Let's Discuss:
Group Size, Performance and Enjoyability in an Interteaching Class
Alexandria Leidt, Karen Kate Kellum, & Kelly G. Wilson
Department of Psychology

Introduction
Interteaching is an instructional style that includes both peer-teaching and lecture (Boyce & Hineline, 2002). The peer-teaching, referred to as an interteach, involves a conversation between students that encourage application of concepts covered in articles or a class textbook (Boyce & Hineline, 2002). From these discussions, students are able to provide feedback about what material is unclear and needs further explanation by the professor. This allows for lectures to be beneficial at supplementing rather than replicating readings and discussion (Boyce & Hineline, 2002). Interteaching has shown better performance outcomes in previous studies when compared to lecture and/or simply reading the material (Saville, Zinn, & Elliot, 2005). Truelove, Saville, and Van Patten (2013) found no differences in exam scores when the students were placed in interteach groups of two or four students. In this replication and extension, we increased the larger interteaching group size from four to six, maintained the small group size at two, and included additional measures of social validity.

Purpose
The purpose of this study was to examine the effects of group size on course performance and the enjoyability of an interteaching class.

Methods
Participants
• 60 undergraduate students enrolled in a Psychology of Learning
• 9 teaching assistants (TA) enrolled for internship credit

Design & Measures
• Alternating treatments design - Groups of 2 vs. Groups of 6
• Weekly quiz grades
• 3 social validity measures

Procedures
When students enter the class, their discussion guides are examined for completion followed by a short clarifying lecture to review information from the previous class. Depending on the week, students were divided into groups of two or six people to complete a discussion sheet (“prep-guide”).

At the end of each group discussion, three social validity measures were collected. First, each group completed a record sheet that included a group rating measure. At the conclusion of the discussion, groups provided a record sheet to a TA and answered individual oral questions from the prep-guide. Once the Teaching Assistant collected the record sheets, the Teaching Assistant rated their perception of the quality of group discussion based on how well the students answered the end of class question. While the Teaching Assistant rated their perception of the quality of the group discussion, each student individually rated their perception of the quality of group discussion.

Each week, students completed a short on-line quiz course performance was measured using scores from the end of week quizzes. The instructor was blind to condition when developing the weekly quiz.

At the conclusion of the group size intervention, students were allowed to choose the number of people in their groups for the remaining three weeks of the semester.

Results
Weekly quiz data analyzed through visual analysis showed no clear difference between the conditions.

The mean quality of discussion rating of the Teaching Assistants was 7.6 and did not appear to vary by condition.

The group rating data did not show apparent differences between conditions. The data show a mean rating of 6.2 on a scale of 1-7 for groups of two and a mean rating of 6.1 for groups of 6.

The individual perception of the quality of discussion showed a mean of 8.5 for groups of 2 and 7.4 for groups of 6.

Discussion
Students indicated a slight preference for two-person groups through the individual rating data. Additionally, students were vocal about their dislike of the weeks when they were placed in large groups and expressed preference for small groups in the comments left on the individual rating sheets. There were no other apparent differences for the social validity measures. Weekly quiz scores did not show differences between the two and six-person groups.

Limitations
It was likely disrupting for students to move seats in the auditorium classroom with fixed seating in order to form groups.

In weeks where students were in two-person groups, students were allowed to choose their partner for the day. When students were placed in six-person groups, they were assigned their groups. This may have brought discomfort as students had to move around much more and work with potentially non-preferred peers during the classes organized in six-person groups.

The individual and TA rating measures not were implemented until the third week of the investigation. Additionally, students are not required to complete the weekly quizzes, and group size may have influenced student decision to take the quiz.

Implications & Next Steps
Student preference for the smaller groups was likely influenced by multiple factors. We plan to examine these in future research.