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DATE RECEIVED: 11/03/2022 DATE APPROVED: 11/09/2022

FILE NUMBER: #22-112

## APPLICATION FOR STATISTICAL CONSULTING

LAST NAME: Thompson FIRST NAME: Paige

DEPARTMENT (full name): Health & Kinesiology CAMPUS MAILING ADDRESS: Lambert

PHONE: 5863444827 EMAIL ADDRESS: thomp732@purdue.edu

YOUR PRIMARY POSITION AT PURDUE: PhD Student

Other:

(if a student) MAJOR PROFESSOR LAST NAME: Claxton FIRST NAME: Laura

PHONE NUMBER: 5863444827

MAJOR PROFESSOR CAMPUS ADDRESS (BLDG & DEPT): Health & Kinesiology / Lambert

MAJOR PROFESSOR EMAIL: ljclaxton@purdue.edu

HOW DID YOU FIND US: Recommendation of my advisor or committee member

LIST STATISTICS COURSES TAKEN AND STATISTICAL COMPUTING EXPERIENCE: stat 501 & 502, HDFS 613

(Statistics for developmental researchers)

STAGE OF RESEARCH: Analysis (all data have been collected)

IF DESIGN STAGE IS COMPLETE, WAS A STATISTICIAN CONSULTED FOR DESIGN? No

PREVIOUS CONSULTANT - INSTITUTION/DEPARTMENT:

ESTIMATED NUMBER OF CONSULTING HOURS NEEDED THIS SEMESTER: 5 - 15 hours

EXPECTED COMPLETION DATE OF PROJECT: 4/30/2023

IMPORTANT DEADLINE OR DUE DATES RELATED TO YOUR PROJECT: We would like to have a stats consultant help us in the analysis of our behavioral data and would like to have our statistical analysis finished in Spring 2023

THE RESULTS OF THIS RESEARCH WILL PROBABLY BE PUBLISHED AS:

Journal Article

IS THIS RESEARCH SUPPORTED BY A GRANT OR CONTRACT? No

If so, give grant/contract title:

### GIVE A BRIEF DESCRIPTION OF YOUR RESEARCH INCLUDING:

### PURPOSE:

We observed 40 13-month-old and 24-month-old infants during a free play session. Our goal is to document the manual behavior of these infants. We would like to publish an article on our data.

## DESCRIPTION OF VARIABLES TO BE MEASURED:

16 13-month-old infants were observed for 20 minutes in a free-play session. This is an observational study and not a randomized controlled trial study, so we do not have the typical dependent/independent variables. Our outcome measures are behaviors that we observed during the free-play session. Such as: did the infant display bimanual manipulations? What postures did the infant display the bimanual behaviors in (sitting or standing)? How big was the toy they interacted with (small, medium, large)? How heavy was the object (light, medium, heavy)? What age was the infant (13 or 24 months)?

### RESEARCH QUESTIONS THAT YOU WANT TO ADDRESS USING STATISTICAL METHODS:

How often do infants display bimanual behaviors in a free-play setting?

Do bimanual manipulations impact what posture infants choose?

# STATISTICAL ISSUES:

We have 18 different toys that are of varying sizes and weights, which are decoupled. At first, we ran mixed repeated measures ANOVA (agexsizexweight or 2x3x3), but our data is not normally distributed so we do not want to use ANOVA. We are interested in using a zero-inflated poisson for statistical analysis, but we don't know much about this type of analysis.

ADDITIONAL INFORMATION YOU THINK WOULD BE HELPFUL:

ATTACHMENTS:

None