

# Understanding the Tilted Playing Field

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## Project Overview

We proposed a series of workshops around the theme of inclusive teaching as related to undergraduate education. While our primary audience was faculty in the department (research faculty and lecturers), we also invited our graduate student instructors because of their high number of contact hours with our undergraduates. We chose to focus our sessions on 1) topics that our community may have been unfamiliar with, like stereotype threat, and 2) structuring student-student interactions where inclusive practices can impact student experience.

Each workshop occurred in a one-hour session over a catered lunch in the Winter 2015 semester. During each session, a presenter briefly summarized relevant reading and then facilitated small group discussion among participants to model and deepen engagement with the presented material.

## Participants

All faculty, post-docs, and graduate students in the department were invited to attend the workshops.



Participant role	Stereotype threat: how it influences student learning and outcomes March 9, 2015	Designing group work to support effective, equal, and efficient student learning April 1, 2015
faculty	4	5
post-docs	4	6
graduate students	20	10

## Activities

During the stereotype threat session, the time was spent learning about stereotype threat and brainstorming how we could implement the literature-based strategies for reducing stereotype threat.

We formed groups around the room by role at the University and each team brainstormed ways they could mobilize these strategies in their learning contexts. The strategies they were brainstorming about are:

1. Reframe the task
2. Create positive, affirming narratives
3. Emphasize high standards with assurances about capability for meeting them
4. Provide external attribution for difficulty
5. Encourage a growth mindset

The group work session focused on student-student interactions as an important part of inclusive teaching.

We probed the question: "What are the potential benefits of group work for student learning?" using the example of Treisman's Math Workshop Program from UC Berkeley.

Best practices in group work were demonstrated using a literature example of a jigsaw activity in a chemistry classroom (shown right).

Many kinds of active learning activities were offered around which group work can be structured.

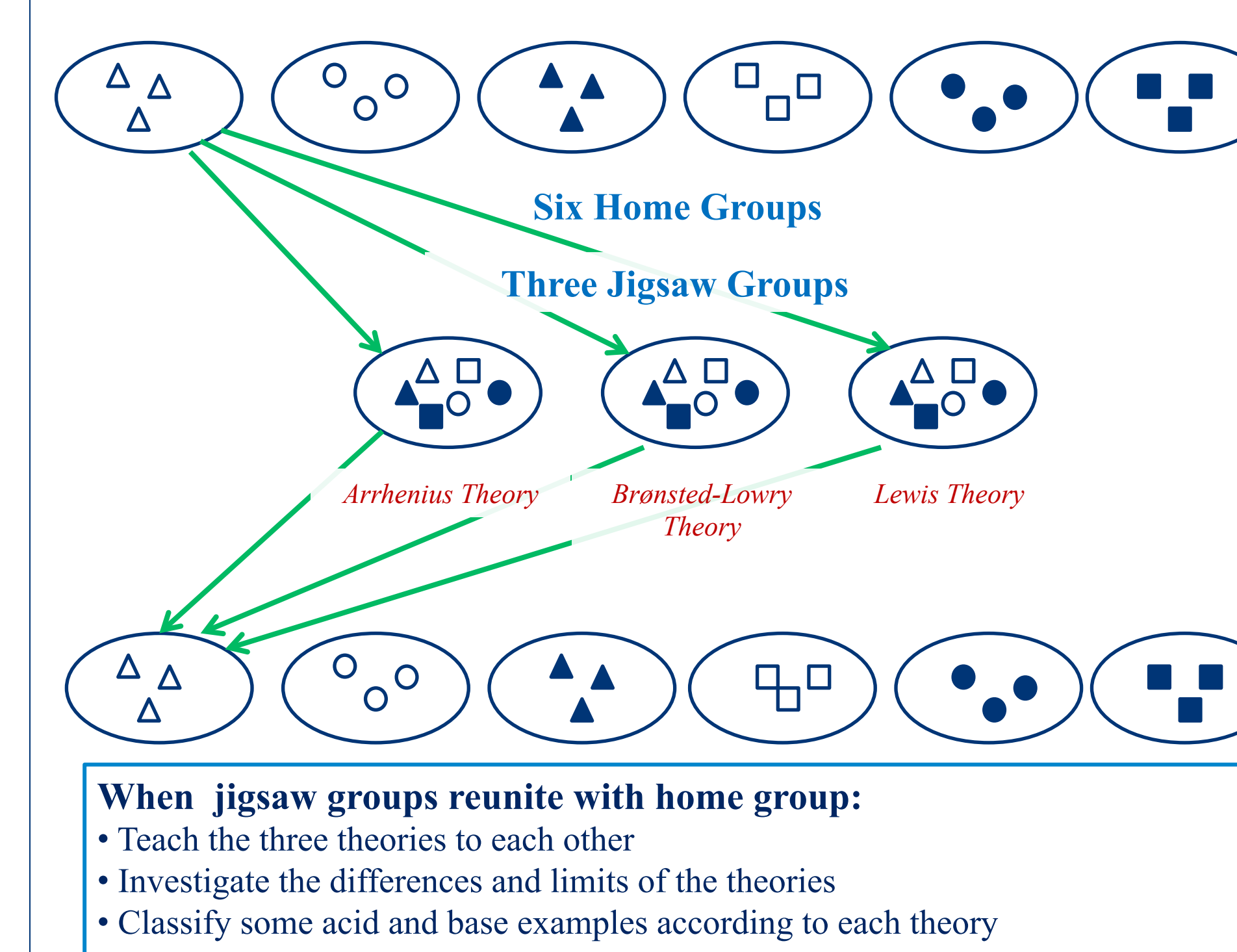
To further explore the literature on group work, the participants engaged in a jigsaw activity. Each group was given targeted literature and asked to develop an answer to one of the following questions to share with the whole group:

**Blue Groups:** What matters when forming student groups?

**Green Groups:** How can you increase the likelihood that all students are contributing?

**Red Groups:** Should you give individual, group, or combination grades?

This is what a jigsaw activity around acid/base chemistry could look like:



Tarhan, L. & Sessen, B. A. *Chem. Educ. Res. Pract.* 2012, 13, 307-313.

## Resources Created for Sessions

Implementation of strategies to reduce stereotype threat in the chemistry classroom were brainstormed by the participants in the stereotype session, collected and sent back to participants and department chair.

Participant live tweeted stereotype threat workshop:

<https://storify.com/barnardrach/getting-started>

Bibliography and primary sources for best practices in designing and implementing group work were distributed to registrants.

After the stereotype threat session, an offer was made to the entire department to get a free copy of *Whistling Vivaldi*. Forty copies were requested, purchased, and distributed.



## Potential Next Steps

Survey faculty interest in engaging topics such as:

- Formative assessment
- Student motivation
- Learning goals and objectives
- Assessing students' prior knowledge
- Eliciting dialogue in the classroom
- Strategies for active learning in the classroom

Address ongoing challenges:

- How do we get faculty to attend?
- Do we target a topic or those who teach the same course?
- Which model best serves the faculty long-term: seminar series or learning community?

## Event in Parallel

On January 30, 2015 Professor Tim McKay (U-M Physics), Jill Halpern (U-M Mathematics, Comprehensive Studies Program), and Professor William Gehring (U-M Psychology), led a discussion about the institutional challenges related to working with underprepared or "at-risk" students.

Select recordings of the panel discussion are available at :

<http://sites.lsa.umich.edu/csie-um/2015/01/30/january-30-2015-panel-on-working-with-at-risk-students-2/>

