

Improving Group Climate, cont.

2020-03-23

Course(s) Used:

- Team and Small Group Communication

Goals and Objectives:

- Students can identify the common archetypal network structures.
- Students understand features and limitations of different network structures.

Rationale:

Students are engaged in a large number of different networks, and different network structures can have significant effects on the ways that groups work together, process information, and the different outcomes that students may encounter.

Materials Needed

Materials:

- Labelled note cards to make nodes
- String or yarn to make connections

Technology:

- Classroom computer and projector

Outline of the Lesson

1. Review of previous session's content
2. Networks are made of two parts
 - A. Nodes (AKA "Vertices")
 - B. Connections (AKA "Edges")
3. Archetypal network structures
 - A. Linear
 - B. Ring
 - C. Star
 - D. Tree
 - E. Mesh
 - F. Full
 - G. Bus¹

¹ Bus architecture is not used in human groups and teams, but is used in other types of networks, so it is included here for completeness.

4. Features of Networks and Nodes
 - A. **Path length** is how many steps it takes for a message to travel
 - B. **Centrality** is average distance to all other points
 - C. **Resilience** is about how average path length changes when a node or connection is removed
 - D. **“Criticality”** is how much any particular node or connection impacts resilience
5. Hands on group work: “Weaving and visualizing networks”
6. Lesson closing

Limitations

This activity requires students to have a fair amount of open floor space in the room.

Variations and Accommodations

Follow guidance from local accommodation authorities.