

# CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

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**Project Number** 

S0411

## **Project Title**

# The Effects of Traditional Printers Black Ink and Electronic Ink as Used on a Kindle on Reading Comprehension

## Abstract

# **Objectives/Goals**

This experiment is an investigation into the effect of ink type on reading comprehension through the comparison of scores on reading comprehension tests.

#### Methods/Materials

Participants were asked to read a fictional short story in either Traditional Printers Black ink or electronic ink used on a Kindle, and take a reading comprehension test. The participants were part of a randomized opportunity sample of students 16 years or older, in college level Sociology/Psychology classes. The research hypothesis states there will be a significant difference between the reading comprehension scores of participants when a fictional short story is read in Traditional Printers Black ink or electronic ink used on a Kindle. The independent variable is the reading modem of either Traditional Printers Black Ink or electronic ink used on a Kindle. The dependent variable is the score received by participants on the reading comprehension test.

#### Results

A one tailed t-test shows a significant difference at the 99.9% confidence level. Significantly higher scores were received by participants who read the story in Traditional Printers Black ink than by participants who read the story in electronic ink used on a Kindle.

## Conclusions/Discussion

This suggests that reading comprehension is higher when stories are read in Traditional Printers Black ink.

## **Summary Statement**

The effects of traditional printers# black ink versus electronic ink on reading comprehension

#### Help Received

Psychology teacher, Mrs. Brown, supervised project; Mr. Collins, media teacher, assisted with board creation.