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# Repetition and Formatting in Medication Instructions

Jessica Le

Georgia Southern University, le.jessica26@gmail.com

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## Abstract

The proposed study intends to examine how people respond to different types of medication instructions. Comprehension of pictorials in health-related materials like medication instructions plays a critical role in health outcomes, medication adherence, and health communication. This study will examine repetition and placement of pictures and text by presenting to participants a set of medication instructions for the mock oral suspension drug, ZYTREX, with varied information and formatting and then having them complete a comprehension and memory test, sequence order verification test, self-efficacy questionnaire, and a demographics questionnaire.

## Introduction

Repetition and formatting can be examined to gain a better understanding of what kinds of pictorial formatting are most efficacious for comprehension of medication instructions.

### Repetitious vs. Complementary

- **Repetitious:** Information provided in text is also conveyed in picture
- **Complementary:** Part of information provided in text and other part in picture
- Theories → *Levels-of-processing approach* ( Craik & Lockhart, 1972), *dual coding theory* (Paivio, 1986)

### Integrated vs. Separated

- **Integrated:** Picture and text formatted close to each other
- **Separated:** Picture and text formatted far away from one another
- Theories → *Spatial contiguity principle* (Mayer, 2005), *cognitive load theory* (Sweller, 1988)

## Methods

### Participants

- Desired number of participants is 300
- PSYC 1101 students enrolled at GSU who are at least 18 years of age

### Design

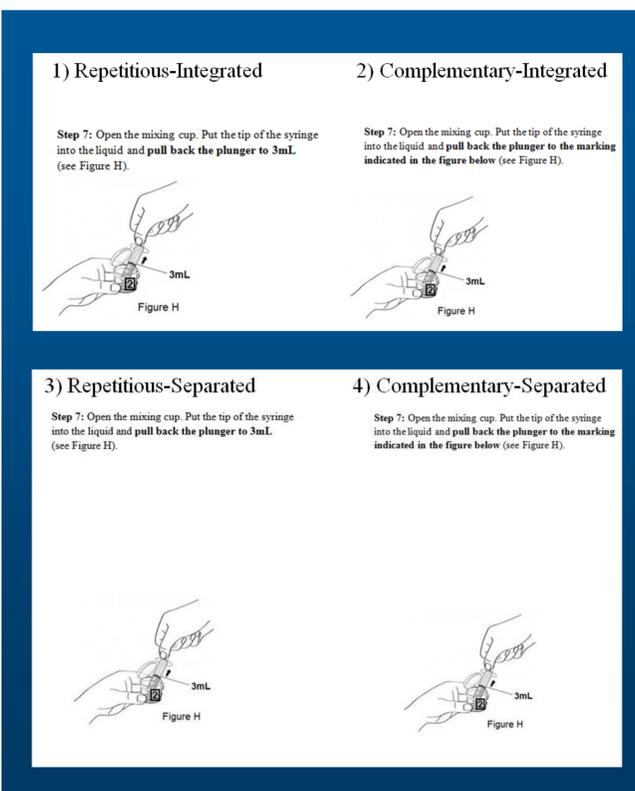
- 2 (Multimedia type: repetitious vs. complementary) X 2 (Presentation Type: integrated vs. separated) between-subjects design

### Four conditions

- Repetitious-integrated condition
- Complementary-integrated condition
- Repetitious-separated condition
- Complementary-separated condition

### Materials

- Comprehension/Memory Test
- Sequence Order Verification Test
- Self-efficacy Questionnaire
- Demographics Questionnaire



1) Repetitious-Integrated

Step 7: Open the mixing cup. Put the tip of the syringe into the liquid and pull back the plunger to 3mL. (see Figure H).

Figure H

2) Complementary-Integrated

Step 7: Open the mixing cup. Put the tip of the syringe into the liquid and pull back the plunger to the marking indicated in the figure below (see Figure H).

Figure H

3) Repetitious-Separated

Step 7: Open the mixing cup. Put the tip of the syringe into the liquid and pull back the plunger to 3mL. (see Figure H).

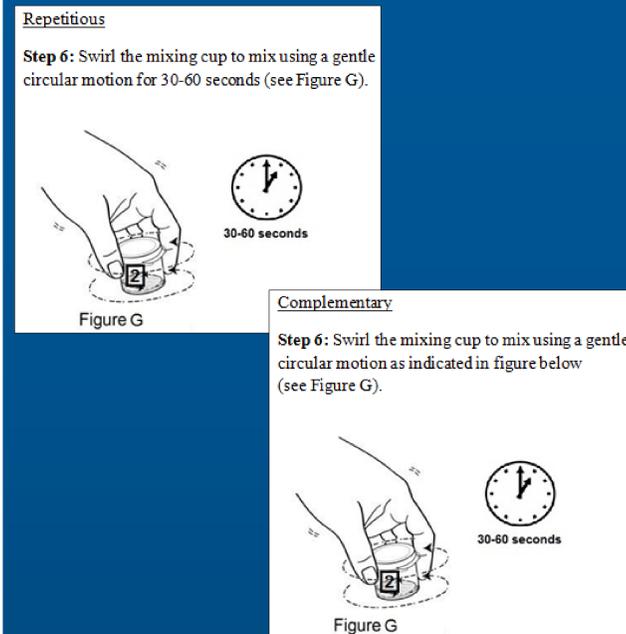
Figure H

4) Complementary-Separated

Step 7: Open the mixing cup. Put the tip of the syringe into the liquid and pull back the plunger to the marking indicated in the figure below (see Figure H).

Figure H

## Repetitious vs. Complementary



Repetitious

Step 6: Swirl the mixing cup to mix using a gentle circular motion for 30-60 seconds (see Figure G).

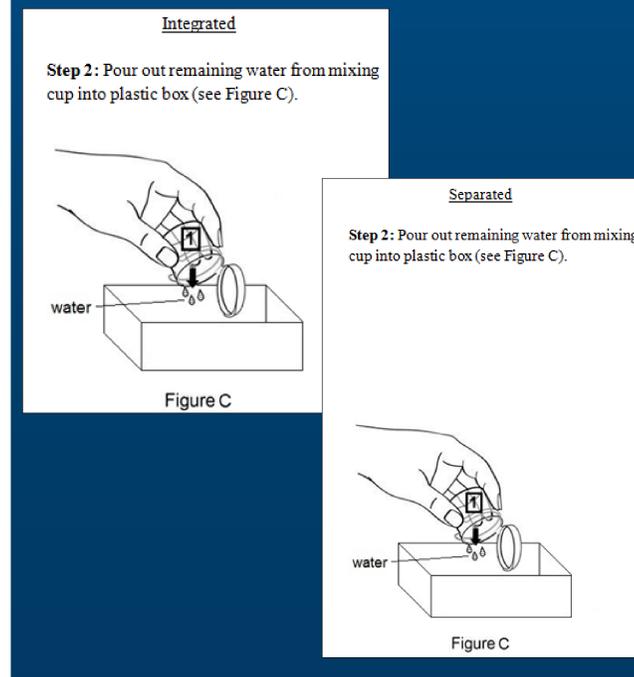
Figure G

Complementary

Step 6: Swirl the mixing cup to mix using a gentle circular motion as indicated in figure below (see Figure G).

Figure G

## Integrated vs. Separated



Integrated

Step 2: Pour out remaining water from mixing cup into plastic box (see Figure C).

Figure C

Separated

Step 2: Pour out remaining water from mixing cup into plastic box (see Figure C).

Figure C

### Contact Information:

Jessica Le | j106517@georgiasouthern.edu

## Proposed Analyses & Results

- 2X2 between-subjects design will be analyzed by using a factorial MANOVA
- **H1:** Repetitious pictures and text will score higher than complementary on comprehension/memory test, sequence order verification test, and self-efficacy.
- **H2:** Integrated pictures and text will score higher than separated on comprehension/memory test, sequence order verification test, and self-efficacy.
- **H3:** There will be an interaction effect for repetitious-integrated condition such that this condition will score highest in comprehension/memory test, sequence order verification test, and self-efficacy.

## References

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