions: One copy for every three (3) to four (4) participants.

Training Activity pages: A-12 through A-17
For Training Activity #20: 5 Cooperative Learning Elements to Structure
Instructions: A-12 through A-17 are 8 1/2" x 11" sheets, each with one different cooperative principle printed on it. Together they make complete sets of 6. Five or six sets should be printed, enough for one sheet per participant. All sheets should be laminated. Participants will not keep these activity cards. They will be collected by the trainer and re-used.

Training Activity pages: A-18
For Training Activity #21: PIGSS FACE
Instructions: Copy A-18 on brightly colored card stock. Cut the sheets apart into wallet-size cards. There should be one card per participant.

Training Activity pages: A-2 through A-9
For Training Activity #21: Structures
Instructions: Copy one set, collated and stapled, for every six participants.

Training Activity pages: A-19 through A-27
For Training Activity #21: Positive Interdependence (A-19 and A-20)
Individual Accountability/Personal Responsibility (A-21 and A-22)
Formal and Natural Approaches to Skill Development (A-23 to A-25)
Group Processing (A-26)
Face-to Face Promotive Interaction (A-37)
Instructions: There are 5 different readings here. Each reading should be collated and stapled separately. Make six sets of each reading.

Training Activity pages: A-28
For Training Activity #22: Feedback Form
Instructions: One copy per participant.

Training Activity pages: A-29
For Training Activity #25: Bibliography
Instructions: One copy per participant.

Pre-Session Materials, Charts, Handouts and Transparencies

Pre-session materials, charts, handouts and transparencies are standardized in their content, formats and use in all of the Professional Development Series (PDS) training modules.

Pre-Session Materials

Most of the PDS modules include resources to help participants prepare for the learning experience provided in the actual workshop. Training activities often directly depend on participant access to these resources. Items are copied and sent to registrants approximately two weeks before a session is held, accompanied by the other registration information from the sponsoring organization.

Letters of introduction or instruction, articles and surveys are typical pre-session materials.

Charts

Information that is needed by or helpful to participants throughout a session is reproduced on charts. Charts are included in the modules in an 8" x 11 1/2" format, but are designed to be enlarged to poster size and laminated for reuse.

Charts include such items as session agendas, objectives, and groundrules.

Handouts

Printed materials that are used by all participants during the workshop or that provide useful additional information to them after the workshop are designated as handouts. Handouts are organized together into a Participant Packet with appropriate title and credit pages and will be distributed at the beginning of a workshop session.

Worksheets, instruction pages, short articles and resource lists are often handouts.

Transparencies

With few exceptions, transparencies contain abbreviated textual and graphic elements that are meant to appear only briefly during the course of a training session. They capture and enforce the essence of content, but do not substitute either for well-written handouts or well-delivered messages from the trainer.

To aid in participant comprehension and retention, transparencies are reproduced in color. Black and white, paper originals are also provided in the printed module. *Note: Transparencies produced by the Northwest Regional Literacy Resource Center cannot be washed or cleaned. Please use transparency covers with pages that require adding or changing information during the course of training.*

Summaries of key concepts, critical definitions and group instructions are contained on transparencies.

Materials and Equipment Checklist

Session One

___Trainer's Packet: Training Notes
___Participants' Handout Packets
___Activity Handouts
___Transparencies
___Workshop Module Charts
___Flip Chart
___Overhead Projector
___Name Tags
___Markers
___Blank Transparencies
___Black or Whiteboard and Chalk
___Dry Erase Markers
___Masking Tape

Session Two

___Trainer's Packet: Training Notes
___Participants' Handout Packets
___Activity Handouts, Transparencies
___Transparencies
___Workshop Module Chart
___Videotape: *Witness*
___Flip Chart
___VCR
___Monitor
___Overhead Projector
___Cooperative Elements Sign Sets
___Name Tags
___Masking Tape
___Markers
___Blank Transparencies
___Poker Chips or Coins - 100 pieces needed
___Hats (three or more)
___Dry Erase Markers
___Black or Whiteboard and Chalk
___Collage Materials:
Scissors
Glue
Colored Paper
Old Magazines
___Index Cards with the following sign titles:
ABE, GED, ESL, Family Literacy, Workplace Literacy, Prison, Administration

Trainer's Critique Sheet

When you present this workshop, use copies of this sheet to make comments about what works well and what needs to be adapted. In addition to using it for your own reference, please also share your comments with the NWRLRC, so that the module can be upgraded and improved. Participating Trainers will receive notification of enhanced materials.

Training Activity #1: Workshop Overview, Introductions

Training Activity #2: Setting Objectives

Training Activity #3: Experiential Demonstration: Triangles

Training Activity #4: Dance Card

Training Activity #5: Processing

Training Activity #6: Teambuilding: Uncommon Commonalities

Training Activity #7: Within Team Jigsaw

Training Activity #8: Numbered Heads

TRAINERS' NOTES

Training Activity 1: Workshop Overview, Introductions, and Identification of Goals

Intent: To present an overview and workshop objectives.
To introduce the trainer and participants to each other.

Time Allotted: 20 Minutes

Materials: Tape

Charts: C-1: Agenda
C-2: Objectives

Handouts: H-1: Objectives

Before the workshop: Ideally, the room should be set up with tables seating four to six participants each. Create an appropriate area for registration, name tags, and extra copies of the questionnaire. Clearly designate a place to return completed questionnaires. Questionnaires should be collected before the workshop begins.

Prepare any refreshments you will want to have available throughout the workshop.

Instructions: Welcome participants to the workshop. Introduce yourself to the participants, giving a brief explanation of your current teaching/working location. Explain that this workshop is the first session of a two-part workshop. There will be a three-week interim between the two sessions in which the participants will be able to practice some of the strategies modeled here.

Narrative: These workshops were developed to model a cooperative learning classroom. You will be participating on two levels: one, as a student in a cooperative learning classroom environment; and two, as a teacher observing your learning in this environment and reflecting on how the process may be applied to your students in your own educational setting. The learning will be student centered and provide you with opportunities for participation, planning, processing, and reflection.

We believe the workshop's activities will demonstrate the effectiveness of cooperative learning in the classroom. The use of group learning helps build a sense of community and provides a supportive environment for learning to take place. The role of the teacher includes facilitating groups and clarifying learning objectives. This workshop will offer strategies for effective use of group learning for teachers. Throughout this workshop we will be

stopping to reflect on these concepts and check in with you on how you may apply these models to your own teaching environment. This is today's agenda (**C-1.**)

These are the goals for the workshop (**C-2, H-1 in the packet.**) As you can see, the intent is that your learning be experiential, with ample opportunity for applying your learning to your own situations.

We would like to learn a little about you now.

Instructions: The following instructions for introducing participants to each other depend on the size of the group.

For a small group (10-15):
Participants form an introduction circle, placing themselves in the circle alphabetically by their first names. Ask participants to explain the origin of their first name—named after a relative, parents favorite name, all children in the family had similar names, etc.

For a medium-sized group (15-25):
Do a line-up. Ask participants to line up alphabetically according to their first names (or form a line-up circle.) As they are standing in line, ask them to say their names and identify where and what they teach.

For a large group (25+):
Acknowledge participants by asking the group for a show of hands; e.g., How many are ABE instructors? How many ESL instructors? How many in GED? How many in JOBS programs? Or in what other areas of teaching are they working? Ask the group to line-up according to how long they have taught. Spot check across the line for participants to check the accuracy of their placement.

No matter the size of the groups, after they have introduced themselves or identified themselves in the ways described above, ask for a show of hands: How many have attended other workshops on cooperative learning?

Narrative: *(While participants are still standing.)* We have presented our objectives as presenters of the workshops; however, we would like you to bring your objectives to the workshop plan. We want to proceed with this cooperative learning classroom. Please turn to the person next to you, introduce yourselves briefly, and sit together in the room. You will have some time to think about your own objectives for being here, and then will be discussing this with a partner.

Training Activity 2: Setting Objectives

Intent: To model how to include participants' objectives in the learning environment.
To identify the differing goals of these participants.
To prepare the participants for identifying techniques and structures in this workshop model.
To process and reflect.

Time Allotted: 25 Minutes

Materials: Flip Chart
Markers
Tape

Activities: A-1: Evaluation and Goals

Charts: C-3: Structure/Method and Techniques

Handouts: H-15: Reflections

Instructions: The participants remain with their partner from Training Activity One and seat themselves comfortably. Distribute the workshop packet if participants haven't already picked them up.

Distribute the workshop evaluations. Ask participants to rate themselves for Question 1. Explain that they will be turning in this form as an evaluation of the workshop at the end.

Narrative: You will notice at the top of the workshop evaluation that there is a place for you to write your own objectives. Please write one or two objectives that you have for yourself. As you finish, you may share your objectives for being here with your partner. When you have finished we will share these with the whole group.

This is an important step when working with adults. In this way we can acknowledge what our students' needs and expectations are, and plan accordingly.

Instruction: Participants may have discussed and shared their goals with their partners, allowing some processing to have taken place already. Ask the group what some goals are that they have written on their own papers or modified from the sharing with their partners.

Make notes on a flip chart or overhead about general content of goals reported, keeping the language of the goals in participants' words. Ask the participants if they notice some categories from what they have reported, such as background information,

techniques, planning, etc. Ask the participants to identify the goals that they feel are reflected in the group. Write the goals on a flip chart, using the language as reported by the group. Ask if any individual goals have not been recorded that still need to be added. Be sure all participants have an opportunity to have their specific goals included.

Narrative: Let's look at these objectives or goals you have expressed. I want to be sure that all of you have your own objectives on this chart. Are there any that should be added? Is there any change you want to make now in language or category? This is an important step in setting the learning climate and it is important to have this chart reflect what the individuals and group want to get out of these workshops. We will be referring to these goals in both Session One and Session Two.

Instructions: Prepare for processing the previous activities of introductions and goal setting. Post **C-3** with heading: Structure /Methods & Techniques.

Tell the participants how we will be processing the activities as we go through the workshop.

Narrative: We have participated in two activities so far this morning. Since this is a classroom model for you as students, and as teachers observing your learning, we want to chart our experiences as they relate to you as teachers. This workshop will present several activities which we can call structures, methods, or techniques for cooperative learning. We have just completed two: "Introductions" and "Goal Setting." The introductions were actually an ice-breaking technique. You introduced yourselves to the group in a way we hoped would bridge the feelings of coming into this group as strangers to one of knowing who your classmates are. This we list under the "Methods & Technique" side of the chart: a technique for building a cooperative class climate. (Write Ice Breaker on the Technique side of the chart.) What about "Goal Setting" that we just completed? (The participants should identify that as a technique also. Explain that this is a technique to recognize the learning goals of adult learners.) There was a structure we followed in the activity which we call Think/Pair/Share. You thought about your objectives, paired with a partner to discuss them, and shared with the whole group. (Write Think/Pair/Share on the Structure side.) We will be using this structure again in the next activity and at other points in the workshop. You will have an opportunity to focus on how you could use it in your own classroom.

Instructions: Ask participants how they could use Goal Setting with their students in their classrooms. How could they use the Ice Breaker?

REFLECTION

Instructions: Tell participants they will have several opportunities to reflect on their experiences and learning. There is a page provided at the end of the packet for them to keep on-going notes. Point out that the page is bordered by the "Four and Twenty Black Birds Baked in a Pie" from the old nursery rhyme. The analogy is that ideas and learning may come from surprising places and the reflections page provides them with an opportunity to make notes on what they are experiencing. This page is provided for them to use at any time during the workshop.

Training Activity 3: Experiential Demonstration

Intent: To contrast the experience of learning alone to working with a partner.
To understand the importance of processing learning in the learning environment.
To experience a Think/Pair/Share structure

Time Allotted: 15 Minutes

Materials: Transparency Pen
Flip Chart
Markers
Tape

Activities: A-2 through A-9: Cooperative Learning Structures

Charts: C-3: Structures/Methods and Techniques

Handouts: H-2: Triangles

Transparencies: T -2: Triangles

Instructions: This activity is designed to give participants the experience of working through a task alone and then experience paired work for the same task. The intent is to contrast the experience at a feeling level for the participants. This is a counting triangles activity found in the Participants' Packet. **(H-2.)**

Ask the participants to individually count the triangles. Allow them only 60 seconds. Keep the instructions very brief. Do not allow participant discussion or clarification with others before the counting begins. Ask the whole group to report the number of triangles they counted. Record the numbers on the triangle overhead. You should expect any number between 12 and 30.

Tell the participants to work with a partner and count the triangles together. Before they start ask, "Are there any questions?" "Do you understand the instructions?" Give them the start, "OK, begin." They will have the same time limit: 60 seconds.
Ask the participants to report the number of triangles they counted with their partners. Record the numbers on the same transparency. Process the experience with questions. Follow a Think/Pair/Share strategy.

Narrative: Let's process the activity we have just finished. We will use the Think/Pair/Share structure for the processing.

Think: Please think about the questions I am going to ask. You may make notes as I ask them. How did it feel working alone? (*Pause for some notes.*) How did you feel working with a partner? (*Pause again. This is the "Think " part of the structure.*)

Pair: Now talk to your partner about your feelings in this activity. First, share how you felt working alone, and then share how you felt working with another person. *(This is the "Pair " part of this structure.*)

Instructions: Prepare a T-Chart for the **Share** part of this activity. Make two columns on the chart with headings ALONE and PARTNER. You will record the participants' responses as you draw out the sharing of experiences.

Share: Ask the group what they experienced when they first turned to the handout in their packet and were told to count the triangles. As people report their experiences, feelings, etc., make notes on the ALONE side of the T-Chart in single words or short phrases. Elicit more responses by asking how they felt with a time limit, or as participants express their feelings, draw out others who may not be responding with such questions as:

"Did anyone else share this feeling in the ALONE part?"
"Did anyone have a different feeling at this time?"

Follow the same procedure for discussing the PARTNER side of the chart. Make notes as before. As a summary, review the notes on both sides of the chart. Ask the participants what they notice about the comments on each side of the chart.

Lead a whole-group discussion about the experience. Contrast the feelings and ask how students might feel in that activity. Point out differences between completing a TASK successfully and engaging in a PROCESS successfully.

Narrative: What made this activity meaningful for you? Doing the task or engaging in the discussion about how you went about doing the task? (*Wait for responses.)* When students have the opportunity to PROCESS their experiences, it brings meaning to the learning. In cooperative learning, the process is as important as the task. That's why clear directions are very important and why one principle of cooperative learning is to debrief the process afterwards.

In order to support this kind of learning, we have used a cooperative learning structure, Think/Pair/Share, a little more formally than in the previous activity. We started the triangle activity working alone, then you paired with a partner for discussion, then we shared our learning with the whole group. This structure is

particularly useful in situations in which you want your learners to have an opportunity to work on their own first and then to discuss their own experiences with another who has been working with the same material. Here is a Cooperative Learning Structures Handout on which you will find a description of all the structures we will use in this session and Session Two, with comments on the appropriate uses for each. You will have this as a resource throughout both sessions.

We also used a T-Chart to facilitate the processing. The T-Chart provides us with an organization for making notes on our discussion and relating concepts. (Distribute **A-2** through **A-9.**)

Instructions: Refer to the Structure/Methods & Techniques chart. Review with participants the previous activities: Experiential Learning (triangles,) Think/Pair/Share and T-Chart. Ask them where they would record those on the Structure side: Think/Pair/Share and Methods & Technique: T-Chart and Experiential Learning.

Training Activity 4: Dance Card

Intent: To activate participants' prior knowledge (schema activation.)
To experience Dance Card as another structure.
To demonstrate a technique for forming random groups.

Time Allotted: 35 Minutes

Materials: Cassette: Music
Tape Deck/Boom Box

Chart: C-4: Dance Card Instructions
C-3: Structures/Methodst and Techniques Chart

Handouts: H-3: Dance Card
H-4: Dance Card Questions

Instructions: This activity is prepared to facilitate the exchange of information and experiences among participants. We assume adults have knowledge and experiences they bring with them to the workshop and need an opportunity to discuss these with others. This also sets a base on which new learning will be built.

Getting Partners. Tell participants to turn to the Dance Card, **H-3** of their packet.

Narrative: This next activity is called Dance Card. It is based on the earlier formal American custom for assuring young people would have partners pre-arranged at a community social. We are using this same format to assure all of our "students" in the workshop will have partners for some conversations at this time. These conversations are a way for you as participants to share your knowledge and prior experiences with each other. Each conversation is a *"dance."* This is called activating prior knowledge, or schema, setting the context for learning. There will be four *"dances"* or conversations. During this sign up time you will need to get a signature on the line for each dance. This can get tricky, so be sure to follow the instructions carefully.

Instructions: Display **C-4**: Dance Card Instructions

Narrative: You will be asking others in the group to be your partner for a conversation. We are calling each conversation a "dance." As you find someone available to talk to you for a particular conversation please have that person sign your card on the line number you've agreed to and you sign their card on the same line number. Then

hand the cards back to the original owner. Follow this process of requesting a partner, signing the card and returning the card until you all have partners for all the conversation dances. You should be getting signatures from a different person for each conversation. We expect to start out with some confusion, but it will all become clear as you proceed. We've put the steps on the chart to help you follow the procedure. Be sure both partners are signing on the same line number on each other's card. Most mix-ups occur when each partner has not signed on the same line number. After the sign-up you will be meeting with your first partner. For those of you teaching ESL classes, this activity provides an opportunity for your students to use requesting, inviting, and/or expressing regrets phrases.

Instructions: Trainers will need to monitor this process. If there is an uneven number of participants in the workshop, ask for a show of hands of people who still need partners. This will help people find partners. It may be necessary to ask a partnerless person to join another pair for a dance conversation and become a threesome for that time. In the past we have used the explanation that this type of social organizing was a way to avoid "wallflowers." Some participants have had a negative reaction to the word, saying they were reminded of some unpleasant memories of being socially unpopular in their past. Use the phrase with caution.

The Conversation Dance. Refer to **H-4** in the packet for the Dance Questions. The participants will have 4 minutes for each conversation and 2 minutes for each partner to respond to the question. Trainer will play music to signal the end of the conversation and time to move to the next conversation partner.

Narrative: You have your conversation questions in your packets on **H-4.** The first partners will join together to discuss their responses to question #1. You will only respond to the question number that relates to the line you signed on that partner's card. You will have 4 minutes for your conversation with 2 minutes for each partner. I suggest you take notes on you partner's response, since you will be reporting on what you were told by previous partners when you have your conversation with partner #4.

I will play music to signify a change of partners. When you hear the music, it means say good-bye to your partner, thank him/her for their time, and move on to your next partner. Remember, if you continue to have a conversation after you hear the music, it will mean that some other partner will be left waiting to get started. (*Play the music.)* Find your first partner from your line #1.

Instructions: Have your tape player ready to get the action started. The trainer will watch the time and start the tape after each 4-minute

conversation. As the partners join together, turn down or turn off the music to allow the conversations to take place. Follow this procedure for each of the conversations.

Processing. After the last question has been answered by the partners, ask partners for question #4 to join with another pair to form a team of four. (Some teams may have five, if there were an extra partner assigned to an original pair.) Ask the newly formed team members to share their experiences during the Dance Card. You may break up pairs, or do re-arranging at this time. It's important to keep the groups to no more than four or five people.

Narrative: Discuss in your team what happened in this activity that helped you have an understanding of what others knew and experienced about cooperative learning and using groups in the classroom. Take turns around your group for this discussion so all members have an opportunity to share their ideas. Also talk about how you could use Dance Card in your own classrooms to activate the pre-existing knowledge of your students.

Instructions: After 10 minutes, point out to the participants the ease with which teams of four were formed at the end of this activity. Identify the teams as random and heterogeneous. Ask where they would add Dance Card on the Structure/Method & Technique chart. (Structure.) Remind the participants of the Structure Handout which gives the steps for a Dance Card.

BREAK—15 MINUTES

Training Activity 5: Processing

Intent: To process experiences and feelings as students in a classroom setting.
To experience the new structure Round Robin.
To begin to use roles as a group management strategy.

Time Allotted: 25 Minutes

Materials: Flip Chart Paper
Markers
Tape

Chart: C-3: Structure/Methods and Techniques Chart

Handouts: H-5: Roles

Instructions: Participants rejoin their teams formed at the end of the Dance Card. In this activity the trainers will be facilitating the processing of the morning's activities so far: contrasting the climate for learning in the cooperative learning classroom with learning in a traditional classroom, and how structuring the sharing of experiences in the Dance Card played a role in creating a learning environment. The participants will be focusing on three areas: Individual/Personal, Classbuilding, and Supporting Learning. The participants will be using the structure "Round Robin" to insure that all have an opportunity to participate and share ideas.

Narrative: We'd like to look at how we are building our learning environment in this workshop. We will be processing the morning's activities by the impact it has had on you as learners, individually and as a group, by focusing on three areas:

- How it felt to you as an individual in the classroom
- How the activity promoted classbuilding and/or teambuilding
- How learning objectives were supported

(Write the three headings on the board, or on chart paper, horizontally, as in headings on a chart. See below at the end of this narrative section.)

You will be working in your newly formed teams for this discussion. Team members will take turns sharing ideas, going around your group from one to the next so all members contribute to the discussion. At the end of the discussion time, you will be sharing your group's discussion with the other groups.

In order to manage how long your group takes for this discussion, to make sure your ideas are recorded and that everyone has an opportunity to participate, you'll need to take on some roles in your

group. Having students take on roles in a team activity is one difference of "cooperative learning" group learning from simply working in groups (see **H-18**.) Roles provide students with a way to manage their own learning so it is inclusive, productive, and accountable. Please informally choose a Time Keeper to watch the time, and a Recorder to record your group's ideas. Since it is important to have everyone included in the discussion, you should also choose an Encourager to make sure all have a chance to contribute. This will also provide students with an opportunity to relate in a supportive way. (*Write the three roles on the board as a reminder to the groups. Give the groups a minute to choose their roles. Get ready to distribute chart paper for each group.*)

You may want to discuss and practice positive ways for students to communicate in their roles in your classes. For example, a Time Keeper might say "we have five minutes to finish this" rather than "hurry up, you're taking too long." Some groups may need more instruction and practice in using positive communication in their groups. There are suggestions for model language on the Roles handout in your packet, **H-5**.

Instructions: Before the groups begin their discussions, recap the discussion from Activity 3, the demonstration of working alone and working with a partner in counting triangles. As you refer to some of the comments made by the participants when they reported their feelings about working on the triangles activity alone, make notes in the first column. This will model how they will conduct and record their discussion.

Tell the groups to focus their discussion on the three areas, and their recorder will make a chart for their own group. The groups will share their discussion with the whole group. They will have **15 minutes** for the group discussion. If the participants are unsure of the meaning of Supporting Learning, ask them to think about principles you would apply in planning for your own lessons. Ask them to think about what guides them. Expect responses such as: *student centered, active learning, learning modalities, building listening skills, paraphrasing, etc.*

As the groups begin their discussions, Trainer circulates from one group to another to be sure the groups understand the directions and are recording their discussion. The Trainer may decide to join a group for a few minutes before moving on to another group. Announce the time remaining 5 minutes before the end of the 15 minute period. Groups frequently get bogged down in the first two columns and run out of time for the last column.

Narrative: We'd like to take some sharing from your groups from your discussions. Please take 5 minutes to choose your key points, only

one or two from each column. Underline the point you want your Recorder to report. We will be taking turns as groups in our sharing, so you may hear the same points from other groups. Since time is short, please only share the points you think the whole group has not heard from other groups.

Instructions: Give the groups 5 minutes to select their points. Debrief this activity by having each team report on one column at a time. Follow a Round Robin, going from one team to the next. First teams report responses in the Individual/Personal column. When all groups have offered comments from that column, continue with the next column, Classbuilding/Teambuilding, etc. When calling for the groups to share, remind them about only reporting on points that they have not heard reported before. This will help eliminate redundancy and conserve time. Trainer makes notes on the chart prepared at the beginning of this discussion.

Summarize the activity by adding to the Structure/Method & Technique chart. The Structure was Round Robin, and the Techniques were Group Discussion and Roles. Remind the participants that the steps for the structures are on their Activity handouts **A-2** through **A-9**. Tell them there will be more about roles in Session Two, but for now you will have information on **H-5** on appropriate language used in roles (gambits.)

Training Activity #6: Teambuilding

Intent:
To build an identity within groups as a base for further learning.
To model a teambuilding technique, Uncommon Commonalities.
To demonstrate Positive Interdependence by using shared materials
To model cooperative structure of Round Table
To reflect on the morning part of Session One.
To demonstrate the use of a "sponge" for groups finishing quickly.
To model an individual self-assessment technique.

Time Allotted: 45 Minutes

Materials:
Overhead Projector & Pens
Flip Chart and Markers
Tape

Activity: A-10: Teambuilding

Charts: C-3: Structure/Methods & Techniques Chart

Handouts:
H-6: Self Assessment
H-15: Reflections

Transparencies: T-3: Uncommon Commonalities

Instructions:
This activity will help participants experience how positive interdependence can be supported by using shared materials. The teams formed in the previous activities will be developing a sense of identity by finding what they have in common and what they individually hold as unique. Each team will have a single handout to be passed around the group. Each team member takes a leadership role in finding something all the team members have in common before passing the paper to the next team member. This passing a paper around a table with each team member responsible for adding to the paper is called "Round Table," as opposed to "Round Robin" in Activity #5, which was a taking-turns-talking activity with only one recorder. Round Table requires participation of all members, with all having an equal responsibility for the final product.

This is also an important activity for bonding a group together. By sharing experiences, styles, values, and preferences a group can find a common bond. Round Table culminates with group members creating a name for the team as a synthesis of who they are as a group.

A-10. Distribute one handout per team.

Narrative:

This activity is to provide you with the experience of how positive interdependence can by supported by using shared materials. Your teams came together in the last discussion activity and shared ideas and experiences. In fact, all the previous discussions have been about activating your own previous knowledge and experiences of learning and teaching principles. Soon we will be moving to the next stage of learning in which you will be presented with what may be new information. You will be sharing or "teaching" the new material to others on your team. Before moving to that place, we want to spend time doing some teambuilding in order to build a supportive environment for this sharing and teaching to take place.

All of this is about setting a climate in which supported learning happens. The teambuilding activity is called "Uncommon Commonalities." It's an enjoyable way to learn what it is you have in common as a small group that is not obvious. It's an opportunity to be creative in finding commonalities. That's where the word "uncommon" comes from. These common traits, interests, experiences are discovered through sharing preferences and experiences with your teammates. Finding that you are all wearing glasses, or that you are all teachers are obvious commonalities. Finding that you have all eaten sushi, or that you've all flown in a hot air balloon (or would love to) is an uncommon commonality. The content and depth of your discussion is still within the control of each individual. You will be searching for ways in which you are uniquely the same. This discussion will also bring out how you are uniquely different from each other, which is also of value.

Instructions:

Place **T-3** on the overhead. Demonstrate how the paper will be used by the team.

1. Each team member places her/his name on an outside section of the diagram. This paper is passed around until it comes back to the person who started.

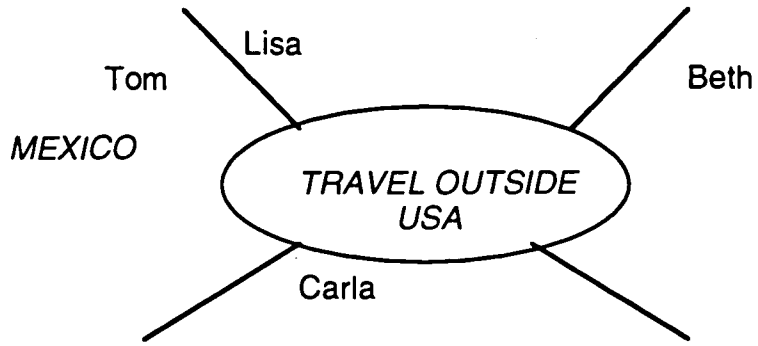
2. The first team member starts the discussion by identifying something s/he feels is unique, but may be something you all have in common, for example, s/he has been to Mexico. If this is not a 100% shared experience, s/he writes "Mexico" in her/his section.

3. The same person continues to lead the discussion, perhaps making a more general statement, like s/he has traveled outside the United States. If all can agree to this as a common experience, the common experience is written in the inside of the circle. (*See below for the example.*)

4. When a commonality has been identified, the paper passes on to the next member who then leads the discussion to find a commonality.

5. This continues until there are a minimum of 4 commonalities in the circle and/or all members have led the discussion. Groups who find many areas in common may have more in their circle and may have passed their paper around the team more than one time. Encourage teams to go beyond the common "where have you been" and "what do you like to eat" categories to more creative sharing of fears, highlights in their careers or lives, high school experiences, etc.

6. It is important to assure participants that they have a choice in what they share. It is not necessary to share intimate pieces of their lives for this activity to work. This activity accesses the affective domain of learning and the Trainer needs to be aware of potential blocks or resistance to personal disclosure, honoring the fact that adults need to share at their own level of participation.



Instructions: When the teams have 4 or more commonalities in the center circle, they will create a team name and logo or sign. Each team gets a flip chart paper and color markers, and some tape. For teams that finish quickly, the sponge can be introduced. A sponge is an activity that creatively extends the learning, "absorbs" time for groups finishing quickly. It is a time management tool for the teacher.

Narrative: Now that you have at least four commonalities in the circle, you will need to create a name for your team, and a logo to reflect your team identity. When looking at the commonalities, the name can be created by a combination of key words, a conceptualization of your commonalities, or any idea that you believe expresses who you are as a group based on your group discussion. You will have 15 minutes to choose your team name and draw a team logo to be shared with the whole group. It might be wise to ask someone in your group to be a Time Keeper to keep your group within our limited time frame. It is important that all team members be

included in the creating process. When you have finished, we will be posting your team logo *(if there is wall space)* to share with the whole group. The other small groups will try to guess what your commonalities are.

Instructions: As the teams are working, the Trainer circulates, only helping to give guidance to teams who seem to be stuck on getting a team name and logo. Teams that come to easy agreement and work quickly may finish before others. The Trainer can ask them to create a team handshake, a team cheer, or a team banner or flag to continue this teambuilding process. This additional assignment of a handshake or cheer is called a "sponge" activity, meaning it "soaks" up time for those who finish early. A sponge activity is not a penalty for finishing quickly. It should be something fun and creative to expand the experience and still keep teams focused on their goal.

When all teams have finished, ask each team to announce their name and display their logo. Ask the other participants to guess the origins of the logos. If a team has developed a handshake or a cheer, ask them to demonstrate it to the group. You may then explain the use of the "sponge" technique.

Point out that this teambuilding activity used a structure called Round Table, with the paper moving around the table, different than the discussion only being oral.

Narrative: (*Process by asking participants:*) How do you feel toward your partners/teammates? Can you see how this may prepare you to help each other learn new concepts and material? (*Allow time for responses.*)

How could you use this activity in your classroom?
What can we add to the Structure/Method & Technique chart?
(Round Table is a Structure, Teambuilding: Uncommon Commonality and Sponge are Techniques.)

Instructions: Ask the participants to turn to **H-6** in their packets. This page is for them to assess their own participation as a team or group member and is not intended as self-disclosure for the group as a group process. This self-assessment is for the Teambuilding activity the participants have just completed as team members. Groups may choose to share their individual responses together, but it is not necessary.

Ask if this self-evaluation could be used in their classrooms with their students.

Ask if self-evaluation is a technique or a structure. (Technique. *Add to the chart.*)

Narrative: Turn to **H-6** in your packet. You will see a self-evaluation form. We encourage you to think about yourself as a learner and as a teammate during this last activity. How do your assess yourself? Check the box for your answers about yourself. It is not necessary to share this with anyone else. This is included as a model for self-assesesment. In cooperative learning classrooms, students learn to reflect on themselves as individual learners and as group learners. (*Wait for participants to evaluate themselves .)* How do you think this self-evaluation could be used in your classroom? Do you think self-evaluation is a technique or a structure. (Technique. *Add to chart.*)

Reflection: Refer participants to Reflection **H-15**.

Narrative: Turn to your reflections page and take time to reflect on the activities of the morning; make some notes. Reflect on your feelings as a participant or student, and your observations as teachers. What do you want to remember from this morning?

LUNCH

Note: If this training is in an unfamiliar location for participants, ask any local residents in the group to recommend places for lunch. Remind the participants that the timing on this workshop is carefully scheduled. Ask them to be sure to be back in one hour. It is necessary for the trainer to stick to that time commitment, particularly for the participants who return in a timely manner. Late comers will need to catch up as they arrive back. It might be advisable to have one or two go out to retrieve lunches for others, placing the lunch order at the earlier break time.

Training Activity 7: Within Team Jigsaw

Intent: To present additional background information.
To model a simple cooperative structure: Within Team Jigsaw.
To demonstrate the elements of cooperative learning.

Time Allotted: 40 Minutes

Handouts: H-7 through H-9: Jigsaw Reading
H-11: Questions

Instructions: Jigsaw is one of the best known of cooperative learning structures. The Within Team Jigsaw is the simplest form of this structure. All participants will be reading the same content, but each member of each team will have one question to which s/he will pay particular attention in finding answers and will be responsible for leading a discussion of the response to his/her particular question within his/her team. This is an activity for creating knowledge. The team members need to count off so each one has a number: 1, 2, 3, and 4.

Narrative: There is more theoretical background on cooperative learning in your packet for you. This activity demonstrates a simple way for creating knowledge in the classroom. The process of learning this material will be through a "Jigsaw" structure. Jigsaw is the most commonly known structure connected to cooperative learning. The simplest form is called Within Team Jigsaw, in which all members have the same reading, but each person in the team will focus on a different question about the reading. To get started, please count off in your group; 1, 2, 3, and 4 . (*If some groups have 5 members, there should be two with the number 4.)*

Instructions: Trainer monitors that each team has counted off so they all have a number that will correspond to a question on the question page in their packet **(H-11.)**

Narrative: Turn to **H-7** through **H-9** in your packet. You will find a further reading on cooperative learning, from *Circles of Learning*, by Johnson and Johnson, well-known cooperative learning writers and researchers. Following the reading, on **H-11** are questions related to the reading. You will find a question corresponding to your number in the group. Each of you please read the selection silently and plan a response to your question. After your teammates have completed the reading, and have prepared responses to their individual questions, you may start discussing your questions, sharing and explaining to your teammates how you came to your answer. The discussion should follow a Round Robin process, starting with question #1 and teammate #1. By the end of the

discussion, all team members should have the same information. You will have 25 minutes for this activity. There will be an assessment activity after this to assure the material has been mastered.

Instructions: Trainer waits for silent reading to be completed and the discussion to start. If any team hasn't started discussing questions after 10 minutes, it may be necessary to help the team move on to the discussion part. Participants should be discussing and taking notes as they discuss the content. After a total of 35 minutes, ask the teams to stop. Tell them the next activity will be an activity for assessing the effectiveness of the group sharing of information. Point out how simple it is to take a common reading and design the use of the reading to foster participation of all learners by assigning different questions to each team member. This fosters sharing information and encourages discussion within the groups.

Tell participants to check with their teammates to be sure all team members have taken notes and can respond to questions about the content of the material.

Training Activity 8: Numbered Heads

Intent: To assess the effectiveness of team learning.
To review the content of the previous reading.
To model a simple cooperative structure: Numbered Heads.

Time Allotted: 10 Minutes

Materials: Overhead Projector and Markers
Marking Pen

Charts: C-3: Structure/Methods and Techniques Chart

Transparencies: T-4 :Numbered Heads Questions

Instructions: In this activity, the trainer will be assessing how well the teams shared information. The participants will learn a simple structure for assessment and will also evaluate their team as a learning team.

Tell the teams you are going to give a quick assessment of the content of the readings. This assessment has two purposes: to assess content mastery, and to assess the effectiveness of the team members sharing and discussing the content in the previous activity.

Narrative: This next activity is an assessment of learning which uses a new structure called "Numbered Heads." I am going to ask you questions about the reading content you have just completed. The questions will be what we call "high consensus." In other words, the response to the question I will ask is one in which agreement comes easily and is not necessarily debatable, different from an open-ended question designed to foster lengthy discussion, or one which may have several different answers. This type of question is also called a "closed" question. All members on the team must be able to answer the question posed, but only one team member may answer for the team. The procedure is as follows:

1. I will ask a question and also show it on the overhead projector.

2. Team members put your heads together to come to an agreed upon answer. Each team makes sure all the members of the team can answer the question.

3. I will call only one number for the response, corresponding to your number on the team. For example Number 1 refers to team member #1, # 2 refers to team member #2, and so on.

4. All the Number members from all the teams in the room who can answer the question raise their hands (*or stand up.*. So if I've called Number 3, all the Number 3's raise their hands. Only one of the Number 3's will be asked to respond, but the other Number 3's must agree that the response is correct.

This activity plays like a game. Again, the purpose is to review and recall information. If the team has worked together and helped each other learn the material, any member will be able to answer the questions.

Instruction: Ask for any questions for clarification about how we will be proceeding. Tell the participants you will be asking one question at a time. Place the overhead on the projector, revealing only question 1. Read the question, say "heads together," wait one minute for the teams to come to consensus, and then call on the #2's to raise their hands or stand up if they can answer the question. Call on one of the #2's and ask for a response. Ask if the other #2's in the room agree. When they say yes, write the answer on the overhead. Then go on to question #2. Choose any number from the team for a response, get the group's agreement before writing the answer. If the groups have a team handshake, they can practice their handshakes as they correctly answer the questions. This group structure lends itself to building teamwork for mastery. Students can be taught how to encourage each other, help focus each other on the task at hand, share knowledge, check with team mates for agreement, etc. This is another reference to roles team members can play.

Questions for Numbered Heads

1. What kind of learning environment discourages students from setting shared goals and helping each other achieve them, and fosters a negative interdependence? (Answer: Competitive)

2. Name at least four elements of cooperative learning. (Accept any of the elements listed on **H-10**, the last page of the Jigsaw reading.)

3. Which of the following is not reflective of a cooperative learning setting:
   a) Students accomplish shared goals.
   b) Students are encouraged to focus primarily on self-interest.
   c) Student learning depends on positive interdependence.
   d) Individual accountability is planned for.
   (Answer: b)

After the Numbered Heads activity, all teams give their team handshake.

Narrative: Do you think you can use Numbered Heads and Jigsaw in your classes? How would this work with your students? Where would these two activities go on our Structure /Method &Technique chart? (Structure.)

Instruction: Add Numbered Heads and Within Team Jigsaw to the Structure side of the chart.

Remind participants they will find the steps to these two activities on the Structure Handout (**A-2** to **A-9**.)

Training Activity 9: Team Evaluation and Calvin and Hobbes

Intent: To poke fun at the potential dehumanizing aspects of education. (Calvin and Hobbes.)
To model a team evaluation.
To include the cooperative element of Processing as part of cooperative learning.

Time Allotted: 10 Minutes

Chart: C-3: Structures/Methods and Techniques Chart

Handouts: H-12: Team Evaluation
H-15: Reflections

Transparencies: T-5 : Calvin and Hobbes
T-6: Team Evaluation

Instructions: This activity is to give participants an opportunity to reflect on themselves and their teammates as team members. They will be evaluating the team as to how it worked to produce learning in the previous activity. The Calvin and Hobbes cartoon is presented as a contrast between mechanized and humanized learning.

(T-5:) Place Calvin and Hobbes cartoon on the overhead. Ask if they can relate to the experience of Calvin in the cartoon. Explain that we hope with the introduction of cooperative learning in a classroom, these feeling will change for our students. Give a short time for any comments.

Narrative: Please turn to page **H-12** in your packets. You will see that this is a team evaluation. Previously, you did a self-evaluation which was not shared with others on your team. This time, I want you to evaluate your team for its effectiveness in group learning for the last two activities, Jigsaw and Numbered Heads. First, individually fill in the evaluation. Then you will share your response with your team. Each team member should have an opportunity to participate in this discussion.

Instructions: Give the teams about 5 minutes for this activity. At the end of the 5 minutes, ask teams to collectively identify one thing they felt was very strong about their team and what is one area the team could work on improving, if they were to continue working together. Before closing this activity, ask where they would write Team Evaluation on the Structures/Methods & Techniques chart. (Method/Technique.) Add it to the chart. Ask if they could see how a team evaluation might work in their classrooms.

Reflection: Refer participants to Reflections page.

Narrative:

Turn to **H-15:** Reflections page and take time to reflect on the activity for creating knowledge and assessment. What thoughts do you have about your own role as teachers in creating knowledge and the processing that is part of that learning?

Training Activity 10: Lesson Planning: Content Review

Intent: To apply the learning from the workshop to individual classrooms.
To reflect on the importance of active learning.
To demonstrate a technique for turning a lecture (passive learning) into an active learning activity.

Time Allotted: 1 Hour and 10 Minutes

Charts: C-3: Structure/Methods and Techniques Chart

Handouts: H-13: Learning Retention Pyramid

Transparencies: T -7: Learning Retention Pyramid

Instructions: This activity is to give participants an understanding of the importance of active learning, and to allow them to work in similarity groups to apply some of what they've learned to their own situations.

Tell the participants that we will be regrouping now into similarity groups, in other words, ESL teachers together, ABE or GED together, etc. Make whatever adjustments are necessary to assure that they are in groups of 3, 4, or 5. Those who are not in clearly defined teaching situations may place themselves in a group that they feel fits their needs.

Narrative: Please bid your teammates good-bye. Thank them for their support. You will now join together in similarity groups, ESL teachers together, ABE teachers together, etc. We want you to have time to process and apply some of the structures, methods and techniques you have experienced.

Instructions: Give the participants time to form new groups. Facilitate this by clarifying what roles people play, for example tutors in an ABE situation could form together with the ABE teachers or may choose to form a tutor group. Participants should place themselves where they feel they could get the most support. When participants are resettled tell them there will be a short lecture on learning in a student centered environment. Prepare **T-7** Learning Retention Pyramid for the projector.

Narrative: (Lecture) I want to talk about how the way we learn information is related to our retention of learning. You may want to take notes, or just listen as I speak.

There is a body of research determining how much students retain of what they learn over a period of time. There appears to be a

connection, not surprisingly, between how active the student has been in the learning process and how much is retained. In this demonstration I'm lecturing, and you, as students, are passive listeners. You may become more active by taking notes, but still, your overall involvement is passive. In looking at a pyramid of learning retention you will see that the less active the learner is, the less is retained. (**T-7.**) This pyramid is in your packet. I need to point out that these figures are generalizations, and there may be individual differences in learning styles to consider. As we go from passive to active you can see the impact on retention. The more the learner has to process and apply newly learned material, the more she or he retains. Even now, in this lecture, I as teacher cannot know what you are hearing or learning. You may not even be listening to what I'm saying. As long as you are looking in this direction and your eyes are open, I think I am communicating. The benefit of a cooperative learning classroom is that active learning is a classroom goal. The benefits to cooperative learning in active learning classrooms are:

- Active learning provides opportunities for positive interdependence.
- Active learning involves learners at a high level of processing.
- Active learning values the skills and background that adult learners bring to the classroom.
- Retention is higher the greater the involvement of the learner.
- There is greater accountability in active learning classrooms.
- It models a participative classroom environment that encourages all to take responsibility for their learning.
- Cooperative learning promotes a responsibility in the classroom between peers.

Instructions: In the lecture the trainer covers the key features of the pyramid. If necessary, point out that learning styles and learning modalities can also influence retention. At the end of the lecture, ask participants to do a Think/Pair/Share. First think individually about the lecture. Write the key points they heard in the lecture related to active/passive learning and cooperative learning classrooms. After a minute or two of writing, pair with a partner in their group to talk about their key points. After another two or three minutes, ask for a whole group Share. This lecture and sharing should take 15-20 minutes.

Narrative: Have you noticed how easily you can turn a passive Lecture/Listener activity into an active learning activity? Think/Pair/Share is a very flexible structure for many situations. If you are in an educational setting in which you need to do some lecturing, this structure used regularly throughout the lecture allows the learners to process and internalize their learning . I recommend that this occur at least every 10 minutes of the lecture.

Instructions: Tell the participants they will now be working in their similarity groups to plan a lesson for the interim in which they will choose a Structure *(Jigsaw, Numbered Heads, Think/Pair/Share, Round Robin, Round Table or Dance Card)* or Technique as listed on the chart that they have experienced in the workshop. Refer to the Structure/Technique chart. Ask them where Lecture should be added. (Technique.) Trainer adds to chart. Tell them to review the structures handout if needed. Their similarity groups will help individual members decide which would be appropriate for each of the members and give feedback in their lesson planning.

Narrative: Now that you are in similarity groups, each member of the group is responsible for developing a plan or activity for your interim assignment. Choose a structure or technique you have experienced today. Refer to the Structure/Methods and Techniques chart and the Structure page in your handout. If you choose to plan an activity using a structure, consider the function of the group activity and how it would fit the content and flow of the lesson. This is a practice and application homework assignment for this workshop. You have 50 minutes to plan. Plan about 20 minutes in preliminary review of the structures and techniques and then select what you would like to try. I'm available to help you, but your colleagues are also a resource for you.

Instructions: Trainer circulates from group to group, posing questions, observing discussion, etc. Watch out for people trying to do too much. They should be encouraged to start slowly. Planning to do too much may be a set up for failure. This period is a balance between caution and risk-taking.

Narrative: Are there any questions or comments from the group? Is there anyone who wants to share a lesson idea? We have ten minutes in which we may be able to offer feedback.

Instructions: Trainer allows for any comments, clarifying remarks, etc. Suggest that the people in the similarity group could be a support for one another in the interim. They might choose to exchange phone numbers.

Training Activity 11: Reflection

Intent: To review the workshop as a cooperative learning model.
To review objectives and identify participants' objectives to carry over.
To reflect on the learning in the workshop.

Time Allotted: 20 Minutes

Charts: C-1: Agenda
C-2: Objectives
Participants' Objectives Chart
C-3: Structure/Methods and Techniques Chart

Handouts: H-16: Objectives

Instructions: This activity is a culmination and reflection on how this workshop models a cooperative learning classroom. It will also be a reflection on the objectives we set out to meet.

Narrative: We would like to go back now and review how this workshop flowed as a model of cooperative learning and the objectives we set out to meet. Please think about or refer to your packet for the elements of cooperative learning. In looking at the Agenda and the Structure/Methods and Techniques chart, how do you see the climate was set for cooperation, class and group building? What activities helped promote Positive Interdependence? Group Processing? Accountability?

Instructions: Invite discussion on the above questions. If the group needs help in getting started on this kind of processing, help guide the discussion at first by asking how the beginning introductions helped build the climate, or what function Dance Card had with the learning. The discussion should proceed quickly, hitting key points of which techniques or structures promoted positive interdependence, which promoted group processing, individual accountability, etc.

Narrative: Now let's look at our objectives. First for the workshop objectives: do you think we have met all of these? Are there any we still need to address? These are also the same objectives for the second session, using some other structures and techniques. Now let's review your own objectives. Do you feel your personal objectives have been met?

Instructions: Trainer refers to the personal objectives of the participants. Point to each one, be sure the people who have identified a particular objective feel it has been met. If any participant feels his/her

objective still needs addressing, highlight it for Session Two. Assure the participants that they will have an opportunity to focus on these objectives next time.

(Optional) **Reflection:** Ask participants to turn to the reflections page for any additional reflections before we move to homework assignments and wrap-up.

Training Activity 12: Wrap-up, Evaluation and Interim Assignment

Intent: To wrap up the workshop and assign the interim activities.

Time Allotted: 15 Minutes

Activity: A-1: Goals and Evaluation

Handouts: H-14: Interim

Transparencies: T-8: Interim

Instructions: Ask for any lingering questions before assigning the interim activities.

Refer to **H-14** in packet. This page identifies the assignments to be completed before the next session. This is also on **T-8**.

Trainer places **T-8** on projector and itemizes orally.

The assignments are:
1. Teach the activity planned in the workshop.
2. Add an interim reflection to the reflections page.
3. Observe something in your environment with which you identify. It can be anything around you : physical, symbolic, human, printed, etc. Bring it or an explanation back to share with teammates at the next workshop.
4. Interim Reading Handout for reference.

Ask participants to return to the first handout of the day, **A-1**, the self-assessment and workshop evaluation. Give them time to rate themselves in question 5 as a post-workshop assessment and to complete the evaluation. Collect the evaluations.

Thank all for participating. Wish them a happy interim and tell them you look forward to hearing about their experiences in the next weeks.

Trainer removes the charts posted around the workshop room. Save the Structure/Technique chart and the Participants' Goals chart to bring to the next session. (This is very important to Session Two.)

Training Activity 13: Overview: Introduction, Workshop Objectives & Agenda

Intent: To reintroduce ourselves.
To share workshop objectives.
To review agenda.

Time Allotted: 10 Minutes

Materials: Participants' Objectives from Session 1
Masking Tape

Charts: C-5: Session Two Agenda
C-2: Objectives
C-3: Structure/Method Techniques

Handouts: H-16: Objectives

Before Session Two: Post **C-5**: Agenda, **C-2**: Workshop Objectives, **C-3**: Structures/Methods and Techniques Chart and chart of Participants' Objectives from Session One on wall.

Prepare one flip chart for each 3 to 4 participants. Page is divided the following way. (Save these charts until Training Activity 16:)

SUCCESS	CHALLENGES
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Set up VCR and monitor in working order and key the video: Witness to correct point in story (specific instructions under Training Activity 23.)

Narrative:

(When group is assembled...) Good morning and welcome to Session Two of the workshop, Cooperative Learning. My name is _____. By now you should have picked up a packet and a name tag. If you haven't done so, please do so now. (Assist as necessary.) On the wall is the agenda for today. (Trainer reads over agenda briefly.) We have an ambitious agenda today, so we will keep moving pretty briskly. Our objectives for today are the same as those for Session One. (Trainer reads the objectives briefly.) We will customize these pre-set objectives with the particular objectives that you bring to this workshop. On this chart of your goals from Session One, we highlighted those that remained unmet at the end of the last session. (Trainer reads aloud from chart only the highlighted objectives.) Today we expect to address these objectives and any new objectives that may have arisen for you during the interim period. A little later in the workshop we will add to this chart any new goals you may now have. I hope that the agenda and objectives match what you are expecting from today's session, and provide a framework and objectives for our day's work. Are there any questions? (Allow for responses from participants.)

Training Activity 14: Agreements

Intent: To model a climate and team-building technique.
To teach a democratic method for establishing group norms.
To permit participants to learn this method experientially.

Time Allotted: 15 Minutes

Materials: Flip Chart Paper
Markers
Masking tape

Chart: C-3: Structure/Methods and Techniques Chart

Instructions: Trainer tapes up a blank flip chart page and gets a marker. Trainer addresses the group.

Narrative: We're going to start today by creating group agreements about how we want to work together. How do you need this workshop to be run, how do we all want to treat each other, so we can be comfortable and learn well?

Instructions: Trainer waits for responses and records all on chart. This is essentially a brainstorm, with similar rules for inclusion. Expect responses like, "respect each other", "listen when someone else speaks," "share your knowledge," "criticize the issue, not the person," or "eating & drinking OK during workshop."
Other considerations:

- No suggestion should be rejected, since the person doing the speaking usually needs their item included to insure the safety, comfort, understanding, etc. necessary to commit their participation.
- For the most part, suggestions should be recorded in the participants' own words.
- Limited paraphrasing can be done by the trainer, or with group input, for clarity, simplicity or rendering a suggestion as a positive norm rather than a negative rule.

Narrative: (Trainer will be flexible, encouraging, responsive to brainstorming.)
Considerations:

- *In response to a negative suggestion...* "Don't interrupt"? Can you think of a positive way to phrase that? "Listen when someone else talks"? Many adult learners have had unpleasant school experiences before coming to us. Rules in most K-12 systems are phrased negatively, reinforcing a coercive atmosphere and an expectation of "bad" behavior. It is important when working with adults not to return to old school models that didn't work, and not to treat adults like children.

- *If one participant's suggestion generates wider discussion...* Dialogue over the meaning of a particular suggestion can help us clarify our norms. Could you say that again? Do you mean? Does this sound right? etc. (At end, to individual who initiated suggestion:) Does this statement still reflect what you wanted to say? Does it satisfy the rest of the group?

This document is intended to help us all be able to enjoy ourselves and learn well here today. Now that we have set our agreements, we will try to live by them. If we have any problems today and you see us moving away from our agreements, please say so. Since this is a living document, if you think of something later that you want added, please speak up. Similarly, in your classes, especially if you have an open entry-open exit policy, you will want to periodically review your agreements to see that everyone is aware of them, and to update them based on class experience, and newcomers' input.

Instructions: At end of Agreements brainstorm, debrief the activity. Trainer writes "Agreements" on the Technique side of the Structure/Techniques chart begun during Session One.

Narrative: How do you feel about this group now that we have done this activity? What expectations do you have about working together for the rest of the day? Can you imagine using this in your classroom? What do you think would happen? We'll add Agreements to the "Technique" side of the Structure/Methods and Techniques chart that we began during Session One.

Training Activity 15: Introduction: Sharing Identity Objects

Intent: To allow participants to reintroduce themselves to each other.
To model climate and team-building techniques.
To permit participants to learn this technique experientially.

Time Allotted: 25 Minutes

Materials: Personal "identity" objects or stories individuals have brought

Chart: C-3: Structure/Methods and Techniques Chart

Instructions: If the group is twelve or fewer, including the trainer, all stand up and gather in one circle. (This activity requires standing up for about 20 minutes. Get feedback from the group about whether they would prefer to sit.) If the group is large, gather in groups of 6 - 8. People can assemble according to the table they are already sitting around, or join together from two tables. After giving instructions, trainer should join one group.

Narrative: In your groups, take turns going around and saying your names, showing your "identity objects," telling why you chose them and why they are meaningful to you. Please take only up to two minutes apiece to talk about what you've brought, so that everyone gets a chance to speak. (Participants all speak and share, including the trainer.)

Instructions: If the group is standing, and tired, sit to debrief. Otherwise remain standing.

Narrative: How did this activity feel? How do you feel now about the other members of your group? Can you imagine using this activity in your classes? When? What do you think would happen? The "identity objects" that you brought today actually served two purposes. They told (or allowed you to tell) others a little something about yourself, so you now have a little more empathy and common ground with each other as you embark together on task-based activities.

The objects were also used in a way similar to another cooperative technique for moderating conversation: the "talking stick." Originating in some Native American cultures, as well as some African ones, the talking stick is a ceremonial object. The person who holds the talking stick becomes the designated speaker and all others must listen. The stick may be passed from one person to another, and its "power" of anointing a speaker passes with it. As it passes fully around a circle each person gets an equal chance to speak, although the holder is not required to speak, and may pass.

Using a talking stick can facilitate cooperation and a respectful climate in many conversations, especially ones that require deep thought, are heated or controversial, can be diverted by too much "cross-talk," or in groups that usually have a few dominant speakers with quieter people not getting a chance to talk.

Instructions: On Structure/Methods and Techniques chart, trainer writes Talking Stick on Technique side and points to the previously noted technique (from Session One) Ice Breaker, noting that this activity has been an Ice Breaker.

Training Activity 16: Lesson-Sharing: Part A

Intent:
To apply the principle of adult learning theory of beginning from learners' own knowledge base.
To activate and share participants' prior knowledge (schema activation.)
To provide a forum to reflect on learning.
To model and learn experientially the cooperative structure of "Talking Chips."
To practice previously introduced technique of Roles.

Time Allotted: 40 Minutes

Materials:
Individuals have brought thoughts, narratives, or evidence of their interim lessons
Black or White Board
Chalk or Dry-Erase Markers
Flip Chart Paper
Markers
Tape
Poker Chips or Coins, at least 100 (2 per person)
Prepared flip chart sheets for each small group: "Success/Challenges"

Activity: A-11: Success/Challenges

Handouts:
H-17: Lesson Reflection
H-18: Roles and Gambits

Instructions:
Before the workshop, trainer has prepared one flip chart sheet for every group. The top two-thirds of the sheet is a T-chart, divided into "Successes" and "Challenges." The bottom third is titled "Comments." (See drawing on next page.)

These charts are set aside. As activity begins, trainer has participants turn to handout (**H-17**) in their handout packets.

Narrative:
Please turn to handout **H-17** in your hand out packets. Take 5 minutes now to write some observations and reflections you have about the cooperative lesson that you designed and tried out during the interim between Session One and Session Two. This is a freewrite and will not be shared verbatim unless you choose to do so. Its purpose is to focus your thoughts. In particular, think and write about what worked best for you and your students, and what you might do differently next time. What was the experience like for you and your students?

SUCCESS	CHALLENGES
COMMENTS	

Instructions: All write individually for 5 minutes. During this time, trainer writes on the board the six possible roles that will be used later. The roles are: Resource Person, Recorder, Time Keeper, Reporter, Encourager and Checker. At end of time limit, have the group break up into the same similarity groups in which they ended Session One.

Narrative: Take one minute to finish writing your thoughts. (One minute later...) OK, stop writing. Assemble now into the same groups you were in at the end of Session 1, the people with whom you brainstormed your possible lessons, people who work in a similar environment to yours. (Allow time for similarity groups to reassemble.) In each group, you are now going to share your cooperative lessons. You may use your reflections to guide what you say if you wish to. Each person is going to get a turn to share, while the rest of the group listens, and then comments. Each group will then summarize its findings and share them with the other groups. In this way we can all benefit from this strong base of knowledge.

This activity is structured to encourage maximum cooperation. First, you will use roles in your groups. The four mandatory roles are: (trainer points to role list on board or chart):

- **Resource Person**, the person who is sharing their lesson experience
- **Recorder**, who will record the highlights of the Resource Person's experience and the group's commentary on a handout
- **Time Keeper,** and
- **Reporter**, who will explain the group's findings to other groups.

If there are more than four people in your group, other possible roles are Encourager, who encourages all to participate, and Checker, who checks for understanding during the conversation and for agreement on notes taken. Please turn to handout **H-18** in your packet that elaborates on these roles if you would like more clarification.

A tip on working in roles: as you work, notice the kind of language that people use. When handling roles, it works better to use positive ways of saying things, rather than giving commands. For example, a Time Keeper can avoid saying, "Hurry up, you're too slow," and instead say "We have just five minutes left."

As you can see, the role of Resource Person will rotate. When the Recorder or Time Keeper becomes the Resource Person, someone else will have to trade roles and record or keep time. This is a little bit complicated, but I think you'll get it. Are there any questions?

Instructions: Handout the activity handout (**A-11,**) ONE per group. Hand out the poker chips or coins, enough for two for each person. Tape a blank chart paper on the wall and on it or on the board make two columns. In the first column, write the questions: "What worked? What didn't work? How did it feel?" In the second column, write: "What interests me most about this lesson is... A suggestion I have is...."

Narrative: The Resource Person will speak for 4 minutes. S/he should offer a brief recap of the lesson, but spend the most time on the reflection questions used as prompts in the freewrite: what worked, what didn't work, how did it feel? (Point to questions in first column on board.) The other group members will listen. After the Resource Person has reported, the rest of the group has 2 minutes to comment. Comments might follow a format similar to: "the element that interests me most about this lesson is...," and "a suggestion I have is...." (Point to questions in second column on board.) The Time Keeper will monitor the 4 minute and 2 minute speaking times. The Recorder will record the Resource Person's and the group's remarks on the handout I just passed out. Recorders, anything you hear as a success, record under "successes" in column one. Anything you hear as unresolved or a wish to improve, record under "challenges" in column 2. As each discussion finishes, briefly reread your notes to check with the whole group that what was recorded is representative of the actual conversation. When the Recorder is the Resource Person, someone else will write on this sheet.

In an effort to encourage thoughtful remarks and to make sharing this brief two-minute comment time more equitable, group responses will be regulated using the poker chips or coins. Each

person takes 2 chips. When s/he speaks, they "spend" a chip, usually throwing it in a bowl or out on the table. When the chips are spent, the person can no longer speak. This is a useful technique, more often with 4 or 5 chips apiece, to try to balance groups that have very verbal members and very quiet members. If the very verbal person runs out of chips, s/he has to wait until the quieter members have had their say. When all the community's chips have been spent, the total can be gathered up and redistributed equally to start over. Similarly, in our groups, people will regather their chips to respond to each new Resource Person. Are there questions?

Altogether we will have half an hour for these reports. At the end of the half hour, every person in the group should have had a chance to share, everyone a chance to respond, and there should be a written record of the group's discussion. Questions? OK, first choose your roles, distribute your chips, and then you can get to work.

Instructions: Individuals in groups choose roles. Recorder starts with activity handout (**A-11**) sheet. Time Keeper should have watch or access to a clock. One person in each group will volunteer to start as Resource Person. Total activity continues for half an hour. Trainer wanders among groups to make sure directions are understood and being followed. Trainer is looking for two things, that each person gets a chance to share their cooperative lesson experience, and that all are trying out the roles and chip-regulated speaking techniques. If groups are running well, trainer can fade into the background. Trainer should give a five minute warning when activity is about to end. Trainer passes out pre-titled "Success/Challenge, Comments" flip chart sheets and markers to each group as activity ends.

Narrative: You have five more minutes. If anyone in your group has not yet shared as Resource Person, make sure they share now. (Wait 5 minutes.) OK, we have to stop now. I'm sorry this activity is so compressed. If you have similar sharing of knowledge, experience, or research in your classroom, you will probably want to allow quite a bit more time.

In a moment, we are going to take a break and conclude this activity when we come back. First, however, the Reporters in each group have a task to do during the first part of the break. Reporters, you will each enter the notes you have taken on your handout, **A-11**, onto the flip chart sheets I just passed out. If your notes are too long, please summarize. After you have filled in the top T-chart section of the sheet, post it somewhere in the room and enjoy the rest of your break. The break will be 15 minutes long. Let's come back together at _____.

Training Activity 17: Lesson-Sharing: Part B

Intent:
To apply the principle of adult learning theory of beginning from learners' own knowledge base.
To activate and share participants' prior knowledge (schema activation.)
To provide a forum to reflect on learning.
To model and learn experientially cooperative structure of One Stay, Three Stray.
To generate further participant objectives for Session Two.

Time Allotted: 35 Minutes

Materials:
Prepared Flip Chart Sheet from Each Small Group: "Successes/Challenges and Comments"
Flip Chart Paper
Markers
Tape

Chart: C-3: Structure/Methods and Techniques chart

Instructions: Trainer explains "One Stay, Three Stray" and instructs Reporters to sit by their team's poster, prepared to answer questions. Trainer passes out markers to everyone, and encourages all to write in the "Comments" areas of the posters as they circulate. Participants and trainer wander among the "Successes/Challenges, Comments" posters at their own pace, talking among themselves, seeking clarification from the Reporters, and writing their own comments on the posters. Allow 20 minutes.

Narrative: Using a technique called "One Stay, Three Stray," we will now share the knowledge among the small groups. Each group has produced a poster summarizing the successes and challenges its members faced while designing and delivering cooperative lessons. Reporters, now it is your turn to fulfill your roles. Each group's Reporter will stand or sit next to that group's poster, prepared to clarify or elaborate on its issues. The rest of us will each get a marker *(trainer passes out markers,)* and we will wander among the posters, read their contents, and think about or discuss with others what they mean to us. As we feel moved, we are all equipped with markers to write further remarks in the areas titled "Comments" on each poster. This is a time for reflection, learning, discussion, camaraderie. We'll take 20 minutes for this activity.

Instructions: Trainer prepares and posts a flip chart sheet entitled "Outstanding Challenges." When 20 minutes are up, trainer calls everyone back to their seats, and engages them in a full group discussion.

Narrative: Will you all please return to your seats? Thank you. Were there any overarching themes here? What are some of the things that made cooperative lessons successful? (Trainer takes general comments for a few minutes.) I mentioned at the beginning of the day that we would take time to add a few new goals you may have to our unmet objectives from Session One. Do you see any particularly pressing challenges on these charts that you want addressed today?

Instructions: Trainer writes several remaining challenges that participants suggest on "Outstanding Challenges" poster. Time for this activity should be limited, about 5 minutes. When through, the "Outstanding Challenges" sheet should be posted next to the poster of Participants' Objectives from Session One, so the two can be debriefed together at the end of the day. Process the entire activity with participants.

Narrative: As we continue through the day today, we will try to address these objectives as well. How did this whole reflection, sharing, and summary activity feel to you? Can you imagine using a similar activity in your classroom? On what project or content? (Trainer spends a few minutes facilitating reactions to the activity and ideas on applications from participants.)

Instructions: Identify all the structures and techniques used during the activity (One Stay/Three Stray, Roles, Talking Chips) and write them up on the Structures/Methods & Techniques chart.

Narrative: We tried several structures and techniques during this activity:

- When the recorder stayed on duty by her/his group's poster, and the rest of the group moved through the gallery walk, we were trying the structure, One Stay/Three Stray. In this structure, teams of four complete a task. Then, one person stays in position where the original group did its work, while the other three members fan out and collect data from the other teams. The "staying" partner has to explain her/his team's results or information to visiting members of other groups who come by. After gathering information from the other groups, the "straying" members can come back home and share what they've learned. In a way, it's the opposite of the expert jigsaw that you will try later today, in that the initial group is the expert group, and the ad hoc groups formed from "strayers" are the new learners.
- The Talking Chips are a technique for equalizing participation in a discussion .
- Roles we tried in Session One and used again here.

(Trainer writes each of these structures or techniques on the Structures/Methods and Techniques chart as s/he talks.)

Training Activity 18: The Affective Filter

Intent:

To apply the adult learning principle of adding new knowledge to activated prior knowledge.
To expose participants to the theory of the existence of an affective filter to learning.
To reflect on affective filters and learning from participants' own learning experiences.
To model a technique for forming heterogeneous and homogeneous groups.
To identify the different kinds of learning supported by each type of group.
To model skits as a teaching technique and provide an opportunity for participants to learn this technique experientially.

Time Allotted: 50 Minutes

Materials: Overhead Projector
Markers

Chart: C-3: Structure/ Methods and Techniques Chart

Handouts: H-19: Krashen
H-20: Reflect Three Times

Transparencies: T-5: Calvin and Hobbes Cartoon

Instructions: The first task of this activity is to dissolve the similarity groups and form heterogeneous groups. The group-forming technique used is a line-up or continuum. Have all workshop members stand up and assemble themselves into one line according to how far away from the workshop location they were born. After forming the line, starting at the "near" end, people call out their birthplaces. The trainer then folds the line, so that each person stands opposite one other person. The trainer folds the line a second time to create heterogeneous teams of four. (Note: If the group is large, the trainer should split some of the fours to create groups of six for the next activity.) The trainer talks about the different instructional applications of homogenous and heterogeneous groups. (Time: 5 minutes.)

Narrative: We are now going to read about and discuss a theory that describes classroom climate called the affective filter. For this activity, we will form new groups, using a technique known as a line-up or continuum. Please thank old group members and then stand up and assemble yourselves into one line according to how far away from this workshop location each of you was born. One end of the line (gesture where) is: "right here" and the other (walk

over to the other end) is as far away as our birthplaces get. Talk together and move around until you're lined up according to this criterion. (Wait until the line has been made.) Now, starting at the "near" end, call out your birthplaces and let's see what we've got. (All state their birthplaces. People may still shift places some.) Now I'm going to fold the line, so that each of you stands opposite one other person. (Line folds in half.) This new line is a good demonstration of heterogeneous versus homogenous groups. You can see that this end of the line consists of pairs of people born very far apart (heterogeneous,) while this end has partners born in locations relatively close together (homogenous.) For this activity I want more diversity, so we'll fold the line again to create all heterogeneous teams. (The line folds again to create heterogeneous teams of four.) Now you are in teams of four and there will be some diversity within each team.

Homogenous groups and heterogeneous groups are generally used for different learning purposes. Homogenous groups are often best for mastery learning. When we debriefed our lessons in similarity groups we were using the advantages of our shared populations/settings/instructional goals to develop expertise and to fine tune our lessons. By contrast, when the task requires problem-solving or creativity, a heterogeneous group, bringing together unlike talents, is often best. Our present activity requires creativity, so we've chosen to do it in heterogeneous groups. What questions do you have about homogenous and heterogeneous groups? Can you imagine using a line-up in your classroom? When or why?

Instructions: Ask people to sit down in their new groups of four (or six.) Have them turn to the Krashen handout (**H-19**) in the handout packet, and each read silently. Tell people that when they are done reading, they should form pairs within their team and discuss the reading for a few minutes. Questions to consider are: What are each person's own beliefs/experiences with the affective filter? Does it exist? How does it show up? When the pairs have discussed a few minutes, all members of the team together will share personal experiences where the affective filter was high. The team will then choose one of the experiences and develop it as a skit, not to last longer than four minutes. (Total time: 25 minutes.)

Narrative: Please sit down in your new groups of four (or six.) Turn to handout **H-19** in your handout packet. This is a selection from a text by Steven Krashen on the affective filter. Steven Krashen is a linguist who works primarily with second language acquisition theory. I'd like each of you to first read this text to yourself. Then form a partnership with one other person in your team and discuss the reading in these terms: What are each of your own beliefs/experiences with the affective filter? Does it exist? How has it shown up for you? When everyone in your team has had a

chance to read and discuss in pairs for a few minutes, I want the team as a whole to take turns sharing a personal story of an experience when the affective filter was high for you. By personal story I mean one where you felt that filter go up, not a classroom story where you saw a student have the experience. We are using personal stories in order to keep the learning in this workshop experiential. After you have all told your stories, pick ONE to dramatize to the rest of us as a skit. Your skits will have to last 4 minutes or less. Briefly plan out the skit and get ready to perform! You will have 25 minutes for this entire process. I will give you a 10 minute warning before the time is up.

Instructions: Call all teams back together. Have teams perform their skits for each other. Ask for a volunteer to start. Ask debriefing questions after each skit, unless the group is large, in which case, save the questions until the end. Summarize group's views on affective filter after all skits are finished. (Total time: 20 minutes.)

Narrative: OK, time is up. Please all turn your attention to the whole group again. (Wait for everyone to settle down.) Which team would like to volunteer to go first? (A team volunteers.) Great, you're on. (Team performs skit. When they are through, process briefly, unless group is large, in which case save all discussion until after all skits are performed.) Did any of the rest of you recognize this situation? How did it make you feel? Could you learn, solve the problem, perform effectively in this situation? How could this scenario be replayed to lower the affective filter? (Teams continue to give skits until all have performed.) Learning is often thought of as a cognitive process, but it is also social and emotional. When the social and emotional aspects are not recognized and honored, it can be very difficult to learn. The affective filter is one theory that describes this relationship, and why we as teachers need to plan for this dimension of learning in our classrooms.

Instructions: Turn on the overhead projector and put the Calvin & Hobbes cartoon (**T-5**) on. Have participants identify the different things Calvin is going through, or point them out yourself. Ask participants to comment about the affective filter in traditional K-12 school settings, how it may have affected learning for students who now come to you as adults, and what you can do about this in your own classroom. (Total time: 5 minutes.)

Narrative: Do you remember this cartoon of Calvin and Hobbes? (Put **T-5** on the overhead.) What's happening here? How does the affective filter show itself in traditional K-12 school settings? How has it affected learning for students who now come to you as adults? What about the expectations of ESL students, given their prior educational environments? What can you do about this climate in your own classroom?

Instructions: Tell participants to turn to **H-20** in their handout packet. Ask them to spend five minutes reflecting and writing about what they learned about the affective filter and how they want to use this learning in their practice.

Narrative: To conclude this activity, I'd like you each to turn to handout **H-20** in your handout packet. This page is a place to record your reflections on this activity and the next two coming up after lunch. Please take five minutes now to think and write about what you have just learned about the affective filter and how you want to use this learning in your own practice.

Instructions: Summarize teaching methods used in this activity by writing Line-Up or Continuum and Heterogeneous and Homogenous Groups on Techniques side of Structures/Methods and Techniques chart. Write Skits on Techniques side. Tell everyone that we now have one hour for lunch, and set an expected return time.

Narrative: Teaching methods that we have used in this activity include Line-Up or Continuum and Heterogeneous and Homogenous Groups, and Skits . (Write on chart.)

OK, it's lunchtime! We have an hour for lunch, so please be back at _____.

LUNCH

Training Activity 19: Social Skills

Intent:
To apply the adult learning principle of adding new knowledge to activated prior knowledge.
To highlight social skills as a key factor in successful cooperative learning.
To point out that social skills cannot be assumed and can be taught just as other skills are taught.
To practice using a reflection tool.

Time Allotted: 20 Minutes

Materials:
Flip Chart Paper
Markers
Masking Tape

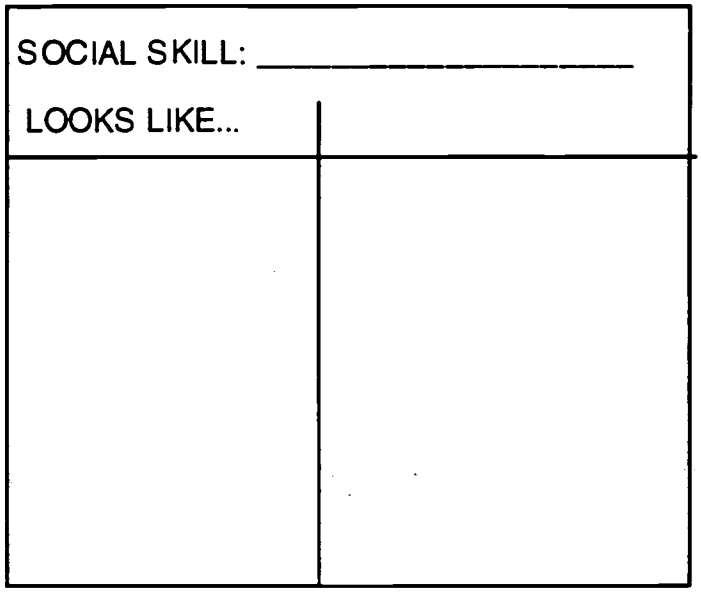
Chart: C-3: Structure/Methods and Techniques chart

Handouts: H-20: Reflect Three Times

Instructions:
Tape two blank sheets of flip chart paper to the wall. Ask group to brainstorm a list of social skills essential to successful group work. Write suggestions on first chart sheet as they are made. Expect suggestions like: listening, clarifying, rephrasing, questioning, respect, taking turns, encouraging, etc.

After ideas start to run out, ask group to pick one idea off the list to explore in more detail. Rewrite the chosen idea (social skill) as the heading at the top of the second chart sheet and create a T-chart under it. The two column headings on the T-chart are: "Looks like..." and "Sounds like..." (See Example on next page.)

Now ask for behavior-based descriptions of what this social skill looks like in action. All suggestions are recorded in the "Looks like..." column. Next solicit suggestions for what the skill "Sounds like" and record them in the appropriate column. For example, if the skill chosen was "listening," "Looks like..." suggestions might include: making eye contact, leaning forward, not fiddling with other materials, etc. "Sounds like..." responses might include: "uh, huh," not interrupting, asking clarifying questions like, "do you mean...?," etc.



Narrative:

Welcome back! Did everyone have a good lunch? We're going to look now at additional factors that affect classroom climate and the success of cooperative learning. Interpersonal problems are always high on everyone's list when it comes to issues that disrupt a group or derail learning. Some of us stick with laboratory style or teacher-centered instruction, just to avoid trying to facilitate or mediate student-to-student interaction. Group agreements and the method we're about to try to facilitate discussion about our behaviors are ways to assist adults in adjusting their styles and strategies so they can work together.

What are social skills, and what can be done to support them in the classroom? First, let's brainstorm a list of social skills essential to successful group work. *(Trainer takes suggestions and writes them all on chart sheet.)* Is that about it? We're going to explore one of these skills in more detail. Which one is something you have all dealt with, one that is very familiar? *(Wait for group to come to consensus on one skill.)*

OK, we'll focus on _____. I'm going to write this skill as the heading at the top of the next chart, and then turn this sheet into a "T-chart." We used a T-chart in Session One to debrief our work with the triangle, comparing working alone with working together. We're using another one as our Structures/Methods and Techniques chart. In this case, the headings on the T-chart, under the selected skill, will read, "Looks like..." and "Sounds like..." *(Trainer draws T-chart format and headings.)*

OK. Now, what does _____ look like in practice? We're looking for observable behavior, not abstract ideas. *(Trainer writes all suggestions on chart under "Looks like...")*

Now how about "Sounds like..."? *(Trainer records suggestions.)* OK, is that enough?

Instructions: Debrief with a discussion of when to use this chart, what ideas to expect students to offer, how to relate such a chart to class agreements, and thoughts on using this technique in participants' particular classrooms. At the conclusion of the discussion, point out that the technique of T-chart is already on our Structures/Techniques chart. Ask everyone to spend the last five minutes writing their thoughts about social skills and how to teach them on reflection handout **H-20**.

Narrative: Can you imagine making a chart like this in your classroom? When and why might you do it? How could learning styles and cultural differences impact what gets written on this chart, or how it is interpreted? How do you think your students would react to this activity?

Possible considerations:

- Major contributors to the field of cooperative learning lean in different directions on the issue of directly teaching social skills to adults. Johnson and Johnson lean toward seeing social skills as a separate content area, appropriate for direct instruction. Kagan tends to more closely follow the principle of andogogy that holds that adults learn best when there is a real-life reason or need to learn, and so social skills can be taught in context as the need arises. In any event, given the individualistic mainstream American culture that many of us have grown up in, we cannot assume that many of us are experienced in cooperative social skills.

- One function of setting agreements at the start of class is that the group's own norms are made explicit. Then if people break those norms, the group can be consulted to develop a solution. To prevent this discussion from becoming a shaming experience, analyzing the skill in behavioral terms on the T-chart depersonalizes the experience, and focuses on planning for a positive future by providing concrete pointers on what to do better next time. The adults in the class then all take responsibility to recommit themselves to their agreements (or to edit and rewrite them to clarify the class norms,) and to practice behaving in ways that support them. T-charts like these can be kept and displayed along with agreements in the classroom.

- Another social skills issue can be correctly interpreting behaviors that are based on learning styles or cultural differences. A kinesthetic learner who has to doodle to keep paying attention is still listening, even if s/he appears to be doing something else. A student from a culture where eye contact is considered rude is still listening when they look elsewhere. Talking over these habits and assumptions can yield a very rich discussion, and help prevent future misunderstandings. A discussion like this also allows students to advocate for themselves as learners, creating a more participatory, motivating, and equitable classroom. As teachers, we benefit from another chance to question our own assumptions and improve our practice.

Please turn again to handout **H-20**, the reflection sheet, in your handout packet. Take five minutes to think about social skills, agreements, the T-chart and what we just did. You'll remember the T-chart and inquiry learning from Session One. Record your thoughts on this and how you might use it in your own practice.

Training Activity 20: PIGSS Face

Intent:
To apply the adult learning principle of adding new knowledge to activated prior knowledge.
To review and retain the five basic elements of cooperative learning, and structure.
To practice using a reflection tool.
To keep people awake after lunch.

Time Allotted: 15 Minutes

Materials: Overhead Projector

Activities:
A-12 through A-17
A-18: PIGSS Wallet Cards - one per participant

Handouts:
H-20: Reflect Three Times
H-21: Cooperative Learning Mnemonic

Transparencies: T-10: PIGSS Face-Up

Instructions:
Before this activity, the trainer has selected enough sets of laminated signs of coop principles plus structure so there is one sign for every workshop participant (**A-12** through **A-17**). If the number of workshop participants is not evenly divisible by 6 (the number of cards in each set,) the trainer should pull out extra "Structure" cards from unused sets until there are enough cards for everybody. There may be more than one "structure" person per group. The trainer then shuffles all the cards so they are random.

The trainer asks participants to turn to handout **H-21** in their handout packets and asks the group to figure out the mnemonic. When group has successfully done so, trainer puts transparency **T-10** on the overhead so everyone can get a big laugh. Trainer reviews the five principles and the concept of structure, explaining that all are necessary in a successful cooperative activity.

Narrative:
Now we're going to briefly review the five basic elements of cooperative learning, as outlined by Johnson and Johnson, and the added element of structure, as suggested by Spencer Kagan. Please turn to handout **H-21** in your handout packets. The list of elements on this page is the same as those you were introduced to in Session One. They have, however, been rearranged. Can anyone figure out why? *(Wait for someone to figure out the PIGSS Face mnemonic.)* Right. Now you will never forget these six key elements because they spell something so completely ridiculous. *(Turn on the overhead projector and place transparency **T-10** on*

the screen.) These phrases are pretty heavily loaded with jargon. Translated:

- Positive interdependence means that everyone in the group depends on everyone else in the group to get the job done.
- Individual accountability means that each person will be held accountable to do their share.
- Group processing means that after a task is completed, the group will discuss how it went, what they did well, and what they'd like to improve next time.
- Social skills means that each person has to behave in ways to get along together.
- Structures are activities pre-planned to require cooperation to complete successfully.
- Face-to-face interaction means that people have to engage with each other in order to cooperate.

All of these six elements are necessary and must be present in a cooperative activity for it to be successful. Are there questions?

Instructions: Explain that we will try an activity to practice remembering these key elements and at the same time, form new groups. Pass the cards out, instructing each participant to take one, and keep it face down. After all the cards have been distributed, tell everyone to turn over their cards and circulate around the room to find the missing 5 partners needed to form a complete "pig sty," that is , a team with one of each of the 5 principles plus structure, as shown in the mnemonic. If the trainer has inserted extra "Structure" cards, s/he needs to indicate that some teams will have two structure representatives. Participants move about and form "stys."

Narrative: Now we'll try an activity to practice remembering these key elements. In addition, this activity will help us form new randomized small groups for our final big project of the day. I'd like each of you to take one card off the top of this pile I am passing around. Don't look at your card until I tell you to. *(Trainer passes out laminated cards to all, randomized sets of **A-12** through **A-17.**)* On the other side of your card will be one of the cooperative elements, or the word "structure." What I am going to ask you to do in a minute is to turn over your card, and circulate around the room looking for the other 5 cards that will make a complete set, that will spell "PIGSS Face." When the six of you have found each other, you will have created your new randomized group, or "pig sty." Are there any questions? OK, now turn your cards over. Go forth and create your sty!

Instructions: Once all the "stys" have been formed, the trainer has the teams rearrange themselves in several formations like the card sections at football games. Do this quickly, keeping the mood light. Explain that these are all memory games aimed to increase participants'

retention of the material. As a reward at the end, trainer passes out PIGSS Face wallet cards (**A-18.**)

Narrative: Good job! Now we'll run through a few quick tricks in your stys, designed to reinforce these words for you and encourage you to retain them. Remember the card sections at college football games? Looked easy? Well, let's see. In your sty, using your cards, I want you all to spell "PIGSS Face." (Wait until all do.) Good! Now, spell it backwards! (When completed...) Excellent. How about the P, G, and Structure "S" cards standing forward. Great! Now the I, S and "Face" cards. All right! This is a little like numbered heads, where each of you has to be ready, and individually accountable, to do your part. Do you think you can remember the elements now? In honor of your fine work and excellent cooperation in this exercise, I have a little gift for you. (Hand out PIGSS Face wallet cards.) You are now all officially card-carrying cooperators. Carry it in good health.

Instructions: Trainer turns off the overhead and asks participants to sit down again, in their new groups. Ask everyone to write for five minutes on their reflection page.

Narrative: Now please sit down in your "stys." Take five minutes, one last time, to pull out your reflection sheet, **H-20**, and write your thoughts about the basic cooperative elements and how you imagine using them in your practice.

Training Activity 21: Expert Jigsaw: Part A - Creating and Sharing Knowledge

Intent: To broaden participants' knowledge of the elements of cooperative learning.
To model the cooperative structure: Expert Jigsaw.
To provide an activity for consolidation of learning.

Time Allotted: 45 Minutes

Materials:
Overhead Projector
Flip Chart, Chalk or White Board
Markers, Chalk or Dry-Erase Markers
Markers for Creative Presentation
Colored Paper
Blank Transparencies
Scissors
Glue

Activities:
A-2 through A-9: Structures
A-19 and A-20: Positive Interdependence
A-21 and A-22: Individual Accountability
A-23 through A-25: Formal and Natural Approach to Skill Development
A-26: Group Processing
A-27: Face-to face Promotive Interaction

Charts:
Structures/Methods and Techniques Chart
C-6: Chart of Expert Jigsaw Readings

Handouts: H-22: Learning Retention Pyramid

Transparencies:
T-11: Expert Group Instructions
T-7: Learning Retention Pyramid

Instructions: This activity is intended as a consolidation of previous learning for participants and an opportunity for application. Teams (Stys) formed from the previous activity will be the home team for the Expert Jigsaw activity. Each member of the team will have a different reading that will extend their understanding of the elements of cooperative learning. New temporary teams will be formed of representatives from each home team according to the element they have in common. These will be the expert groups. For example in each sty there is one member who represents Positive Interdependence. All the Positive Interdependence representatives will leave their home teams and form an expert team to read additional materials about positive interdependence. Another expert group will form to read further about individual

accountability, etc. In their expert groups, they will read and then plan for presentation of the essence of their reading back to their respective home teams. Prepare a chart listing the Expert readings to reference when giving the directions.

Narrative:

At this point I'd like to introduce a new structure called Expert Jigsaw. As you learned in the first workshop, the Jigsaw structure is one structure most commonly associated with cooperative learning. In Session One we did a Within-Team Jigsaw.
- What do you remember of that structure?
- What were the steps?
- Why was it called a jigsaw?
- What was the content of the reading?

(Expect responses such as: There was a common reading; each team member was responsible to read and learn or respond on one aspect of the reading; team members had to teach each other about their part; the reading was about cooperative learning, etc. If the participants don't remember the steps, refer them to the structure page in Session One Packet.)

What elements of cooperative learning were in effect in the Within-Team Jigsaw? *(Positive Interdependence, Individual Accountability, Face to Face Interaction, Social Skills, Structure)*

And if you remember, we did a team evaluation afterwards, which you shared with each other as Group Processing. You can see why the Jigsaw is so closely associated with cooperative learning, since it provides the learners with an opportunity to develop many skills at many different levels.

Instructions:

Prepare the participants to take on their individual assignments. The readings provided cover the basic elements as defined by David and Roger Johnson, and do not include a reading on Structure as an element. The structure page in Session One's packet provided sufficient information on why structure supports the implementation of cooperative skills and learning, and might be redundant included again at this time.

Therefore, the readings will be assigned as follows - Positive Interdependence will read Jigsaw A, Individual Accountability will read Jigsaw B, Social Skills will read Jigsaw C, Group Processing will read Jigsaw D, Face to Face Interaction will read Jigsaw E. The Trainer will assign one "Structure" person to each of the Expert Groups to insure that structure is included in the planned presentations. Resources on structure for expert groups from the content of the workshops should be indicated for the groups as follows: Structure reading from Session One, Structures/Methods and Techniques chart, Learning Retention Pyramid (**H-22 and T-7.**)

Post the Expert Jigsaw Reading Chart (**C-6**) before starting the explanation.

Narrative:

Let's prepare to move into Expert Groups. You are now in your home team (Sty.) You will be leaving your team to read more about individual elements of cooperative learning. Then you will return to your home team to present what you have gained from your reading. Before we move out of our home teams, we need some preparation and directions.

- First: In your group assign yourself a letter A, B, C, D, or E according to the card you hold in your sty and its match to these listed readings. (Point to chart. Wait for each one to identify his/her letter.)
- You'll notice that there is no letter for Structure. Structure people please take Letter F.
- When I finish with the directions, you'll be moving into Expert Groups. All the A's will form a group, all the B's, and the C's, etc.
- When the Expert Groups are formed, each F will join one group. The F is the Structure person and will help the groups plan for structure in their presentation.
- After you are in your Expert Groups, you will receive your reading. Take a few minutes to read your article. When all are finished reading in your group, you'll have time to discuss the material, making sure you have a general understanding of the content.
- You all have the same assignment (Put **T-11** on the overhead and read.) How will you present the information or materials to your home teams?
- In your Expert Groups, plan a presentation to your home team that will convey the essence of the content of your reading. You may design your presentation in any form your group chooses, as long as it accomplishsd these objectives: conveys the essence of the materials, uses one of our learned structures or techniques, and considers the importance of active learning in the presentation. The Structure member will have the responsibility of facilitating the inclusion of structure and/or some dimension of cooperative learning into your presentation. Each presentation should not exceed 5 minutes.
- You will then return to your home team for your presentations.
- You will have 35 minutes for planning your presentation. We will also take a break before you return to your home team.
- There are a variety of materials you may use available here for your presentation. You will find them on this materials table.

Instructions:

As the steps to this activity are presented, write on the board or flip chart the essential steps. (For example) Join into Expert Groups; Read; Discuss; Plan for Presentation; Include Cooperative Learning Structure and/or Element in Presentation.

Ask for any clarifying questions before forming the Expert Groups. The Expert Groups will have the remaining time for reading, discussing and planning their presentations. Sometimes Expert Groups have requested that they present their content to the whole workshop as a group presentation, particularly if the presentations are in the format of plays, songs, dramas or task sharing. This has worked very well, as long as the trainer can facilitate the presentations so that when the presentations are made after the break, they skip the group presenters until the end so the whole expert group is available at the same time to do their workshop presentation. Before the groups start working, they may need to choose a Time Keeper to insure that groups stay on task and complete their work before the break. Some may choose to work through the break. If the Expert Groups choose to make a poster, they will also have to make a plan for presentation at different times in their home groups so they can send the poster from group to group. This sounds more complex than it is, but the trainer needs to anticipate the possibilities and ask the individual Expert Groups to plan for these contingencies. When the workshop is small, 12-15 participants, the trainer might suggest that all presentations be designed to be whole group presentations, rather than home team presentations.

Break 15 Minutes

Training Activity 22: Expert Jigsaw: Part B

Intent: To share the Expert Group Lesson.
To give learner feedback to presenters.

Time Allotted: 40 Minutes

Materials: Markers

Activity: A-28: Feedback Form

Charts: C-3: Structure/Methods and Techniques Chart

Instructions: This activity is essentially the presentations from the Expert Groups. As the trainer has monitored the planning from the previous activity, he/she should have consulted with the groups as to how they planned to present, and has made notes to inform the participants of how the presentations will go. After the break, ask the participants to return to their home teams. Let them know if there will be individual presentations or group presentations so they can manage the sequence of Expert sharing. This activity will allow for presentations of approximately 5 minutes each. After each presentation, the home team members fill in the feedback forms and give them to their presenter.

Narrative: As you return from the break, please return to your home team. Each one of you will have an opportunity to share your planned presentation in your home team. Your home teams need to plan first for who will be the first presenter, the next, the next, and so on. Please take a minute now to do that. (Wait 1 minute.)

As you are listening to your teammate's presentation, please notice if the presentation has included a structure, a technique, or an element of cooperative learning. Also notice if the learning involved you actively. You will find feedback forms (**A-28**) at your tables. Please take a minute after each presentation to fill out the form. These will help your teammate assess the effectiveness of his/her presentation and know if he/she met his/her objectives.

Instructions: Each team proceeds with the presentations. The Trainer may join a group or move from group to group to get a sense of how it is going. If there are any whole group presentations, leave these for the final ones, so this sharing ends on a whole group activity. After the presentations have concluded call for the attention of the full group. Debrief the activity.

Narrative: What were some important learnings you got from this Expert Jigsaw activity? What would you have done differently? Do you

see the Expert Jigsaw working with your students? On our Structure/Methods and Techniques chart, where would you add Expert Jigsaw? *(Structure)* What about the Feedback Forms? *(Technique)*

Training Activity 23: Video: Witness

Intent: To experience the elements of cooperative learning and climate synthesized and in action.
To provide an opportunity to reflect on and analyze this "complete" cooperative experience.

Time Allotted: 10 Minutes

Materials: VCR and Monitor
Witness Videotape Cassette

Instructions: Trainer sets up VCR, monitor and Witness tape ahead of time. Tape is keyed to begin just before the barn-raising scene, as the wagons are driving through the grass. Ask group to sit back and observe an excerpt from the tape which will show a group cooperating to accomplish a task. Ask participants to notice all they can about the experience and be prepared to discuss it. Play the tape.

Narrative: Now we're going to watch an excerpt from the movie Witness. Has anyone here seen that movie? The clip we're about to see shows a group cooperating to accomplish a task. While you're watching, notice all you can about the experience, from the cooperative elements you see present or absent, to whether or not their task is completed successfully. Also notice both the feelings expressed by the actors and the ways you feel yourself as you watch.

Instructions: All watch excerpt from tape. Turn the tape off after the barn framework is raised, during the scene when everyone sits down at the long tables under the trees to eat. Debrief people's observations and feelings about what they saw. As you get comments, note their cooperative learning element.

Narrative: What did you see?
(Allow time and silence in this discussion. You may get answers like:)

- They all worked together (structure.)
- They shared tools, water (positive interdependence.)
- It couldn't have been done alone (structure.)
- They taught the children the skills and norms (social skills.)
- They had a common purpose (positive interdependence.)
- If someone had not helped push, the whole thing couldn't have gone up (individual accountability.)
- They had to look at each other to hand off tools, give directions, ask for help (face-to-face interaction.)
- I bet they talked about what they had accomplished at lunch (group processing.)

- You may also get comments about roles (men and women doing different work,) seen as both good and bad.

(Further questions you might ask of the group to elicit more discussion could be:)

- What direct instructions were given to guide this group?
- What unspoken agreements did you see?
- How was the outsider integrated into this group?
- Did these people accomplish their goal or task?
- How do you think they felt about their endeavor?
- How did the tape make you feel?

Training Activity 24: Recommendations For Implementing & Sharing Your Learning

Intent: To expose participants to research on methods that support staff development.
To provide a method to stay in contact.

Time Allotted: 10 Minutes

Materials: Index Card Signs of categories of adult education: i.e. ABE, ESL GED, Administration, etc.
Overhead Projector
Overhead Markers
Hats

Handouts: H-23: The Effects of Staff Development

Transparencies: T-12: The Effects of Staff Development (1)
T-13: The Effects of Staff Development (2)

Instructions: Explain to participants that we're going to wrap up the workshop by thinking about how we can continue to support each other. Ask people to turn to handout **H-23** in their handout packets. Put the transparency **T-12** on the overhead projector. Summarize Joyce and Showers' research objective. Fill in the first line of research results on the overhead. Tell people to buddy up with the person next to them, and discuss the handout, filling in the rest of the empty boxes according to their combined best judgment. Give people three minutes to complete the matrix.

Narrative: We're going to wrap up the workshop by thinking about how we can continue to support each other in learning about cooperative learning and implementing it in our classrooms. Please turn to handout **H-23** in your handout packets. (Put the transparency **T-12** on the overhead projector.) Two educators, Joyce and Showers, did research on what methods of staff development had the greatest impact on educators' practice. This handout shows a matrix for their findings. We left out most of the actual percentages of their results so in a minute you can estimate them.

Look at the first row, "Lecture (theory,)" as an example of how to complete this matrix. Seventy to eighty percent of staff interviewed reported greater knowledge after staff development lectures. (Write 70 -80% on the overhead under "Results: Knowledge.") Five percent reported having greater skill after such a lecture. (On transparency, write 5% under "Results: Skill.") Under "Results: Transfer," you can see the transparency already has a dotted line, meaning: there was no transfer. No one implemented what they

learned in an ongoing way in their classroom practice. So what were the results of the other methods of staff development? Partner up with a person sitting next to you and see if the two of you can figure it out. You'll have three minutes to discuss the handout, agree on how you want to predict the results, and fill in the matrix. Are there any questions?

Instructions: After three minutes, have teams call out the percentages they have entered into each box. Write range of suggestions down in the appropriate box on the transparency. Replace with second transparency (**T-13**) on the overhead and discuss the actual research results, pointing out the very low percentage of transfer without follow-up in the form of regular training, meetings, and coaching.

Narrative: OK, time to stop. Let's see what estimated numbers we've come up with. (Have teams call out their percentages and enter range into each box.) OK, you've said .....(briefly summarize the group's results,) now let's see what Joyce and Showers found. (Put the second transparency (**T-13**) on the overhead.) The most important thing to notice about this research is the lack of significant transfer until you get down to the last line. Using post-training follow-up methods of regular training, meetings, and coaching boosted people's ability to really use the skills in practice up to 70 - 80%. This is the only effect your students will ever really feel. So if you want to become comfortable with cooperative learning, have its structures, techniques, and philosophy as tools in your toolkit, then keep working together after this workshop is over.

Instructions: Explain to participants that in an effort to support the kind of staff development that Joyce and Showers say works, we will now match up post-workshop buddies. Have each person write her/his name and phone number on a slip of paper. Set out _____ (as many categories as seem appropriate for your group) hats representing the following general work similarity areas: ABE, ESL, GED, education administration, family literacy, prison, tutor programs, etc., writing up an appropriate index card sign next to each hat. Have participants put their papers in the hat of choice. Tell them to stay in small groups around the hat they've chosen, and have one person mix the papers up. Each person then draws a name back out. When everybody has a name, each person should briefly introduce themselves to the person whose name they have drawn and discusses how they want to begin this relationship. After a few minutes to come to agreement, ask everyone to sit down.

Narrative: As a way to facilitate this kind of on-going support, we're going to match you up with an after-workshop buddy. I'd like each person to write her/his name and phone number on a slip of paper now. I'm

setting out hats representing the following general work similarity areas: ABE, ESL, GED, education administration, family literacy, prison, tutor programs, etc. After you've filled out your paper, fold it and drop it into the hat whose category of education most fits or interests you. Stay around the hat you've chosen, and one of you mix them all up. OK, now each person draw a name back out. If you draw your own name, throw it back and try again. You will not necessarily be paired. If you have A's name, and A has B's. and B has C's, that's OK; that will start a chain reaction of communication and self-education. The more the better. OK, has everybody got a name? Reintroduce yourself to your new partner and discuss briefly how you might begin this relationship: faxes? phone calls? afternoon tea? tomorrow? in two weeks? at the end of the semester? Make some agreement on how you wish to communicate. (Allow a few minutes for this exchange.) OK, if you will all please sit down now, we'll wrap up the day.

Training Activity 25: Final Reflections

Intent: To summarize and review the workshop.
To provide for final responses to and dialogue on participant objectives.
To provide additional resources.

Time Allotted: 10 Minutes

Materials: Participants' Objectives Chart (from Session One)
Outstanding Challenges Chart (from Session Two)

Activity: A-29: Bibliography

Charts: C-1: Agenda Chart
C-2: Workshop Objectives Chart
C-3: Structures/Methods and Techniques Chart

Instructions: Arrange the five charts: Workshop Objectives, Agenda, Participants' Objectives, Outstanding Challenges, and Structures/Methods and Techniques, so that they are close together and can all be seen at once. First briefly review the Agenda and Workshop Objectives. Next, review the Structures/Methods and Techniques chart. Go to the Participants' Objectives chart and read aloud any highlighted objectives. Gather feedback from participants about whether these objectives have been fully or partially met, and where to go for further information or help if necessary. Do the same with the issues listed on the Outstanding Challenges chart. Ask for any remaining questions. Hand out the bibliography.

Narrative: Let's go back now to what we intended to accomplish today and see how we did. Here are our Agenda and our stated workshop objectives. (Briefly read down the two charts.) So we've managed to fit it all in. During the course of all these activities, we took part in a number of cooperative structures and practiced many teaching techniques. (Briefly read over the Structures/Methods and Techniques chart.) I hope many of these were new and interesting to you and will prove useful in your practice. Finally, let's look at the particular objectives you brought to this workshop. Have they been addressed? What more needs to be done? (Read the highlighted objectives from the Participants' Objectives chart. Gather feedback from participants about whether these objectives have been fully or partially met, and where to go for further information if necessary. Do the same with the issues listed on the Outstanding Challenges chart.) I hope we have made a decent try at answering your questions and giving you tools for the future. Are there any remaining questions? Here is a bibliography of some important writings in the field of cooperative learning (**A-29,**) which I hope you may also find of interest.

Training Activity 26: Wrap-Up Evaluation

Intent: To allow participants to evaluate the workshop.
To thank participants.

Time Allotted: 5 Minutes

Handouts: H-24: PDS Evaluation

Instructions: Ask participants to turn to the final handout in their packets, **H-24**. Show them the envelope for collecting evaluations and ask them to please fill out the evaluations and leave them in the envelope. Thank them for their participation.

Narrative: Finally, please turn to the last handout in your packets, handout **H-24**. This is a workshop evaluation, and we need your honest and thoughtful comments so we can continue to improve this workshop for future participants. Here is an envelope for your completed evaluations. Please take a few minutes and fill out your evaluations and then leave them here in the envelope.

I would like to thank you all for participating. You've been wonderful to work with. I wish you all the best in your future teaching!

PREREADINGS

Reflections

Introduction

> "I'm just a cowhand from Arkansas, but I have learned how to hold a team together. How to lift some men up, how to calm down others, until finally they've got one heartbeat together, a team. There's just three things I'd ever say: If anything goes bad, I did it. If anything goes semi-good, then we did it. If anything goes real good, then you did it. That's all it takes to get people to win football games for you."
>
> - Bear Bryant, Former Football Coach, University of Alabama

Like all organizations, schools must adapt to changes in their environment or risk fading away like the dinosaurs. The dinosaurs presumably made good day-to-day adaptations to their environment. They probably made a pretty good choice of what leaves to eat from what trees, and selected the most the most desirable swamps in which to slosh. At a tactical level of decision, we have no reason to believe that these giant beasts were not reasonably competent. But when faced with major changes in the earth's climate and the resulting changes in plant and other animal life, the dinosaurs were unable to make the fundamental changes required to adapt to the new environmental conditions. Schools may now be faced with new environmental conditions that require them to do what the dinosaurs could not. Schools need to make fundamental changes in the ways students are instructed. The changes are known as the new paradigm of teaching.

Changing Paradigm of Teaching

Cooperative learning is part of a broader paradigm shift that is occurring in teaching. Essential elements of this paradigm shift are presented in Table 10.1 (Johnson, Johnson, & Holubec, 1992;Johnson, Johnson, & Smith, 1991)

The **old paradigm of teaching** is based on John Locke's assumption that the untrained student mind is like a blank sheet of paper waiting for the instructor to write on it. Student minds are viewed as empty vessels into which teachers pour their wisdom. Because of these and other assumptions, teachers think of teaching in terms of these principal activities:

1. Transferring knowledge from teacher to students. The teacher's job is to give it; the student's job is to get it. Teachers transmit information that students are expected to memorize and then recall.

2. Filling passive empty vessels with knowledge. Students are passive recipients of knowledge. Teachers own the knowledge that students memorize and recall.

3. Classifying students by deciding who gets which grade and **sorting students into categories** by deciding who does and does not meet the requirements to be graduated, go on to college, and get a good job. There is constant inspection to "weed out" any defective students. Teachers classify and sort students into categories under the assumption that ability is fixed and is unaffected by effort and education.

4. Conducting education within a context of impersonal relationships among students and between teachers and students. Based on the Taylor model of industrial organizations, students and teachers are perceived to be interchangeable and replaceable parts in the "education machine".

5. Maintaining a competitive organizational structure in which students work to out perform their classmates and teachers work to outperform their colleagues.

6. Assuming that anyone with expertise in their field can teach without training to do so. This is sometimes known as the content premise--if you have a Ph.D. in the field, you can teach.

The old paradigm is to transfer the teacher's knowledge to a passive student so that teachers can classify and sort students in an norm-referenced, competitive way. The assumption was that if you have content expertise, you can teach. Many teachers consider the old paradigm the only alternative. Lecturing while requiring students to be passive, silent, isolated, and in competition with each other seems the only way to teach. The tradition of the old paradigm is carried forward by sheer momentum, while almost everyone persists in the hollow pretense that all is well. All is not well.

Teaching is changing. The old paradigm of teaching is being dropped for a **new paradigm** based on theory and research that have clear applications to instructions. Educators perhaps should think of teaching in terms of several principal activities.

First, knowledge is constructed, discovered, transformed, and extended by students. Teachers create the conditions within which students can construct meaning from the material studied by processing it through existing cognitive structures and then retaining it in long-term memory where it remains open to further processing and possible reconstruction.

Second, students actively construct their own knowledge. Learning is conceived of as something a learner does, not something that is done to a learner. Students do not passively accept knowledge from the teacher or curriculum. Students activate their existing cognitive structures or construct new ones to subsume the new input.

Third, teacher effort is aimed at developing students' competencies and talents. Student effort should be inspired and secondary schools must "add value" by cultivating talent. A "cultivate and develop" philosophy must replace a "select and weed out" philosophy. Student's competencies and talents are developed under the assumption that with effort and education, any student can improve.

Fourth, education is a personal transaction among students and between the teachers and students as they work together. All education is a social process that cannot occur except through interpersonal interaction (real or implied). Learning is a personal but social process that results when individuals cooperate to construct shared understandings and knowledge. Teachers must be able to build positive relationships with students and to create the conditions within which students build caring and committed relationships with each other. The school then becomes a learning community of committed scholars in the truest sense. The more difficult and complex the learning, the harder students have to struggle to achieve, the more important the social support students need. There is a general rule of instruction: The more pressure placed on students to achieve and the more difficult the material to be learned, the more important it is to provide social support within the learning situation. Challenge and social support must be balanced in students are to cope successfully with the stress inherent in learning situations.

Fifth, all of the above can only take place within a cooperative context. When students interact within a competitive context, communication is minimized, misleading and false information often is communicated, helping is minimized and viewed as cheating, and classmates and faculty tend to be disliked and distrusted. Competitive and individualistic learning situations, therefore, discourage active construction of knowledge and the development of talent by isolating students and creating negative relationships among classmates and with teachers. Classmates and teachers need to be viewed as collaborators rather than as obstacles to students' own academic and personal success. Teachers, therefore, structure learning situations so that students work together, cooperatively to maximize each other's achievement. Ideally, administrators would in turn create a cooperative, team-based organizational structure within which faculty work together to ensure each other's success (Johnson&Johnson, 1993).

Sixth, teaching is assumed to be a complex application of theory and research that requires considerable teacher training and continuous refinement of skills and procedures. Becoming a good teacher takes at least one lifetime of continuous effort to improve.

The primary means of achieving the new paradigm of teaching is to use cooperative learning. Cooperative learning provides the means of operationalizing the new paradigm of teaching and provides the context within which the development of student talent is encouraged. Carefully structured cooperative learning ensures that students are cognitively, physically, emotionally, and psychologically actively involved in constructing their own knowledge and is an important step in changing the passive and impersonal character of many classrooms.

Creating a Learning Community

Frances Hodgson Burnett stated, in her book **The Secret Garden**, "Where you tend a rose, a thistle cannot grow." Schools should tend roses. They do so by creating a learning community characterized by cooperative efforts to achieve meaningful goals. In a recent review of the research (**Within our Reach: Breaking the Cycle of Disadvantage**) Lisbeth Schorr concludes that the most important attribute of effective schools is caring. Educational historians David Tyack and Elizabeth Hansot (1982) concluded that the theme that runs through all successful schools is that students, teachers, administrators, and parents share a sense of community and a "socially integrating sense of purpose."

A **community** is a limited number of people who share common goals and a common culture. The smaller the size of the community, the more personal the relationships, and the greater the personal accountability. Everyone knows everyone else. Relationships are long-term and have a future rather than being temporary brief, encounters. Instruction becomes personalized. The students are thought of as citizens, and the teachers are thought of as the community leaders. A sense of belonging tends to boost the desire to learn. The learning community becomes and extended family where mutual achievement and caring for one another are important. With citizenship in the community comes an ethical code that includes such roles as (a) be prepared for classes each day, (b) pay attention in class, (c) be your personal best, and (d) respect other people and their property. In order to create a learning community, students (and teachers) need to be organized into cooperative teams.

At the end of this book you are at a new beginning. Years of experience in using cooperative learning in your classroom are needed to gain expertise in its use. Such expertise is difficult to attain without the help of a collegial teaching team. Long-term, persistent efforts to improve continuously come from the heart, not the head. A collegial teaching team will provide you with the support and joint commitment essential to maintaining a love affair with teaching. Through implementing cooperative learning in your classes and Being a contributing member of a teaching team, a true learning community of scholars may be created for both your students and yourself.

In Retrospect

Cooperation is the "air" of society that we constantly create--it is completely necessary but relatively unnoticed. We notice changes in the air, a whiff of perfume or a blanket of smog, but these are the rare instances. Like the perfume, the time we are locked (or licked) in competition and the things we achieve "on our own" stand out and are remembered because they are different from the majority of our efforts, which are cooperative. Just as the parochial myth that "smog is what most air is like, and we need to learn to live with it" can grow in the minds of those who live in a large city, so egocentric myths like "it's a survival-of-the-fittest society" have grown and have been nourished by those who ignore the many cooperative aspects of their lives, while concentrating on those aspects that are competitive. In American society (and schools) we share a common language, we drive on the appropriate side of the street, we take turns going through doors, we raise families, we seek friendship, we share the maintenance of life through an intricate division of labor. This is not to say that the skills of competitive and individualistic efforts are unimportant. They are important, but only within the larger context of cooperation with others. A person needs to know when it is appropriate to compete or work individualistically and when to cooperate. Unfortunately, instruction in schools at present stresses competitive and individualistic efforts without much attention to the skills needed to facilitate effective cooperation. To encourage a positive learning environment and to promote the outcomes of schools, we must realize that cooperation is the forest--competitive and individualistic efforts are but trees.

As the authors look back on the aspects of our growing up together, we realize that we may have misled you. The competition between us was a rather small part of the time we spent together. What made the instances of competition bearable was our partnership and the constant supportive cooperation within our family, and later without friends and our families. Without cooperation and the skills that it requires, life in a society or a schools would not be possible.

The Difference Between Cooperative Learning Groups and Traditional Group Learning

Cooperative Learning Groups	Traditional Learning Groups
Positive Interdependence	No Interdependence
Individual Accountability	No Individual Accountability
Heterogeneous Membership	Homogeneous Membership
Shared Leadership	One Appointed Leader
Task and Relationships Emphasised	Only Task Emphasised
Social Skills Directly Taught	Social Skills Assumed or Ignored
Teacher Moniter Groups	No Group Monitoring
Group Processing	No Group Processing

In many work situations, in modern corporations, a worker can only be employed if he or she can work as a team. Recent research has shown, student achievement and team skills are both maximized through the use of cooperative learning. (Johnson & Johnson) It takes a lot more to make a team than just placing people together and telling them to work together. It is under certain conditions that efforts become cooperative and may be expected to be more productive than competitive and individualistic efforts:

- Clearly perceived positive interdependence.
- Considerable face to face interaction.
- Clearly perceived individual accountability and personal responsiblity to acheive group's goals
- Frequent use and focus on relevant interpersonal and small group skills.
- Regular group processing of current functioning to improve the group's effectiveness, anticipating future application.
- Clearly structured group activities that promote interdependence.

MORE TIPS FOR GETTING STARTED IN CL
Susan Prescott

Following are some answers to frequently asked questions. These guidelines are not meant to be prescriptive, but can be adapted to fit the unique needs and styles of individual professors and students.

Q. How do I let my students know we will be trying a new strategy and that it is important to make it work well?

A. You can put a statement in your course syllabus to emphasize its importance. An example from my syllabus.

During class we will be practicing important concepts and skills in small work groups of 3 to 5 students. This strategy is known as cooperative learning and is designed to increase your mastery of the course content. You will be expected to actively participate in an effort to ensure your own and your teammates' understanding of the ideas presented in class. We need your commitment to demonstrate a willingness to contribute ideas, to listen to others, and to be a constructive force in the learning process.

You can also explain the advantages of CL to the students and how they will benefit in terms of increased learning, enjoyment, peer contact, and access to the instructor. If you feel it is appropriate, you might hand out an article that describes the research-based positive outcomes or a selection from this series of newsletters.
It is also helpful to make the connection between participating in learning teams now and students' future or current experience in the workplace. Most careers require people to plan and work together productively. Employers report that their biggest problems center on the inability of people to interact productively. Students need to hear that class group work is valuable preparation for future problem solving in team settings in the work place as well as an opportunity to more effectively learn the course curriculum.

Q. When do I actually start using learning teams in class?

A. That can vary. At my university some colleagues start on the second class meeting; information cards filled out during the first class session provide the data [GPA, language proficiency, sex, ethnicity, age etc.] needed to form the heterogeneous groups. Others prefer to wait several weeks in order to diagnose students' abilities, and to learn as much as possible about individual students. In very large classes, such careful grouping is not as practical. My teacher education classes usually have 30-35 students, and we meet once a week. For the first three to four weeks I make sure students sit in pairs. These can change each week. During instruction I ask students to turn to their partner and think of examples of principles we have just discussed, and I also design short practice activities for them to do together. By this time they are used to interacting in pairs, I have had an opportunity to learn more about individual personalities, and we are ready to move into larger permanent work groups of four or five.

Q. How many students should be on a team?

A. Teams of four seem to be ideal because that size allows each member to be heard and allows you to have partners within a team work together and then share their results with their other pair. Larger teams can be risky because a shy or unmotivated student can more easily choose to not participate or can be overlooked by teammates intent on completing a task. Some of my colleagues report that they have great success with teams of three and five when that is necessary. We do not recommend teams larger than five since the opportunity for equal participation is greatly decreased.

Q. How do the students find out who is on their team?

"More Tips for Getting Started" by Susan Prescott in *Cooperative Learning and College Teaching* newsletter, number 23, spring 1992. Used with permission of the author.

A. This can also vary. In my class I have written their names in clusters on an overhead transparency. When they come in, the directions on the overhead ask them to find each other and arrange their seats so they are in a foursome facing each other and also able to see me. During the previous class meeting I explain this procedure so they know what to expect. I review the advantages of CL and emphasize that these are to be work groups not friendship groups. Respect for each other is expected, even though many would not have chosen to work with each other. I tell them that, if friendships result, that is wonderful, but it is not a prerequisite for productive group work [just as in the formal work setting.]
One of my colleagues simply reads off students' names by teams and then asks them to find their new seats. Another gives cards with names to each team leader and that person is responsible for finding his own teammates. On that initial day there is always momentary chaos that is usually of short duration. Most of us always have students sit in their teams when they enter the classroom. This eliminates wasted movement time later and allows teams to brainstorm answers together when the instructor poses questions during the lecture or discussion. [See newsletter Vol. 1, No. 1, Dec. 1990 for team activity ideas.]

Q. What can I do to establish some team spirit when students first form their groups?

A. An effective strategy is to have some brief teambuilding activities that are designed to help teammates learn more about each other. These can be simple interview questions. Some examples include: place of birth, career goals, special talent, scariest moment, or favorite pastimes, sports, vacation, foods, etc. Students can also give themselves a team name; freshmen through graduate students enjoy this activity. Team members are always encouraged to help each other outside of class whenever possible.

It is risky to omit teambuilding activities. Because learning is an emotional as well as cognitive process, students need to feel some sense of connection in order to work together productively.

Q. Do I keep the same teams all semester?

A. It takes a while for students to learn how to work with the people in their group; most instructors are hesitant to disrupt the process. If classes meet frequently throughout the week and engage in CL each time, students might be ready for some variety. When in doubt, privately ask some students in the class for their reaction to changing the composition of the teams.

Q. Do I need to have students assume roles within the team?

A. Again, the answer varies. Some faculty use a less-structured format called Collaborative Learning that does not require roles or stable teams. Mots of my colleagues feel that permanent teams with roles help students stay on task, feel more organized, and increase the involvement of all members. Role titles can be traditional or creative. The only requirement is that the responsibilities for each role are made clear to the students. [See newsletter Vol. 2, No. 2, Winter 1992 for a specific description of team roles and how a team folder can be used to assign roles and keep a record of student attendance and performance.]

Q. What kinds of activities can I design for learning teams to do together?

A. Activities can range from the simple to complex. [See newsletter Vol. 1, No. 1, Dec. 1990, page 5 and newsletter Vol. 2, No. 1, Fall 1991, page 6 for specific activity ideas]. There are some helpful guidelines to use when planning the task that students will complete in class.
The task needs to be very clearly structured in terms of what the students are expected to produce and how each member is expected to contribute. When the activity is vague [i.e. "discuss this topic..."] students are usually frustrated and waste valuable learning time trying to figure out the instructor's intent. Young and older adult learners appreciate clarity; a tightly structured task often frees them to think critically and creatively.
Often, a visual structure like a chart, sentence starters, sequential diagram, or specific questions with spaces for answers can provide a format that helps students organize their thinking and their written responses.
Some instructors refer to unit exams in order to select priority content that serves as the basis for planning tasks that might require teams to answer questions, solve problems, generate mythical scenarios, critique viewpoints, analyze pros and cons, locate evidence, correct intentional errors, or create persuasive arguments.

Tasks that reflect important course concepts and skills vs. trivial information result in greater student enthusiasm and participation. Students need to feel that their group work directly relates to increasing their understanding and mastery of the more complex subject matter for which they will later be held individually accountable through tests, quizzes, or projects.

Q. Do I need to grade these practice activities?

A. We advise instructors not to grade group practice tasks. Grades need to be based on individually completed quizzes, tests or projects. These activities can sometimes be turned in via the team folder; so that several points can be awarded to give credit for effort and completion. [See newsletter Vol. 2, No. 2, Winter 1992, Page 7 for a description of recordkeeping procedures.] If the instructor explains to students the rationale for group practice tasks and students experience the connection between helpful team interaction and increased individual understanding and performance, then the need for having each activity evaluated is greatly reduced.

Q. How long should the practice activities take and how often should we actually meet in cooperative groups?

A. Practice activities following a presentation by the instructor can range from twenty minutes to an hour. The length of the task will be determined by the complexity of the content to be grasped and the total length of the class session. Groups often appreciate and need an opportunity to also share their answers or products with the whole class. This is a valuable use of learning time and serves to increase mastery of content and clear up misunderstandings that still exist. In classes of only one hour duration, teamwork can still occur at brief intervals within a lecture or discussion. [See newsletter Vol. 1, No. 1, December 1990, page 5.]
There is no set formula for how often groups should meet. Ideally, students should be given some opportunity for interaction at each meeting. The more frequently they work together, the more effective they become in offering and asking for meaningful explanations from each other, engaging in critical thinking, and becoming actively engaged with important ideas. It is always a challenge for instructors to strike a productive balance between direct instruction and necessary practice.
We encourage instructors to experiment with all the facets of implementing Cooperative Learning and to seek opportunities for dialogue with colleagues who are trying to increase learning and motivation through the use of this strategy.

Cooperative Learning and the "Seven Principles of Good Practice in Undergraduate Education"

By Barbara Millis

Led by Arthur Chickering and Zelda Gamson, a task force composed of prominent higher education researchers, meeting initially at Wingspread in July, 1986, produced a set of "Seven Principles of Good Practice in Undergraduate Education" (The Wingspread Journal, June 1987, P.O. Box 5838, Winona, MN 55987-5838). Based on research but emphasizing practical examples, over 150,000 copies of the "Seven Principles" have been distributed throughout American colleges and universities. Faculty wanting to incorporate these principles into their teaching have looked for "action plans" compatible with their other, often discipline-related, educational goals. Cooperative Learning (CL) provides both the theoretical framework and the "action plan" to fulfill the promise of the "Seven Principles."

1. GOOD PRACTICE ENCOURAGES STUDENT-FACULTY CONTACT

In traditional classrooms, faculty frequently stand behind podiums, distanced from their students. Even when discussion occurs, it is frequently teacher directed and teacher focused. In CL the emphasis changes, and the instructor becomes not "the sage on the stage" but "the guide on the side." Faculty constantly monitor groups' progress by sitting with the students. An accounting professor using these methods has identified five desirable outcomes: (1) His students usually come to class prepared because they know that he will be an occasional group member. (2) His presence demonstrates to students that he cares about them and their learning. (3) He has far more opportunity to interact with students-and hence get to know them in a positive setting-than with his former "See me after class" approach. (4) He has become more aware of the kind of learning going on, observing which students are struggling, and by listening to explanations couched in peer terminology, as opposed to "professorese," he can learn the source of student confusion. (5) He also gathers information while sitting with students that enables him to help them with the group processing.

2. GOOD PRACTICE ENCOURAGES COOPERATION AMONG STUDENTS

Grounded in theory, research and practice, CL is a highly structured, systematic instructional strategy usually using heterogeneous small groups working toward common goals. Two features, "Positive Interdependence" and "Individual Accountability," distinguish CL from other collaborative group work. Positive interdependence means that students-often because of carefully structured mutual goals, division of tasks, role interdependence, or group rewards-have a vested interest in working cooperatively together. Additionally, students are individually accountable for their own academic achievement and are usually tested separately under a noncompetitive, criterion-referenced grading system. Cooperation is also enhanced through appropriate grouping: students can work in pairs ("dyads") or in larger groups (four is ideal), depending on the academic task. Many faculty also focus on social skills, routinely modeling and reinforcing them, and at times discussing their value directly so that students know how to interact effectively.

3. GOOD PRACTICE ENCOURAGES ACTIVE LEARNING

By its very nature, CL engenders active learning. Students engage in animated discussions as they carry out various structured class assignments. Often students perform various roles such as group coordinator, spokesperson, or recorder. CL structures such as "think-pair-share" can promote active learning even in large auditoriums. With this structure, faculty ask students to contemplate a problem or issue for about 30 seconds (think); students then turn to a partner and discuss their ideas (pair); then, students within a group or the class as a whole share the results of their consultation. Many other structures, such as the "three-step interview" and "jigsaw," encourage higher order thinking skills. Some, such as "value lines" and "corners," where students indicate choices by moving to designated locations, even get students up on their feet, making them physically as well as mentally active.

"How Cooperative Learning Can Fulfill the Promises of the Seven Principles" by Barbara Mills in *Cooperative Learning and College Teaching* newsletter, number 2, winter 1992. Used with permission.

4. GOOD PRACTICE GIVES PROMPT FEEDBACK

With structured small group work, students have ample opportunity to receive continuous and immediate feedback from their peers. The instructor is also accessible as he or she moves among the various groups. Students can take tests individually and then work as a team to prepare a second set of answers based on group consensus. Both exams are scored, one counting as an individual grade (individual accountability) and one, almost invariably higher, counting as part of an on-going CL grade (positive interdependence). Students benefit enormously from the discussion surrounding this immediate feedback.

5. GOOD PRACTICE EMPHASIZES TIME ON TASK

People unfamiliar with CL may mistakenly believe that small group work is time-consuming. This is not necessarily true if the tasks are timed and structured. At "think-pair-share" exercise takes as little as five minutes. Many CL practitioners use a timer or bell to signal shifts in the task. In the "three-step interview," for example, the instructor can quickly form groups of four while students are discussing a focus question. The instructor might ask students to find a partner they don't know well and interview that person for two minutes, ascertaining his or her opinion on a class-related topic; at the sound of the bell, the two switch roles and the other person is interviewed for two minutes. The partners then join with another pair to form a group of four. For the next four minutes each group member succinctly shares his or her partner's ideas. After this eight-minute exercise the newly formed teams then engage in another task.

6. GOOD PRACTICE COMMUNICATES HIGH EXPECTATIONS

Because CL emphasizes peer tutoring, collaborative learning, and positive social skills, it automatically signals to students that their abilities are valued and respected. The structured tasks build self-esteem because the contributions of all students are valued. In "jigsaw," for example, students typically divide a task into four parts, each student assuming responsibility for a quarter of the project or material to be mastered. Students then leave their original "home teams" to meet in newly-formed "expert groups" with members of other home teams assigned the same task component. In these expert groups students discuss not only their portion of the task, but they also rehearse teaching strategies they will use in their home team to make certain that fellow teammates master the same material. Expectations, in fact, are consistently higher in this type of learning environment than in the typical teacher-centered classroom where faculty may assume that they are challenging students with the complexity of their lectures when, in fact, they are actually overwhelming them.

7. GOOD PRACTICE RESPECTS DIVERSE TALENTS AND WAYS OF LEARNING

CL supplements, but does not replace, other methods of classroom delivery such as lecture and whole class discussion, resulting in a diverse array of teaching/learning approaches. Students with different learning styles can, in structured small groups, teach each other, as Redding (1990) notes, "from their special and particular perspectives." CL's positive effects on minority self-esteem and student retention have been well-documented. Heterogeneous grouping-with mixed teams of high and low achievers, males and females, and younger and older students from various ethnic and cultural backgrounds-helps education become a reality for all students, including those at risk.

IN CONCLUSION

With the current cries for educational reform, faculty have an urgent responsibility to explore innovative teaching methods. CL is a valuable tool, one well-researched and well-documented, to enhance classroom interactions which promote learning

REFERENCES

(Natasi & Clements 1991). The "Seven Principles of Good Practice in Undergraduate Education" now figuratively take wing through CL techniques.

Cooperation: Real basis of social well-being

competition isn't really a better way for societies to succeed

by David Morris

Feb. 8 marks the anniversary of the death of one of the worlds greatest scientist. Few Americans know of him. That's regrettable, for the Russian geographer and zoologist Petr Kropotkin, still has much to teach us.

In 1859, the publication of Charles Darwin's "Origin of Species" created a sensation. Many sought to adapt its evolutionary principles to modern industrial life. Sociologist Herbert Spencer's phrase, "the survival of the fittest," became the pop translation of Darwin's theory of natural selection. Every social inequity was justified as an inevitable by-product of the struggle of existence.

For Andrew Carnegie, the "law" of competition was "best" for the race, because it ensures the survival of the fittest in every department. " He added that "we accept and welcome great inequality (and) the concentration of business in the hands of a few." The planets richest man, John D. Rockefeller, bluntly asserted, "The growth of a large business is merely a survival of the fittest."

Kroptkin disagreed. He spent five years studying animals in Siberia and wrote, "I failed to find - although I was eagerly looking for it - that bitter struggle for the means of existence which was considered by most Darwinists as the dominant characteristic and the main factor of evolution."

His research convinced him that cooperation, not competition, was the natural world's guiding principle. One hundred years ago he began to write his enduring classic, "Mutual Aid." In it he presented evidence from the animal kingdom, primitive societies and modern civilizations. In all cases Kropotkin's verdict was the same: "Don't compete - practice mutual aid!"

Kropotkin died in 1921. His thesis found no echo in America, where the competitive ethic is so ingrained that we can imagine no other. We assume that dog-eat-dog is the natural order of things. We applaud presidential candidates who boast of America's ability to "do it on their own."

Yet common sense tells us competition breeds suspicion , secretiveness and hostility. "A competitive culture endures by tearing people down," says anthropologist Jules Henry. If the desire to compete is not inherent in humans or animals, and it creates so many problems, why do we simple-mindedly encourage it?

There is almost no evidence, outside the sports arena, that we perform better when we are trying to beat others than when we are working alone or with them. A recent book by sociologist Alfie Kohn, "No Contest," analyzes hundreds of studies conducted over the last 60 years: Cooperation proves consistently more productive than competition.

We first learn to compete in our schools. Little gold stars and honor rolls imbue with what educator John Holt describes as the "the ignoble satisfaction of feeling that we are better than someone else. "Yet, as Dr. Robert Slavin of the Center for Research on Elementary and Middle Schools at John Hopkins University concludes, "Kids do learn significantly more in cooperative learning situations." Cooperation also "creates a more fun classroom, a more humane classroom," he recently told The New York Times. "You see an improvement in race relations and in self-esteem."

David Johnson, who, with his brother Roger, runs the Cooperative Learning Center at the University of Minnesota, emphatically agrees. The superior student learns more, says Johnson, because "whoever explains, learns. You want every in everyone class to maximize the time they spend explaining material to others."

Competition burdens learning. It also burdens business. Robert L. Helmreich of the University of Texas found, to his surprise, that data "dramatically refute the contention that competitiveness is vital to a successful business career." The few corporations that try cooperation discover that teamwork, not individualism, produces a better product at a lower cost.

Mutual aid speeds learning and makes businesses more productive. It also makes us healthier. A recent report from the University of Michigan's Institute for Social Research makes it official: loneliness kills. "Social isolation is as significant to mortality rates," says research scientist James S. House, "as smoking, high blood pressure, high cholesterol, obesity, and lack of physical exercise."

Our fanatical devotion to individualism fosters social isolation. By competing with others, we distance ourselves from them. A nation of 250 million has too many "me's" and too few "we's."

Can we shake off our myths and superstitions and accept the evidence that cooperation, not competition, should be the bedrock for any society? Can we, in short, rediscover Petr Kropotkin? Can the phrase "Mutual Aid" dominate the 90's as "survival of the fittest" did the 1890's?

ACTIVITIES

Evaluation and Goals

My objective(s) for this workshop:

_____

_____

_____

1. **Rate your knowledge of this subject before the workshop.**

	Low			High	
A	B	C	D	E	F

2. **What was the most useful or meaningful thing you learned during this session?**

3. **What question(s) remain uppermost in your mind as we end this session?**

4. **What would have made this session better for you?**

5. **Rate your knowledge of this subject after the workshop.**

	Low			High	
A	B	C	D	E	F

Please leave this paper with the trainers.

STRUCTURES
Cooperative Learning: The Structural Approach

The structural approach to cooperative learning is based on various distinct ways of organizing the interaction of individuals in a classroom. The definition and analysis of structures allows systematic design of cooperative learning lessons having predictable outcomes in the academic, linguistic, cognitive, and social domains. Structures are building blocks of a lesson and can be combined to form multi-structural lessons. Quite a number of individuals have created structures; new structures continue to be developed and old structures continue to evolve.

Structures

A structure is a content-free way of organizing the interaction of individuals in a classroom.

Whole-class question/answer activities are competitive because the students compete for attention and praise of the teacher and there is negative interdependence among students - as one student is called on, the others lose their chance to be called on. Further, a failure to give the desired response increases the chances for other students to receive attention and praise.

Numbered Heads is a simple four-step structure. Numbered Heads meets the criteria of being a structure because it is a content-free way of organizing the social interaction in the classroom. It can be used with almost any subject matter, at a wide range of grade levels, and at various places in a lesson. Structures are ways of organizing the classroom, not sets of curriculum materials.

Numbered Heads, for example, is a cooperative structure. It includes teams, positive interdependence, and individual accountability. Positive interdependence is built in; if any student knows the answer, the ability of each student is increased. Individual accountability is built into the structure also because all the helping is confirmed to the heads together step; students know that once a number is called, there is no more helping, each student is responsible for knowing his or her own. Numbered Heads is a contrast to the whole-class question/answer activity in which only the high achievers need participate; the low achievers can (and often do) tune out, leaving the student participation time more like a private conversation between the teacher and the highest achieving students.

Structures, Content, and Activities.

An important cornerstone of the structural approach is the distinction between structures, content, and activities. A structure is the content-free "how" of instruction. It is the social organization of the classroom, usually involving a series of steps or sequences of interaction patterns. A structure can be used to

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deliver a wide range of academic content. The content of the "what" of instruction. When you plug content into a structure, such as using Numbered Heads to review a specific math content, then you have an activity.

Structure + Content = Activity.
There are many excellent cooperative activities to that teachers can design. They almost always have a specific objective, such as creating a tri-part team creature as a pre-writing activity; having students take a "care-walk" as a trust building activity; or creating a class banner in order to build a positive class identity. Activities are specific and content bound, they cannot meaningfully be repeated many times. In contrast, structures are content free ways of structuring group interaction; structures may be used repeatedly with a variety of curriculum materials and at various places in the lesson plan. If a teacher new to cooperative learning learns five activities, he/she might well report back after a week, "Those worked well, what should I do next week?" If, instead, the teacher learns five structures, he/she could meaningfully include cooperative learning in lessons all year, to further the academic progress of students in any subject matter.

Why so many structures?
The definition and analysis of structures allows teachers to intelligently design cooperative lessons before each structure has predictable outcomes in the academic, linguistic, cognitive, and social domains. there are dozens of structures and variations on structures. This variety of structures is necessary because they have different functions or domains of usefulness.

Domain of Usefulness.
Different structures useful for different objectives. Most structures are categorized by their primary functions: Classbuilding, Teambuilding, Communication Building, Mastery, and Concept Development.

The most important considerations when determining the domain of usefulness of a structure are:

1. What kind of cognitive development does it foster?
2. What kind of social development does it foster.
3. Where in a lesson plan does it fit best?
4. With what kind of curriculum is it best used?

Match/Mismatch of Structures, Content, and Cognitive Objectives.
Cooperative learning goes wrong most often because of a mismatch of structure, objective, skills, and/or cognitive level. Examples of these mismatches are assigning students a group project which involves conflict resolution before they have conflict resolution skills or using a mastery structure when the object is concept development. Part of structuring successful cooperative learning is analyzing the objective of a

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lesson and then knowing which structures to use, given the cooperative learning skills of the students and the cognitive and social objectives of the lesson.

Structuring and Micro-Structuring
Within the steps of each structure, it is often useful to structure activities highly. A high degree of structuring within the steps of a structure, micro-structuring, determines the amount and quality of teamwork and helping that will result. If students are in five large groups in the classroom you can micro structure for participation by saying, "Turn to the person next to you so you are all in pairs, and then say why you chose the group you did." By adding this bit of structure, half the class will be expressing their values, rather than only five students.

De-structuring for Internalization: Higher Level Thought and Social Skills
On the flip side of micro structuring is de-structing for internalization. If a teacher always structures every step of behavior, she/he will rob students of learning opportunities. Structures can be used in which leave room for a great deal of choice and interaction among students or they can be rigidly structured so students interact little or not at all, and with little or no choice.

If there is a high degree of structure and little interaction among students, fewer management and social relations problems can arise among students, but there is less opportunity for development of higher level thinking skills as well as social and linguistic skills. It is generally a good idea to move from high to low structure as students acquire the social, cognitive, and linguistic skills necessary to cooperate in situations of low structure. Systematically de-structuring for internalization allows students to internalize cooperative skills and to become cooperative rather than just to behave cooperatively. As the teacher provides less and less structure, this allows the students to structure their interaction for themselves. As the teacher de-structures, however, he/she must include more processing time. For example, if the structure does not ensure that all students are participating, students need time to reflect on that question, and make a plan to ensure everyone has an opportunity to participate.

The Multi-structural Lesson
A very competent cooperative learning teacher is fluent in many structures and moves into and out of them as appropriate for reaching certain learning objectives. Thus, the teacher designs a multi-structural lesson. For example, the lesson might begin with some content-related classbuilding using a Line-Up, followed by content related teambuilding using Round Table. The lesson might move into some direct instruction, followed by 3-Step Interviews for information input. To check for comprehension and emphasize key concepts, the teacher would move into Numbered Heads. No one structure is most efficient for all objectives, so the most efficient way of reaching all objectives in a lesson is a multi-structural lesson.

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Structures

I. Think/Pair/Share

Basic Function: Concept development. Encourage student active participation. Gain peer support and understanding.

Steps:

1) Student listens while teacher talks and poses a question, or reads a questions.
2) Student thinks of an answer or a response.
3) Student and partner talk about their responses.
4) Students share with whole group or other pairs.

Notes:

II. Dance Card

Basic Function: Sharing knowledge. Assessment of knowledge. Introduction of concepts. Class-building.

Steps:

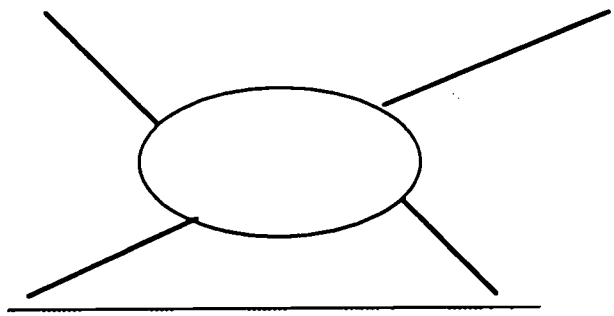
1) Students sign up for partners for all "Dances" on each other's Dance Cards.
2) Students begin conversation with first partner.
3) Music plays to signify end of "dance" conversation. Music stops when each conversation starts.
4) Students leave first partner and join next partner. (Continue until all partners have met.)
5) Optional: last step may include forming teams with two sets of partners.

III. Uncommon Commonalities (Teambuilding)

Basic Function: Sharing personal information, finding uniqueness and common qualities. Bonding and building groups relationships.

Steps:

1) Students share common paper to be passed around the group. Group may make its own circle and line drawing, or teacher provides one for the group.



2) Each group member writes his/her name in a section outside the circle.
3) Group members take turns leading the discussion to find what they have in common. First member states his or her preference for something, an experience he/she has had, a wish or dream, or a condition of life. etc. Other members of the group either acknowledge it as a shared trait or condition, etc. or indicate lack of agreement.
4) If all members share the stated condition, preference, etc., it is written in the center of the circle as something the group has in common.
5) If no one in the group shares the preference, condition, etc., then it is unique to the individual group member and he/she writes it in his/her section outside the circle.
6) Discussion continues, led by the first member of the group, until there is a commonality. Then he/she passes the paper to the next group member, who leads the discussion on finding a group commonality.
7) This activity continues until all have led the discussion and there are at least four commonalities in the circle.
8) Group created a group name from the commonalities in the circle and cooperatively creates a group banner.
9) Extra possibility: group creates a group handshake.
10) All groups share their group name, banner, and handshake with the whole class. The class tries to guess the origin of the name, in other words, what the group members have in common.

IV. Roundrobin

Basic Function: Express ideas and opinions. Create a project or story. Facilitate equal participation. Get acquainted with teammates.

Steps:
Each student in turn shares something with his/her teammates. The sharing "circles" around the team or group, one after the other.

V. Roundtable

Basic Function: Multifunctional: Assessing prior knowledge, practicing skills, recalling information, creating cooperative work project, teambuilding, facilitate equal participation.

Steps:
Each student in turn writes one answer or adds ideas as a paper and pencil are passed around the group.
Simultaneous Roundtable: More than one paper is used at once, one following the other as they go around the group.

VI. Within Team Jigsaw*

Basic Function: To develop interdependence and accountability. Promote task specialization, and encourage concept development.

Steps:

1) Individual group members have a number or letter.
2) Reading material or content is distributed to each group, each receiving the same content.
3) Each member of the group has an individual piece of information from the content to master, or question to response to.
4) Group members share their information with the whole group.
5) The presenting members answer questions about his/he presentation or content in a whole-group discussion.

* This is the simplest form of jigsaw.

VII. Numbered Heads

Basic Function: Content mastery, practice and assessment.

Steps:

1) The teacher has students number off within the groups. (1, 2, 3 and 4).
2) The teacher asks a high consensus question, one in which there is easy agreement.
3) Students put their heads together to agree upon one answer. All members must be prepared to answer the question.
4) The teacher calls one number (1, 2, 3 or 4) and only the student with the number can raise his/her hand to respond.
5) When the number is called, the person from each group with the called number either raises his/her hand or stands, but only if he/she can answer the question.
6) The teacher calls on one of the standing students for a response.
7) After the student responds, the teacher may ask the other standing students from the other groups if they agree or want to add something.
8) In this structure, it is evident that all group members must help each other prepare a response to the question, for the whole group's benefit.

VIII. Talking Chips

Basic Function: Group management for sharing and participating in discussion.

Steps:

1) Each member of the group receives the same number of chips, counting sticks, or any other small object. (Usually no more than 2-4 objects.)

2) If one wants to talk, he/she puts his/her chip in the center of the table and talks.
3) When a member has used all his/her chips, he/she must refrain from participating in the discussion until the other members have used their chips.
4) Each one retrieves his/her chips to continue the discussion. It is common for the group to recognize the importance of all contributing ideas, and finding a group process for monitoring their discussions.

Some groups find this too stifling for promoting good discussion; however, the groups usually understand the purpose and agree that there needs to be balance in the participation.

IX. One Stay/Three Stay

Basic Function: Share with others and get feedback. simultaneous group sharing.
Steps:
1) Groups develop and illustrate a project or idea with their small groups.
2) One member of the group is designated to stay with the group's project as the group's representative.
3) During a period called a "gallery walk" the other three members from all the other groups, walk to each group project to see what the other groups have created.
4) This is all happening simultaneously, with the staying member of each group serving as the group's representative to explain and answer questions.
5) Groups reconvene and share the walking experience with the group member who stayed.
6) The group member who stayed with the project, share comments and questions others in the class had to offer.

This is useful for time management, since this usually takes less time than having each group present its project, one at a time, to the whole class.

X. Line-Up

Basic Function: To get acquainted, establish points of view, develop a class identity, or initiate discussion on a topic. Preliminary to forming groups.

Steps:

1) The entire group lines up across the room according to some criteria such as length of time in this location, birth date, height, or point of view on a subject to be discussed.
2) To promote discussion, fold the line so students from one end of the line are facing students from the other end, or
3) Count numbers, such as 1, 2, 3, and 4 down the line to form groups that are diverse. All the ones form a group, all the twos, all the threes, etc.

XI. Expert Jigsaw.

Basic Function: For students to share the responsibility of learning and teaching information learned from study or print.

Steps:

1) Individuals within each home group number off, 1, 2, 3, and 4.
2) New teams are formed to become "expert" in one area. All students in the class with the same number join together. (All the ones, all the twos, etc.)
3) The expert groups receive their material to master, and plan a procedure for sharing their information with their home group.
4) After discussion, each expert returns to his/her home group and "teaches" his/her group what he/she has learned.
5) The experts answer questions from their own teams.
6) Additional problem-solving and/or discussion can take place.
7) Assessment of learned content may be by use of "Numbered Heads".

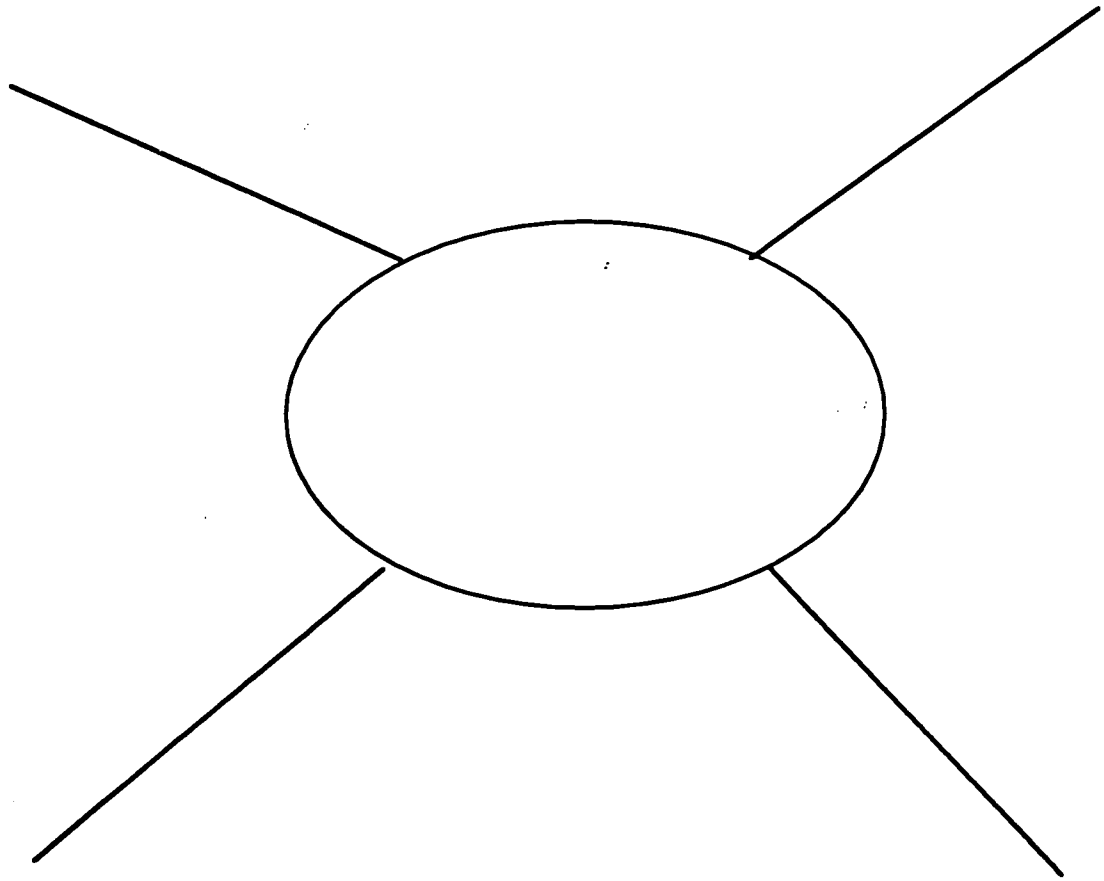
Teambuilding
Uncommon Commonalities

1. Use this paper to find out what characteristics, activities, qualities, interests, likes/dislikes, etc. you and your teammates have in common.

2. One team member starts the conversation to find out if they share the same interests, likes/dislikes, etc. The first teammember might say, "I enjoy exercising. What about you?" Each teammate responds. If all teammates agree, then it is a commonality and the asking member writes it in the center circle. If they don't share the quality or like/dislike, the teammember can write it outside the circle and ask another question. This team member leads the discussion until he/she finds a commonality. Then he/she passes the paper to the next team member and the discussion begins again.

3. The above activity continues until all members have had a chance to lead the discussion and there are at least 4 commonalities in the circle. (teams may add more if time permits)

4. Team considers all the commonalities and creates a name for the team that reflects them and their interests.



SUCCESSES

(What worked, how it felt, what interested me)

CHALLENGES

(What I'd change, how it felt, suggestions)

POSITIVE INTERDEPENDENCE

INDIVIDUAL ACCOUNTABILITY

GROUP PROCESSING

SOCIAL SKILLS

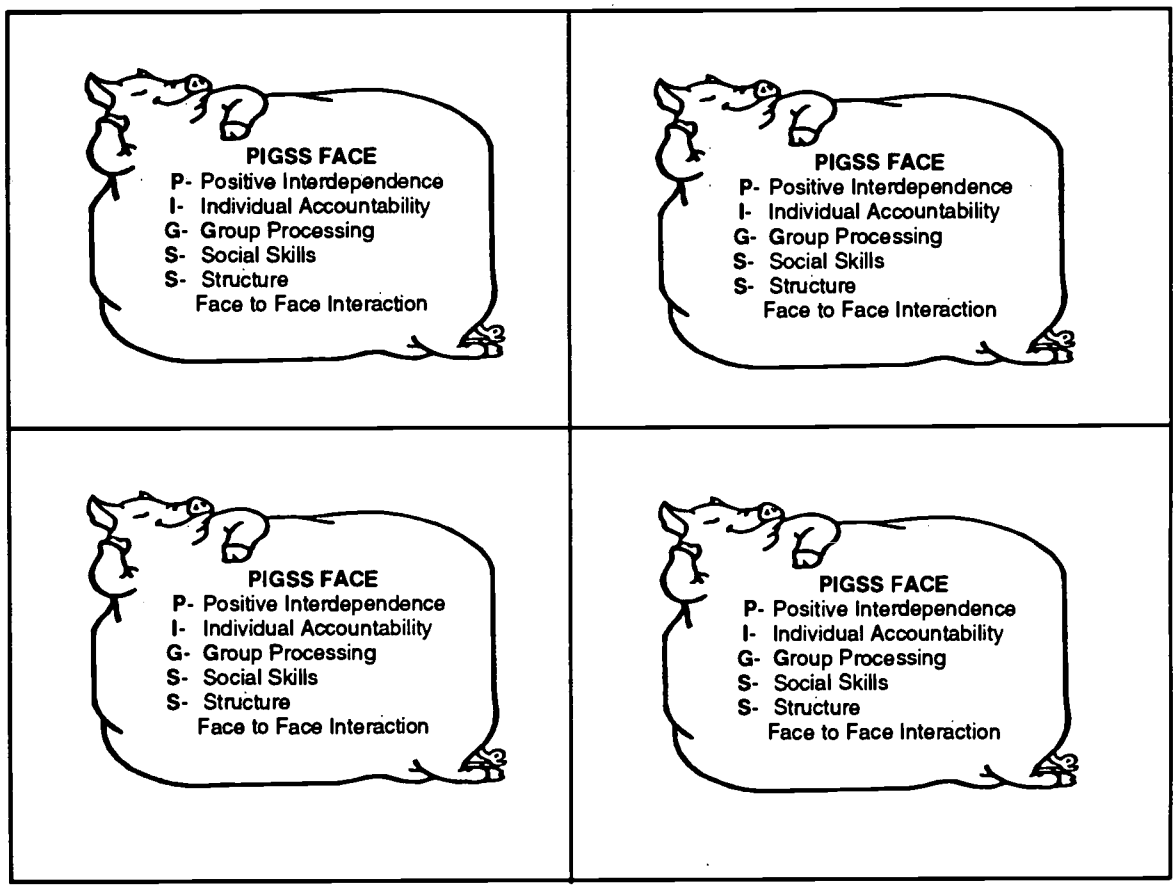
STRUCTURE

129

128

FACE TO FACE INTERACTION

PIGSS FACE


PIGSS FACE
P- Positive Interdependence
I- Individual Accountability
G- Group Processing
S- Social Skills
S- Structure
Face to Face Interaction
PIGSS FACE
P- Positive Interdependence
I- Individual Accountability
G- Group Processing
S- Social Skills
S- Structure
Face to Face Interaction
PIGSS FACE
P- Positive Interdependence
I- Individual Accountability
G- Group Processing
S- Social Skills
S- Structure
Face to Face Interaction
PIGSS FACE
P- Positive Interdependence
I- Individual Accountability
G- Group Processing
S- Social Skills
S- Structure
Face to Face Interaction

Positive Interdependence

"All for one and one for all"
--Alexander Dumas

Within a football game, the quarterback who throws the pass and the receiver who catches the pass are positively interdependent. The success of one depends on the success of the other. It takes two to complete a pass. One player cannot succeed without the other. Both have to perform competently if their mutual success is to be assured. They sink or swim together.

The first requirement for an effectively structured cooperative lesson is that students believe that they "sink or swim together." Within cooperative learning situations students have two responsibilities: learn the assigned material and ensure that all members of their group learn the assigned material. The technical term for that dual responsibility is positive interdependence. Positive Interdependence exists when students perceive that they are linked with groupmates in a way so that they cannot succeed unless their groupmates do (and vice versa) and/or that they must coordinate their efforts with the efforts of their groupmates to complete a task. Positive interdependence promotes a situation in which students (a) see that their work benefits groupmates and their groupmates' work benefits them and (b) work together in small groups to maximize learning of all members by sharing their resources, providing mutual support and encouragement, and celebrating their joint success. When positive interdependence is clearly understood, it highlights:

1. Each group member's efforts are required and indispensable for group success (i.e., there can be no "free-riders").

2. Each group member has a unique contribution to make to the joint effort because of his or her resources and/or and task responsibilities.

There are a number of ways of structuring positive interdependence within a learning group:

1. **Positive Goal Interdependence**: Students perceive that they can achieve their learning goals if and only if all the members of the group also attain their goals. The group is united around a common goal--a concrete reason for being. To ensure that students believe "they sink or swim together" and care about how much each other learns, you (the instructor) have to structure a clear group or mutual goal such as "learn the assigned material and make sure that all members of your group learn the assigned material." The group goal always has to be a part of the lesson.

2. **Positive Reward/Celebration Interdependence**: Each group member receives the same reward when the group achieves its goals. To supplement goal interdependence, you may wish to add joint rewards (if all members of the group score 90 percent correct or better on the test, each will receive 5 bonus points). Sometimes instructors give students a group grade for the overall production of their group, individual grades resulting from tests, and bonus points if all members of the group achieve

up to the criterion on the tests. Regular celebrations of group efforts and success enhances the quality of cooperation.

3. **Positive Resource Interdependence**: Each group member has only a portion of the resources, information, or materials necessary for the task to be completed and the members' resources have to be combined in order for the group to achieve its goals. You may wish to highlight the cooperative relationships by giving students limited resources that must be shared (one copy of the problem or task per group) or giving each student part of the required resources that the group must then fit together (the jigsaw procedure).

4. **Positive Role Interdependence**: Each member is assigned complementary and interconnected roles that specify responsibilities that the group needs in order to complete the joint task. You create role interdependence among students when you assign them complementary roles such as reader, recorder, checker of understanding, encourager of participation, and elaborator of knowledge. Such roles are vital to high-quality learning. The role of checker, for example, focuses on periodically asking each groupmate to explain what is being learned. Rosenshine and Stevens (1986) reviewed a large body of well-controlled research on teaching effectiveness at the pre-collegiate level and found "checking for comprehension" to be one specific teaching behavior that was significantly associated with higher levels of student learning and achievement. While the instructor cannot continually check the understanding of every student (especially if there are 300 students in the class), the instructor can engineer such checking by having students work in cooperative groups and assigning one member the role of checker.

There are other types of positive interdependence. Positive task interdependence exists when a division of labor is created so that actions of one group member have to be completed if the next member is to complete his or her responsibility. Positive identity interdependence exists when mutual identity is established through a name or motto. Outside enemy interdependence exists when groups are placed in competition with each other. Fantasy interdependence exists when a task is given that requires group members to imagine that they are in a hypothetical situation.

The authors have conducted a series of studies investigating the nature of positive interdependence and the relative power of the different types of positive interdependence (Hwong, Caswell, Johnson & Johnson, 1990; Johnson, Johnson, Stanne, & Garibaldi, 1990; Johnson, Johnson, Ortez, & Stanne, in press; Lew, Mesch, Johnson & Johnson, 1986a, 1986b; Mesch, Johnson & Johnson, 1988; Mesch, Lew, Johnson & Johnson, 1986). Our research indicates that positive interdependence provides the context within which promotive interaction takes place, group membership and interpersonal interaction among students do not produce higher achievement unless positive interdependence is clearly structured, the combination of goal and reward interdependence increases achievement over goal interdependence alone, and resource interdependence does not increase achievement unless goal interdependence is present also.

Individual Accountability/Personal Responsibility

"What children can do together today, they can do alone tomorrow."
-- L. Vygotsky

Among the early settlers of Massachusetts there was a saying "If you do not work, you do not eat." Everyone had to do their fair share of the work. The third essential element of cooperative learning is individual accountability, which exists when the performance of each individual student is assessed, the results given back to the individual and the group, and the student is held responsible by groupmates for contributing his or her fair share to the group's success. It is important that the group knows who needs more assistance, support, and encouragement in completing the assignment. It is also important that group members know they cannot "hitch-hike" on the work of others. When it is difficult to identify members' contributions, when members' contributions are redundant, and when members are not responsible for the final group outcome, members sometimes seek a free ride (Harkings & Petty, 1982; Ingham, Levinger, Graves & Peckham, 1974; Kerr & Brunn, 1981; Latane, Williams & Harkins, 1979; Moede, 1927; Petty, Harkins, Williams, & Latane, 1977; Williams, 1981; Williams, Harkins & Latane, 1981). This is called social loafing.

The purpose of cooperative learning groups is to make each member a stronger individual in his or her own right. Individual accountability is the key to ensuring that all group members are in fact strengthened by learning cooperatively. After participating in a cooperative lesson, group members should be better prepared to complete similar tasks by themselves.

To ensure that each student is individually accountable to do his or her fair share of the group's work you need to assess how much effort each member is contributing to the group's work, provide feedback to groups and individual students, help groups avoid redundant efforts by members, and ensure that every member is responsible for the final outcome. Common ways to structure individual accountability include:

1. Keeping the size of the group small. The smaller the size of the group, the greater the individual accountability may be.

2. Giving an individual test to each student.

3. Randomly examining students orally by randomly calling one student to present his or her group's work to you (in the presence of the group) or to the entire class.

4. Observing each group and recording the frequency with which each member contributes to the group's work.

5. Assigning one student in each group the role of checker. The checker asks other group members to explain the reasoning and rationale underlying group answers.

6. Having students teach what they learned to someone else. When all students do this, it is called simultaneous explaining.

There is a pattern to classroom learning. First, students learn knowledge, skills, strategies, or procedures in a cooperative group. Second, students apply the knowledge or perform the skill, strategy, or procedure alone to demonstrate their personal mastery of the material. Students learn it together and then perform it alone.

TEACHING STUDENTS COLLABORATIVE SKILLS

Students who have never been taught how to work effectively with others cannot be expected to do so. Thus the first experience of many teachers who structure cooperative learning is that their students cannot collaborate with each other. Yet it is within cooperative situations, where there is a task to complete, that social skills become most relative and should ideally be taught. All students need to become skillful in communicating, building and maintaining trust, providing leadership, and managing conflicts (Johnson, 1990: 1991: Johnson & F. Johnson, 1991). Teaching collaborative skills becomes an important prerequisite for academic learning, since achievement will improve as students become more effective in working with each other.

There are two reasons why collaborative skills are directly taught in classrooms where teachers are serious about using cooperative learning. The first is that interpersonal and small-group skills are the engine that powers cooperative learning groups. For cooperative learning groups to be productive, students must be able to engage in the needed collaborative skills. Without good leadership, effective communication, the building and maintenance of trust, and the constructive resolution of conflicts, cooperative learning groups will not maximize their productivity and effectiveness.

Second, collaborative skills in and of themselves are important instructional outcomes that relate to future career and life success. Most people realize that a college education or vocational training improves their career opportunities. Many people are less aware that interpersonal skills may be the most important set of skills to their employability, productivity, and career success. Employers typically value verbal-communication, responsibility, interpersonal, initiative, and decision-making skills. A question all employers have in mind when they interview a job applicant is: Can this person get along with other people? Having a high degree of technical competence is not enough to ensure a successful career. A person also has to have a high degree of interpersonal competence.

In 1982, for example, the Center for Public Resources published Basic Skills in the U.S. Workforce, a nationwide survey of businesses, labor unions, and educational institutions. The center found that 90 percent of the people fired from their jobs were fired for poor job attitudes, poor interpersonal relationships, and inappropriate behavior. Being fired for lack of basic and technical skills was infrequent. Even in high-tech careers, the ability to work effectively with other high-tech personnel is essential, and so is the ability to communicate and work with people from other professions to solve interdisciplinary problems.

In the real world of work, the heart of most jobs, especially the higher-paying, more interesting jobs, is getting others to cooperate, leading others, coping with complex problems of power and influence, and helping solve people's problems in working together. Millions of technical, professional, and managerial jobs today require much more than technical competence and professional expertise. They also require leadership. Employees are

increasingly asked to get things done by influencing a large and diverse group of people (bosses, subordinates, peers, customers, and others), despite lacking much or any formal control over them, and despite their general lack of interest in cooperating. They are expected to motivate others to achieve goals, negotiate and mediate, get decisions implemented, exercise authority, and develop credibility. The interpersonal and small-group skills developed within cooperative efforts are important contributors to personal employability and career success.

In addition to career success, social skills are directly related to building and maintaining positive relationships and to psychological health. Maintaining a set of good friends your whole life long, being a caring parent, maintaining a loving relationship with your spouse, all directly relate to how interpersonally skilled you are. Quality of life as an adult largely depends on social skills. The more socially skilled a person is, furthermore, the healthier he or she tends to be psychologically. For these and many other reasons, it is important that students learn the interpersonal and small-group skills necessary to build and maintain cooperative relationships with others.

In this chapter we shall first discuss how students learn skills. We shall then discuss the skills a student needs in order to cooperate, compete, or function individualistically. Ensuring that students have the needed skills is an important first step in using goal structures in your classroom.*

*Students may at times overestimate their skill level and attempt behavior of which they are not really capable. Once the younger of the two authors decided that he had the skills needed to beat up the older of the two authors (he was at the young and foolish age of three). He proceeded to demonstrate his skills the first time the older of the two authors made a face at him. Besides being cruelly humiliated, the younger of the two authors has had to look at his brother making faces at him for the past fifty years without being able to do anything about it.

HOW DO YOU TEACH SKILLS?

What is your role in teaching students skills? As the previous chapter indicates, one of the major reasons for monitoring students' behavior is to be able to identify the students who are having difficulties owing to missing or underdeveloped skills. Periodically you will want to review crucial skills with all your students. What are the steps you go through to ensure that students learn cooperative, competitive, and individualistic skills?

Step 1: Ask the student what skills they think they will need in order to cooperate (compete, work individually) successfully. To be motivated to learn a skill, the students must see the need for the skill. If students do not suggest the needed skills, you will, of course, have to. But it is important to help students understand why they need the skill.

Step 2: Help the students get a clear understanding of what the skill is, conceptually and behaviorally. In order to learn a skill, the student must have a conception of what the skill is

and how the behaviors are executed. First, the behaviors have to be identified and placed in proper sequence and in close succession. It is often helpful to demonstrate the skill, describe it step by step, and then demonstrate it again. Therefore, you need to be able to describe and do the skills being taught. Pointing out good models in other students is also helpful. You might ask your students to identify someone in the class who has mastered that particular skill and can be used as a model.

Step 3: Set up practice situations. Once the skill is properly understood, the behavioral patterns need to be practiced until they are firmly learned.

Step 4: Ensure that each student receives feedback on how well he is performing the skill. Receiving feedback on performance is necessary in order to correct errors, identify problems in learning the skill, identify progress in skill mastery, and compare actual performance with the desired standard of performance. Feedback may be the single most important factor affecting the acquisition of skills. The more immediate, specific, and descriptive (as opposed to evaluative) the feedback, the more it will help skill development (see Johnson, 1990, for a full discussion of feedback). The better the advance conceptualization or understanding of the skill, the more helpful the feedback will be concerning the enactment of the behaviors involved in the skill. Feedback is often quite interesting to students and increases their motivation to learn the skill. An important aspect of feedback is captured in rewarding students who successfully master the skill being taught. When students have been rewarded for skill mastery, they will tend to use the skills, and other students will imitate the behavior of those rewarded. It is not necessary to provide feedback for every student. Dividing the students into cooperative groups in which they give each other feedback on skill performance is often just as effective.

Step 6: Set up situations in which the skills can be used successfully. Students need to experience success in skill development. It is their increasing sense of mastery that motivates further efforts to learn complex skills. If the skills are as necessary as the authors believe they are (and as research indicates), students will receive some reinforcement naturally as they begin to function more effectively within the goal structures.

Step 7: Require the skills to be used often enough to become integrated into the students' behavioral repertoires. A new skill must be integrated into a student's behavioral repertoire. It is at this state that the performance of the skill becomes involuntary, automatic, and, finally, natural. After students have engaged in cooperative, competitive, and individualistic skills for a sufficiently long-period, they will believe that the behavior is a natural response to the goal structure and will use the skills with little conscious awareness of doing so.

Step 8: Set classroom norms to support the use of the skills. Even if students master needed skills, they will not use them unless they believe that they are appropriate and supported. Johnson (1970) has a detailed discussion of how to establish classroom norms. Teacher modeling of the skills, the rewarding of students who appropriately engage in the skills, and the explicit statement of how you expect students to behave will influence the degree to which students engage in behavior appropriate to the goal structures.

Group Processing

"Take care of each other. Share your energies with the group. No one must feel alone, cut off, for that is when you do not make it."

--William Unsoeld, renowned mountain climber

The fifth essential component of cooperative learning is group processing. Effective group work is influenced by whether or not groups reflect on (i.e., process) how well they are functioning. A process is an identifiable sequence of events taking place over time, and process goals refer to the sequence of events instrumental in achieving outcome goals (Johnson & F. Johnson, 1991). Group processing may be defined as reflecting on a group session to (a) describe what member actions were helpful and unhelpful and (b) make decisions about what actions to continue or change. The purpose of group processing is to clarify and improve the effectiveness of the members in contributing to the collaborative efforts to achieve the group's goals.

While the instructor systematically observes the cooperative learning groups he or she attains a "window" into what students do and do not understand as they explain to each other how to complete the assignment. Listening in on the students' explanations provides valuable information about how well the students understand the instructions, the major concepts and strategies being learned, and the basic elements of cooperative learning. Wilson (1987, p. 18) conducted a three-year, teaching-improvement study as part of a college faculty development program. Both faculty and students agreed that faculty needed help on knowing if the class understood the material or not. Listening to students explain how to complete the assignment to groupmates provides better information about what students do and do not know than do correct answers on a test or homework assignments handed in.

There are two levels of processing--small group and whole class. In order to ensure that small group processing takes place, instructors allocate some time at the end of each class session for each cooperative group to process how effectively members worked together. Groups need to describe what member actions were helpful and unhelpful in completing the group's work and make decisions about what behaviors to continue or change. Such processing (1) enables learning groups to focus on maintaining good working relationships among members, (2) facilitates the learning of cooperative skills, (3) ensures that members receive feedback on their participation, (4) ensures that students think on the meta-cognitive as well as the cognitive level, and (5) provides the means to celebrate the success of the group and reinforce the positive behaviors of group members. Some of the keys to successful small group processing are allowing sufficient time for it to take place, providing a structure for processing (such as "List three things your group is doing well today and one thing you could improve"), emphasizing positive feedback, making the processing specific rather than general, maintaining student involvement in processing, reminding students to use their cooperative skills while they process, and communicating clear expectations as to the purpose of processing.

Face to Face Promotive Interaction

"In an industrial organization it's the group effort that counts. There's really no room for stars in an industrial organization. You need talented people, but they can't do it alone. They have to have help."

--John F. Donnelly, President, Donnelly Mirror

The discipline of using cooperative groups includes ensuring that group members meet face-to-face to work together to complete assignments and promote each other's success. Group members need to do real work together. Promotive interaction exists when individuals encourage and facilitate each other's efforts to complete tasks in order to reach the group's goals. Through promoting each other's success, group members build both an academic and a personal support system for each member. There are three steps to encouraging promotive interaction among group members. The first is to schedule time for the group to meet. As simple as this step seems, many learning groups are not given sufficient meeting time to mature and develop. The second step is to highlight the positive interdependence that require members to work together to achieve the group's goals. It is positive interdependence that creates the commitment to each other's success. The third step is to encourage promotive interaction among group members. Monitoring groups and celebrating instances of members' promotive interaction is one way to do so.

While positive interdependence in and of itself may have some effect on outcomes, it is the face-to-face promotive interaction among individuals fostered by the positive interdependence that most powerfully influences efforts to achieve, caring and committed relationships, and psychological adjustment and social competence (Johnson &Johnson, 1989a). Promotive interaction is characterized by individuals providing each other with efficient and effective help and assistance, exchanging needed resources such as information and materials and processing information more efficiently and effectively, providing each other with feedback in order to improve subsequent performance, challenging each other's conclusions and reasoning in order to promote higher quality decision making and greater insight into the problems being considered, advocating the exertion of effort to achieve the group's goals, acting in trusting and trustworthy ways, being motivated to strive for mutual benefit, and a moderate level of arousal characterized by low anxiety and stress. Members do real work together.

FEEDBACK FORM

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CHARTS

SESSION ONE AGENDA

- Workshop Overview, Introductions, and Identification of Goals
- Setting Objectives and Goal Setting
- Triangles - Experiential Demonstration
- Dance Card
- Processing

BREAK

- Teambuilding: Uncommon Commonalities

LUNCH

- Within Team Jigsaw
- Numbered Heads
- Team Evaluation and Calvin and Hobbes
- Team Assessment
- Lesson Planning: Content Review
- Reflection
- Wrap - up and Interim Assignment

COOPERATIVE LEARNING

Workshop Objectives

By the end of the workshop, participants will

- be exposed to theoretical frameworks and rationales for cooperative learning
- experience learning in a cooperative learning classroom model
- experience and apply simple class climate-building techniques
- practice and process simple cooperative structures for teambuilding, concept development, and content mastery
- practice strategies for establishing student centered learning
- experience and use the elements that distinguish cooperative learning from small group learning
- understand and design lessons which reflect the social and affective dimensions of learning

Structure / Methods and Techniques

Dance Card Instructions

1. Sign your own card first. Write your name on the bottom of the card.

2. Ask another person in the room if they need a partner for the same conversation number that you need a partner.

3. Exchange cards and each of you sign on the same numbered line of each others Dance Card. Return the card to the original owner.

4. Follow this procedure until you have a different signature on each line and you have signed four different cards.

SESSION TWO AGENDA

- Overview: Introduction, Workshop Objectives, and Agenda
- Agreements
- Introduction: Sharing Identity Objects
- Lesson-Sharing: Part A
- BREAK
- Lesson-Sharing: Part B
- Affective Filter
- LUNCH
- Social Skills
- PIGSS Face
- Expert Jigsaw: Part A
- BREAK
- Expert Jigsaw: Part B
- Video: Witness
- Recommendations for Implementing and Sharing
- Reflections
- Wrap-up and Evaluation

CHART OF EXPERT JIGSAW READINGS

A. Positive Interdependence

B. Individual Accountability

C. Social Skills

D. Group Processing

E. Face-to-Face Interaction

F. No New Reading. Refer to:

- Structures Handout
- Structures/Methods & Techniques Chart
- Learning Retention Pyramid (handout or transparency)

HANDOUTS

COOPERATIVE LEARNING

PARTICIPANT PACKET
SESSION ONE

Northwest
REGIONAL LITERACY RESOURCE CENTER

ALASKA IDAHO OREGON WASHINGTON

Lead Developers

Jennifer Aisenberg-Reese, Grays Harbor College, Washington
Maxine Frauman-Prickel, Lane Community College, Oregon
Shash Woods, Goodwill Community Learning Center, Washington

March , 1997

The Northwest Regional Literacy Resource Center is a cooperative venture of the states of Alaska, Idaho, Oregon, and Washington which focuses on the following:

- a mail order lending library, reached within the region at 1-800-238-1234
- training and resources to support instructional technology
- creation and supportof professional development materials and systems
- interagency collaboration to support basic skills programs and students.

2120 South Jackson Street
Seattle, Washington 98144
Phone: (800) 238-1234
Fax: (206) 587-4900
E-mail: nwrlrc@otan.dni.us

OBJECTIVES

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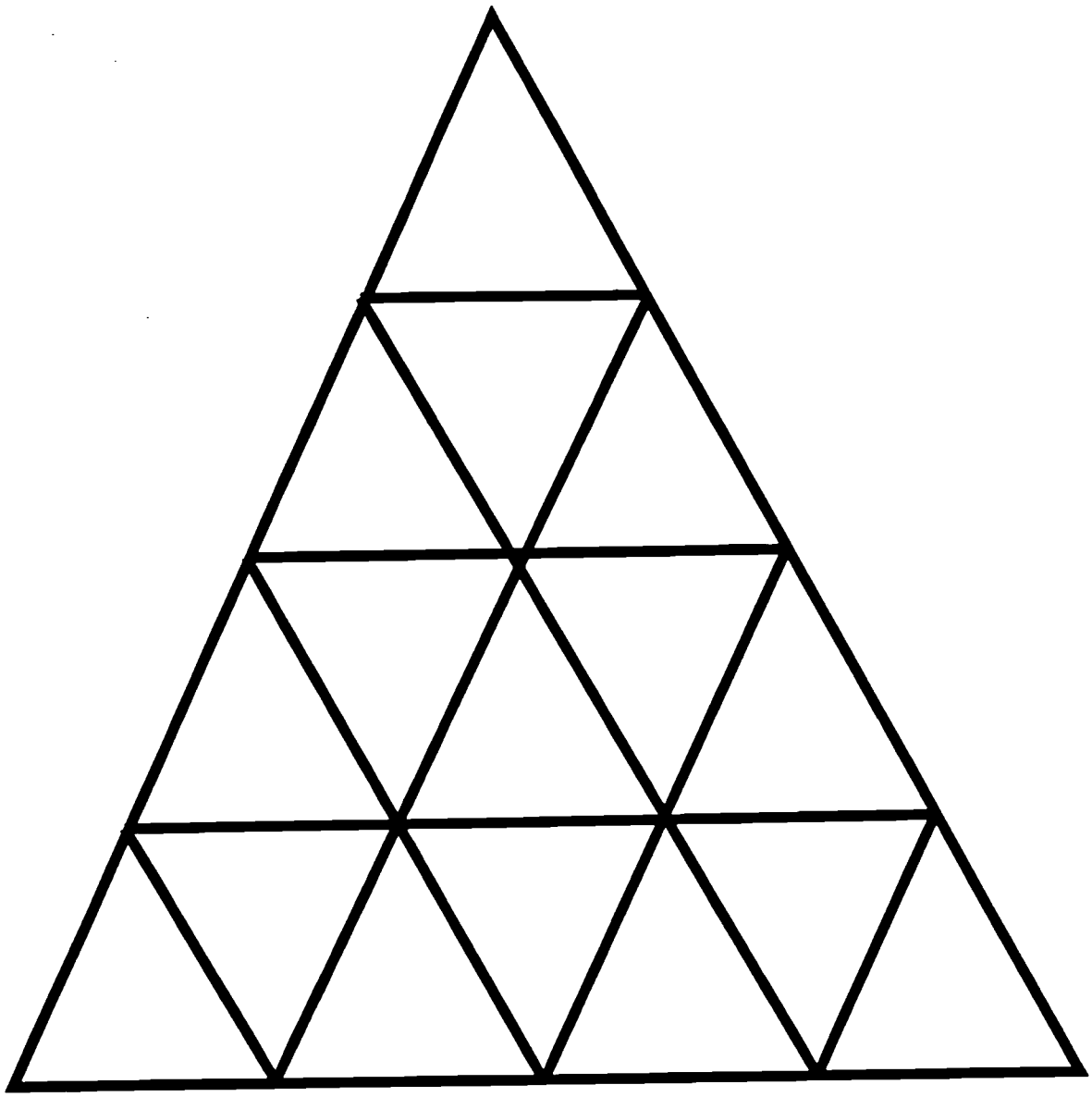


DANCE CARD

1. _____

2. _____

3. _____

4. _____

This is my Dance Card _____

Date: _____

DANCE CARD QUESTIONS

1. In what situations do you use small groups for learning?

2. What are some challenges you have encountered in your classes in using small groups? What strategies have you used to overcome obstacles?

3. What do you already know about cooperative learning?

4. Share with your partner the responses from the other three partners.

ROLES AND GAMBITS

Some social skills are acquired through group activities, but there is no guarantee that the interactions will be positive and foster participation of all students. Social skills are learned and should be taught as part of the on-going classroom learning. One aspect of working in groups is learning how to take responsibility in the group and how to communicate positively with one's classmates as part of the group process. Assigning roles to each member of the group with suggested phrases (gambits) for that role gives guidance in the socializing process. Below are the roles, functions, and gambits commonly associated with cooperative group learning.

Roles and Functions	Gambits
The Task Master/Time Keeper keeps the group on task, keeps the group aware of progress related to time, attempts to make sure that each individual contributes.	"Have we finished problem 2?" "We've finished most of the problems and we have 5 more minutes." "I think the climate in Brazil . . ." (talking about the task to bring the group back to task)
The Checker checks to see that everyone agrees before a group decision is made; checks that everyone understands when the task goal is mastery of a concept or fact.	"Do we all agree on that?" "What do we need to do to make everyone understand how to...?"
The Encourager/Praiser (sometimes called Cheerleader) makes sure that the contributions of each member and the team as a whole are appreciated. Encourages others to share ideas.	"Let's all give Pete a pat on the back." "We're really moving along." "Working in this group is great."
The Secretary/Recorder records team answers once they all agree; may be the team spokesperson in reporting to the class.	"Let's make sure I record that right." "Would it be OK if I shared...?"

Another useful roles is that of **The Gatekeeper**, who makes sure each person participates and that no one individual dominates: "What do you think, John?" to encourage a non-participant to participate, or "Susan, do you agree?"

SELF-ASSESSMENT

Small Group Effectiveness

	always	mostly	sometimes	never
1. I contributed my ideas and information.	❑	❑	❑	❑
2. I have listened carefully to other members of the team.	❑	❑	❑	❑
3. I encouraged others in the group to share information.	❑	❑	❑	❑
4. I helped keep the group on task.	❑	❑	❑	❑
5. I included everyone in our work.	❑	❑	❑	❑
6. I respected all points of view.	❑	❑	❑	❑

LEARNING TOGETHER VERSUS LEARNING ALONE

Groups have existed for as long as there have been humans (and even before.) Groups have been the subject of countless books. Every human society has used groups to accomplish its goals and celebrated when the groups were successful. It was groups that built the pyramids, constructed the Temple of Artemis at Ephesus, created the Colossus of Rhodes, and hanging gardens of Babylon. It is obvious that groups outperform individuals, especially when performance requires multiple skills, judgments, and experiences. Most educators, however, overlook opportunities to use groups to enhance student learning and increase their own success.

While the power of cooperative learning is obvious to many educators, the discipline needed to use cooperative learning effectively is not. The basic elements that make cooperation work cannot be taken for granted or treated lightly. They must be carefully and precisely structured into every learning group. Understanding how to use cooperation effectively begins with knowing the difference between cooperative, competitive, and individualistic efforts.

Students do not have to work in groups. They can learn alone. In every classroom, no matter what the subject area, teachers may structure lessons so that students:

1. Work cooperatively in small groups, ensuring that all members master the assigned material.
2. Engage in a win-lose struggle to see who is best.
3. Work independently on their own learning goals at their own pace and in their own space to achieve a preset criterion of excellence.

When students are required to **compete** with each other for grades, they work against each other to achieve a goal that only one or a few students can attain. Students are graded on a norm-referenced basis, which requires them to work faster and more accurately than their peers. In doing so, they strive to be better than classmates, work to deprive others *(My winning means you lose,)* to celebrate classmates' failures *(Your failure makes it easier for me to win,)* view resources such as grades as limited *(Only a few of us will get "A's,")* recognize their negatively linked fate *(The more you gain, the less for me; the more I gain, the less for you,)* and believe that the more competent and

hard-working individuals become "haves" and the less competent and deserving individuals become the "have nots" *(Only the strong prosper.)* In **competitive situations** there is a negative interdependence among goal achievements; students perceive that they can obtain their goals if and only if the other students in the class fail to obtain their goals. (Deutsch, 1962; Johnson & Johnson, 1989a.) Unfortunately, most students perceive school as a predominantly competitive enterprise. Students either work hard to do better than their classmates, or they take it easy because they do not believe they have a chance to win.

When students are required to work **individualistically**, they work by themselves to accomplish learning goals unrelated to those of the other students. Individual goals are assigned and students' efforts are evaluated on a criteria-referenced basis. Each student has his or her own set of materials and works at his or her own speed, ignoring the other students in the class. Students are expected and encouraged to focus on their strict self-interest *(How well can I do,)* value only their own efforts and own success *(If I study hard, I may get a high grade,)* and ignore as irrelevant the success or failure of others *(Whether my classmates study or not does not affect me.)* In **individualistic learning** situations, students' goal achievements are independent; students perceive that the achievement of their learning goals is unrelated to what other students do. (Deutsch, 1962; Johnson & Johnson, 1989a.)

Cooperation is working together to accomplish shared goals. Within cooperative activities individuals seek outcomes that are beneficial to themselves **and** beneficial to all other group members. **Cooperative learning** is the instructional use of small groups so that students work together to maximize their own and each other's learning. The idea is simple. Class members are split into small groups after receiving instruction from the teacher. They then work through the assignment until all group members have successfully understood and completed it. Cooperative efforts result in participants striving for mutual benefit so that all group members benefit from each other's efforts *(Your success benefits me and my success benefits you,)* recognizing that all groups members share a common fate *(We all sink or swim together here,)* recognizing that one's performance is mutually caused by oneself and one's colleagues *(We cannot do it without you,)* and feeling proud and jointly celebrating when a group member is recognized for achievement *(You got an A! That is terrific!)* In cooperative learning situations there is a positive interdependence

among students' goal attainments; students perceive that they can reach their learning goals if and only if the other students in the learning group also reach their goals (Deutsch, 1962; Johnson & Johnson, 1989a.)

In summary, students' learning goals may be structured to promote cooperative, competitive, or individualistic efforts. In every classroom, instructional activities are aimed at accomplishing goals and are conducted under a goal structure. A **learning goal** is a desired future state of demonstrating competence or mastery in the subject area being studied. The **goal structure** specifies the ways in which students will interact with each other and the teacher during the instructional session. Each goal structure has its place (see Johnson & Johnson, 1989a, 1994; Johnson, Johnson, & Holubec, 1992.) In the ideal classroom, all students would learn how to work cooperatively with others, compete for fun and enjoyment, and work autonomously on their own. The teacher decides which goal structure to implement within each lesson. The most important goal structure, and the one that should be used the majority of the time in learning situations, is cooperation.

Why Use Cooperative Learning?

One source of resistance to using cooperative learning groups is the lack of conviction that cooperative learning works better than competitive or individualistic efforts. Conviction flows from knowing the research. Since the first research study was conducted in 1898, there have been nearly 600 experimental and over 100 correlational studies conducted on cooperative, competitive, and individualistic efforts (see Johnson & Johnson, 1989a for a complete review of these studies.) The multiple outcomes studied can be classified into three major categories : achievement/productivity, positive relationships, and psychological health. From the research, we know that cooperation, compared with competitive and individualistic efforts, typically results in (a) higher achievement and greater productivity, (b) more caring, supportive, and committed relationships, and (c) greater psychological health, social competence, and self-esteem. The powerful effects cooperation has on so many important outcomes makes cooperative learning one of the most important tools educators have.

BASIC ELEMENTS OF COOPERATIVE LEARNING
Based on Johnson and Johnson, and Spencer Kagan

Positive Interdependence

Students perceive that they need each other in order to complete the group's task. There are many ways for teachers to structure positive interdependence in their lesson planning: (a) establishing mutual goals, (b) benefiting from joint rewards, (c) sharing resources (one paper for each group), (d) assigning roles.

Individual Accountability

Student's performance is individually assessed, group performance is assessed. Assessments are shared with group. As individuals improve, group can also be rewarded. Teacher may structure accountability by giving individual tests to each student, or may randomly select one group member to give an answer for the group.

Group Processing

Groups need time to process and discuss how well they are achieving their goals and maintaining working relations among members. Teachers structure group processing as part of the learning activity by (a) identifying actions that helped group be successful, (b) listing an action that would help the group be even more successful, and (c) focusing on how the group will work on strengthening its skills.

Social Skills

Students need social skills for groups to function effectively. These skills need to be taught as purposefully and precisely as academic skills. Collaborative skills include leadership, decision making, problem solving, trust building, communication, and conflict management skills.

Structure

In order to implement cooperative learning into a classroom, teachers use many distinct ways of organizing the interaction of individuals in the classroom. The definition and analysis of structures allows a systematic design of cooperative learning lessons, and ensures the distinction of "working in groups" from "working in cooperative groups."

Face-to-Face Interaction

Students help and promote each other in learning by sharing, and encouraging efforts to learn. Students talk to each other, discuss and explain. The teacher structures the environment so students sit facing each other and talk through each aspect of the assignment.

READING COMPREHENSION QUESTIONS
Within-Team Jigsaw

1. How can a competitive learning environment negatively affect learners according to the reading?

2. Contrast and compare cooperative vs. individualistic learning environments. Include advantages and disadvantages that you perceive.

3. What distinguishes cooperative learning group work from simply working in small groups?

4. How would you include the basic elements of cooperative learning in lesson planning to promote accountability?

TEAM EVALUATION

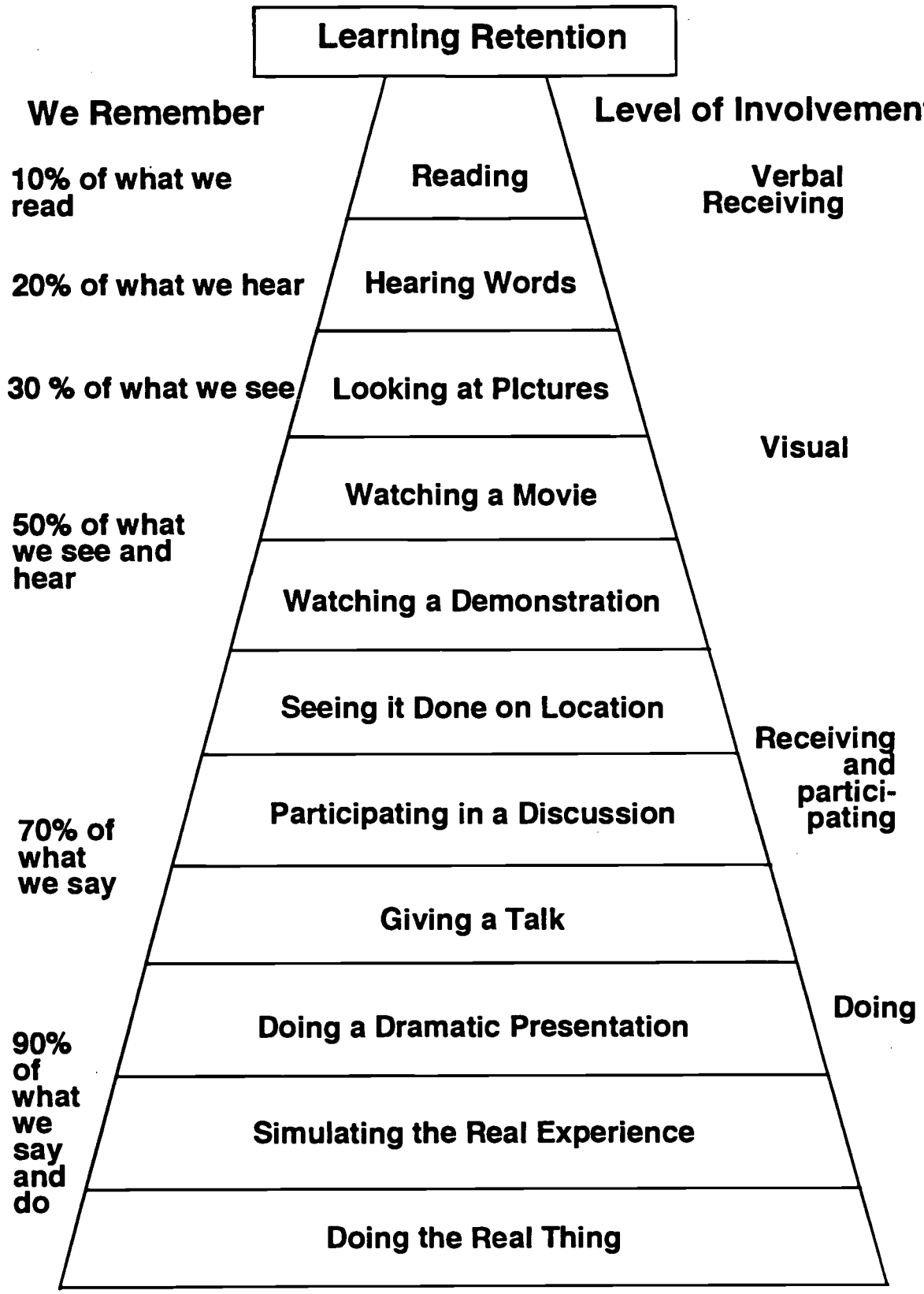
Strongly agree 1 2 3 4 5 Strongly disagree

My Team:

1)	had clear goals	1 2 3 4 5
2)	worked together toward the goals	1 2 3 4 5
3)	stayed on task	1 2 3 4 5
4)	made decisions based on views of all	1 2 3 4 5

My Teammates:

1)	listened well to each other	1 2 3 4 5
2)	helped each other by making useful suggestions	1 2 3 4 5
3)	were respectful of all points of view	1 2 3 4 5
4)	all participated	1 2 3 4 5


Learning Retention
We Remember
Level of Involvement
10% of what we read
Reading
Verbal Receiving
20% of what we hear
Hearing Words
30 % of what we see
Looking at Pictures
Visual
Watching a Movie
50% of what we see and hear
Watching a Demonstration
Seeing it Done on Location
Receiving and partici-pating
70% of what we say
Participating in a Discussion
Giving a Talk
Doing
Doing a Dramatic Presentation
90% of what we say and do
Simulating the Real Experience
Doing the Real Thing

INTERIM ASSIGNMENT

1. Teach Your Activity.

2. Add to Reflection Page.

3. Observe/Share something in your environment that you identify with. Bring to next session.

4. Interim Reading.

COOPERATIVE LEARNING

PARTICIPANT PACKET
SESSION TWO

Northwest
REGIONAL LITERACY RESOURCE CENTER

ALASKA IDAHO OREGON WASHINGTON

Lead Developers

Jennifer Aisenberg-Reese, Grays Harbor College, Washington
Maxine Frauman-Prickel, Lane Community College, Oregon
Shash Woods, Goodwill Community Learning Center, Washington

March , 1997

The Northwest Regional Literacy Resource Center is a cooperative venture of the states of Alaska, Idaho, Oregon, and Washington which focuses on the following:

- a mail order lending library, reached within the region at 1-800-238-1234
- training and resources to support instructional technology
- creation and support of professional development materials and systems
- interagency collaboration to support basic skills programs and students.

2120 South Jackson Street
Seattle, Washington 98144
Phone: (800) 238-1234
Fax: (206) 587-4900
E-mail: nwrlrc@otan.dni.us

OBJECTIVES

By the end of the workshop, participants will:

- be exposed to theoretical frameworks and rationales for cooperative learning
- experience learning in a cooperative learning classroom model
- experience and apply simple class climate-building techniques
- practice and process simple cooperative structures for team building, concept development, and content mastery
- practice strategies for establishing student centered learning
- experience and use the elements that distinguish cooperative learning from small group learning
- understand and design lessons which reflect the social and affective dimensions of learning

LESSON REFLECTION

Write for a few minutes about the cooperative lesson you designed and delivered between workshop sessions. Briefly recap the main elements of the lesson, then reflect on:

- the things that worked best
- the things you would do differently another time
- you and your students' feelings about the experience

ROLES AND GAMBITS

Some social skills are acquired through group activities, but there is no guarantee that the interactions will be positive and foster participation of all students. Social skills are learned and should be taught as part of the on-going classroom learning. One aspect of working in groups is learning how to take responsibility in the group and how to communicate positively with one's classmates as part of the group process. Assigning roles to each member of the group with suggested phrases (gambits) for that role gives guidance in the socializing process. Below are the roles, functions, and gambits commonly associated with cooperative group learning.

Roles and Functions	Gambits
The Task Master/Time Keeper keeps the group on task, keeps the group aware of progress related to time, attempts to make sure that each individual contributes.	"Have we finished problem 2?" "We've finished most of the problems and we have 5 more minutes." "I think the climate in Brazil . . ." (talking about the task to bring the group back to task)
The Checker checks to see that everyone agrees before a group decision is made; checks that everyone understands when the task goal is mastery of a concept or fact.	"Do we all agree on that?" "What do we need to do to make everyone understand how to...?"
The Encourager/Praiser (sometimes called Cheerleader) makes sure that the contributions of each member and the team as a whole are appreciated. Encourages others to share ideas.	"Let's all give Pete a pat on the back." "We're really moving along." "Working in this group is great."
The Secretary/Recorder records team answers once they all agree; may be the team spokesperson in reporting to the class.	"Let's make sure I record that right." "Would it be OK if I shared...?"

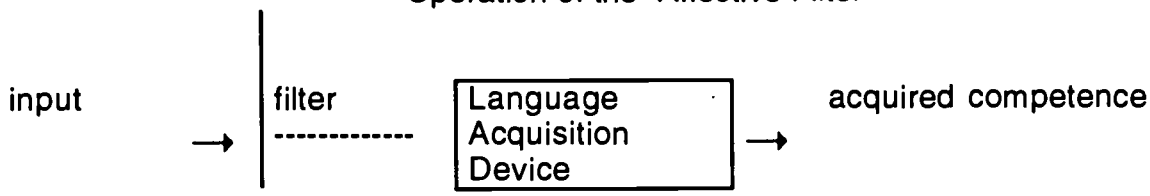
Another useful roles is that of **The Gatekeeper**, who makes sure each person participates and that no one individual dominates: "What do you think, John?" to encourage a non-participant to participate, or "Susan, do you agree?"

KRASHEN'S MODIFIED AFFECTIVE FILTER HYPOTHESIS
(From The Natural Approach)

Dulay and Burt have suggested that attitudinal factors may relate to (learning) in the following way: (learners) with optimal attitudes have a lower *affective filter*. A low filter means that the (learner) is more "open" to the input, and that the input strikes "deeper"...thus having the right attitudes may do two things for the (learners): it will encourage them to try to get more input, to interact (among others to obtain varied opinions and input regarding the same subject) with confidence. (See figure below.)

...Certain attitudinal variables relate primarily to subconscious (learning) and these have two effects: (1) they actually encourage input; people who are motivated and who have a positive self-image will seek and obtain more input; (2) they contribute to a lower filter; given two (learners) with the exact same input, the one with a lower filter will acquire more (knowledge.) The second effect is of great importance to the acquirer in a classroom setting; it implies that our pedagogical goals should not only include supplying optimal input, but also creating a situation that promotes a low filter. We shall see that...supplying good comprehensive input and lowering the affective filter are crucial elements for a qualitative learning environment.

Operation of the "Affective Filter"



The affective filter acts to prevent input from being used for (learning) acquisition. Learners with optimal attitudes are hypothesized to have a low affective filter. Classrooms that encourage low filters are those that promote low anxiety among students, that keep students off the defensive.

**Please note that Dr. Krashen also states that in order for the input to be of maximal effect, it should be at N+1 level where N= their present ability level and one is *slightly* more difficult to ensure cognitive interest and challenge.

REFLECT THREE TIMES

*On the impact of some factors of **Climate** and **Cooperation** on successful learning and teaching*

As you participate in activites today that focus on the three areas below, take time to write down your thoughts and feelings about how these factors affect both you and your students. What will be the implications for your practice?

Affective Filter

Social Skills

PIGSS FACE

COOPERATIVE LEARNING MNEMONIC

Positive Interdependence

Students perceive that they need each other in order to complete the group's task. There are many ways for teachers to structure positive interdependence into their lesson planning: (a) establishing mutual goals, (b) benefiting from joint rewards, (c) sharing resources (one paper for each group), (d) assigning roles.

Individual Accountability

Student's performance is individually assessed, group performance is assessed. Assessments are shared with group. As individuals improve, group can also be rewarded. Teacher may structure accountability by giving individual tests to each student, or may randomly select one group member to give an answer for the group.

Group Processing

Groups need time to process and discuss how well they are achieving their goals and maintaining working relations among members. Teachers structure group processing as part of the learning activity by (a) identifying actions that helped group be successful, (b) listing an action that would help the group be even more successful, and (c) focusing on how the group will work on strengthening their skills.

Social Skills

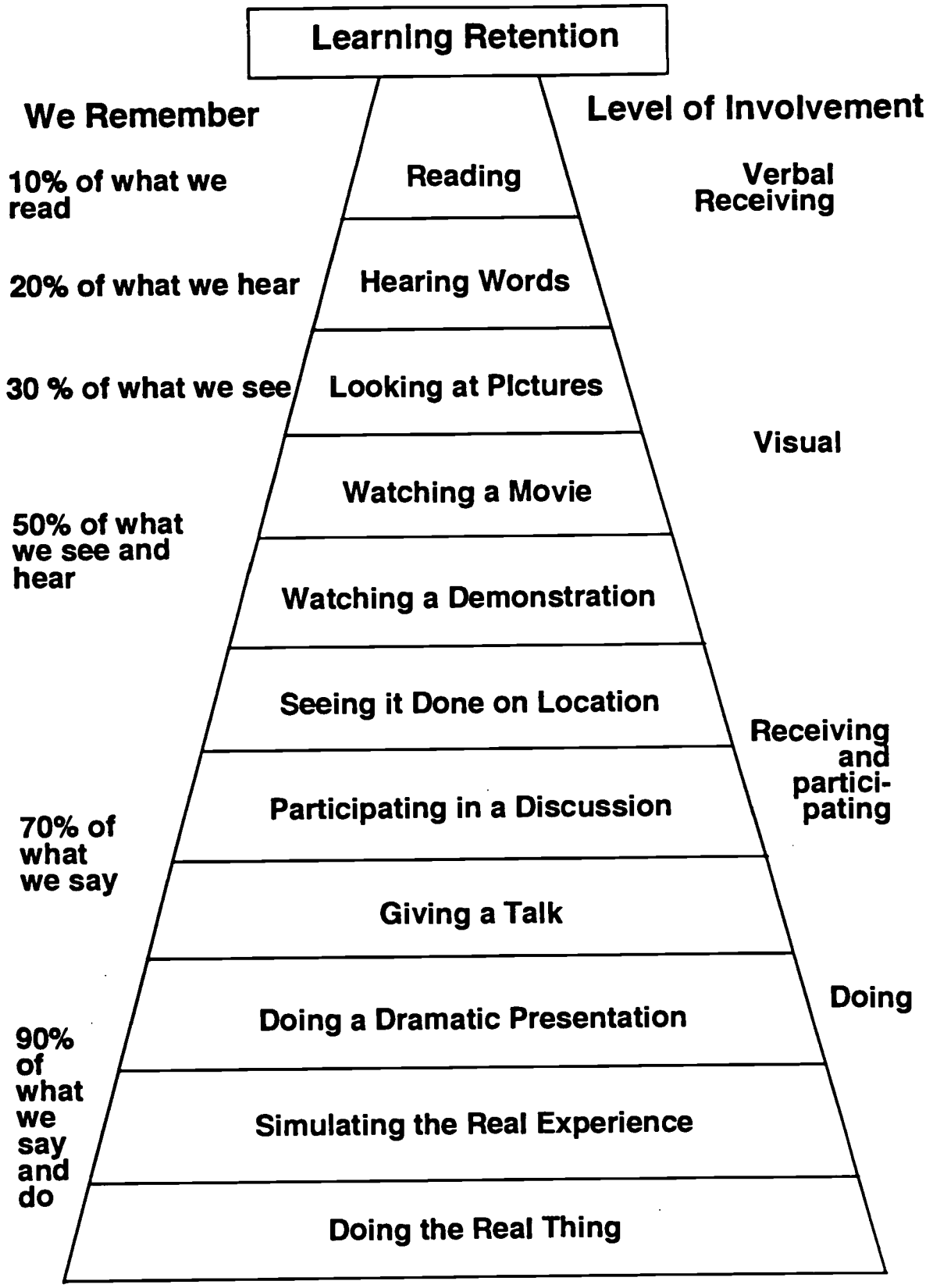
Students need social skills for groups to function effectively. These skills need to be taught as purposefully and precisely as academic skills. Collaborative skills include leadership, decision making, problem solving, trust building, communication, and conflict management skills.

Structure

In order to implement cooperative learning into a classroom, teachers use many distinct ways of organizing the interaction of individuals in the classroom. The definition and analysis of structures allows a systematic design of cooperative learning lessons, and ensures the distinction of "working in groups" from "working in cooperative groups."

Face-to-Face Interaction

Students help and promote each other in learning by sharing, and encouraging efforts to learn. Students talk to each other, discuss and explain. The teacher structures the environment so students sit facing each other and talk through each aspect of the assignment.


Learning Retention
We Remember
Level of Involvement
10% of what we read
Reading
Verbal Receiving
20% of what we hear
Hearing Words
30 % of what we see
Looking at Pictures
Visual
Watching a Movie
50% of what we see and hear
Watching a Demonstration
Seeing it Done on Location
Receiving and partici-pating
Participating in a Discussion
70% of what we say
Giving a Talk
Doing
Doing a Dramatic Presentation
90% of what we say and do
Simulating the Real Experience
Doing the Real Thing

THE EFFECTS OF STAFF DEVELOPMENT

Method of Staff Development	Results: Knowledge	Results: Skill	Results: Transfer
Lecture (theory)			----------
Plus Demonstration	95%		
Plus Practice with Feedback	95-99%		
Plus Follow-up (regular training/meeting/ coaching)	96+%		

From research by Joyce and Showers

WORKSHOP EVALUATION

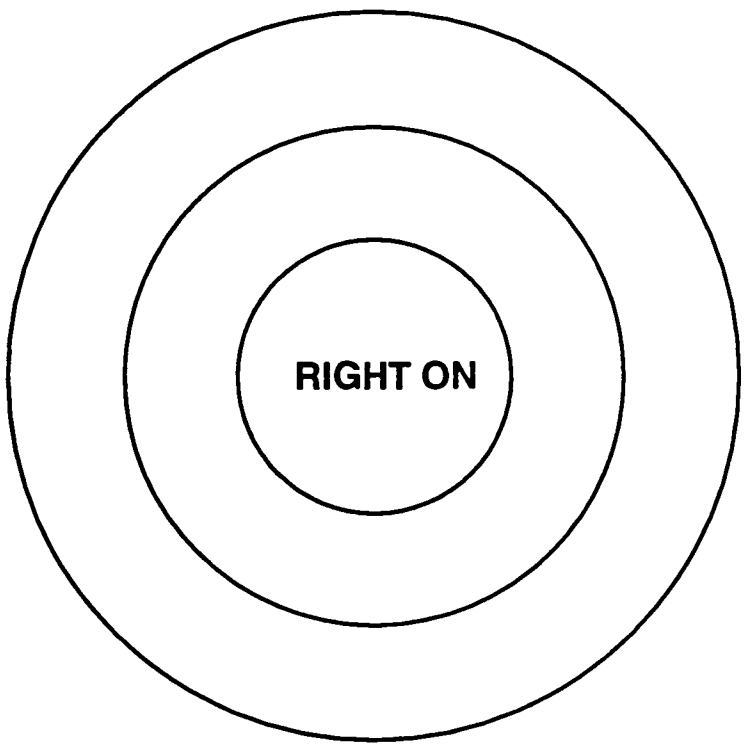
1. What I found most useful was .....

2. Suggestions I have for improvement are .....

3. One thing I am going to implement in my teaching is .....

4. The adjective I would use to describe this workshop is .....

For me, this workshop was ..... (Put an X at the point on the target which best illustrates the degree to which the workshop satisfied you.)



WAY OFF

TRANSPARENCIES

COOPERATIVE LEARNING

SESSION ONE

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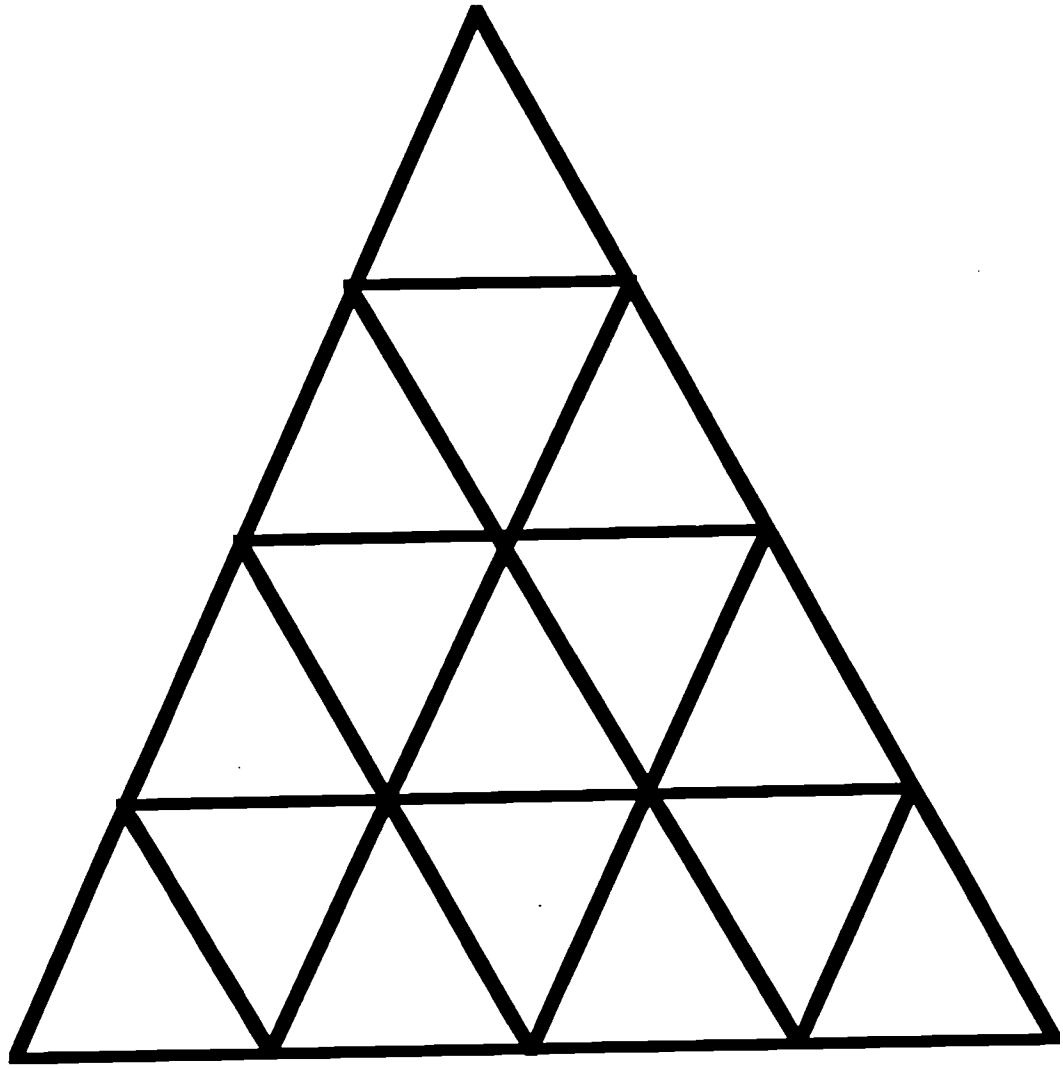
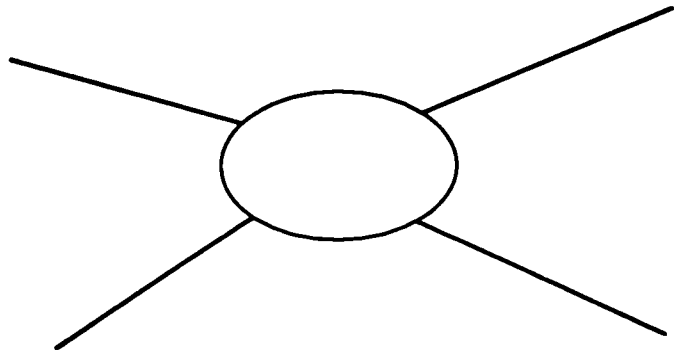
ALASKA IDAHO OREGON WASHINGTON



Teambuilding

Uncommon Commonalities

1. Use this paper to find out what characteristics, activities, qualities, interests, likes/dislikes, etc. you and your teammates have in common.
2. One team member starts the conversation to find out if they share the same interest, likes/dislikes, etc. The first team member might say, "I enjoy exercising. What about you?" Each team mate responds. If all team mates agree, then it is a commonality and the asking member writes it in the center circle. If they don't share the quality or like/dislike, the team member can write it outside the circle and ask another question. This team member leads the discussion until he/she finds a commonality. Then he/she passes the paper to the next team member and the discussion begins again.
3. The above activity continues until all members have had a chance to lead the discussion and there are at least four commonalities in the circle. (Teams may add more if time permits.)
4. Team members consider all the commonalities and create a name that reflects them and their interests.



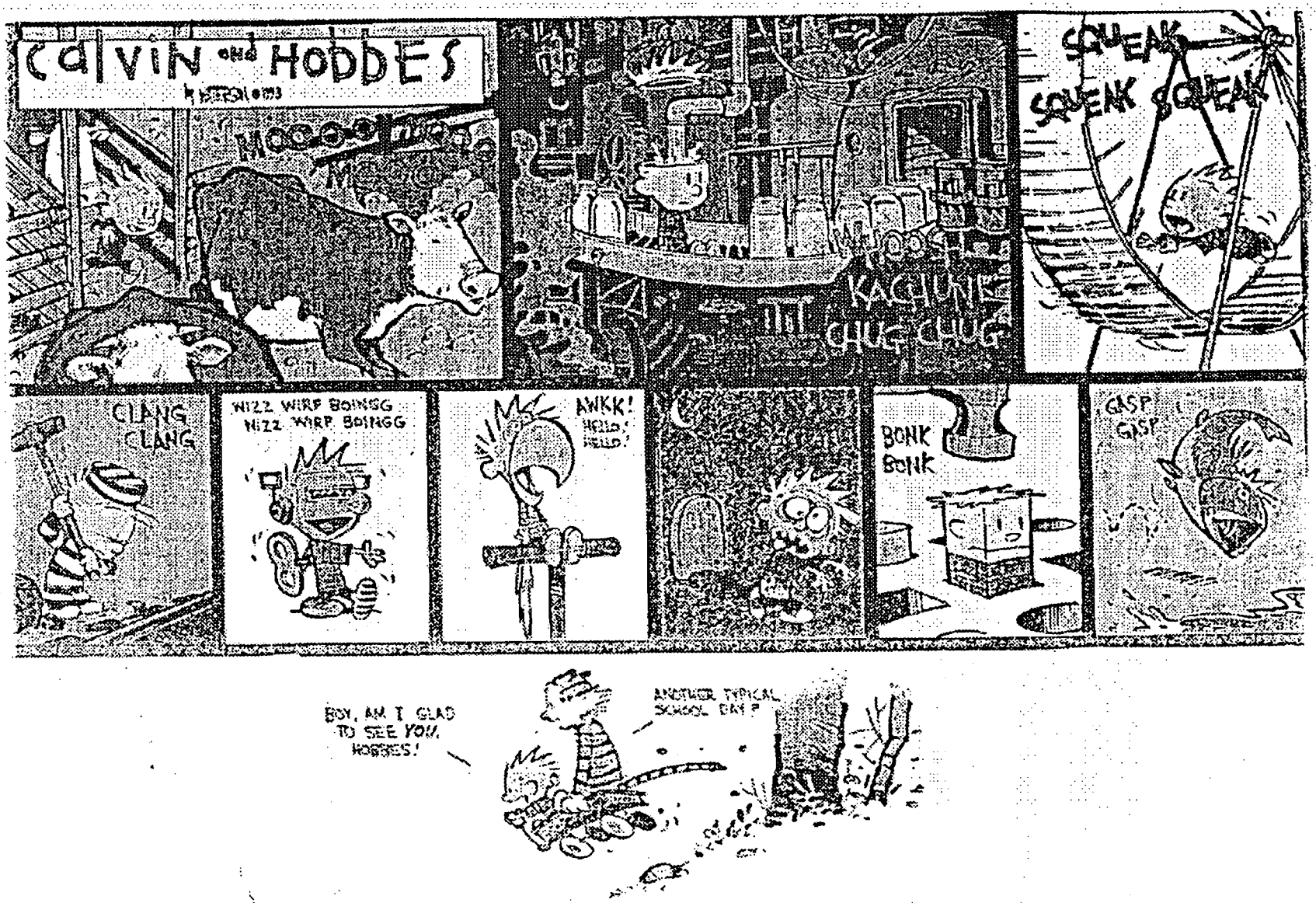
Numbered Heads

1. **What kind of learning environment discourages students from setting shared goals and helping each other achieve them, fostering a negative interdependence?**

2. **Name at least four elements of cooperative learning.**

3. **Which of the following is not reflective of a cooperative learning setting:**

    a) Students accomplish shared goals.
    b) Students are encouraged to focus primarily on self-interest.
    c) Student learning depends on positive interdependence.
    d) Individual accountability is planned for.



T-5

Team Evaluation

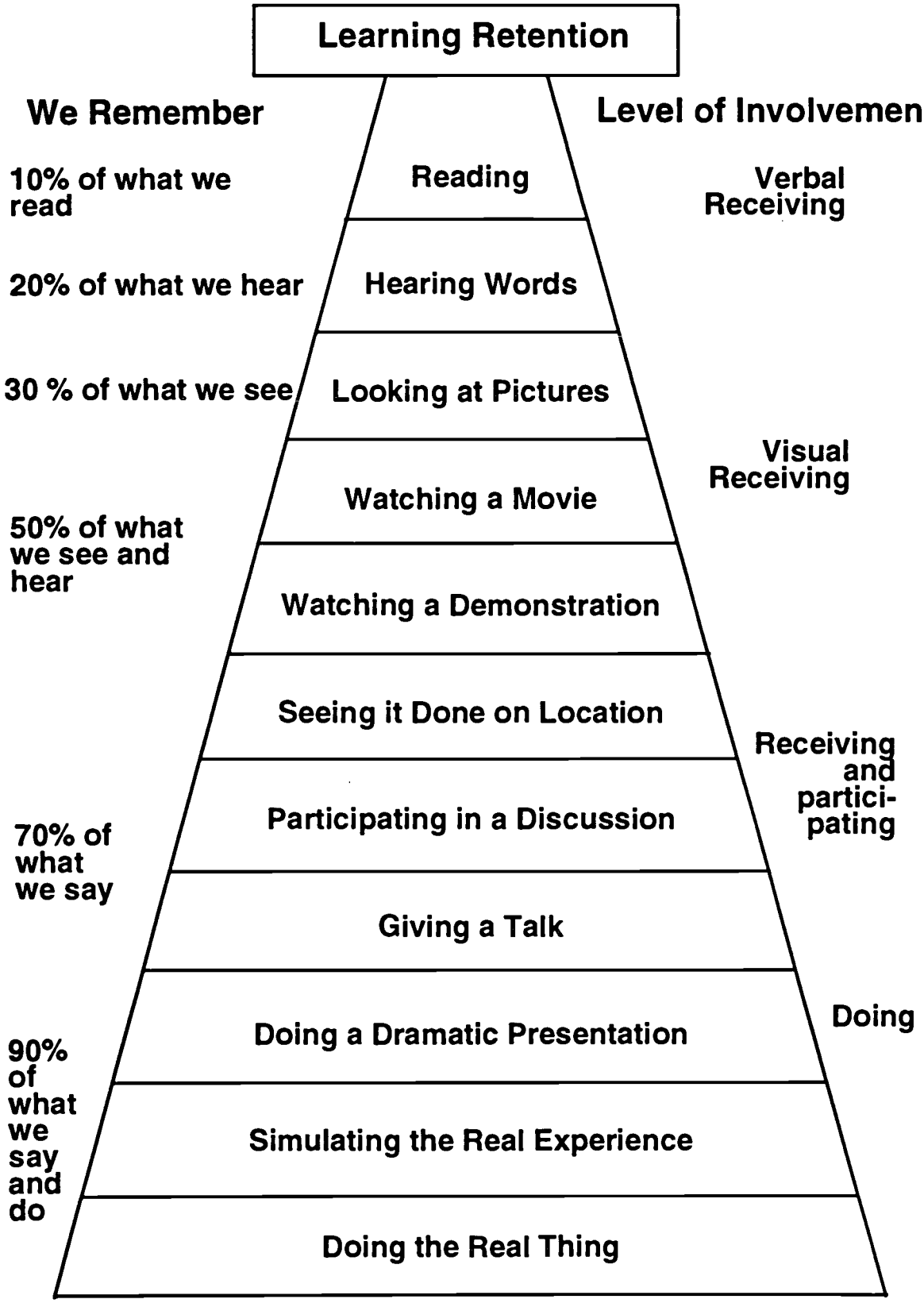
strongly agree **1 2 3 4 5** strongly disagree

MY TEAM:

1. Had clear goals **1 2 3 4 5**
2. Worked together towards the goals **1 2 3 4 5**
3. Stayed on task **1 2 3 4 5**
4. Made decisions based on the views of all **1 2 3 4 5**

MY TEAMMATES:

1. Listened well to each other **1 2 3 4 5**
2. Helped each other by making useful suggestions **1 2 3 4 5**
3. Were respectful of all points of view **1 2 3 4 5**
4. All participated **1 2 3 4 5**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Watching a Demonstration
Seeing it Done on Location
Receiving and partici-pating
Participating in a Discussion
70% of what we say
Giving a Talk
Doing
Doing a Dramatic Presentation
90% of what we say and do
Simulating the Real Experience
Doing the Real Thing

INTERIM ASSIGNMENT

1. **Teach Your Activity**

2. **Add to Reflections Page**

3. **Observe/Share Something in Your Environment With Which You Identify. Bring to Next Session**

4. **Interim Reading**

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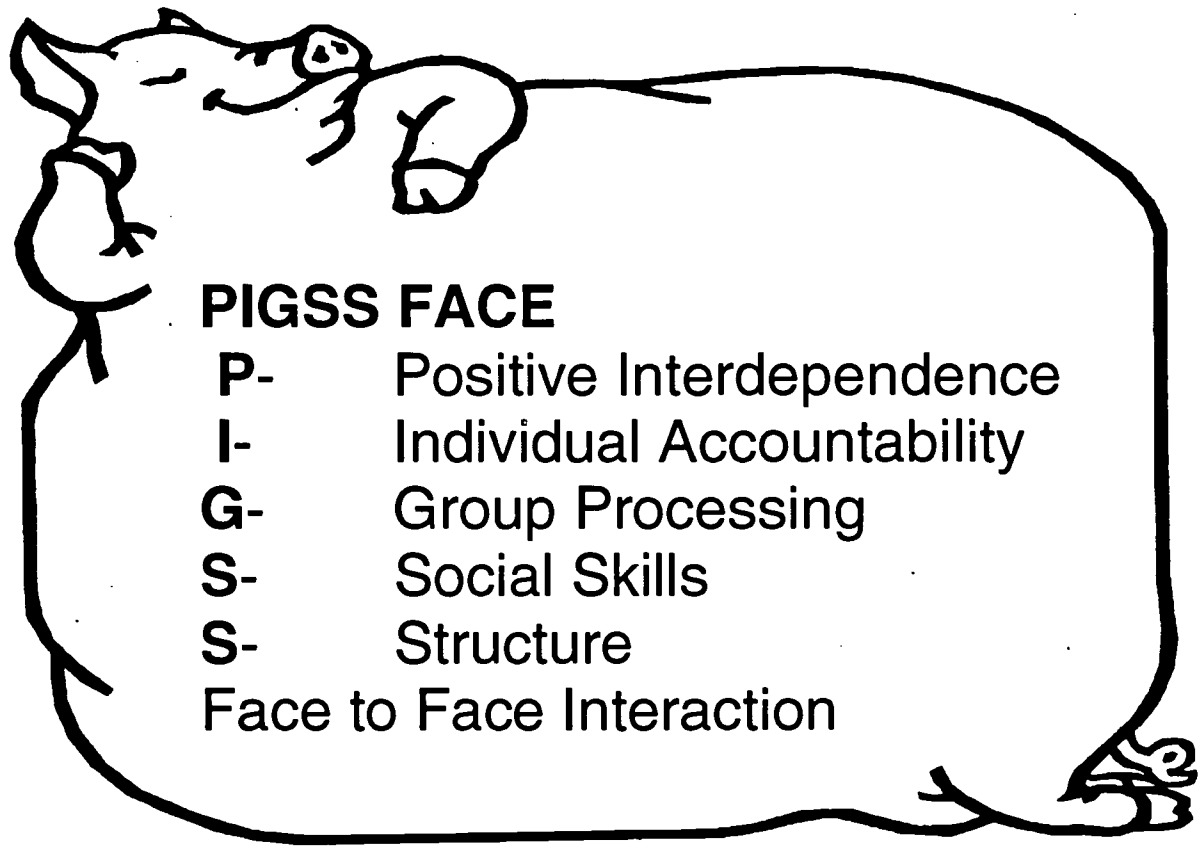
PIGSS FACE



PIGSS FACE

P- Positive Interdependence
I- Individual Accountability
G- Group Processing
S- Social Skills
S- Structure
Face to Face Interaction

EXPERT GROUP INSTRUCTIONS

How will you present the information or material to your home team?

Plan a 5 minute presentation that includes

- **Active Learning**
- **A Structure or Technique**

and facilitates understanding of the element.

THE EFFECTS OF STAFF DEVELOPMENT

Method Of Staff Development	Results: Knowledge	Results: Skill	Results: Transfer
Lecture (theory)			~~~~~~~
plus demonstration	95%		
plus practice with feedback	95-99%		
plus follow up (regular training meeting/coaching)	96+%		

THE EFFECTS OF STAFF DEVELOPMENT

Method Of Staff Development	Results: Knowledge	Results: Skill	Results: Transfer
Lecture (theory)	70-80%	5%	~~~~
plus demonstration	95%	5-10	---
plus practice with feedback	95-99%	80-90	10-15
plus follow up (regular training meeting/coaching)	96+%	90	70-80

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