Improving Written Communication in Applied Behavior Analysis

Dr. Jennifer Weyman & Dr. Michele Wallace

M.S. in Applied Behavior Analysis

- Applied Behavior Analysis: “The science in which tactics derived from the principles of behavior are applied to improve socially significant behavior and experimentation is used to identify the variables responsible for the improvement in behavior” (Cooper et al., 2020, p. 786)

M.S. in Applied Behavior Analysis

- Program Learning Outcomes (PLOs)
  - PLO 1: Students are applying the principles and concepts of behavior analysis
  - PLO 2: Students are demonstrating knowledge and competency in accordance with the task list provided by the Behavior Analysis Certification Board

Purpose

- The purpose of the assessment was to foster a culture of evidence-based practices that guide ongoing program enhancement.
- In the context of the Masters in Applied Behavior Analysis program, we evaluated the effects of our instruction by assessing to what degree our students are meeting Program Learning Outcomes by using the Cal State LA Written Communication and Critical Thinking Assessment Rubric to evaluate the written portion of students' thesis equivalents (comprehensive exams).

M.S. in Applied Behavior Analysis

- Culminating Experience
  - Thesis
  - Thesis equivalent (Comprehensive exam)
- Thesis Equivalent
  - Literature review
  - Write method
  - Implement the procedures/collect data
  - Graph/interpret data
  - Discussion/implications

Thesis Equivalent Example

Introduction

The purpose of the introduction is to provide background information regarding the skill acquisition or behavior reduction procedure you have implemented with your client. The introduction should include at least five references relevant to procedure you selected. The introduction should logically lead to the purpose of your competency. The final sentence of the introduction should be your purpose statement (e.g., The purpose of the current competency is to assess and treatment my client's challenging behavior).

Method

Participant, Setting, and Materials

Describe your client including key demographic information (e.g., age, diagnosis, ethnicity, language(s), communication skills [e.g., communicates using complete sentences, communicates with gestures], VB-MAPP level). Make sure to use a pseudonym for your client.

Describe the setting in which the procedures were implemented.

Describe all of the materials that were needed to implement the procedure.

Response Measurement

Operationally define your target behavior (e.g., aggression will be defined as hitting another person with an open or closed fist). Describe your measure (e.g., frequency) and provide a rationale for selecting that measure (see p. 150 of Mayer et al.).

Experimental Design

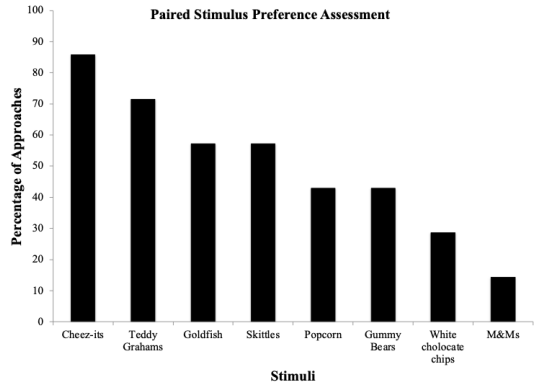
Describe what experimental design you used.

Procedure

Pre-Experimental Assessments

Describe any pre-assessments you conducted (e.g., preference assessments).

Mock graph:



Textual description of the results (1 point): The stimuli are along the x-axis and the percentage of approaches are along the y-axis. The highest percentage of approaches were toward the Cheez-its (86%) and Teddy Grahams (71%), and the lowest percentage of approaches were toward the M&Ms (14%) and white chocolate chips (29%). Thus, the highest preferred stimuli were the Cheez-its and Teddy Grahams and the lowest preferred items were the M&Ms and white chocolate chips.

Participants

- Nine students
- 2022-2024 cohort

Data Collection

- We evaluated student proposal across writing conventions:
  - *Analysis (Content)*
  - *Use of information*
  - *Organization*
  - *Tone/Style*
  - *Student Position*
  - *Conventions*

Data Collection

- We calculated the percentage of student proposals that met the following criteria
  - (4) Capstone proficiency
  - (3) Proficient
  - (2) Approaching proficiency
  - (1) Not proficient

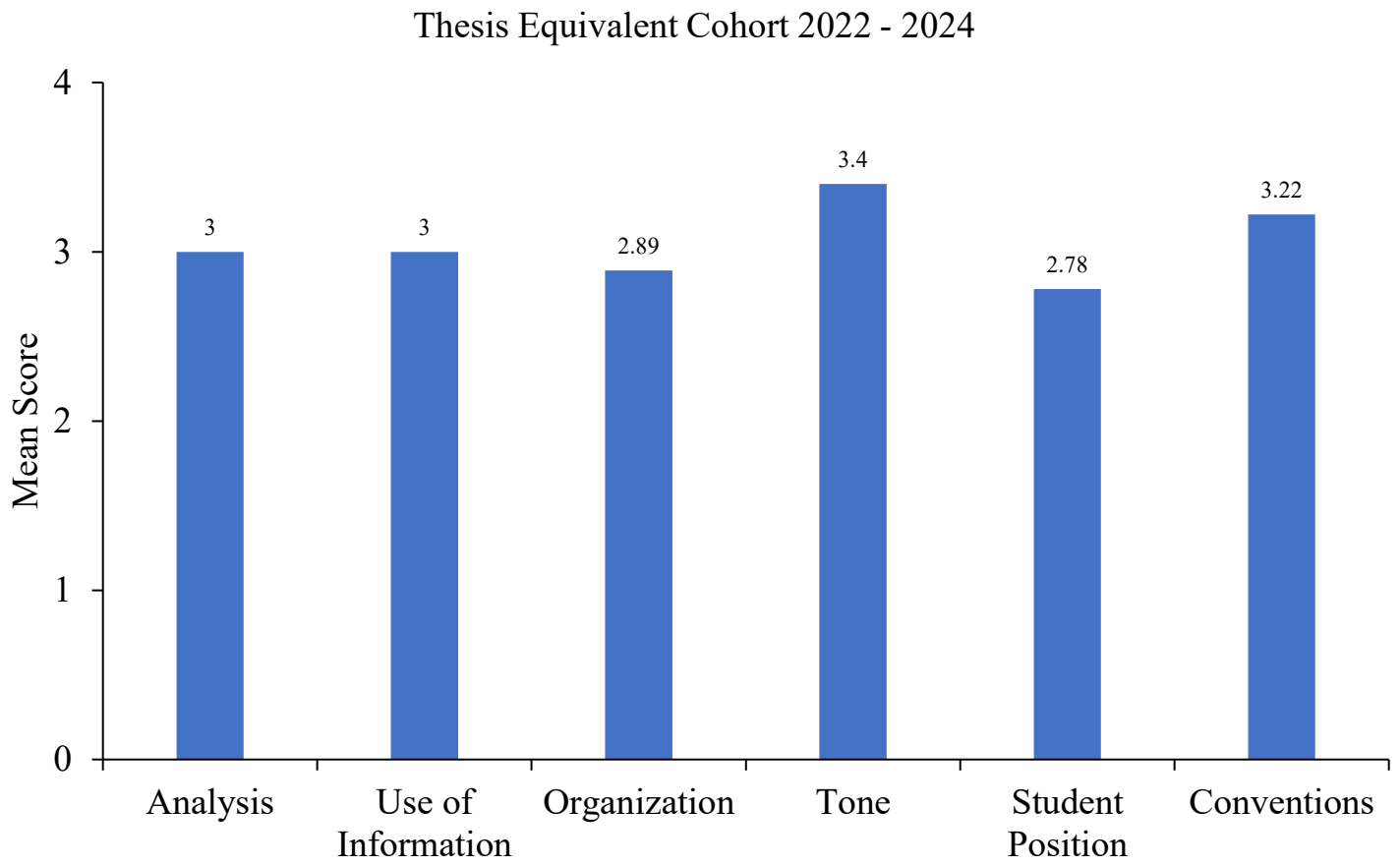
Data Collection

- *Use of Information*
  - Collected data on concepts and principles that were not written clearly and/or accurately

Interrater Reliability

- To ensure our data collection procedures were reliable, a second data collector evaluated three of the nine comprehensive exams (33.33%), and interrater reliability was calculated.
  - An agreement was scored if both data collectors scored within 1 point of each other within each dimension
  - A disagreement was scored if there was more than 1 point difference between scores
  - Interrater reliability was calculated by taking the agreements and dividing by the agreements and disagreements and multiplying by 100 to calculate a percentage for each student comprehensive exam.
- Interrater reliability was 94.44% (range, 83.33%-100%).

Average Scores



Evidence-Based Program Improvement

- *Organization* and *student position*: Average score below 3 (proficient)
- How to address
  - Advanced Topics in Applied Behavior Analysis (COUN 5021)
    - Learn how to structure a manuscript
    - Practice writing position statements

Evidence-Based Program Improvement

- Common mistakes regarding concepts and principles
  - Prompt fading
    - Modify instructional content in COUN 5016
  - Establishing operations
    - Modify instructional content in COUN 5016 and COUN 5002
  - Generalization strategies
    - Modify instructional content in COUN 5016 and COUN 5002

Evidence-Based Assessment Plans

- Overall students are meeting program learning outcomes
- Continue to collect data on writing
- Modify coursework accordingly

Thank You!

Questions?