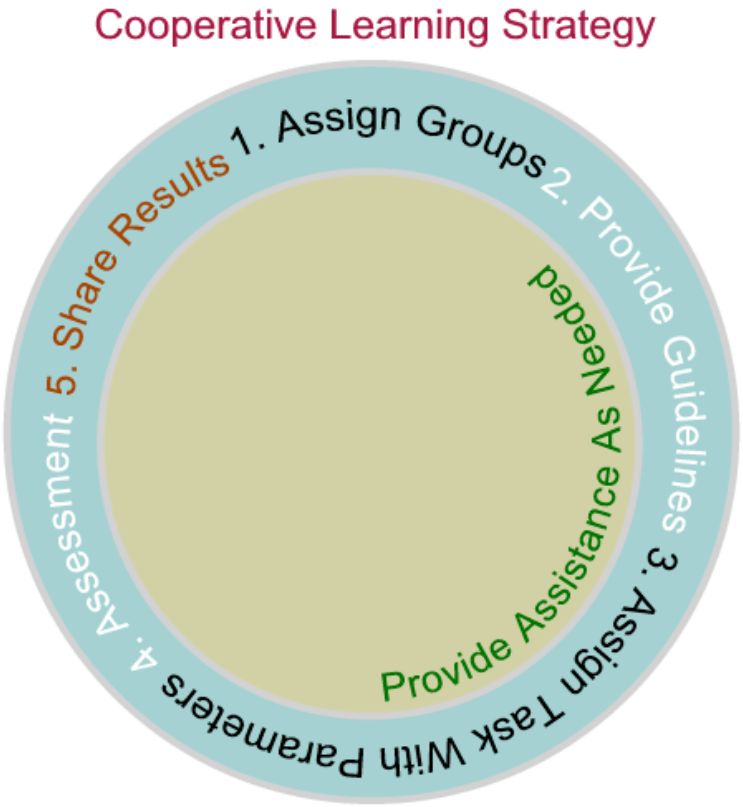


Cooperative Learning For Administrators

Debbie Silver, Ed.D.
www.debbiesilver.com

What is Cooperative Learning?

Cooperative learning is an instructional strategy that uses small groups of students working together and helping one another on specific learning tasks with an emphasis on group members supporting one another.
It is characterized by activities that:

1. **Require students to depend on one another for success**. Having students sit side by side working on something they could just as easily do by themselves in *not* cooperative learning. Students must be required to share materials, knowledge, time, talents, and effort (or any combination of these).

2. **Provide for individual accountability**. Group members share jobs and make group presentations. Group members are tested individually and/or as a group to ensure that each person has mastered the required learning.

3. **Utilizes face-to-face interaction among students**. For all group work students are arranged in close proximity of each other. They can be at tables, in desks or chairs pushed together, on the floor, or virtually anywhere they can do the task at hand separated from other groups.

4. **Focus on interpersonal and group skills**. Tasks are designed to include components of positive interpersonal communication skills such as active listening, building consensus, sharing, supporting, restating, using appropriate eye contact and gestures, and encouraging. Teams learn to stay on task and check each other for understanding.

Traditional Classroom	**Cooperative Classroom**
Learners are passive	Learners are active
Students work alone	Students work with 1 to 4 partners
Teacher directs work	Students direct work
Silence is valued	Learning noise is appropriate
Teacher initiates discussion	Students initiate discussion
Some students do not participate	All students participate
Individual accountability	Individual and group accountability
Independent learners	Interdependent learners
Affirmations come from teacher	Affirmations come from peers
Individual materials needed	Shared materials

Effective Use of Cooperative Learning Can

1. Increase achievement (at all ability levels)
2. Empower students to take responsibility for their own learning
3. Improve retention
4. Generate more positive feelings towards the subject matter
5. Provide more active learning
6. Focus more time on learning
7. Lower frustration and anxiety among students
8. Enhance a sense of community among students
9. Promote inter-personal communication skills
10. Boost feelings of self-worth

Cooperative Learning For Secondary Learners

In working with secondary school learners it is important to remember that:

- Group members are responsible for the performance of each individual learner.
- Group members are individually accountable and must be able to report on or explain the team's results.
- The groups are to be assigned by the teacher. Their make-up should be heterogeneous with respect to sex, race, socioeconomic status, ability/learning styles, cliques, and other important factors.
- Leadership is shared on a rotating basis. Each team member has a job and responsibilities.
- The teacher is a resource; students are in charge of their own learning.
- Time must be allowed for group processing and self-evaluation.

The job assignments I use for traditional grouping are these:

Group Leader

1. Reads all directions to group
2. Leads the discussions
3. Checks the data sheet
4. Helps with clean-up
5. Is the only one who can ask a question of the teacher

Materials Manager

1. Is responsible for collecting and returning all materials & supplies to the appropriate place(s)
2. Is the only one who can get up for materials and supplies
3. Makes sure the everyone in the group has equal access to the materials and supplies
4. Checks the data sheet
5. Helps with clean-up

Time Keeper

1. Holds the team stopwatch (or watches the clock)
2. Keeps group on task and reminds them about time
3. Is responsible for getting the group to finish on time
4. Checks the data sheet
5. Helps with clean-up

Data Collector

1. Collects the data for the activity
2. Records data on the appropriate form or sheet
3. Returns data sheet to teacher and/or records group data on class data sheet
4. Makes sure all other team members check the data sheet
5. Helps with clean-up

Since this is not a perfect world, and all class populations are not divisible by four, I have a fifth job that can be assigned in a group:

Encourager

1. Monitors other team members to make sure they do their own jobs
2. Takes responsibility for praising and affirming jobs that are well done
3. Records comments and actions that show positive interpersonal communication
4. Reports recorded data to group at de-briefing session
5. Helps with clean-up

If a group of four has one member absent, two of the jobs can be combined for that day.

Part of the group's participation grade is based on how well each team member performs her/his job. Points are deducted if one team member does another team member's assigned responsibility.

Group Participation Number Line

Date: _____
Group Number: _____
Group Members Present: _____
_____
_____

100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

Participation Points Earned: _____

There is nothing chaotic about cooperative learning that is well-planned and well-managed. Teachers should plan activities that are challenging and yet doable if the group members work together. Tasks should require the concentrated efforts of all team members doing their jobs and working with in the allotted time. Materials and supplies should be out and sorted before students arrive. During the cooperative learning activity it is the responsibility of the teacher to monitor the students and:

- Give immediate feedback and reinforcement for learning
- Re-teach certain concepts if necessary
- Clarify directions
- Encourage oral elaboration
- Affirm positive interactions and efforts
- Informally assess student learning and collaboration

Another way to ensure that the cooperative learning activity is organized and has a smooth closure is to allow time after clean up and whole group information sharing to ask the groups to evaluate how they interacted with one another. Either verbally or in their journals students can answer questions like these:

- Tell how involved each of your team members was in the decisions your group made.
- How do you feel about the work your group did today? Why?

- What would you would like to tell your teammates about how you felt during today's activity or the way you feel now?
- What could your team do to improve the way you get along and/or work together?
- What is your favorite thing about being on this team?

Teachers need to keep a close watch on the personal interactions going on within groups. Happy well-functioning groups matched with appropriate tasks and given adequate time constraints run smoothly.

Alternative Ways to Use Cooperative Learning

1. **Within a lecture or presentation:**
   The teacher is discussing, modeling, or explaining something. S/he pauses to ask small groups to summarize, categorize, debate, describe, or otherwise react to the presented material.

2. **With higher level questioning:**
   The teacher asks small groups to come up with a team consensus on something to do with analysis, synthesis, or evaluation of the concept being discussed.

3. **As practice reinforcement:**
   The teacher asks students to get with their groups to practice, memorize, or review the given concepts.

4. **Decision-making/problem solving:**
   The group is to reach a decision or solve a problem presented by the teacher. The teacher is leading a class discussion on the separation of church and state in the United States Constitution. She asks small groups to meet and decide whether or not to include the words, "Under God" in the Pledge of Allegiance. Groups are to figure out a way for students to say the Pledge without violating the spirit of the law.

5. **As a review:**
   The teacher asks a question. Team members put their heads together to discuss the answer. The teacher calls out a color, and the person who has that color dot will answer the question as the teacher whips through the groups.

6. **In a tournament or game format:**
   There are several models for using cooperative learning in a tournament or game format. Student Teams-Achievement Divisions (STAD) and Teams-Games-Tournament (TGT) are two of the more popular ones.

7. **With peer editing:**
   Team members proofread each other's work and offer suggestions for improvement. This practice helps both the "corrector" and the "correctee."

8. **As an assessment:**
   A Gallery Walk (sometimes called Carousel Walk) is a way to assess students in groups. The teacher puts large pieces of newsprint around the room. On the top of each is a question for which there are several answers. Student groups are given different colored markers and asked to write one correct answer to each question. Answers cannot be repeated on a page. The teacher can informally assess student learning by listening to them as they "think out loud" in their groups (Slavin calls this *oral elaboration*). Or teachers can more formally assess the answers by noting the flow of answers used by each colored group.

9. **Research projects or group investigations:**
   Group work on projects can promote sharing of the load and commitment to a time line. Often times students who are procrastinators when it comes to doing their own work will get motivated by their peers to finish their part of the assignment.

10. **Checking homework:**
    Even though homework is for independent practice, many teachers Have limited time for checking and correcting it during a rushed day. Group members can check each other's work for accuracy.

For more information on the specific techniques mentioned in this chapter or for lessons designed around particular age groups and subject areas consult your local bookstore or the Internet. Cooperative learning strategies abound. Using small group interactions is a powerful teaching tool that can be used to enhance the learning cycle and most other effective teaching strategies. Different marchers hearing different songs still need to learn to work successfully in groups when the need arises. Learning interpersonal communication skills helps students to become better citizens. Working in groups helps students "get better together."

Recommended Reading List

Johnson, D.W., Johnson, R.T., & Holubec, E.J. (1994). The new circles of learning: Cooperation in the classroom and school. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

Common Attributes

Once participants are arranged in groups, ask one member to be the recorder and write down each individual's name. A group leader should help the members discover 10 (hopefully unusual) common attributes. At the end of the ice breaker, one person from each group (chosen by the instructor) will introduce each group member and read their group's top 5 common attributes.

List each group members' name:

_____

_____

_____

_____

List your most unusual common attributes (they must be true and they must apply to ALL members of the group). When you are finished, put *stars* by your 5 favorite ones.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Cooperative Learning
(Reaching Consensus)

What is your team's name?

What is your team's logo?

What is your team's favorite movie?

What is your team's favorite food?

What is your team's favorite place to visit?

What is your team's favorite season?

Team Consensus Processing Guide

Now that your team has completed the Reaching Consensus Sheet, take a few minutes to look back at the interactions of your group. Each of you should write some notes, thoughts, or ideas on this form before you discuss how your group worked together. Look for any patterns in the perceptions of your team members.

1. Tell how involved each of your team members was in the decisions your group made.

2. Do you feel good about the decisions your team made? Why or why not.

3. Is there something you would like for your team members to know about the way you felt during the interactions or the way you feel now?

4. How well did your team do in getting along and making joint decisions? What could you do to improve?

Group Work Assessment Sheet
By Anna Chan Rekate and Martha Ehrenfeld

Student's name: _____

Date: _____

Class: _____

Type of work or project: _____

_____

1. Who did you work with in your group? Describe one thing that each person contributed to the group to make the project successful.

Name: _____

Contribution: _____

_____

Name: _____

Contribution: _____

_____

Name: _____

Contribution: _____

_____

Name: _____

Contribution: _____

2. Were there any conflicts that came up? Describe how you solved this problem. _____

_____

3. How was doing this activity with the group different than if you were to do it alone? _____

_____

4. List three suggestions about how the group could have done something differently.

a. _____

b. _____

c. _____

5. What did you do to contribute to the success of the activity for the group? _____

_____

6. What would you change about your own contributions to the group? _____

_____

_____

Source: Concept to Classroom <http://www.thirteen.org/edonline/concept2class/coopcollab/implement_sub1.html>

Rubric Template

(Describe here the task or performance that this rubric is designed to evaluate.)

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Stated Objective or Performance	Description of identifiable performance characteristics reflecting a beginning level of performance.	Description of identifiable performance characteristics reflecting development and movement toward mastery of performance.	Description of identifiable performance characteristics reflecting mastery of performance.	Description of identifiable performance characteristics reflecting the highest level of performance.	
Stated Objective or Performance	Description of identifiable performance characteristics reflecting a beginning level of performance.	Description of identifiable performance characteristics reflecting development and movement toward mastery of performance.	Description of identifiable performance characteristics reflecting mastery of performance.	Description of identifiable performance characteristics reflecting the highest level of performance.	
Stated Objective or Performance	Description of identifiable performance characteristics reflecting a beginning level of performance.	Description of identifiable performance characteristics reflecting development and movement toward mastery of performance.	Description of identifiable performance characteristics reflecting mastery of performance.	Description of identifiable performance characteristics reflecting the highest level of performance.	

Wed Jun 24 **Cooperative Learning Methods Top List of Effective Approaches for Secondary Mathematics, Finds Johns Hopkins Review**

BALTIMORE, June 24 (AScribe Newswire) -- Cooperative learning methods have been found to be most effective in raising the math scores of middle and high school students, according to a comprehensive research review by the Johns Hopkins University School of Education's Center for Research and Reform in Education.

Robert Slavin, director of the center, and Cynthia Lake, research scientist, reviewed 102 previously released experimental studies evaluating the effectiveness of math programs in the middle school grades. The review builds on their analysis of elementary math programs published in 2008.

The researchers' review covered three approaches to improving math achievement: textbooks, computer-assisted instruction and approaches emphasizing professional development in specific teaching methods, such as cooperative learning (in which students interact in teams) and teaching of learning skills.

Both the elementary math and the middle and high school math reviews found that the most effective programs focus on daily teaching practices. Two cooperative learning programs for middle and high school math-STAD (Student Teams-Achievement Divisions) and IMPROVE-showed the strongest evidence of effectiveness..

"The findings of this review suggest that educators as well as researchers might do well to focus more on how the classroom is organized to maximize student engagement and motivation, rather than expecting that choosing one or another textbook by itself will move students forward," Slavin said. "Both the elementary review and the current review find that the programs that produce consistently positive effects on achievement are those that fundamentally change what students do every day in their core math classes."

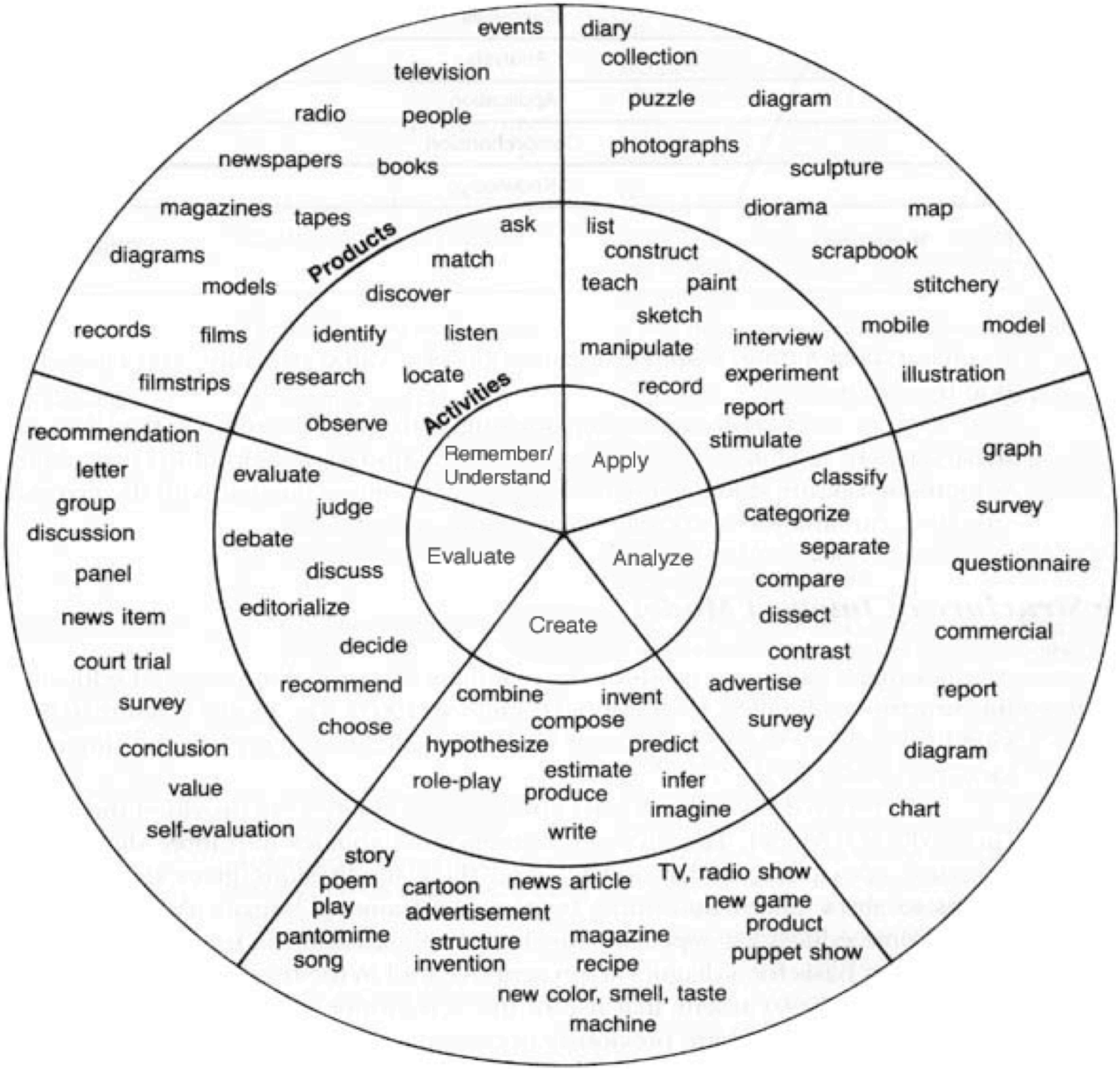
Researchers conducted a broad literature search in order to locate every study comparing the effectiveness of various math programs to traditional control groups.

The results were published in the June 2009 issue of the American Educational Research Association's Review of Educational Research. The review notes that the three approaches to mathematics instruction do not conflict and may have added effects if used together.

The Johns Hopkins Center for Research and Reform in Education is conducting one of the largest research review projects ever undertaken to increase the use of evidence in education to improve student achievement. The intent is to place all types of programs on a common scale to provide educators with meaningful unbiased information that they can use to select programs and practices most likely to make a difference with their students. Topics include reading, math and other programs for grades K-12. Educator-friendly ratings of effective education programs as well as the full reports appear on the Best Evidence Encyclopedia Web site at http://www.bestevidence.org .

The School of Education's Center for Research and Reform in Education is a nonprofit center that received funding from the Institute of Education Sciences at the U.S. Department of Education. For more information on the center, go to: http://education.jhu.edu/crre .

Using the New Bloom's Taxonomy to Design Meaningful Learning Assessments Kevin Smythe & Jane Halonen



Growing up gifted: Developing the potential of children at home and at school.Upper Saddle River, NJ: Merrill Prentice Hall.

Retrieved from: http://www.apa.org/ed/new_blooms.html

Problem-Based Learning

We have all heard young children repeatedly ask their mothers "why" questions. "Why is spaghetti sauce red?" "Why do bunnies have fur?" or "Why is Grandma's skin wrinkled?" It seems natural and healthy for children to ask questions. So what happens to that inquisitiveness between the ages of two and twelve? By the time children are in middle school it seems as if learning is torture. Teachers continually ask themselves and their colleagues, "How can I make learning more interesting for my students?" One option for teachers is problem-based learning.

What Is Problem-Based Learning? Problem-Based Learning (PBL) is an instructional strategy that bases learning around a real-world problem rather than on a particular discipline. The strategy came about in the early 1970s in medical schools and has proven to be so effective that is has made its way into K-12 instruction.

The idea is to teach students to learn how to learn. By having to solve problems, students practice learning rather than merely memorizing. Amazingly enough, the students are not only introduced to facts while solving the problem, but they remember them because the facts are no longer a collection of random information--rather they are meaningful and relevant to solving actual problems. Students learn to apply new information to solve problems.

How Does PBL Work? To begin, the students are given an ill-structured problem. An ill structured problem is a clearly defined problem that has just enough information to provoke an investigation. The students should not have enough prior knowledge to solve the problem on their own. This problem should have more than one "correct" answer as the answer will most likely change as more information is found.

Furthermore, it is important that the problem be meaningful to the students. They should be able to relate to the issue at hand. When students bring questions to the issue, they will be more compelled to solve the problem and more likely to retain the information they find.

Students should then discuss the problem and record all their prior knowledge. Based on what the students already know, each group or individual can make a hypothesis or working statement, which is likely to change as more information is deducted through research. Next, students will brain storm a list of questions that need to be answered in order to solve the problem.

Students will use resources (e.g., Internet, encyclopedias, periodicals, experts, etc. . . .) to answer these questions. It is most desirable for the teacher to have already decided on what resources the students will use. This way the teacher can notify the school library and/or gather resources in the classroom that will aid

in the students' discovery. This approach also saves students from searching through useless materials.

This simple chart can help students keep their objectives in order.

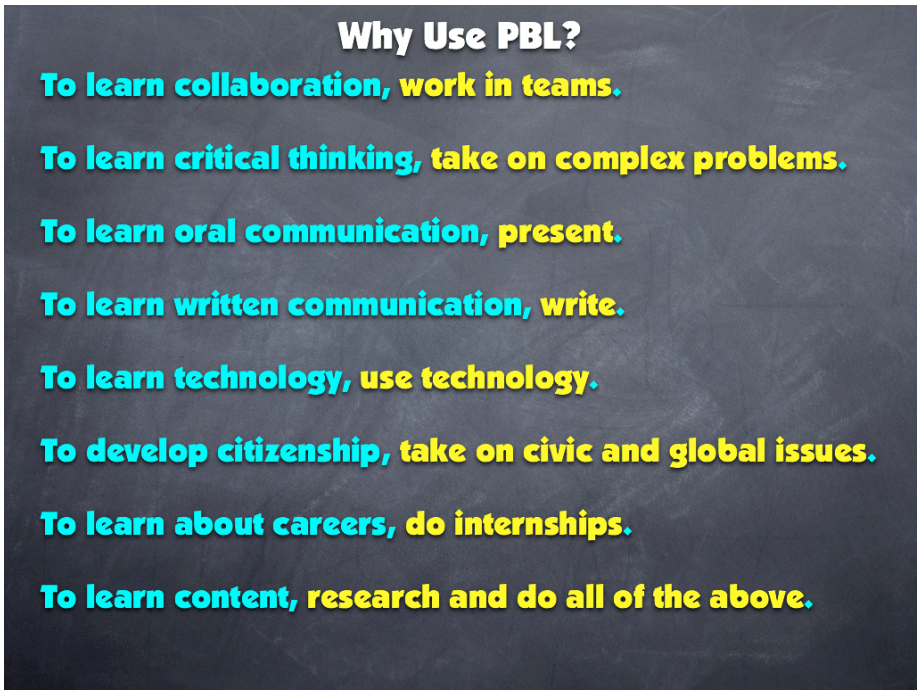
What do I know?	What do I need to know?	How will I find it?

What Is the Teacher's Role in PBL? In a Problem-Based Learning scenario the teacher's traditional role changes, and some teachers may need some time to adjust. No longer is the teacher and text the source of all knowledge in the classroom. The role of the teacher in a PBL classroom is as a coach or guide.

The teacher should not expect students to be effective problem solvers right away. Since learning to solve problems is one of the main goals of PBL, students will need to be guided during the searching and solving process. By asking questions along with the students, a teacher can serve as a model problem solver. As students get better at problem solving, the teacher's involvement may change slightly.

However, there is a fine line between guiding and modeling and being overly involved. If the teacher guides all the students in the same direction, the students will assume there is only one correct answer and will most likely try to figure out what answer the teacher wants. Also, the students will not take ownership of the problem if the teacher does the work for them. Therefore, it is important that the teacher allows students to question things differently.

Retrieved from Ambient: Problem-Based Learning
http://www.rsmas.miami.edu/groups/niehs/ambient/teacher/Tpbl.html



The Inquiry Process