



WAYNE STATE
UNIVERSITY

LESSON PLAN

COLORS, COLORS, COLORS: THE STROOP EFFECT

SUBJECT AREA: NEUROSCIENCE AND PSYCHOLOGY

DESCRIPTION: The Stroop effect was discovered in the 1930s. Students will demonstrate this odd phenomenon by conducting a short experiment themselves.

LESSON OBJECTIVES: Students will measure their selective attention capacity and processing speed.

MATERIALS/SUPPLIES:

- Worksheet
- Word cards

ACTIVITY PROCEDURES:

1. Divide students into pairs. Have students make a hypothesis by filling out the provided worksheet on whether words influence what we see and comprehend.
2. Pass out the word cards, but tell students to keep them facedown. When they flip them over, they should say the colors of the word (instead of reading the word). Before moving forward, make sure that they understand these directions.
3. Have each student take a turn at saying the colors of word card 1 while their partner is timing them. Students should record their time on their worksheet.
4. Each student should take a turn at saying the colors on word card 2 while their partner is timing them. Students should record their time on their worksheet.

DISCUSSION AREA AND QUESTIONS:

- How did your timed results compare? Which card were you able to read faster?
- How do words influence what we see?
- How does the brain handle “mixed messages?”

Words themselves have the ability to have a stronger influence on your brain over the colors in which they are written. For example, when reading the word “red” written in green, you are causing an interference in your brain. This is the Stroop effect, which is the delay between the automatic and controlled processing of information. There are two theories which may explain the Stroop effect:

1. Speed processing theory, which states that people can read words faster than they can see colors.
2. Selective attention theory, which is our limited capacity to pay attention to information, resulting in bottlenecking how we are processing content in our brains.

COLORS, COLORS, COLORS: THE STROOP EFFECT

NAME: _____

HYPOTHESIS: _____

WORD CARD 1 TIME: _____

WORD CARD 2 TIME: _____

OBSERVATIONS: _____

CONCLUSION: _____

CARD 1

RED	GREEN	BLUE	YELLOW	PINK
ORANGE	BLUE	GREEN	BLUE	WHITE
GREEN	YELLOW	ORANGE	BLUE	WHITE
BLACK	RED	BLUE	YELLOW	GREEN
PINK	YELLOW	GREEN	BLUE	RED

CARD 2

RED	GREEN	BLUE	YELLOW	PINK
ORANGE	BLUE	GREEN	BLUE	WHITE
GREEN	YELLOW	ORANGE	BLUE	WHITE
BLACK	RED	BLUE	YELLOW	GREEN
PINK	YELLOW	GREEN	BLUE	RED