



TEAMMATES CONSULT

Students "consult" teammates, and then they independently solve the problem, answer the question, or record their own ideas.

Teammates consult is one of my favourite structures for problem solving. All students are given a copy of the same problem-solving worksheet. As they work through the problems one by one, students are encouraged to discuss methods and share strategies. However, all students are held accountable for their own answers.

The power of this structure lies in the fact that after team discussion each student must individually explain the steps of the solution in writing. In essence, students collect input from their teammates before they work independently. The type of input depends on what students are working on. If they are working on problem solving, they get input from teammates on how to best solve the problem. For a maths example, the word problem asks: "What is half of one quarter of a cup?" Students verbalise how to solve the problem, but no writing and no giving the answer is allowed: "You multiply fractions, one half times one quarter. You multiply the two denominators to get the new denominator. Then you multiply the two numerators to get the new numerator." Before students can work the problem through, one student checks to make sure everyone knows how to solve the problem. "Does everyone know how to write it out and solve it?" When everyone knows how to solve the problem, they pick up their pencils and paper and work it out or write the answer independently. If they are answering a question, teammates listen to the thoughts and/or beliefs of their teammates before writing their own answer in their own words.

Differentiated Instruction

If Teammates Consult is used for students to take notes in preparation for a test, students are encouraged to take notes in their preferred style—some making illustrations, others writing, yet others creating mind maps or graphic organisers.

Step 1

Students Number Off

Students number off in their teams from 1 to 4 and place their pens down in the centre of the team area or in a pencil cup.



Step 2

Discussion Leader Reads First Question

Student #1 is the Discussion Leader for the first question. The Discussion Leader reads the first question (or the question may be asked by the teacher). "What are the differences between the House of Commons and the House of Lords?"



Step 3

Teammates Consult

Starting with the Discussion Leader, teammates RoundRobin their problem-solving strategies or share their ideas. *“One of the biggest differences is the number. There are over 800 Lords...”*



Step 4

Discussion Leader Checks for Understanding

The Discussion Leader checks with teammates to see if everyone understands, if anyone has any questions, if anyone has anything to add, and if everyone is ready to write or solve the problem independently. At this point, teammates can further discuss the topic if necessary. *“Does everyone have enough information to answer the question? Yes. Then let’s write.”*



Step 5

Students Write

Students collect their pens or pencils and write their answers or solve the problem independently with no discussion.



Step 6

Continue Consulting

When finished writing, teammates place pens or pencils down or in the pencil cup, indicating that they are done. The person on the left of the Discussion Leader becomes the next Discussion Leader for a new round.



Structure Power



None of us is as smart as all of us. Like the parable of the blind men and the elephant, each of us has our own piece of reality. Only when we put those separate pieces together do we

get a fuller picture. One of life's skills is to look at a situation from multiple perspectives before settling on action. Teammates Consult models this process. Students write more thoughtful, informed answers after having listened to multiple points of view. Students reinforce their own thinking and increase their probability of success by verbalising their thoughts before acting. Teammates Consult is not for test taking; tests are always for individuals performing on their own. Teammates Consult is for learning. Why would we ever want to prevent students from hearing the good ideas of their teammates? By listening to someone who might have a very different opinion than their own, students are forced to sharpen their own thinking. By listening to someone who might offer information they did not have, students make a more informed decision. Teammates Consult has students practice a life skill: Being as informed as possible before drawing conclusions or acting. There is power in making consultation a habit for life

Tips

Simple Answers. Teammates Consult does not work with simple computations such as $2 + 2 = \underline{\quad}$. Similarly, it does not work with one-word answers such as true or false. The problem solving must be of multistep, challenging problems or questions that require elaborate responses or else students will just give the answer rather than exploring the procedure for getting the answer.

Pencil Cups. Place a cup, tub, or mug in the center of each team's table. Students place their pens or pencils in the cup during the consultation period so no one can work on the problem while consultation is in progress. No talking when the cup is empty!

Ideas Across The Curriculum

Maths: *Students discuss how to:*

- Solve the word problem
- Find the average
- Find the mode
- Multiply the fractions
- Divide the decimal by the whole number

English: *Students discuss how to:*

- Write a paragraph
- Write a good topic sentence
- Write a haiku
- Read for comprehension
- Include important details
- Fix the grammar
- Summarise the main point
- Create a mind map on the topic

Social Studies: *Students discuss how to:*

- Determine the latitude

- Calculate the distance
- Compare the population
- Find where in the chapter it was described
- How to locate necessary information

Technology: *Students discuss how to:*

- Programme a simple function
- Graph data using a spreadsheet
- Insert a still picture into a video clip
- Download pictures from the Internet
- Convert file formats
- Install a new application
- Organise files
- Lay out a poster in a page layout program
- Draw using Bézier curves

Science: *Students discuss how to:*

- Classify animals
- Find the features of Earth
- Characterise rocks or minerals
- Prevent erosion
- Locate planet information
- Define science terms
- Determine inherited traits