Missouri State Human Subjects Protection Application

**Title:** Family Feud: Making Associative Judgments More Realistic

**Description:** Judgments of associative memory are notoriously poor (Buchanan, 2009; Maki, 2007), where participants over estimate the relationship between word pairs. In the judgment task, participants are given two words (LOST-FOUND) and asked to rate how many people out of a 100 would list the second word if given the first word. Participants cannot tell the difference between low and high frequency pairs and tend to judge pairs higher than they should. The psycholinguistics lab has tried to correct these memory judgments by giving participants various instructions (Buchanan & Maki, *in preparation*), changing the scales for judgments (Buchanan, *data analysis*), changing the judgment type (Maki & Buchanan, *in preparation*), and having participants judge their own ratings over time (Buchanan, *data collection*). These manipulations have shown a small effect on judgment ability, mainly to reduce the overall bias to select very large numbers. The current protocol will examine if judgments are more accurate when the experimental task is more interesting and engaging. We will be using the game show Family Feud as the experimental procedure because the game show closely matches the judgments of memory paradigm currently used.

**Protocol:**

**Participants:** Participants will be recruited from the Psychology Undergraduate Pool by use of the SONA system. Generally, these participants will be undergraduates and over 18 years of age. They will sign up for the project online, take their credit hours in the laboratory, and be given credit according to the time spent in the lab. One credit is given for every 30 minutes of participation according to Psychology Department standards. This experiment should take participants 30 minutes to complete.

**Materials:** Stimuli will be selected from the Nelson et al. (2004) free association database. In Family Feud, participants are asked to guess items “100 people on the street” listed when given a category label. For example, when given the category CHORES, many people listed DISHES, LAUNDRY, and VACUUMING. The free association database was collected in roughly the same format. Participants were given a concept (LOST) and asked to list the first word that came to mind (FOUND). These responses were then averaged over participants to create a probability of each response or the number of times, out of 100, that someone would say that word. Category labels for the game will be selected from the database with at least four matching target words. The cue word will be used for the rounds, and each target word will be used for participants to guess.

**Procedures:** First, participants will be given a consent form to sign. An experimenter will be with the participant at all times to keep score and be the game show host. The rules of the game will be explained to the participant as follows: “You will be playing Family Feud for your experimental credit today. We asked 100 people to say the first thing they thought of when given each category you are going to see today. For example, when we gave people the word “steak” many of them listed “sauce, cow, sirloin”. In the following rounds, you will guess what words people listed. (OR you will guess the number of people who listed each word) You will receive points for your correct guesses. Try to beat the high lab score!”

Participants will be in one of three conditions:

* Regular Family Feud: This condition is played like the game show. Participants are given the category label and asked to guess four words that people listed. They are given three strikes at guessing before moving onto the next round. When they guess a correct word, they are shown the word and points on a computer screen. The experimenter will keep score.
* Numbered Family Feud: This condition is the same as above, with one exception. Participants will be able to see the number of people who listed each word next to the ? on each category label. This condition will examine if participants have an easier or harder time guessing with the scores listed.
* Reverse Family Feud: This condition is played where participants are required the guess the number of people who listed each word under a category, mirroring the judgments of associative memory task previously used by the researcher. They will be told to guess within 10-20 people of the words (this number will be pilot tested by the lab assistants to find the range that allows participants to “win”).

The research assistants will pilot test all three conditions to come up with high scores for the game. The scores will be biased lower, so that participants can almost always score in the high score range. These scores will be posted in the lab for participants to try to beat. The first experiment will test participants individually, to eliminate any social facilitation and create a control group. The second experiment will test participants in pairs/threes to analyze judgments in groups.

**Study Completion:** Once the study is complete, participant scores will be compared across game types and group size. First, we wish to analyze judgments of associative memory. Can we make them better by framing the judgment in a “fun” way? This finding would indicate that the judgment processor is accessible, but needs engagement for accurate responses. Secondly, we wish to study group processes on judgments. Previous research showed that groups were better able to do judgments of memory tasks (Koriat & Bjork, 2006). If participants are allowed to play together, do they perform better at a judgment task? If so, this finding has implications on student learning processes.

**Benefits:** Participants do not receive direct benefits from this study, other than experimental credit for their PSY121 course. The general knowledge can be used to understand judgments of learning, which is how students know they have studied enough to do well on an exam. The study could also support peer learning findings, where students who work/study together do better on exams or tests.

**Risks:** There are minimal risks involved in this study, as it is similar to taking a classroom exam or playing a TV game show.

I hereby agree to conduct this study in accordance with the procedures set forth in my project description, to uphold the ethical guidelines as set forth in the Code of Federal Regulations 45 CFR 46, 45 CFR 160 and 164, and the Missouri State University HIPAA Policy, and to report to the IRB any outcomes or reactions to the experiment which were not anticipated in the risks description which might influence the IRBs decision to sustain approval of the project.

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Principal Investigator (Faculty) Date

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Other Investigators Date