Module 5

Tips for Interpreting Data

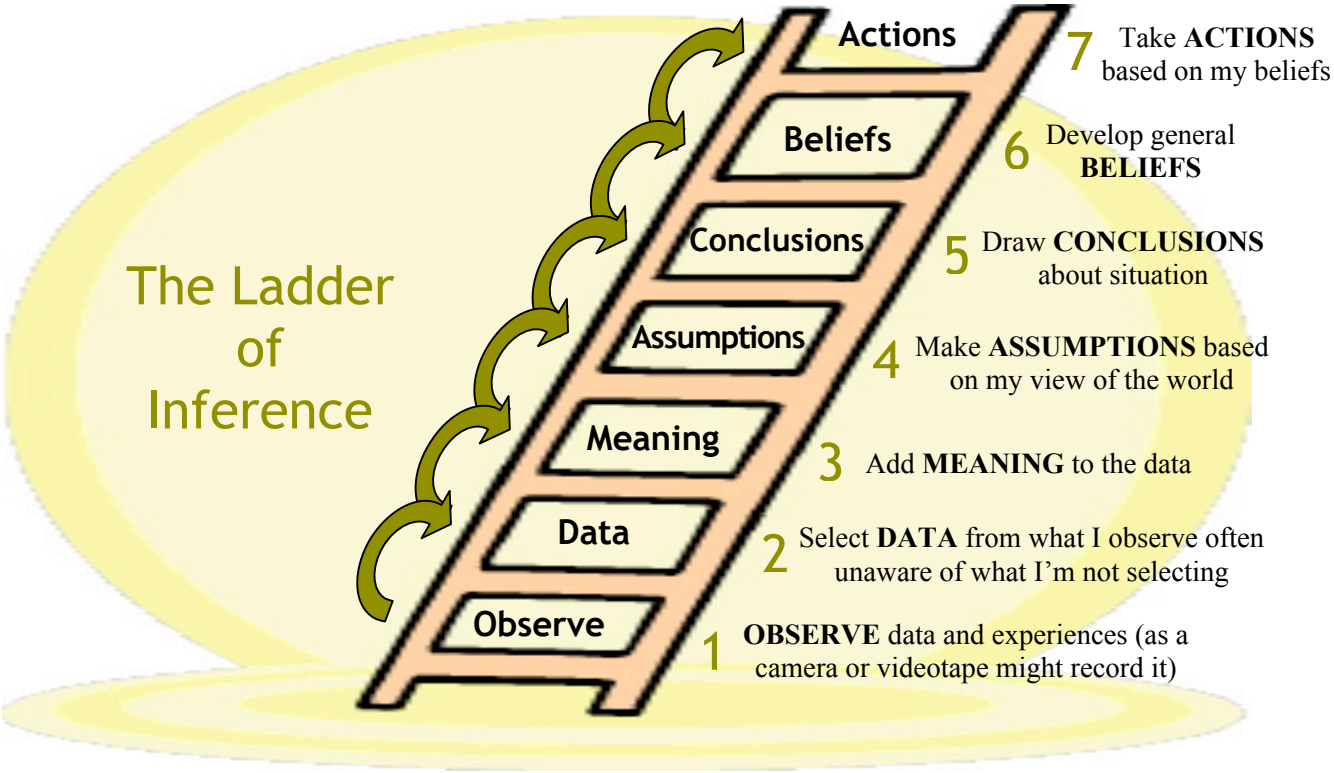
Interpreting data involves probing the data for their meaning within the context of the inquiry and inquiry question. In this process you will be making assumptions, adding meaning and moving to conclusions about possible actions. The data may raise as many questions as they answer. Keep in mind the following:

- Think beyond the data but do not stray too far from the data. Be mindful that you are not making too much of your data or too little. Make the link between the data and your interpretations clear. Base your interpretations in your research.
- Consider the data from various points of view. What does it mean for CLIP members? What does it mean for students? What does it mean for other faculty or staff members in the college?
- Consider the data from various perspectives. What does it mean for the autonomy of faculty members? What does it mean for faculty members' learning and practice? What does it mean for student learning and success? What does it mean for students' academic options? What does it mean for the college's academic reputation? What does it mean for the financial stability of the college?
- Make visible the assumptions and beliefs, or mental models, that influence your interpretation. We each carry images, assumptions, and stories in our minds about ourselves, others, the organizations we work in, etc. As a composite, they represent our view of our world. Because these models are generally unarticulated, i.e., below our level of our awareness, if left unexamined, these assumptions and beliefs can lead to incorrect interpretations. Reflect on your own thinking and reasoning. Individually and/or collectively list your assumptions about the inquiry focus. Engage in dialogue with CLIP members to inquire about and clarify CLIP members' assumptions and beliefs about the inquiry focus.
- Take care not to disregard outlying data or data that seems to be the exception. Data that is surprising, contradictory or puzzling can lead to useful insights.[1]
- The Ladder of Inference[2] describes a common mental pathway we often use in our interactions with others starting from the lower rung of the ladder (see below) and moving to the top. We gather data (rung 1 of the ladder) either systematically or simply by being bombarded by little bits of information in the form of our observations or

[1] See Williams, B., Qualitative Data Analysis, http://users.actrix.co.nz/bobwill

[2] Originally developed in Argyris. C, 1982. *Reasoning, Learning, and Action*. San Francisco: Jossey Bass.

statements from others. The way a person acts is data. For example, suppose Fred laughs and walks quickly past me. That is data. Data is not inherently good or bad; it just is. We selectively gather data (rung 2 of the ladder). Other activities may be going on at the same time but we may not notice. For example, I may not notice that someone behind me is about to throw a water balloon. We consciously or unconsciously select data. We then add meaning (rung 3 of the ladder) to the data—Fred laughed at me. We quickly make assumptions. For example, I may assume that Fred thinks my new haircut is unattractive. (rung 4 of the ladder). We then draw conclusions about the situation such as concluding that Fred is mean (rung 5). This lead to a general belief about Fred: Fred is mean and laughs at other people. I should stay away from him (rung 6). Consequently, I take the action of avoiding Fred and telling others to avoid him as well (rung 7). In a few seconds we can climb up the "Ladder of Inference," often leading to misguided beliefs and actions scarcely realizing what has happened. [3]



We can improve our communications by using The Ladder of Inference to become more aware of our own thinking and reasoning, making our thinking and reasoning more visible to others, and inquiring into how others think and reason.[4]

[3] Adapted from Senge, P. et. al. (1994). *The Fifth Discipline Fieldbook*. New York: Double Day. pp. 242-246.
[4] *Ibid*., p. 245.