

## Guidelines and Resources for Collaborating with Others

Well-structured student-to-student collaboration is an effective practice to not only engage every student in the classroom, but also to enhance each student’s comprehension of the material.

Effective Practices for Collaborating With Others	Additional Guidelines & Strategies	Internet Resources & Digital Tools
<p><b>Establishing Ground Rules</b> for collaboration in the classroom is critical for group work to be successful.</p>	<ul style="list-style-type: none"> <li>● Students will engage, perform, and learn more effectively if they know they are cared about. Establishing a safe and caring classroom is critical for students to perform at their best.</li> <li>● Keep in mind that who students are affects what they learn and how they work with their peers. How they see themselves and their peers in terms of social identities can affect how well they work with others. Teachers need to get to know their students well in order to optimize the collaboration experience.</li> <li>● Teachers need to model the sorts of behaviors-- the sorts of questioning and negotiating and listening--that they expect from their students. Teachers must quickly and thoughtfully redirect students who are not being respectful or kind.</li> <li>● Ground rules for respect and trust should be established early in the first days of school and reinforced as the year progresses.</li> <li>● At the onset of collaborative activities, students need to create group agreements that outline respectful and caring behaviors as well as the duties for the different members of the group--the recorder, the facilitator, the artist, the presenter, etc.</li> <li>● Additionally, for the collaborative effort to be effective, students need learn the following:             <ul style="list-style-type: none"> <li>○ How to listen to each other,</li> <li>○ How to ask thoughtful questions,</li> <li>○ How to negotiate ideas.</li> </ul> </li> </ul>	<p><a href="#">A Collaborative Classroom</a></p> <p><a href="#">4 Methods to Enhance Student Collaboration in the Classroom</a></p> <p><a href="#">Project Team Contract</a></p>

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<p><b>Problem-based (or project-based) Learning</b> is a highly engaging and motivating student-led, teacher supported classroom strategy where students engage in inquiry based on their personal interests, learning styles, and natural curiosity.</p>	<ul style="list-style-type: none"> <li>● Students who engage in this type of learning are asked to <b>solve real-world problems</b> by determining their inquiry, designing their plan of action, and organizing their research. Students will produce some sort of artifact, as a result of the project, that is intended for a specific audience.</li> <li>● Students work in multiple content areas and disciplines and generally follow these steps in project or problem-based learning:               <ul style="list-style-type: none"> <li>○ Students explore the issue. They gather information on the issue.</li> <li>○ Students determine what they know, or what is known about the issue based on the information they have gathered.</li> <li>○ Students define the issue or the specific problem. They determine what they hope to learn about the problem and establish their research questions.</li> <li>○ Students then research and find the answers to their questions that will help formulate a compelling argument or organize an event, or help produce a solution, a system, or product.</li> <li>○ Students then investigate those possible solutions to determine which is the most viable or practical.</li> <li>○ Students then present, create, plan, execute, etc., their solution in the form of some sort of artifact.</li> <li>○ Finally, students evaluate themselves and the experience.</li> </ul> </li> <li>● While problem-based learning can be an individual experience, <b>often students will have similar interests with their peers, so having them collaborate in small groups makes sense.</b> Students learn to work in learning communities where raising questions about the content and developing new and innovative ideas are the norm.</li> <li>● Specifically, in project based learning groups, students must learn to communicate, negotiate, and collaborate.</li> </ul>	<p><a href="#">Problem-based Learning from Stanford</a></p> <p><a href="#">Project-based Learning</a></p> <p><a href="#">Collaboration in Project-based Learning from Edutopia (video)</a></p> <p><a href="#">Steps to Problem-Based Learning</a></p>

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	<ul style="list-style-type: none"> <li>● Likewise, in order for these groups to be successful, the students must be thoughtfully placed in each group and the processes the group follows must be of a high quality.</li> <li>● <b>High quality group processes</b> are characterized by the following descriptors:               <ul style="list-style-type: none"> <li>○ <i>Positive interdependence</i> where each group member needs the others to succeed. This may be accomplished through shared learning goals, specific group roles, joint rewards, and more.</li> <li>○ <i>Individual accountability</i> requires that each member of the group be responsible for part of the group work. The contributions of each member of the group are evident and the group is evaluated collectively as well as individually.</li> <li>○ <i>Equal participation</i> demands that each member of the group, regardless of achievement level, has an equal share of the work load.</li> <li>○ <i>Social Skills</i> such as trust-building, decision-making, negotiation, compromise and compassion are vital to the success of a group.</li> </ul> </li> <li>● Teachers need to play an active role in project-based learning by outlining clear steps and expectations for the process, providing rubrics and models for what they expect students to accomplish, and coaching students' collaboration and research efforts.</li> <li>● Note that students should also be asked to evaluate and <b>reflect on their experience with the group</b>. This self-evaluation should not only focus on how well students met their learning goals, but also how they worked together as a group. Consider some of the following questions for the evaluation:               <ul style="list-style-type: none"> <li>○ How well did they communicate with each other? Did everyone know what was expected during the process?</li> <li>○ How well did they negotiate? Did they disagree about some part of the process? How did they resolve their different ideas?</li> </ul> </li> </ul>	

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	<ul style="list-style-type: none"> <li>○ How well did they collaborate? Did one or two people take over or did everyone have a chance to contribute to the project?</li> </ul>	
<p>Evaluating the collaborative process are vital to its effectiveness.</p>	<ul style="list-style-type: none"> <li>● It is important to always circulate throughout the groups to make certain students are on task and to answer any questions they may have.</li> <li>● <b>Checking-in</b> is essentially asking each person in the group to name how he or she is feeling at the moment, usually in one word. This is not a terribly time consuming practice and yet it is powerful in allowing everyone to stop and breathe and pay attention to their own feelings as well as those of the others in the group.</li> <li>● <b>Evaluating</b> the collaborative process is as simple as circulating, observing, and interacting with the groups, but it also requires follow up. After the group work is finished ask the group facilitators “What did someone in your group say or do that helped your group collaborate?” Keep a running record--a chart on the wall, or a list visible to the class--of behaviors that are helpful in the collaborative process. Refer to the list each time the class engages in a collaborative effort and students will eventually obtain the habits required to collaborate effectively.</li> </ul>	<p><a href="#">Creating a Collaborative Classroom</a></p>
<p><b>The Jigsaw Strategy</b> allows all students to be engaged in small group work and responsible for their own learning as well as teaching their peers.</p>	<ul style="list-style-type: none"> <li>● The <b>Jigsaw</b> method works by assigning three to four students to a home group where each student is given a different reading passage on a subtopic related to a broader topic the whole class is studying.</li> <li>● The students leave their home group to meet with their “expert” group, which is comprised of other students in the classroom who were given the same reading passage. The expert group discusses the passage in detail and then each student returns to his or her home group where each student reports and discusses his or her subtopic with the other members of the home group.</li> </ul>	<p><a href="#">The Jigsaw Classroom</a></p> <p><a href="#">Jigsaw from Reading Rockets</a> <a href="#">Appear.in</a> (Free tool that</p>

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	<ul style="list-style-type: none"> <li>• In expert groups, students may be asked to collectively create a product like a thinking map, poster, power point, or another visual display that they will use to guide learning in their home groups.</li> <li>• Jigsaw enhances students' comprehension of reading material by allowing them time to discuss their subtopic with other "experts" on the sub topic and then take what they have discussed and present it to members of their home group.</li> <li>• It also helps improve students' listening, speaking and problem-solving skills.</li> </ul>	<p><a href="#">allows up to 8 people to simultaneously video conference</a></p> <p><a href="#">Web Whiteboard</a> (Allows students to draw, sketch, write and share)</p> <p><a href="#">Drop Canvas</a> (Allows instant sharing of files)</p>
<p><b>Flexible Grouping</b> or the structure of the groups is important to consider depending on the tasks and objectives of the activity.</p>	<ul style="list-style-type: none"> <li>• <b>Performance-Based Groups</b> might make sense in a differentiated activity where students who work at a faster pace or higher cognitive level might be grouped together to make a contribution to the whole class effort, whereas, students who need a bit more help are assigned an equally valuable contribution, but one that may work more for their skill level.</li> <li>• Research supports <b>heterogeneous and homogeneous groupings of students based on achievement level</b>. It is important that teachers consider which students would benefit from working together. Keep in mind that lower achieving students often benefit from working in heterogeneous groups whereas higher achieving students can be frustrated by them. It is important to be sensitive to each students' needs with respect to grouping. Thoughtful variety and flexibility in these groups helps all students meet their learning goals.</li> </ul>	<p><a href="#">Flexible Grouping</a></p> <p><a href="#">Group Maker Online Tool</a> (Random group generator)</p> <p><a href="#">Flexible Grouping as Differentiated Instruction</a></p>

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	<ul style="list-style-type: none"> <li>● <b>Individual Work</b> is also important to incorporate in the group work setting as many students do better with individual time to mull over and work with an idea before they bring it to a group.</li> </ul>	
<p><b>Cooperative Learning</b> strategies are useful in the classroom when the correct structure is applied and all students are held accountable for learning.</p>	<ul style="list-style-type: none"> <li>● Unlike collaborative strategies, cooperative learning aims at establishing a consensus among students in small groups or as a class and, typically, students are accountable for their individual work.</li> <li>● Consider the structure “<b>Numbered Heads Together</b>”: The students are numbered off into groups of three or four. The teacher asks the class a question and the numbered heads meet together to determine the answer. Once consensus is achieved, the teacher randomly calls on a student. That student is expected to now be able to answer the question without help from the group.</li> <li>● Note that this is the sort of strategy that works with certain kinds of questions that have clear, concrete answers. More open-ended or relative questions would be poorly served by this strategy.</li> </ul>	<p><a href="#">Cooperative Learning Resources</a></p> <p><a href="#">Cooperative Learning</a></p> <p><a href="#">List and Descriptions of Cooperative Structures</a></p>
<p><b>Use Consistency and Variety</b> in collaborative activities so that students are not only familiar with the collaborative process, but it also maintains its novelty.</p>	<ul style="list-style-type: none"> <li>● <b>Think-Pair-Share or Write-Pair-Share</b> is a great activity to use frequently. A teacher poses a question, students think or write about their answers, then they turn to a classmate for a discussion. Usually, they then share their answers with a larger group or the entire class.</li> <li>● A <b>Fishbowl Debate</b> works with groups of three, where one student takes one position on a topic, another takes an opposite position, and the third takes notes and decides which argument is the most convincing. Then students may change roles until everyone has a chance to work with the same argument, or a different one.</li> <li>● <b>Catch-up</b> is an excellent activity during a lecture where the teacher pauses at a certain point in the lecture, allows students a few minutes to review their notes, and then allows time for students to turn to a classmate and review their notes or questions about the lecture content. Then the teacher gives</li> </ul>	<p><a href="#">Examples of Collaborative Learning Activities</a></p> <p><a href="#">More Examples of Collaborative Learning Activities</a></p> <p><a href="#">Collaborative Learning Structures and</a></p>

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	time for a few clarifying questions before continuing on with the lecture.	<a href="#">Techniques</a>  <a href="#">Think-Pair-Share</a>

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