

## 20 Collaborative Learning Tips And Strategies For Teachers

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### Collaborative Learning Tips And Strategies For Teachers

by **Miriam Clifford**

*This post has been updated from a 2011 post.*

There is an age old adage that says “two heads are better than one”. Consider collaboration in recent history: Watson and Crick or Page and Brin (Founders of Google). But did you know it was a collaborative Computer Club basic programming at a middle school that brought together two minds that would change the future of computing?

Yes, those two were of course Bill Gates and Paul Allen, the founders of Microsoft.

Collaborative learning teams are said to attain higher level thinking and preserve information for longer times than students working individually. Why is this so?

Groups tend to learn through “discussion, clarification of ideas, and evaluation of other’s ideas.” Perhaps information that is discussed is retained in long term memory. Research by Webb suggests that students who worked collaboratively on math computational problems earned significantly higher scores than those who worked alone. Plus, students who demonstrated lower levels of achievement improved when working in diverse groups.

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Many consider Vygotsky the father of “social learning”. Vygotsky was an education rebel in many ways. Vygotsky controversially argued for educators to assess students’ ability to solve problems, rather than knowledge acquisition. The idea of collaborative learning has a lot to do with Vygotsky’s idea of the “zone of proximal development”. It considers what a student can do if aided by peers and adults. By considering this model for learning, we might consider collaboration to increase students’ awareness of other concepts.

What are some ways to include best practices for collaborative learning in our classroom?

### **1. Establish group goals**

Effective collaborative learning involves establishment of group goals, as well as individual accountability. This keeps the group on task and establishes an unambiguous purpose. Before beginning an assignment, it is best to define goals and objectives to save time.

### **2. Keep groups midsized**

Small groups of 3 or less lack enough diversity and may not allow divergent thinking to occur. Groups that are too large create "freeloading" where not all members participate. A moderate size group of 4-5 is ideal.

### **3. Establish flexible group norms**

Research suggests that collaborative learning is influenced by the quality of interactions. Interactivity and negotiation are important in group learning. In the 1960's studies by Jacobs and Campbell that norms are pervasive, even deviant norms were handed down and not questioned.

If you notice a deviant norm, you can do two things: rotate group members or assist in using outside information to develop a new norm. You may want to establish rules for group interactions for younger students. Older students might create their own norms. But remember, given their durable nature, it is best to have flexible norms. Norms should change with situations so that groups do not become rigid and intolerant or develop sub-groups.

#### **4. Build trust and promote open communication**

Successful interpersonal communication must exist in teams. Building trust is essential. Deal with emotional issues that arise immediately and any interpersonal problems before moving on. Assignments should encourage team members to explain concepts thoroughly to each other. Studies found that students who provide and receive intricate explanations gain most from collaborative learning. Open communication is key.

#### **5. For larger tasks, create group roles**

Decomposing a difficult task into parts to save time. You can then assign different roles. A great example in my own classroom was in science lab, fifth grade student assumed different roles of group leader, recorder, reporter, and fact checker. The students might have turns to choose their own role and alternate roles by sections of the assignment or classes.

#### **6. Create a pre-test and post-test**

A good way to ensure the group learns together would be to engage in a pre and post-test. In fact, many researchers use this method to see if groups are learning. An assessment gives the team a goal to work towards and ensures learning is a priority. It also allows instructors to gauge the effectiveness of the group. Changes can be made if differences are seen in the assessments over time. Plus, you can use Bloom's taxonomy to further hone in on specific skills.

Individuals should also complete surveys evaluating how well the group functioned. "Debriefing" is an important component of the learning process and allows individuals to reflect on the process of group learning.

### **7. Consider the learning process itself as part of assessment**

Many studies such as those by Robert Slavin at Johns Hopkins considered how cooperative learning helps children develop social and interpersonal skills. Experts have argued that the social and psychological effect on self-esteem and personal development are just as important as the learning itself.

In terms of assessment, it may be beneficial to grade students on the quality of discussion, engagement, and adherence to group norms. Praise younger groups for following collaborative learning standards. This type of learning is a process and needs explicit instruction in beginning stages. Assessing the process itself provides motivation for students to learn how to behave in groups. It shows students that you value meaningful group interactions and adhering to norms.

### **8. Consider using different strategies, like the Jigsaw technique.**

The jigsaw strategy is said to improve social interactions in learning and support diversity. The workplace is often like a jigsaw. It involves separating an assignment into subtasks, where individuals research their assigned area. Students with the same topic from different groups might meet together to discuss ideas between groups.

This type of collaboration allows students to become “experts” in their assigned topic. Students then return to their primary group to educate others. Here are some easy steps to follow the Jigsaw approach (<https://www.jigsaw.org/steps.htm>). There are other strategies discussed here by the University of Iowa (<http://www.dso.iastate.edu/asc/supplemental/ShowcaseCollaborative.pdf>) such as using clusters, buzz groups, round robin, leaning cells, or fish bowl discussions.

### **9. Allow groups to reduce anxiety**

When tackling difficult concepts, group learning may provide a source of support. Groups often use humor and create a more relaxed learning atmosphere that allow for positive learning experiences. Allow groups to use some stress-reducing strategies as long as they stay on task.

### **10. Establish group interactions**

The quality of discussions is a predictor of the achievement of the group. Instructors should provide a model of how a successful group functions. Shared leadership is best. Students should work together on the *task and maintenance functions* of a group. Roles are important in group development. Task functions include:

- Initiating Discussions
- Clarifying points
- Summarizing
- Challenging assumptions/devil's advocate
- Providing or researching information
- Reaching a consensus

Maintenance involves the harmony and emotional well-being of a group. Maintenance includes roles such as sensing group feelings, harmonizing, compromising and encouraging, time-keeping, relieving tension, bringing people into discussion, and ore.

### **11. Use a real world problems**

Experts suggest that project-based learning using open-ended questions can be very engaging. Rather than spending a lot of time designing an artificial scenario, use inspiration from everyday problems. Real world problems can be used to facilitate project-based learning and often have the right scope for collaborative learning.

### **12. Focus on enhancing problem-solving and critical thinking skills**

Design assignments that allow room for varied interpretations. Different types of problems might focus on categorizing, planning, taking multiple perspectives, or forming solutions. Try to use a step-by step procedure for problem solving. Mark Alexander explains one generally accepted problem-solving procedure:

1. Identify the objective
2. Set criteria or goals
3. Gather data
4. Generate options or courses of action
5. Evaluate the options using data and objectives
6. Reach a decision
7. Implement the decision

### **13. Keep in mind the diversity of groups**

Mixed groups that include a range of talents, backgrounds, learning styles, ideas, and experiences are best. Studies have found that mixed aptitude groups tend to learn more from each other and increase achievement of low performers. Rotate groups so students have a chance to learn from others.

### **14. Groups with an equal number of boys and girls are best**

Equally balanced gender groups were found to be most effective. Some research suggests that boys were more likely to receive and give elaborate explanations and their stances were more easily accepted by the group. In majority male groups girls were ignored. In majority girl groups, girls tended to direct questions to the boy who often ignored them. You may also want to specifically discuss or establish gender equality as a norm. This may seem obvious, but it is often missed. It may be an issue you may want to discuss with older students.

**15. Use scaffolding** or diminished responsibility as students begin to understand concepts.

At the beginning of a project, you may want to give more direction than the end. Serve as a facilitator, such as by gauging group interactions or at first, providing a list of questions to consider. Allow groups to grow in responsibility as times goes on. In your classroom, this may mean allowing teams to develop their own topics or products as time goes on. After all, increased responsibility over learning is a goal in collaborative learning.



## **16. Include different types of learning scenarios**

Studies suggest that collaborative learning that focuses on rich contexts and challenging questions produces higher order reasoning. Assignments can include laboratory work, study teams, debates, writing projects, problem solving, and collaborative writing.

## **17. Technology makes collaborative learning easier**

Collaboration had the same results via technology as in person, increased learning opportunities. Try incorporating free savvy tools for online collaboration such as Stixy, an online shared whiteboard space, Google groups, or Mikogo for online meetings. Be aware that some research suggests that more exchanges related to planning rather than challenging viewpoints occurred more frequently through online interactions.

This may be because the research used students that did not know one another. If this is your scenario, you may want to start by having students get to know each other's backgrounds and ideas beforehand on a blog or chat-board.

## **18. Keep in mind the critics**

As with any learning strategy, it's important to have a balanced approach. Cynics usually have a valid point. A recent New York Times article, cites some criticism of collaboration for not allowing enough time for individual, creative thinking. You may allow some individual time to write notes before the groups begin. This may be a great way to assess an individual grade.

## **19. Be wary of “group think”**

While collaborative learning is a great tool, it is always important to consider a balanced approach. At times, group harmony can override the necessity for more critical perspectives. Some new research suggests that groups favored the more confident members. Changing up groups can help counter this problem.

## **20. Value diversity**

Collaborative learning relies on some buy in. Students need to respect and appreciate each other's viewpoints for it to work. For instance, class discussions can emphasize the need for different perspectives. Create a classroom environment that encourages independent thinking. Teach students the value of multiplicity in thought. You may want to give historical or social examples where people working together were able to reach complex solutions.

By definition learning is social in nature. Using different mediums, whether it be books, discussions, technology or projects we study and develop new ideas. We impart ideas and share perspectives with others. Collaboration is a learned process. If managed correctly, it is a powerful tool that can allow educators to tap into new ideas and information.

*This is a cross-post from [opencolleges.edu.au](http://opencolleges.edu.au);*