

**Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.**

In an effort to improve checkout, new electronic self-check-out systems have been installed in many stores. This study compares cashier checkout with self-check-out at Wal-Mart Super Centers in the Jackson, Mississippi, area. Ninety shoppers were randomly chosen and observed on each checkout system and data was collected on the number of items, the length of time the shopper was in line.

Although customers checked out a similar number of items (8.74 items and 8.48 items) the mean checkout times were 5.92 minutes for the cashier system and 11.22 minutes for the electronic self-checkout system. Our objective is to determine if there a statistically significant difference in the mean length of time taken for checkout for the two systems.

