**Findings**

Conducting an evaluation for understanding parent’s involvement includes the purpose of this research to explore a better understanding of parent’s involvement with young children. Three different inferential statics models were tested using RStudio. The three different inferential statics models were tested to answer the research question, does at home activities improve parent involvement with low income families? The sample population involved parents placed in Head Start, which qualifies them for “low income”. The three statics models that were used for testing included: Independent Sample T-Test, Pearson’s Correlation, and ANOVA.

The first different inferential statics model used was the Independent Sample T-Test. Two independent samples were used for the Independent Sample T-Test to find if there is a significant difference between the means. Two closed ended questions were used. The first independent sample included a close ended question that asked, “*On a scale from 0-10, how much assistance did your child/children require for this activity?*” and the second closed ended sample question used stated, *“Did anyone else living in your household participate in any of the activities?”.* Choosing these variables were able to ensure that parents or other individuals were included in the at home activities to help build that relationship with their child. Table 1 explains the two independent samples that include the p-value that explains the probability of the null hypothesis being correct, which in this case was .1085. The t-value explains the comparison of the two independent samples to the hypothesized sample means, which was 1.6561. The p-value is less than the 95 percent confidence interval, therefore the data has to reject the null hypothesis and because the data rejects the null hypothesis there is no significant difference between the two-independent means.

Table 1

*Independent Sample t-Test for Difference in Amount of Assistance Needed and If Any Other Member Helped*

Assistance Mean SD *t*  p-value

Amount of Assistance 7.62069 2.314909 1.6561 .1085

Did Anyone Else Assist 6.50000 .4606464 1.6561 .1085

*Note: p < .05\*. df = 29.02.*

The second different inferential statistics model used was Pearson's Correlation in RStudio with the Animal Dice Activity. Finding out how well the family enjoyed the activity was predicated by how much the activity helped to improve the child/children’s relationship with their parents. Two continuous questions were used based on a scale of 0-10. The findings indicated that there is a strong positive correlation (r=.54) between how much the family enjoyed the activity and how much the activity improved the parent’s relationship with the child/children. The dependent variable used in this test was how much the activity improved the child/children's relationship with their parents.

The third statistical model used was an ANOVA. The ANOVA is used to determine a single overall decision as to whether a significant difference is present among three or more groups. Table 3 shows the correlation that is amongst the independent variables, “*How long did it take you and your child/children to complete the activity?”* and the dependent variable included, “*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)”.* The four groups used in this ANOVA test are the independent variables that include: “0-10 minutes”, “11-20 minutes”, “21-30 minutes”, and “30 plus minutes”. Table 2 shows the comparison of the means from each of the four groups. The sum of the squares represents the initial step for measuring the total variation, as well as the variation between and within the four different groups is shown in Table 2. The variation between the four groups was 15.628. The p-value was calculated to .0116 which means there is a significant difference between how long the activity took to complete compared towards the improvement of parent involvement. The table shows a significant difference at the .01 level between the means.

Table 3:

*ANOVA of Parents Improvement by How Long Parents and Children Took to Complete the Animal Dice Activity*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Minutes  | Mean  | Standard Deviation | Sum of Squares | Mean of Squares  | F-value  |
| 0-10  | 8.6 | 1.776 |  |  |  |
| 11-20  | 8.6 | 2.458 |  |  |  |
| 21-30 | 9.9 | 0.316 |  |  |  |
| 30+ | 10 | 0.000 | 15.6285 | 15.6285 | 7.0172 |

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

 **Conclusion**

To find our research question does at home activities improve parent involvement with low income families the three statics model test provides evidence towards that this may be true. The Independent Sample T-Test showed that there was no significant correlation in regard to the amount of assistance needed compared to if other household participants helped. But it is safe to say that that two test that resemble that home activities have improved parent’s involvement are through the Pearson’s Correlation and the ANOVA. These two statics model test showed a significant findings between the independent variables, the at home activities, and dependent variables, which was the improvement of parent involvement.