

Modified Student Summer Scholar Program Application Examples

A1. Project Goals and Scope

Example

1. Project Goal(s)

a. Background:

Status is a key concept in the social sciences because of its robust relationships with health, happiness, and reproductive success (Buss et al., 2020). Although pursuing status may be a major goal for all humans, men and women may do it in different ways. In particular, boys and men may be more predisposed than girls and women to compete for status with direct (face-to-face) competitive acts, such as physically dominating someone, whereas girls and women may be more likely to use indirect tactics, such as exclusion (Benenson, 2013). Although the evidence for males' great use of direct competitive tactics is strong for high-stakes physical aggression (Archer, 2004) and competitive sports (Deaner et al., 2016), it is unknown whether this pattern applies to prestige. Unlike dominance, where status is based on the threat of physical coercion, prestige refers to status obtained because people esteem an individual. For example, a boxer may command respect because of their fighting ability (i.e., dominance), but a musician may enjoy high status because of their ability to elevate the audience's mood (Cheng et al., 2010).

Determining whether there is a gender difference in the predisposition to compete for prestige may have practical implications. For example, girls and women have outperformed boys and men in school for decades, and this may be partly due to schools failing to offer sufficient opportunities to compete for prestige (e.g., become publicly recognized as the best poet) (Reeves, 2022); conversely, women are underrepresented in some fields, and this could partly reflect an over-emphasis on direct competition (Ceci et al., 2014). Although some (Baumeister, 2010) have claimed there is much evidence that men are more predisposed to compete for prestige (e.g., men's historical dominance of science and the arts), there are plausible alternative explanations for the cited patterns, such as women being excluded from participating.

Therefore, the goal of our project is to test if there is a gender difference in the pursuit of prestige in a contemporary, self-selected domain where men and women have equal opportunities for advancement. In particular, we plan to document efforts to achieve influence and fame by contestants of the MasterChef reality television cooking competition. MasterChef contestants begin as unknown amateurs, but, during the multi-episode competition, they gain exposure, especially if they perform well. Afterwards, some develop large followings on Instagram and other social media outlets, typically by posting recipes or food-related videos. We will quantify contestants' efforts to build their prestige and test if these show a gender difference.

b. Goals:

Our first goal is reviewing the literature in the areas relevant to our project, including (i) men's and women's involvement in food preparation and status seeking across societies, and (ii) reality shows and social media, especially studies addressing gender differences and/or status seeking. [REDACTED] will find and summarize key sources, and [REDACTED] and [REDACTED] will discuss which sources and concepts will require follow-up.

Our second goal is developing, for each MasterChef contestant, a list of variables and methods for reliably coding them. Although some variables will be simple to code (e.g., season appearing), others will be more challenging, such as the number of recipes posted on social media. [REDACTED] will initially attempt to develop coding methods, [REDACTED] and [REDACTED] will test their reliability, they will discuss how they can be improved, and they will repeat this cycle.

Our third goal is data collection for the approximately 140 contestants who have appeared on MasterChef. This will involve copying the name of each contestant into a spreadsheet, searching for the person on social media platforms, and coding each behavior or outcome. [REDACTED] will lead this work, but [REDACTED] will independently code a random selection to verify reliability.

Our fourth goal is data analysis. Initial analyses will involve testing for gender differences using basic techniques (e.g., t-test). Jada will lead these analyses, and [REDACTED] will check them. We will also use advanced methods (e.g., regression), so that we can test for differences while controlling for other variables. [REDACTED] will demonstrate these techniques on a similar data set, and Jada will attempt to implement them on the MasterChef data set.

Our fifth goal, time permitting, is repeating our study with additional samples. Additional samples may be crucial for publication in a professional journal because our MasterChef sample may be too small to yield definitive conclusions. Our additional samples will be MasterChef competitions that have occurred in other English speaking countries.

Our sixth goal is preparing to present our results. [REDACTED] will take the lead for her presentation at the MS3 Showcase and SSD, although [REDACTED] will provide feedback on all aspects. We will also begin preparing the first draft of a manuscript for publication in a professional journal.

c. Area of Expertise:

[REDACTED] has been researching gender differences in competitiveness for 20 years (Deaner et al., 2016, 2021). Since 2007, he has taught PSY315 (Psychology of Sex Differences), which covers status seeking, including prestige. [REDACTED] has previously content coded challenging data sources, including the Human Relations Area Files (Deaner & Smith, 2013). [REDACTED] has conducted numerous statistical investigations of possible gender differences.

d. Timeline

Goals to be accomplished during weeks between May 8 (week 1) and July 24 (week 12).												
See 1. b for student and mentor responsibilities	1	2	3	4	5	6	7	8	9	10	11	12
Review literature	X	X	X	X	X	X	X	X	X			
Develop variable coding methods		X	X	X								
Collect data			X	X	X	X						
Analyze data					X	X	X	X	X	X	X	
Repeat study (time permitting)							X	X	X	X	X	
Prepare presentation									X	X	X	X
Writing Retreat and Showcase												X

e. References

- Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology, 8*(4), 291–322. <https://doi.org/10.1037/1089-2680.8.4.291>
- Baumeister, R. F. (2010). *Is there anything good about men?: How cultures flourish by exploiting men*. Oxford University Press, USA.
- Benenson, J. F. (2013). The development of human female competition: Allies and adversaries. *Philosophical Transactions of the Royal Society B-Biological Sciences, 368*(1631). <https://doi.org/10.1098/rstb.2013.0079>
- Buss, D. M., Durkee, P. K., Shackelford, T. K., Bowdle, B. F., Schmitt, D. P., Brase, G. L., Choe, J. C., & Trofimova, I. (2020). Human status criteria: Sex differences and similarities across 14 nations. *Journal of Personality and Social Psychology, 119*, 979–998. <https://doi.org/10.1037/pspa0000206>
- Ceci, S. J., Ginther, D. K., Khan, S., & Williams, W. M. (2014). Women in academic science: A changing landscape. *Psychological Science in the Public Interest, 15*(3), 75–141. <https://doi.org/0.1177/1529100614541236>
- Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior, 31*(5), 334–347. <https://doi.org/10.1016/j.evolhumbehav.2010.02.004>
- Deaner, R. O., Balish, S. M., & Lombardo, M. (2016). Girls' and women's interest in sports: An evolutionary perspective. *Evolutionary Behavioral Sciences, 10*(2), 73–97. <https://doi.org/10.1037/ebs0000049>
- Deaner, R. O., McClellan, A., Zeigler-Hill, V., & Benenson, J. F. (2021). Sex differences in exclusion and aggression on single-sex sports teams. *Evolutionary Behavioral Sciences, 15*(2), 159–174. <https://doi.org/10.1037/ebs0000247>

Deaner, R. O., & Smith, B. A. (2013). Sex differences in sports across 50 societies. *Cross-Cultural Research*, 47(3), 268–309. <https://doi.org/10.1177/1069397112463687>

Reeves, R. V. (2022). *Of boys and men: Why the modern male is struggling, why it matters, and what to do about it*. Brookings Institution Press.

e. Supplemental Sections
Appendix 1 – Budget Worksheet

Title of Project: MasterChef Contestant to Social Media Influencer: Do Men and Women Differ in Pursuing Prestige?	
Student name: [REDACTED]	
Faculty mentor(s) name: [REDACTED]	

STIPENDS

Student stipend ¹	\$2500
Faculty stipend	\$1500

PROJECT COSTS (please list items/services and estimated costs)²

No supplies, items, or services are required for this project.	\$0
TOTAL	\$4000

FUNDING FROM OTHER SOURCES (list amount and source)³

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Appendix 2 – IRB Approval

This project will only involve working with materials in the public domain, so it will probably not require formal approval from the IRB. However, we will consult with the IRB and obtain a letter of determination to confirm this. If the IRB determines that our project requires formal approval, we will submit an application, and we anticipate receiving rapid approval. [REDACTED] has previously obtained IRB approval for many projects, and his ethics training is up to date.

Regardless of whether our project requires formal IRB approval, [REDACTED] will complete, before data collection begins, the GVSU ethics modules that are required to be included as an investigator on an IRB approved protocol. These modules are the Responsible Conduct of Research (RCR) and Human Subjects Research (HSR) training.