Got Data?
Now What?

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Structuring Decisions

STRUCTURING choices greatly affect the outcomes of collaborative group work. These basic design elements set the stage for focusing energy on the task at hand, balancing the participation of group members and most importantly for producing a psychologically safe forum for participants to contribute ideas and to question the contributions of others. Effective design choices increase a group's capacity to address hard-to-talk about topics and serve to shape data-driven dialogue and data-centered discussions.

Purposeful structures maximize the efficient use of time and increase the quality of both interactions and results. Novice groups require formal structures to scaffold success. More expert groups know when to select formal structures to match the emotional and cognitive demands of their work. Higher performing groups are not harmed by structure, and groups and group members that need it will be greatly aided by structure.

It is always wise to remember that not every participant in a high performing group may be personally skilled in group processes. The following three categories describe choice points for facilitators of collaborative inquiry.

Group Size and Composition
How large should the working group be? Using pairs and trios and quartets greatly increases active participation and establishes a working climate for safer interactions. Many groups, both large and small, err in attempting to do the bulk of their work as a committee of the whole. Partners can be pre-assigned or randomly selected using partnering sheets such as choosing seasonal partners by having participants mingle and use a recording sheet with seasonal icons and space for partner names.

How should working group be composed? Balancing the knowledge and experience base within small task groups spreads the talent within the larger group and breaks down any factions that might exist. Purposely structured pairs, trios or quartets can be effective with certain tasks. At appropriate points, pairs can join other pairs to form quartets to widen the conversation.

Length of Time
How long should any working group stay together? Small groups are effective for text-based tasks, idea generation and data exploration. By varying the length of time that groups work together and regrouping periodically, individuals within a larger group develop deeper working relationships and greater knowledge of each other. Switching partners also provides a period of purposeful movement for energy and brief social interaction. One pattern for intact groups is to establish base groups that meet regularly and employ informal partnering for designated tasks.

Degree of Structure
How much structure does this group require for this task? Structure increases productivity and engagement. As indicated above, most groups are not harmed by structure. By developing a repertoire of shared strategies and protocols, working groups enhance success and satisfaction. Some fundamental structures include the use of public recording on chart paper so that all can see ideas and information, providing individual writing time and space before a conversation starts, using a round-robin-pattern for sharing ideas, using a public timer to guide processes and assigning roles, such as that of a facilitator, a recorder, and a materials manager.
The Collaborative Learning Cycle
Structuring Dialogue for Connection Making

Activating and Engaging
Surfacing experiences and expectations
With what assumptions are we entering?
What are some predictions we are making
What are some questions we are asking?
What are some possibilities for learning that this experience presents to us?

Exploring and Discovering
Analyzing the data
What important points seem to “pop-out”?
What are some patterns, categories or trends that are emerging?
What seems to be surprising or unexpected?
What are some ways we have not yet explored these data?

Organizing and Integrating
Generating theory
What inferences / explanations / conclusions might we draw? (causation)
What additional data sources might we explore to verify our explanations? (confirmation)
What are some solutions we might explore as a result of our conclusions? (action)
What data will we need to collect to guide implementation? (calibration)

Managing
Modeling
Mediating
Monitoring

Activating and Engaging

Tips for Success

Activating & Engaging

- Use separate recording sheets or charts for documenting predictions and assumptions.
- Developing predictions and surfacing the assumptions that produce them should occur concurrently.
- Group members do not need to agree on their predictions or assumptions -- seek to understand not to persuade.
- If necessary to move the dialogue forward, create more than one set of predictions.
- Paraphrasing and inquiring are essential group member skills.

Organizing & Integrating

- Study success
- Generate multiple theories of causation
- Group members do not need to agree on their causal theories
- Seek calibrating data that are in existing archives

Exploring & Discovering

- Take a few minutes to orient to the data displays before starting.
- Develop a sequence for exploration and identify a starting point.
- Keep a separate chart for questions/comments that are ‘outside the phase’.
- Apply structures/protocols to balance participation (e.g. roles, round-robins).
- Chart observations in language that is concise and specific.

Observations: From Rough to Refined

- Each observation should communicate a single idea clearly and concisely.
- The statements should focus only on observable facts that are contained in the data, without interpretation or inference.
- The statements should use relevant data concepts, such as mean, median, mode, range and distribution.

Rough Observations

- There are more ELL students this year.
- There is a downward performance trend from grade 5 to grade 7.
- Almost half of grade 10 students are below standard in literacy.

Refined Observations

- The ELL population increased from 10% last year to 30% this year.
- 38% of 5th graders were proficient compared to 12% of 7th graders.
- 19% of grade 10 students perform at the below basic level and 29% perform at the basic level in literacy.
The 2008 Gallup Poll on Education

Table 34
In your opinion, which of the following methods would provide the most accurate picture of a public school student’s academic progress: examples of the student’s work, scores on standardized local and state achievement tests, letter grades awarded by the teacher, written observations by the teacher?

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Predictions

Assumptions