## Forming Student Groups and Teams:

## What is New and What Works in the Remote Environment


#### Abstract

Forming student groups and teams presented additional challenges in the remote learning environment, particularly in terms of socialization and building trust among students. This roundtable discussion is an opportunity for participants and the session convener to share how they met those challenges and what they learned from the process. The goal is for everyone to walk away with creative, effective ways of leveraging technology in the creation of student groups and teams for remote, online, hybrid, or on-site learning environments.


Key words: groups and teams, virtual team formation, remote teaching and learning

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Creating effective student groups and teams (hereafter, "groups/teams") can be difficult for educators under the best of circumstances. For many, the move to remote teaching not only exacerbated those challenges but also introduced new ones. Icebreaker activities based on students physically connecting in a brick-and-mortar classroom no longer made sense. The ability to unobtrusively observe students interacting disappeared. The technologically-mediated learning environment consequently inspired a rethinking of the group/team formation process, making some contextual and composition factors more salient than others. As instructors developed new ways of bringing students together to achieve course or program outcomes, what initially seemed like constraints to the process may have transformed into creative learning opportunities for students and instructors alike. At the same time, some of the thornier issues may have remained unresolved.

The purpose of this roundtable discussion is for participants to share their experiences with student group/team formation during the 2020-2021 academic year. Specifically, participants will be encouraged to describe how they put together the groups/teams, how the remote learning environment influenced their processes, and the outcomes of their group/team formation practices. What practices will they carry forward into similar or more established learning environments in the coming academic year? I will share my own experiences, as well, which included the use of PechaKuchas (which I discovered at the vMOBTS 2020 conference); a remote teaching adaptation of speed-dating; good, old-fashioned, topic-based discussion groups; and a bit of intuitive instructor match-making. The session, meant to explicitly reflect the conference theme of "Tradition Meets Technology: Finding Ways Forward," is targeted at
instructors who regularly use groups/teams in their courses, and who want to either share their successes or expand their methods of group/team formation in the remote learning environment. The goal is for all participants to walk away with new ways of leveraging technology in the creation of student groups/teams regardless of the medium of instruction.

## Foundations and Implications

The literature on group/team formation should be familiar, to a greater or lesser extent, to most MOBTS attendees. While the terms, groups and teams, are sometimes used interchangeably, teams are often distinguished from groups as operating collaboratively and synergistically. Organizational research on groups/teams highlights contextual variablesincluding a climate of trust (Williams, 2001)—and composition variables-such as the skills (Stevens \& Campion, 1994) and personalities (Bell, 2007) of members-as key components in the groups'/teams' success. Trust is predicated on familiarity and is particularly important in virtual teams. Building trust, developing preferences for a project topic, and getting to know people's personalities take time. Hence, questions about student group/team formation necessarily evoke questions about how instructors incorporate socialization and foster familiarity within a remote learning environment. This is potentially one direction in which the discussion could move.

Much of the empirical literature on the formation of student groups/teams focuses on the use of a mathematical formula or computational algorithm that optimizes one or more compositional variables, such as student demographics and weekly schedules (Layton et al., 2010), project topic preferences (Meulbroek et al., 2019), or member roles (Yannibelli \& Amandi, 2012). These scenarios typically involve students filling out a survey, the instructor inputting group/team parameters, and the algorithm outputting the best combinations of student
groups/teams. Anecdotal essays by higher education instructors suggest a process of group/team formation that combines instructor and student input (Galbraith \& Webb, 2013; Shaeiwitz, 2003). While formulas and algorithms may be useful in the group/team formation process, can they sufficiently replace the socialization component of the formation process? This is a second area which discussion participants may wish to explore.

As for my contribution to the discussion, I will describe how I incorporated both socialization activities and mathematical combinatorics into team formation for a graduate capstone project course during the Fall 2020 semester. Specifically, I used mathematically assigned groups for socialization in order for students to form preferences around project topics and potential team members. I will also explain how I relied more on the combinatorics for multiple group formations in the Spring 2021 semester with the same cohort of students, since they had already become familiar with each other.

## Session Description

This session is a roundtable discussion, and while I plan to share my own experiences later in the session, I am eager to hear first what others have done. As an icebreaker, I will begin the session by asking participants to share why they use groups and teams in their courses (5-10 minutes). I will briefly recap some of the literature on socialization and trust, if participants are unfamiliar with it. I will then ask participants to share their experiences forming groups and teams in the remote learning environment, what they did differently, what worked, and what continued to be a challenge (15-20 minutes). If the session group is small, this discussion can take place altogether, but if there are eight or more participants, we can break into groups of three or four. Next, we will have a plenary discussion of what worked and what challenges remain, and I will then share my own methods (15-25 minutes). If the session group is small,
then a Q\&A can be incorporated into this part of the discussion. However, if there are more than 15 participants, I will reserve 10-15 minutes at the end of the session for $\mathrm{Q} \& A$ and brainstorming of additional solutions.

## Timeline

5-10 mins Opening plenary discussion of why participants use student groups and teams

15-20 mins Paired/small group discussion of how participants form student groups and teams, what works, what was challenging in the remote environment

15-25 mins Plenary sharing of paired/small group discussions;
I will share what I did in the remote environment and why I think it worked

10-15 mins $\quad$ Q\&A, brainstorming of additional solutions

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