

Situation: The students have individually worked on their **Mind Maps**. You now have them pair up. You frame questions and they share their thoughts. For example, you might say, “Think to yourself for 20 seconds. What component on your Mind Map would have the biggest impact on other components if it were removed?” (Note that this question is at the analysis and evaluation levels of thinking in **Bloom’s Taxonomy**.)

Situation: Students have just taken the time to compare and contrast the YES and NO examples in a **Concept Attainment** data set. With a partner they now discuss how all the YES examples are the same. They then share their thinking of their mind’s journey as it selected and rejected or selected and confirmed hypotheses. (Note that this represents Phase II: *Sharing the Thinking* of the Concept Attainment strategy.)

6

Numbered Heads A Group Organizer



This is one of the simplest and most useful of the group tactics. It simply means to have groups number off (1, 2, 3) or letter off (A, B, C). Numbered Heads is one of the most effective ways of **increasing the concept of accountability**. It also assists in initiating a transition, or in handing out and collecting materials, etc. Most teachers also number or letter the groups as well. If you number the students, provide the group with a letter (or vice versa). Employing Numbered Heads alongside a mini-lecture is also effective. For example, before you start a mini-lecture on factoring equations, inform students they will have two minutes to discuss in their groups before you randomly call on someone from several groups to share their group’s answer.

In terms of **framing questions**, even our university students prefer weaving in the use of Numbered Heads with small group work.

They say that although students are more accountable, they are under less stress because they have someone with whom they can talk before having to share publicly. When **making a transition** or handing out materials etc., the last thing you want to do in a grade seven or eight class is to ask for someone in each group to get up and get an atlas for each person in the group. They will either all get up, or no one will get up, and when they do get up, you know that the closer they get to the atlases, the faster they will move. You also know that someone will get tripped ... which will push you to the fringe of frustration. Therefore, asking person 2 from each group to come and collect an atlas increases the chances of this being a successful request.

CONSIDERATION: Remember that even in Think/Pair/Share, one person can take over and do all the talking. If you add Numbered Heads to Think/Pair/Share, you can ask the question, give students time to think, and then ask person A or B to start. When that person finishes they say PASS, and then the other person shares. Some teachers invoke **Flip It** — that simply means that one person in the pair talks until you say “Flip It,” and then the other person starts talking. You can tell them to share their idea or to extend that person’s idea, or to paraphrase what that person said.

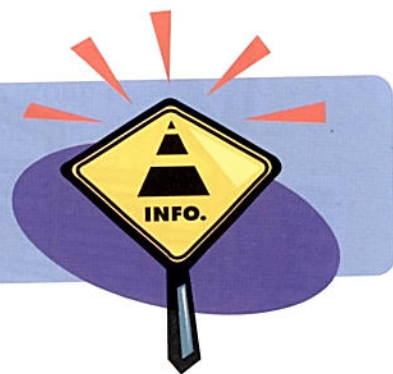
Situations: When doing **Inside/Outside/Circles**, you can increase accountability by lettering off each group, having each pair number off, asking your question, giving wait time, then selecting a person: Group D,

Pair 4, Inside. Now that person shares with the class. If you want to make it safer, then say Group D, Pair 4, share with your group. Now two students share with a smaller group. At the start of the year the second approach is safer. Students don’t have to share in front of the whole class.

Situations: In a **Three-Step Interview**, numbered heads is used as a management or organization process. It informs the students who will be the Interviewer, the Recorder, or the Interviewee for each of the three rounds. This way they do not fight over who gets what role. Note that for your peace of mind it’s wise to assign the letter first, and then assign the role. That way, you increase the chances students do not argue over the role. If the roles rotate, then they are not as concerned about who gets what role.

7

Value Lines A Thinking/Emotions Organizer



Value Lines pushes the analysis and evaluation levels of Bloom’s Taxonomy — it has a subtle complexity. Remember that the quality of the students’ decisions increases as they become more informed and feel safer to present their ideas without fear of being ridiculed. Value Lines work more effectively in classrooms where students are skilled at working collaboratively.

From one perspective, Value Lines is a simpler version of Four Corners (see page 162 in Chapter 7 on Peer Mediated Learning for a description of Four Corners)—rather

than four or five choices, you have only two.

Nonetheless, even though you have only two choices, you have a much wider range of values between those two extremes. This continuum allows the students much more flexibility as to where they stand on an issue.

One of its strengths is that Value Lines connects to the work on the Emotional Brain (LeDoux, 1996; Goleman, 1995). The students weave their feelings and explore their thinking around those feelings—often making complete reversals in their positioning.

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