

# Collaboration

Are students required to share responsibility and make substantive decisions with other people? Is their work interdependent?

## Overview

In traditional schooling in most countries, students do their own work and receive their own grades. This model does not prepare them well for the workplace, where they are likely to work on teams with others to accomplish tasks that are too complex for individuals to do on their own. In today's interconnected world of business, real project work often requires collaboration across companies (e.g., a collaboration between a pharmaceutical company and a chemical engineering company to produce a new vaccine) or with people in a different part of the world. This type of working requires strong collaboration skills to work productively on a team and to integrate individual expertise and ideas into a coherent solution.

This rubric examines whether students are **working with others** on the learning activity, and the quality of that collaboration.

At higher levels of the rubric students have **shared responsibility** for their work, and the learning activity is designed in a way that requires students to **make substantive decisions together**. These features help students learn the important collaboration skills of negotiation, conflict resolution, agreement on what must be done, distribution of tasks, listening to the ideas of others, and integration of ideas into a coherent whole. The strongest learning activities are designed so that student work is interdependent, requiring all students to contribute in order for the team to succeed.

## Big Ideas

Students **work together** when the activity requires them to work in **pairs or groups** to:

- discuss an issue
- solve a problem
- create a product

Students work in pairs or groups might also include people from outside the classroom, such as students in other classes or schools, or community members or experts. Students can work together face to face or by using technology to share ideas or resources.

IS THIS WORKING TOGETHER?	
YES:	NO:
Pairs of students give each other feedback.	Students do their work alone.
A small group discusses an issue together.	A whole class discusses an issue.
A student uses Microsoft Lync or Skype to interview a student in another town via the Internet.	
Students use OneNote to share their story drafts and give each other feedback.	Each student creates his/her own story and sends it to the educator for feedback.

Students have **shared responsibility** when they work in pairs or groups to develop a common product, design, or response. Shared responsibility is more than simply helping each other: students must collectively own the work and be mutually responsible for its outcome.

If the group work involves students or adults from outside the classroom, this qualifies as shared responsibility **ONLY** if the students and the outside participants are mutually responsible for the outcome of the work.

IS THIS SHARED RESPONSIBILITY?	
YES:	NO:
<b>Students conduct a lab experiment together.</b> Students have joint responsibility for carrying out the lab experiment.	<b>Students give each other feedback.</b> This activity structure implies that one student "owns" the work, and the other is only helping.
<b>A student works with a peer in another country to develop a joint website using Microsoft Office 365.</b> The students share responsibility for the development of the website.	<b>A student interviews a peer in another country about the local weather.</b> This is a task that students conduct together, but they do not have mutual responsibility for its outcome.

Students make **substantive decisions together** when they must resolve important issues that will guide their work together. Substantive decisions are decisions that shape the content, process, OR product of students' work:

- **Content:** Students must use their knowledge of an issue to make a decision that affects the academic content of their work together, such as taking a stance on a topic they will then write about, or deciding on the hypothesis they will test.
- **Process:** Students must plan what they will do, when to do it, what tools they will use, or the roles and responsibilities of people on the team.
- **Product:** Students must make fundamental design decisions that affect the nature and usability of their product.

IS THIS A SUBSTANTIVE DECISION?	
YES:	NO:
<p><b>Students in teams are preparing for a debate and must decide what side of the issue they will argue for.</b> This is a content decision that will shape their work together, and students must negotiate their ideas.</p>	<p><b>Students work together to identify capital cities of particular countries in Europe.</b> This decision does not affect the rest of their work.</p>
<p><b>Pairs of students are developing a presentation about climate change and must decide what causes to write about.</b> Students must decide together what the most important causes are; this decision will shape their presentation.</p>	<p><b>Pairs of students choose which animal they will study.</b> Students will probably make this decision based only on personal preference, not on their knowledge of the subject.</p>
<p><b>Student teams are conducting a research project and must decide on their own workplan and roles on the team.</b> Students must plan the process of their work.</p>	<p><b>Student teams assign roles to team members based on the list of roles the educator has defined.</b> The educator has planned the process of their work, not the students.</p>
<p><b>Pairs of students decide how to shape their presentation to a particular audience.</b> This is a fundamental design decision that will affect the nature of their overall product.</p>	<p><b>Pairs of students select a colour scheme for their presentation.</b> Decisions about surface features are not considered substantive decisions that fundamentally affect product design.</p>

Students' work is **interdependent** when all students must participate in order for the team to succeed. Too often, a group of students may share responsibility for an outcome, but in practice the work is not divided fairly: one or two students may do all the work for the team. The strongest learning activities on this rubric are structured to require the participation of all students.

To meet this criterion, students must be required to produce an **interdependent product** (such as a presentation that they each must share in developing and presenting) or other **interdependent outcome** (such as a decision that requires information that is distributed across students).

Most interdependent work involves two levels of accountability:

- Individual accountability: each individual on the team is responsible for a task that he or she must complete in order for the group to do its work. The role of each student on the team is essential.
- Group accountability: the students must work together to produce the final product or outcome. Students must negotiate and agree on the process, design, and conclusions of their work.

It is important that the work is structured in a way that requires students to plan together and take the work of all team members into account so that their product or outcome is complete and fits together. For example, if each student is responsible for a page of a presentation, and in the final presentation the pages are simply assembled together, this is NOT considered interdependent. The final presentation IS considered interdependent if the students' contributions must work together to tell a story or communicate an overarching idea; in this case, students' individual pages must be designed as parts of a coherent whole.

IS STUDENTS' WORK INTERDEPENDENT?	
YES:	NO:
<p><b>Group members each research a different internal system (e.g. circulation, digestion, etc.) of frogs. Students then work together to dissect a frog and write a lab report about the dissection, identifying frog parts and the systems to which they belong.</b> Students rely on each other's work in order to successfully identify what they see during the dissection.</p>	<p><b>Group members work together to research frogs, but each student conducts their own dissection and writes their own lab report.</b> Students work together on the research component, but the products do not require input or participation from others.</p>
<p><b>Students each use their own networked device to contribute coordinate points that must collectively create the shape of</b></p>	<p><b>One student uses a device to plot coordinate points and create a star shape, with input from group</b></p>

<p><b>a star.</b> Each student's contribution is necessary so the group can create the completed shape.</p>	<p><b>members.</b> Only one student is plotting coordinates; the others may contribute, but they could also disengage without preventing the group from completing the product.</p>
<p><b>Students create a tourist website presenting the history, culture, attractions, and accommodations of their local area.</b> Each individual might create a different piece of the overall website, but students need to work together to determine how to organize the information to create the best possible website.</p>	<p><b>Students each create a webpage about the history, culture, attractions, or accommodations of their local area that will be linked to the class homepage.</b> Students do not have to strategize together in any particular way.</p>
<p><b>Students use Mouse Mischief to create a diagram showing the food chain in a vernal pond ecosystem. Each student controls a particular species and students must work together to place each species in its appropriate niche in the food chain.</b> Students must work with each other to complete a comprehensive and accurate representation of the food chain.</p>	<p><b>Students use Mouse Mischief to identify which species in the vernal pond ecosystem are carnivores, herbivores, or omnivores, by placing each species in the appropriate list.</b> Any student can use their mouse to move any species to any list; students do not need to work together in any specific way.</p>

# Collaboration: Rubric

In this learning activity,

- 1**
  - Students are NOT required to work together in pairs or groups.
- 2**
  - Students DO **work together**
  - BUT they DO NOT have shared responsibility.
- 3**
  - Students DO have **shared responsibility**
  - BUT they ARE NOT required to make substantive decisions together.
- 4**
  - Students DO have **shared responsibility**
  - AND they DO make **substantive decisions** together about the content, process, or product of their work
  - BUT their work is not interdependent.
- 5**
  - Students DO have **shared responsibility**
  - AND they DO make **substantive decisions** together about the content, process, or product of their work
  - AND their work is **interdependent**.

# Collaboration: Decision Steps

Students are **required to work in pairs or groups?**



Students have **shared responsibility?**



Students make **substantive decisions** together?



Students' work is **interdependent?**

