Prompt: The dissertation proposal should briefly describe (a) the gap in knowledge the thesis research will fill, (b) the research question(s) that will be answered in the thesis work, (c) the study design(s) or research methods, and (d) the hypotheses the student plans to test (if appropriate to the study design). The proposal should also include an outline of the chapters that will be included in the dissertation. The proposal should be no longer than 2-4 pages, double-spaced

**Gender, competition, and preparation behavior:**

Previous research suggests that women compete less than men, even when there are no gender differences in performance (see Niederle & Vesterlund, 2011 for review). Women’s reluctance to compete may contribute to persistent gender differences in labor market outcomes (Berge, Bjorvatn, Garcia Pires, & Tungodden, 2015; Buser, Niederle, & Oosterbeek, 2014; Reuben, Sapienza, & Zingales, 2015; Zhang, 2012), such as the gender wage gap, with men earning more than women, on average (Blau & Kahn, 2017). One mechanism for gender differences in competitiveness is confidence, which leads women to undercompete and men to overcompete (relative to their performance level) (Niederle & Vesterlund, 2007; van Veldhuizen, 2017). Based on previous evidence of the benefits of enactive mastery through preparation and training on confidence (Bandura, Adams, & Beyer, 1977; Gist & Mitchell, 1992; Lent, Brown, Gover, & Nijjer, 1996; Schunk, 1981, 1982; Usher & Pajares, 2008), providing women with an adequate opportunity to prepare before a task may alleviate the gender gap in the choice to compete. Surprisingly, little work has explored how preparation differentially impacts men and women’s willingness to compete. Chapter 1 attempts to fill this gap in the knowledge base by exploring the effect of the opportunity to prepare on the gender gap in competitiveness. To this end, I will run 3 experiments to identify whether preparation (e.g., knowledge of preparation, limited preparation, and unlimited preparation) affect gender differences in competitiveness. Contrary to my predictions, preliminary results from Studies 1 and 2 suggest that the option to prepare does not increase women’s competitiveness. Instead, I discover a sizable, replicable gender difference in willingness to prepare. Study 3 (currently in progress) seeks to replicate the null effect of preparation on the gender gap in competitiveness when participants have unlimited time to prepare. I also seek to test whether the gender difference in willingness to prepare holds while using a different conceptualization of preparation in Study 3.

Chapter 2 focuses on the impact of competitive environments on this novel gender difference in preparation – namely, whether competition exacerbates the gender difference in preparation. One would expect that women, compared to men, would be especially likely to prepare before entering competitive environments given previous research suggesting women are more averse to competition, driven by their greater risk aversion and lower confidence on average (Gillen, Snowberg, & Yariv, 2019; Niederle & Vesterlund, 2011; van Veldhuizen, 2017). In this Chapter, I will experimentally test this hypothesis by manipulating the payment scheme for a multiplication task. Participants recruited on Amazon Mechanical Turk will be required to follow either a competitive tournament payment scheme or non-competitive piece-rate payment scheme. Then, participants will be provided the opportunity to spend as much time preparing for their paid performance as they would like. I expect to replicate the main effect of gender on preparation observed in Studies 1-3 of Chapter 1, and more notably, I expect to find that the gender difference in preparation is exacerbated under the competitive payment scheme.

Together, the anticipated results would suggest that preparation is not only ineffective at reducing the gender gap in competitiveness, but that opportunities to prepare may inadvertently lead to a gender gap in preparation (with implications for opportunity costs of overpreparing), especially in competitive contexts. The hypothesized effect of competitive environments is in line with previous research suggesting that context is crucial in understanding gender differences in economic outcomes (Andersen, Ertac, Gneezy, & List, 2017; Andersen, Ertac, Gneezy, List, & Maximiano, 2013; Balafoutas & Sutter, 2012; He, Kang, & Lacetera, 2019; Niederle, Segal, & Vesterlund, 2013). By shedding light on the potential downstream consequences of interventions to increate women’s competitiveness (e.g., overpreparing), these findings have important implications for understanding how organizational structure may affect women and men differently, and in turn, affect gender differences in economic outcomes.

**Outline of dissertation chapters:**

* Dissertation chapter 1 proposed title: Opportunities to prepare do not make women more competitive, just more likely to prepare
  + Research question: Does the opportunity to prepare (either in the form of knowledge of the opportunity, limited preparation, or unlimited preparation) affect gender differences in competitiveness? Are there gender differences in willingness to prepare?
  + Methods: Across all 3 studies, I recruit a MTurk sample to complete a paid multiplication task. I manipulate preparation condition (see study descriptions below for manipulations within each specific study) before participants decide on their payment scheme (either competitive tournament scheme or non-competitive piece-rate scheme). The second outcome variable, amount of preparation before the paid task, will also be measured.
  + Study manipulations:
    - Study 1 (completed): Participants were randomly assigned to either a condition where they knew about the opportunity to prepare before (knowledge of preparation) or after (control) they decided whether to compete
    - Study 2 (completed): Participants were randomly assigned to either a condition where they were told they would complete several rounds of preparation (limited preparation) or several rounds of a counting task (control) before they decided whether to compete
    - Study 3 (in progress): Participants will be randomly assigned to either a condition where they will be told they can prepare as long as they want (unlimited preparation) or complete as many rounds of a counting task as they want (control) before they decide whether to compete
    - Note: Across all 3 studies, the preparation conditions will allow participants to complete problems nearly identical to those in the paid task
  + Hypothesis: In Studies 1-2, I hypothesized that the opportunity to prepare would reduce the gender gap in competitiveness. However, in light of null results from Studies 1-2, I expect to replicate the null effect of condition and gender on willingness to compete in Study 3. Across all 3 studies, I expect women would be especially likely to prepare before performing on the paid task relative to men. In exploratory analyses, I will test possible mechanisms for the gender effect on preparation (i.e., gender differences in risk aversion and/or confidence)
* Dissertation chapter 2 proposed title: Effects of competition on gender differences in the choice to prepare
  + Research question: Does competition exacerbate gender differences in preparation?
  + Methods (in progress): I will recruit a MTurk sample to complete a paid multiplication task. I manipulate participant’s payment scheme (either a competitive tournament or non-competitive piece-rate payment scheme) before they decide how much time they would like to spend preparing before completing the paid multiplication task.
  + Hypothesis: I hypothesize that being forced to compete will increase the gender difference in amount of preparation before the paid task, where women will be especially likely to prepare in the competition condition. In exploratory analyses, I will test possible mechanisms for the hypothesized interaction between gender and condition on preparation (i.e., gender differences in risk aversion and/or confidence)