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

There has always been interest in the affect of television commercials on the audience. The question is of particular interest when children are involved. This study involved 55 (22 boys and 33 girls) children at a daycare center whose reactions to cartoons and commercials were recorded and analyzed. There were 16 subjects in each age category 3-4, 5-6, 7-8 and 7 subjects in the 9-10 age category. The children were tested in groups of 4 by showing a 26 minute cartoon program with 8 interspaced commercials. Two groups of 4 subjects in the 3-4 age category became so restless that the experiment was terminated early and those 8 children were only evaluated on 6 commercials.
For the 47 subjects observing 8 commercials and 8 subjects observing 6 commercials there
 was a total of 424 views. By age category the number of views was 112, 128, 128 and 56 for the age categories 3-4, 5-6, 7-8 and 9-10 respectively. The occurrence of comments during the commercials was recorded. The general tendency was to not make comments, but there were 24, 42, 17 and 29 comments made by subjects in the age categories $3-4,5-6,7-8$ and $9-10$ respectively. Therefore, with 424 "views" there was a $26.4 \%$ rate of comments. Test the hypothesis that the rate of comments was the same for each age category.

TABLE IV
Quantity of Comments Niade During Commercial by Age
(Total child-commercial case frequencies and column percentages)

| Comments | Age |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3-4 | 5-6 | 7-8 | 9-10 |  |
| Combined comments | $\begin{gathered} 24 \\ (21.4 \%) \end{gathered}$ | $\begin{gathered} 42 \\ (32.8 \%) \end{gathered}$ | $\begin{gathered} 17 \\ (14.1 \%) \end{gathered}$ | $\begin{gathered} 29 \\ (51.8 \beta) \end{gathered}$ | 113 |
| No comments made | $\begin{gathered} 88 \\ (78.6 \%) \end{gathered}$ | $\begin{gathered} 86 \\ (67.2 \%) \end{gathered}$ | $\begin{gathered} 110 \\ (85.9 \beta) \end{gathered}$ | $\begin{gathered} 27 \\ (48.2 \%) \end{gathered}$ | 311 |

