

### Line up by Attribute: Creating Randomized Groups

This session has attendees participate in a simple process that creates random groups of students for group exercises. In groups created using this process, attendees will discuss advantages and disadvantages of the process and suggest variations thereof.

The group-creating process demonstrated here can be about as quick or as slow as one would want to make it (4 minutes to 20 minutes, usually) and is fun, interesting, active, and highly interactive and can be used to create groups for any exercise or simply to break the ice.

Research in group work (e.g., Cummings, 2004) shows that diverse groups create more ideas and insights than non-diverse groups. According to laws of chance, one way to maximize the diversity within groups in a given class is to have groups created randomly. This session demonstrates a simple process for creating random groups of students. In this session I will create groups from the attendees using the process so they can experience the fun and interaction of the process.

I use this process every time I create student groups (as often as each class session). The group-creating process demonstrated here can be about as quick or as slow as one would want to make it (4 minutes to 20 minutes, usually) and is fun, interesting, active, and highly interactive and can be used to create groups for any exercise or simply to break the ice. The process can be used in any class at any level in any topic. If one wanted to derive/demonstrate a class topics from the process it would be in the value of the inherent diversity this process creates in each group.

Simply put, the process is to:

1. Name an attribute each student has (e.g., I ask them to think about the mascot of their high school)
2. Ask students to line themselves up by that attribute (e.g., Broncos, Cowboys, Flivvers, Hematites, Miners, Nimrods, Spartans, Tigers, Wildcats)
  - a. Note that students interact with each other to line themselves up. The instructor does not line the students up.
3. Have students count off as appropriate to create the desired size and number of groups

The contribution of this session is in its unique way of creating groups. The benefits of the process include:

- Student interaction (they have to talk to each other to line themselves up)
- Students get up out of their seats and move around
- Students learn interesting things about each other
  - I use a *different attribute* each time I have my students use this process to create groups, so by the end of the semester they've learned a lot about each other!

- Groups are randomly created
  - You've probably experienced that if you ask students to create groups by their *own* means they consistently group with the same people (those who sit near them). The process demonstrated here creates different groups each time and each group is a random collection of individuals.
- Since students are in different groups each time, they get an opportunity to work with many different people and in many different groups throughout the semester

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| 5 minutes | <ul style="list-style-type: none"> <li>• Introduction to Group Theory – maximizing the effectiveness of work groups</li> </ul>  |
| 5 minutes | <ul style="list-style-type: none"> <li>• Create groups from attendees using the group-creation process.</li> </ul>  |
| 5 minutes | <ul style="list-style-type: none"> <li>• Explain to attendees that they have just <i>participated</i> in the group-creation process in practice. That is, they have just experienced the process. They have been put into groups using the process.</li> <li>• Explain finer points of the process and minor variations on the process. That is, explain exactly what it is I did with them to create groups and what other attributes one could create groups from.</li> </ul> |
| 5 minutes | <ul style="list-style-type: none"> <li>• In the groups created from this group-creation process, have attendees discuss the process -- pros/cons, further variations, etc.</li> </ul>   |
| 5 minutes | <ul style="list-style-type: none"> <li>• Groups report back to the whole.</li> </ul>  |

## References

Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management science*, 50(3), 352-364.