

COLLABORATION

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COLLABORATION

- Collaboration is an important 21st century skill for learners of all ages
- Students don't come to school knowing how to collaborate
 - Need practice and targeted feedback to improve
- NOT just doing work in a group setting

SKILL OF COLLABORATION

- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

DEFINITIONS OF COLLABORATION

- Collaboration is a **coordinated**, synchronous activity that is the result of a continued attempt to construct and maintain a **shared conception** of a problem. (Roschelle & Teasley, 1995)
- Not the same thing as cooperative work:
 - Cooperative work is accomplished by the division of labour among participants, as an activity where each person is responsible for a portion of the problem solving.

COLLABORATIVE PROBLEM SOLVING

- Collaboration has distinct advantages over individual problem solving because it allows for:
 - An effective division of labor
 - The incorporation of information from multiple perspectives, experiences and sources of knowledge
 - Enhanced creativity and quality of solutions stimulated by the ideas of other group members

THE KEY IS EFFECTIVE COMMUNICATION

- Communicating the right information
- Reporting what actions have been taken to the right person at the right time
- Building a shared understanding of the task
- Consider the perspectives of other team members
- Tracking the knowledge of team members
- Building and monitoring a shared understanding of the progress made on the task

Table 1. Matrix of collaborative problem-solving skills for PISA 2015

| | (1) Establishing and maintaining shared understanding | (2) Taking appropriate action to solve the problem | (3) Establishing and maintaining team organisation |
|-----------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| (A) Exploring and understanding | (A1) Discovering perspectives and abilities of team members | (A2) Discovering the type of collaborative interaction to solve the problem, along with goals | (A3) Understanding roles to solve the problem |
| (B) Representing and formulating | (B1) Building a shared representation and negotiating the meaning of the problem (common ground) | (B2) Identifying and describing tasks to be completed | (B3) Describe roles and team organisation (communication protocol/rules of engagement) |
| (C) Planning and executing | (C1) Communicating with team members about the actions to be/being performed | (C2) Enacting plans | (C3) Following rules of engagement, (e.g. prompting other team members to perform their tasks) |
| (D) Monitoring and reflecting | (D1) Monitoring and repairing the shared understanding | (D2) Monitoring results of actions and evaluating success in solving the problem | (D3) Monitoring, providing feedback and adapting the team organisation and roles |

Note: The 12 skill cells have been labelled with a letter-number combination referring to the rows and columns for ease of cross-referencing later in the document.

PRODUCTIVE COLLABORATION

- More productive collaborations have been identified as those in which participants **directly engage one another's thinking**. They **listen and respond** to what their peers say. In less successful collaborations, participants are more likely to work in parallel and ignore or dismiss the other person's contributions. (Kuhn, 2015)

WHAT DOES COLLABORATION LOOK LIKE?

- Three general categories of indicators
 - Regulative/logistical
 - Interactional
 - Cognitive
 - (and other...)

REGULATIVE/LOGISTICAL INDICATORS

- Planning
 - Trying to solve the problem, providing directions or options, coordinating actions, how to approach the problem
- Monitoring progress
 - Checking on group progress, locating progress, clarifying steps
- Verbalizing thinking
 - Working out steps of the problem and talking through what you are thinking to create a shared space

INTERACTIONAL INDICATORS

- Turn-sharing
 - Two or more people talking at the same time (saying the same thing, converging on an answer), completing others' thoughts, sharing the conversational floor
- Acknowledging others
 - Acknowledging a question or comment from another student
 - Not evaluative
 - Similar to active listening

COGNITIVE INDICATORS

- Inviting others to talk/contribute to problem solving
 - Explicitly inviting someone else to speak or contribute to the conversation
- Asking questions
 - Asking specific questions to yourself (out loud) or another student, checking for understanding
- Agreeing with others
 - Evaluative statement about agreeing on an idea or course of action
- Expressing lack of understanding
 - Showing/expressing trouble in solving the problem

OTHER INDICATORS

- Suppressing off-task behavior
 - Trying to keep the group on task, bring back from a short off-task tangent, encouraging others to attend to the problem
- Positivity
 - Providing encouragement to group members, having a good attitude

INDICATORS OF NOT COLLABORATING

- Ignoring one or more students in the group
- Unbalanced distribution of talk (in most cases)
- Giving others an answer without helping them understand
- Irritation
- Negativity
- Too much off-task behavior

FEEDBACK ON COLLABORATION

- This is hard to do, but without it you won't be able to improve
- Can involve individual self-reflection, group reflection, and/or teacher observations
- How well are you and your group doing in being good collaborators?
- What aspects/collaborative behaviors do you need to improve?