While using qualitative and quantitative research analysis, the question of *does at home activities improve parental involvement?* was led to be statistically proven correct. By using the research methods of collecting qualitative and quantitative data from families of Head Start (in the rural counties south west of Virginia), I was able to statistically analyze the received data and further examine if the question was proven to be correct or incorrect. The data and methods collected were thus interpreted into several statistical tables using Rstudio (integrated development environment) and SPSS (Statistical Package for the Social Sciences); which includes a T-test table, Chi-Squared table, and Pearson’s Correlation summary. Notice, each of the tables below can be shown the received and collected data of such findings.

Table 1

*T-test using child/children assistance and number of individuals in the household*

Variable Mean t-statistic

Entire Household 7.62 1.651

Child/children and parent only 6.50

*Note: p<.05\*, p<.01 \*\*, p<.001\*\*\**

The results shown in the table above were calculated by using Rstudio (integrated development environment used for statistical computing and graphics). Shown in the table above, the variables used were the entire household and child/children and parent only. The questions for the variables used included: *On a scale from 0-10, how much assistance did your child/children require for this activity?* And *did anyone else living in your household participate in any of the activities?* Given the calculated results, which thus show for there to be a mean of 7.62 for the entire household and a mean of 6.50 for the child/children and parent only. Through this, there was a p-value of 0.1085. Using the calculations and t-statistic, it can be proven that there is no significant difference between the means as 0.1085 >.05.

Table 3

*Chi-Squared Test of Participation Similarity by Improved Child’s/Children’s Relationship* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Improved Relationship Yes No P-Value \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Not at all 1 5 0.08

Very much 11 20

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Note: X-Squared=21.804, df=14. p<.05\*, p<.01 \*\*, p<.001\*\*\*

The Chi-Squared Test results were calculated by using Rstudio (integrated development environment used for statistical computing and graphics). Shown in the table above, the variables used for the Chi-Squared Test was participation similarity by improved child’s/children’s relationship. The questions were coded as: has your child/children ever participated in an activity to this one in the past? On a scale from 0-10, how much did this activity help to improve you and your child’s/children’s relationship? (0=Not at all, 10=Very much). Given the calculated results, which thus show for there to be a X-Squared of 21.804 and a P-Value of 0.08, we will retain the null hypothesis. There is no significant difference at the p<.05 level given that 21.804>0.08, which proved for there to not be a significant improvement of the relationship between the parent and child/children.

In using the Pearson’s Correlation model, the improvement of the parent and child/children relationship was predicted by how much the family enjoyed the activity. The variables asked, were based on a 0-10 scale. The questions were, on a scale from 0-10, how much did this activity help to improve you and your child’s/children’s relationship? (0=Not at all, 10=Very Much) and on a scale of 0-10, how much did your family enjoy this activity? (0=Not at all, 10=Very much). The findings indicate that there is a strong positive correlation (given that r=0.607) between the relationship of the parent and child/children and the enjoyment of the attempted activity. In other words, when the parent and the child/children were more involved in the activity, the relationship of both improved. The researcher does not know if this would be true given a larger population.

Notice: There is no table and there is no significance.

In conclusion, it was statistically proven that the take home activities improved parental involvement. This was proven by collecting qualitative and quantitative data received by the families of Head Start (in the rural counties south west of Virginia). Furthermore, by statistically analyzing the collected data and thus interpreting the data into Rstudio (integrated development environment) and SPSS (Statistical Package for Social Sciences), it is concluded that the parent and child’s/children’s relationship improved after participating in one of the several at home activities. This was compared to the ranking of the parent and child’s/children’s relationship prior to participating in the at home activities. Notice, the findings of such may be shown in the tables listed above. Therefore, restating the question *does at home activities improve parental involvement?* is statistically proven to be correct. Showing for there to be a significance in the collected data. Meaning, as the more involved the parent and child/children were involved in the at home activity, the relationship of both improved.