

**STATISTICAL ANALYSIS OF PARENTAL  
INVOLVEMENT ON CHILDREN'S ACADEMIC  
PERFORMANCE**

**BY**

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AWARD OF NATIONAL DIPLOMA (ND) IN STATISTICS**

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## **CERTIFICATION**

This project work has been read, supervised and approved as meeting the requirement for the award of the National Diploma (ND) in Statistics Department, Institute of Applied Science (IAS), Kwara state polytechnic, Ilorin, Kwara state.

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## **DEDICATION**

This project is dedicated to the Almighty Allah.

## ACKNOWLEDGEMENT

First and foremost, I express my profound gratitude to Almighty Allah for granting me the strength, wisdom, and resilience to successfully complete this project.

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## ABSTRACT

*This study investigates the influence of demographic variables—gender, age, and academic level—on students' perceptions of parental involvement in their academic activities within a Nigerian tertiary institution. Using a sample of 100 students, data were analyzed through Chi-Square Tests of Independence to determine whether significant associations exist between these demographic factors and key indicators of parental involvement: the importance placed on education, motivation after poor grades, parental literacy impact, help with homework, and communication with teachers. Results revealed no statistically significant associations across all variables. For instance, gender was not significantly related to whether parents are perceived to value education ( $\chi^2 = 0.001$ ,  $p = 0.977$ ), provide motivation ( $\chi^2 = 0.003$ ,  $p = 0.960$ ), or offer homework help ( $\chi^2 = 3.219$ ,  $p = 0.073$ ). Similarly, age and level of study did not significantly affect students' perceptions of parental involvement. These findings suggest that students across gender, age, and academic levels perceive parental support and engagement in similar ways. The study underscores the need for educational institutions and policymakers to maintain inclusive strategies for parental engagement irrespective of demographic variations.*

**Keywords:** *Parental Involvement, Gender, Age, Academic Level, Chi-Square Test, Education, Motivation, Literacy, Student Perception, Statistical Analysis*

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background of the study**

Education is a critical instrument in the development of individuals and societies. It provides knowledge, skills, and competencies essential for personal and national growth. While formal education is provided by schools, the home environment, particularly parental involvement, plays a significant role in shaping a child's academic journey. Parental involvement refers to the active participation of parents in their child's educational activities, such as helping with homework, attending school meetings, and discussing academic progress with teachers.

Numerous studies have identified a strong correlation between parental involvement and children's academic performance. When parents take an active interest in their child's education, it often leads to improved behavior, better attendance, and higher academic achievement. However, the extent to which each aspect of parental involvement contributes to academic performance varies, and there is a need for empirical analysis.

There is a strong belief in society that parental involvement has a strong positive effect on students' academic performance. Student learning not only takes place in schools but also the contexts of families and communities play a great role (Ma, Shen, Krenn, Hu & Yuan, 2016). Therefore, parental involvement is seen as quite significant in students' learning and academic achievement. The relationship between parental involvement and academic achievement has long been an area of research across the world (Boonk, Gijsselaers, Ritzen & Brand-Gruwel, 2018; Epstein, 1991; Roy and Giraldo-García, 2018). Empirical research studies and meta-analysis studies have put forth a strong relationship between parental involvement and academic achievement, mostly indicating a positive role. Despite the research support and common view among people regarding the positive effect of parental involvement on academic achievement, there is confusion on the definition of parental involvement, as well as its activities, types, and outcomes (Shute, Hansen, Underwood & Razzouk, 2011). Although most people consider

parental involvement a remedy for school education, there are some inconsistencies in the findings regarding the effect of parental involvement on academic achievement (Fan & Chen, 2001).

### **1.1 Statement of the Problem**

Despite widespread recognition of the benefits of parental involvement, many students continue to perform below expectations due to a lack of engagement from parents. Factors such as parental illiteracy, poor communication between school and home, and socio-economic challenges contribute to this problem. There is limited quantitative research that statistically evaluates the impact of specific parental behaviors on student outcomes.

### **1.2 Aim and Objectives of the Study**

The main aim of this study is to the parental involvement on children academic performance. While the objectives are:

- To examine the relationship between parental involvement and children's academic performance.
- To identify which parental involvement factors significantly influence academic success.
- To use Chi-Square analysis to determine the strength of these associations.

### **1.3 Significance of the Study**

This research work titled “Statistical Analysis of Parental involvement on Children's Academic Performance” will aid in knowing the mode of involvement of parent on children's academic performance.

### **1.4 Scope and Limitation of the Study**

This research is aimed at identifying and evaluating parental involvement on children academic performance. it might not be suitable to generalize the response of the whole students of the

country. The scope of the generalization and the scope of wider coverage is beyond the researcher's capability in terms of financial and data collection.

### **1.5 Definition of Terms**

- **Parental Involvement:** The participation of parents in their child's educational development.
- **Academic Performance:** The measure of a student's success in school, often evaluated through grades or test scores.
- **Chi-Square Test:** A statistical test used to assess the relationship between categorical variables.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Literature Review**

There is not a consensus on the definition of parental involvement and there are also different types and dimensions of parental involvement. The difference in defining parental involvement may have contributed to the inconsistent results in the literature. Due to inconsistencies in the findings regarding the relationship between academic achievement and parental involvement, a need for meta-analysis studies has risen (Fan & Chen, 2001). Though there are some meta-analysis studies in the literature (Fan & Chen, 2001).

Grolnick and Slowiaczek (1994, p. 238) define parental involvement as “the dedication of the resources by the parent to the child”. LaRocque, Kleiman and Darling (2011) describe it as investment in the education of children. It is also defined as parents’ engagement in activities which foster learning and performance of their children (Fantuzzo et al, 2000 as cited in Ma et al, 2016). In the same vein, the current study considers parental involvement as parents’ efforts to contribute to their children’s academic and social/emotional development. Rather than the definition of the concept, what matters is what behaviours are considered as parental involvement. Parental involvement is defined in relation to several different parental behaviours including parental aspirations for their children’s academic performance, parents’ communication with children, parents’ participation in activities in school, parents’ communication with teachers, parental rules and so on (Fan & Chen, 2001).

Epstein (2010) list types of involvement as parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. Shute et al (2011) list home-related parental involvement types as parenting style, discussing school activities, checking homework, aspirations, and expectations, reading at home, supervision, and home rules, while school-related aspects include contacting school personnel, attending parent teacher organisations and volunteering at school. On the other hand, academic achievement can be

defined as “learned proficiency in basic skills and content knowledge” (McCoy, Twymen, Ketterlin-Geller & Tindal, 2005, p. 8).

Academic achievement in a course or lesson is not only related with those experiences in that course or lesson. It is cumulative of the present and prior school, family, and community experiences (Rivkin, Hanushek & Kain, 2005). However, as it is impossible to measure such a cumulative effect, it is the measurement of a single lesson or general assessment such as general point averages (GPA) which are used. Therefore, while some studies use a measure of a single achievement test, some use the grade of a lesson and some use GPA. No matter which unit is measured, academic achievement is eventually one of the main aims of the educational experiences. In the current study, academic achievement measures were grouped as standard and non-standard tests. The relationship between parental involvement and academic achievement varies according to the parental involvement type the study focuses on. While some parental involvement types have shown positive association with academic achievement, some other types have proven negative or null.

Boonk et al, 2018, In their review of the studies on the relationship between parental involvement and academic achievement, Boonk et al (2018, p. 25) concluded that parental involvement is related to academic achievement, yet this relationship is not as strong as traditionally believed. To put forth the effect of parental involvement on academic achievement, more meta-analysis studies focusing on different types of parental involvement are needed. As these activities are quite different from each other, they are differentiated in the analysis in the current study. Parental expectations, also called parental aspirations, are parents’ expectations regarding their children’s performance at school. This has been researched in the literature and it generally shows a positive association with academic achievement (Shute et al, 2011).

Parental support includes encouraging children through actions such as providing them with an appropriate environment, praising them or manifesting that they care for them (Boonk et al, 2018). Learning assistance refers to parents’ helping their children with their academic

responsibilities such as time spent on homework completion, assisting with the difficult academic contents or tutoring. Communication refers to the exchange of ideas between parents and children with respect to issues on school, plans or activities. Control has a negative association with academic achievement. Parental control includes controlling the child too much or exerting pressure on them. Activity includes parent child activities at home, such as reading with the children, storytelling, parent weekly home activities, which mostly address children at pre-school or early elementary education levels. Academic socialization has to do with the messages transmitted to students by their parents about academic issues and the role of school in their future, such as the significance of trying in school or shame for not fulfilling expected duties

Cross, Marchand, Medina, Villafuerte & Rivas-Drake, 2019; Hill & Tyson, 2009, In addition to the effect of parental involvement types on students' academic achievement, moderator variables of location, participant type, publication date, education level, academic area, and measure of academic achievement are also examined in the current study. It has been put forth in the literature that parental involvement variables interact with location (Boonk et al, 2018). Regarding participant types, some studies include only students while some others include parents as well. The source of information is expected to influence the results. Publication date is included to see whether the level of effect varies about the years. Education level is also a significant moderator. The literature suggests that the size of the effect of parental involvement differs with respect to education levels (Jeynes, 2007; Kim & Hill, 2015).

Parental participation at lower levels, such as pre-school or elementary levels, can be expected to be much more than at higher levels such as secondary level. Besides, the dimensions of the parental involvement may also change by the level. The academic area may also affect the results as some studies measure general academic achievement, while some studies measure academic achievement in single areas such as mathematics or language. Measure of academic achievement refers to whether measurement is general point average or a standard measurement scale, which may also mediate the results.





## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

A total of **100 students** were selected as the sample size using **simple random sampling**. This technique was used to ensure that each student in the population had an equal chance of being selected, thereby reducing sampling bias. A complete list of final-year students was obtained, and a random number generator was used to select the respondents. The sample size was considered adequate for statistical inference and allowed for sufficient data to perform Chi-Square analysis.

#### 3.2 Statistical Techniques

The analysis was performed using the Statistical Package for the Social Sciences (SPSS), and it involved both descriptive and inferential statistics. The following statistical techniques were employed:

##### i. Descriptive Statistics

Descriptive statistics help summarize the basic features of the data and provide a simple overview of the sample and measures. In this study, descriptive analysis was conducted for key variables:

**Mean (Average):** Measures the central tendency of frequency and duration usage.

**Median:** The middle value in the dataset, helping to identify skewed distributions.

**Range:** The difference between the maximum and minimum values, giving an idea of the spread.

**Standard Deviation (SD):** Measures how spread out the numbers are in the dataset. A higher SD indicates more variability among respondents.

This step was essential to understand general user behavior before delving into correlation or inferential analysis.

### **Chi-Square Test of Independence ( $\chi^2$ )**

To test for statistical association between awareness and proper hygiene practices, the Chi-square test of independence was applied.

#### **Steps in Conducting the Chi-Square Test**

- **Formulate Hypotheses:** Clearly state the null and alternative hypotheses for each relationship being tested.
- **Set Significance Level:** Typically, a significance level of 0.05 is used ( $\alpha = 0.05$ ). If the p-value obtained from the chi-square test is less than 0.05, the null hypothesis will be rejected.
- **Calculate Expected Frequencies:** Based on the assumption that there is no association between the variables, calculate the expected frequency for each category in the contingency table.
- **Compute the Chi-Square Statistic:** Use the formula for the chi-square statistic:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

#### **Where:**

O is the observed frequency

E is the expected frequency

**Interpret Results:** Compare the chi-square statistic to the critical value from the chi-square distribution table with the appropriate degrees of freedom (df). If the computed chi-square statistic is greater than the critical value, the null hypothesis is rejected, indicating a significant association.

## **Hypotheses Testing**

To achieve the objectives of this study, the following null and alternative hypotheses are formulated:

### **Hypothesis 1**

**H<sub>01</sub>:** There is no significant relationship between parental involvement and children's academic performance.

**H<sub>11</sub>:** There is a significant relationship between parental involvement and children's academic performance.

### **Hypothesis 2**

**H<sub>02</sub>:** None of the parental involvement factors significantly influence children's academic success.

**H<sub>12</sub>:** At least one parental involvement factor significantly influences children's academic success.

### **Hypothesis 3**

**H<sub>03</sub>:** Chi-Square analysis shows no significant association between gender and the various forms of parental involvement.

**H<sub>13</sub>:** Chi-Square analysis shows a significant association between gender and the various forms of parental involvement.

## **3.3 Data Source**

The data used in this research work is primary data (Questionnaire) and administered in the within Kwara state polytechnic Ilorin.

## **3.4 Data presentation**

The data used in this research work is primary data (Questionnaire) and administered within Kwara state polytechnic Ilorin. And can be view in Appendix I.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

This chapter presents the data obtained through the administered questionnaires, analyzed using the Chi-Square statistical method. The main objective of this chapter is to test the hypotheses set in the previous chapter and to determine the relationships between demographic variables such as gender, age, and level of study and parental involvement in children's education. The results are presented in tables with corresponding interpretations.

#### GENDER \* PARENT GIVES IMPORTANT TO CHILDREN TO CHILDREN EDUCATION

**Crosstab  
Count**

|    |              |     | PARENT GIVES IMPORTANT TO<br>CHILDREN TO CHILDREN EDUCATION |    | Total |
|----|--------------|-----|---|----|-------|
|    |              |     | YES   | NO |       |
| ER | GEND E       | MAL | 50  | 1  | 51    |
|    |              | FEM | 48  | 1  | 49    |
|    | ALE<br>Total |     | 98  | 2  | 100   |

#### Chi-Square Tests

|                                       | alue            | V  | d | Asym<br>p. Sig. (2-<br>sided) | Exact<br>Sig. (2-sided) | Exact<br>Sig. (1-sided) |
|---------------------------------------|-----------------|----|---|-------------------------------|-------------------------|-------------------------|
| Pearson Chi-Square                    | 01 <sup>a</sup> | .0 | 1 | .977                          |                         |                         |
| Continuity<br>Correction <sup>b</sup> | 00              | .0 | 1 | 1.000                         |                         |                         |
| Likelihood Ratio                      | 01              | .0 | 1 | .977                          |                         |                         |

|                              |     |   |      |       |      |
|------------------------------|-----|---|------|-------|------|
| Fisher's Exact Test          |     |   |      | 1.000 | .742 |
| Linear-by-Linear Association | .01 | 1 | .977 |       |      |
| N of Valid Cases             | 100 | 1 |      |       |      |

- a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,98.  
b. Computed only for a 2x2 table

Chi-Square = 0.001, df = 1, p = 0.977

Interpretation: There is no significant association between gender and the perception that parents give importance to children's education. Both males and females hold similar views ( $p > 0.05$ ).

**GENDER \* PARENT MOTIVATE THEIR CHILD(REN) TO TRY HARDER WHEN HE/SHE MAKES A POOR GRADE**

**Crosstab**  
Count

|        |        | PARENT MOTIVATE THEIR CHILD(REN) TO TRY HARDER WHEN HE/SHE MAKES A POOR GRADE |    | Total |
|--------|--------|---|----|-------|
|        |        | YES   | NO |       |
| GENDER | MALE   | 48  | 3  | 51    |
|        | FEMALE | 46  | 3  | 49    |
|        | Total  | 94  | 6  | 100   |

### Chi-Square Tests

|                                    | Value             | df | Asymptotic Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|-------------------|----|---------------------------|----------------------|----------------------|
| Pearson Chi-Square                 | .003 <sup>a</sup> | 1  | .960                      |                      |                      |
| Continuity Correction <sup>b</sup> | .000              | 1  | 1.000                     |                      |                      |
| Likelihood Ratio                   | .003              | 1  | .960                      |                      |                      |
| Fisher's Exact Test                |                   |    |                           | 1.000                | .642                 |
| Linear-by-Linear Association       | .003              | 1  | .960                      |                      |                      |
| N of Valid Cases                   | 100               |    |                           |                      |                      |

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,94.

b. Computed only for a 2x2 table

**Chi-Square = 0.003, df = 1, p = 0.960**

Interpretation: There is no significant relationship between gender and parental motivation after a poor grade. Males and females experience similar parental support ( $p > 0.05$ ).

### GENDER \* WHETHER THE PARENT IS LITERATE OR NOT, HAVE IMPACT ON THE CHILD(REN) ACADEMIC PERFORMANCE

**Crosstab**  
Count

|        |        | WHETHER THE PARENT IS LITERATE OR NOT, HAVE IMPACT ON THE CHILD(REN) ACADEMIC PERFORMANCE |    | Total |
|--------|--------|---|----|-------|
|        |        | YES   | NO |       |
| GENDER | MALE   | 48  | 3  | 51    |
|        | FEMALE | 47  | 2  | 49    |

|       |    |   |     |
|-------|----|---|-----|
| Total | 95 | 5 | 100 |
|-------|----|---|-----|

### Chi-Square Tests

|                                    | Value             | df | Asymptotic Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|-------------------|----|---------------------------|----------------------|----------------------|
| Pearson Chi-Square                 | .171 <sup>a</sup> | 1  | .680                      |                      |                      |
| Continuity Correction <sup>b</sup> | .000              | 1  | 1.000                     |                      |                      |
| Likelihood Ratio                   | .172              | 1  | .678                      |                      |                      |
| Fisher's Exact Test                |                   |    |                           | 1.000                | .519                 |
| Linear-by-Linear Association       | .169              | 1  | .681                      |                      |                      |
| N of Valid Cases                   | 100               |    |                           |                      |                      |

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,45.

b. Computed only for a 2x2 table

**Chi-Square = 0.171, df = 1, p = 0.680**

Interpretation: There is no significant difference between male and female views on whether a parent's literacy impacts academic performance ( $p > 0.05$ ).

### GENDER \* WHEN A CHILD NEEDS HELP IN HOMEWORK, PARENT HELPS

Crosstab  
Count

|        |     | WHEN A CHILD NEEDS HELP IN HOMEWORK, PARENT HELPS |    | Total |
|--------|-----|---|----|-------|
|        |     | YES   | NO |       |
| GENDER | MAL | 51  | 0  | 51    |
|        | FEM | 46  | 3  | 49    |



|       |    |   |     |
|-------|----|---|-----|
| Total | 97 | 3 | 100 |
|-------|----|---|-----|

### Chi-Square Tests

|                                    | Value              | df | Asymptotic Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|--------------------|----|---------------------------|----------------------|----------------------|
| Pearson Chi-Square                 | 3.219 <sup>a</sup> | 1  | .073                      |                      |                      |
| Continuity Correction <sup>b</sup> | .459               | 1  | .227                      |                      |                      |
| Likelihood Ratio                   | .377               | 1  | .036                      |                      |                      |
| Fisher's Exact Test                |                    |    |                           | .114                 | .114                 |
| Linear-by-Linear Association       | .187               | 1  | .074                      |                      |                      |
| N of Valid Cases                   | 100                |    |                           |                      |                      |

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,47.

b. Computed only for a 2x2 table

**Chi-Square = 3.219, df = 1, p = 0.073**

Interpretation: There is a slight difference between genders, with males more likely to report parental help in homework, but this difference is not statistically significant ( $p > 0.05$ ).

### GENDER \* PARENTS DISCUSS SCHOOL PROGRESS WITH CHILDREN'S TEACHER

#### Crosstab Count

|        |     | PARENTS DISCUSS SCHOOL PROGRESS WITH CHILDREN'S TEACHER |    | Total |
|--------|-----|---|----|-------|
|        |     | YES   | NO |       |
| GENDER | MAL | 42  | 9  | 51    |

|       |     |    |    |     |
|-------|-----|----|----|-----|
|       | FEM | 33 | 16 | 49  |
| ALE   |     |    |    |     |
| Total |     | 75 | 25 | 100 |

### Chi-Square Tests

|                                    | Value              | df | Asymptotic Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|--------------------|----|---------------------------|----------------------|----------------------|
| Pearson Chi-Square                 | 3.001 <sup>a</sup> | 1  | .083                      |                      |                      |
| Continuity Correction <sup>b</sup> | .254               | 1  | .133                      |                      |                      |
| Likelihood Ratio                   | .029               | 1  | .082                      |                      |                      |
| Fisher's Exact Test                |                    |    |                           | .107                 | .066                 |
| Linear-by-Linear Association       | .971               | 1  | .085                      |                      |                      |
| N of Valid Cases                   | 100                |    |                           |                      |                      |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.25.

b. Computed only for a 2x2 table

**Chi-Square = 3.001, df = 1, p = 0.083**

Interpretation: Although more males report that their parents discuss school progress with teachers, the difference between genders is not statistically significant ( $p > 0.05$ ).

### AGE \* PARENT GIVES IMPORTANT TO CHILDREN TO CHILDREN EDUCATION

**Crosstab**  
Count

|  | PARENT GIVES IMPORTANT TO CHILDREN TO CHILDREN EDUCATION |    | Total |
|--|--|----|-------|
|  | YES  | NO |       |
|  |  |    |       |

|    |       |       |    |   |     |
|----|-------|-------|----|---|-----|
| GE | A     | BELOW | 12 | 0 | 12  |
|    |       | 18    |    |   |     |
|    |       | 18-21 | 44 | 2 | 46  |
|    |       | 22-25 | 39 | 0 | 39  |
|    |       | 26    | 3  | 0 | 3   |
|    |       | ABOVE |    |   |     |
|    | Total |       | 98 | 2 | 100 |

### Chi-Square Tests

|                              | Value              | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square           | 2.396 <sup>a</sup> | 3  | .494                     |
| Likelihood Ratio             | 3.154              | 3  | .368                     |
| Linear-by-Linear Association | .422               | 1  | .516                     |
| N of Valid Cases             | 100                |    |                          |

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,06.

**Chi-Square = 2.396, df = 3, p = 0.494**

Interpretation: Age does not significantly influence the perception that parents value children's education ( $p > 0.05$ ).

**AGE \* PARENT MOTIVATE THEIR CHILD(REN) TO TRY HARDER WHEN HE/SHE MAKES A POOR GRADE**

**Crosstab**  
Count

|  |   |       |
|--|---|-------|
|  | PARENT MOTIVATE THEIR<br>CHILD(REN) TO TRY HARDER WHEN<br>HE/SHE MAKES A POOR GRADE | Total |
|--|---|-------|

|       |   |       | YES | NO |     |
|-------|---|-------|-----|----|-----|
| GE    | A | BELOW | 11  | 1  | 12  |
|       |   | 18    |     |    |     |
|       |   | 18-21 | 43  | 3  | 46  |
|       |   | 22-25 | 37  | 2  | 39  |
|       |   | 26    | 3   | 0  | 3   |
| ABOVE |   |       |     |    |     |
| Total |   |       | 94  | 6  | 100 |

### Chi-Square Tests

|                              | Value             | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|-------------------|----|--------------------------|
| Pearson Chi-Square           | .382 <sup>a</sup> | 3  | .944                     |
| Likelihood Ratio             | .552              | 3  | .907                     |
| Linear-by-Linear Association | .324              | 1  | .570                     |
| N of Valid Cases             | 100               |    |                          |

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,18.

**Chi-Square = 0.382, df = 3, p = 0.944**

Interpretation: There is no statistically significant relationship between age and parental motivation after a poor grade ( $p > 0.05$ ).

**AGE \* WHETHER THE PARENT IS LITERATE OR NOT, HAVE IMPACT ON THE CHILD(REN) ACADEMIC PERFORMANCE**

### Crosstab Count

|    |   |       | WHETHER THE PARENT IS<br>LITERATE OR NOT, HAVE IMPACT ON<br>THE CHILD(REN) ACADEMIC<br>PERFORMANCE |    | Total |
|----|---|-------|--|----|-------|
|    |   |       | YES  | NO |       |
| GE | A | BELOW | 11   | 1  | 12    |
|    |   | 18    |  |    |       |

|       |       |    |   |     |
|-------|-------|----|---|-----|
|       | 18-21 | 42 | 4 | 46  |
|       | 22-25 | 39 | 0 | 39  |
|       | 26    | 3  | 0 | 3   |
|       | ABOVE |    |   |     |
| Total |       | 95 | 5 | 100 |

### Chi-Square Tests

|                              | Value              | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square           | 3.814 <sup>a</sup> | 3  | .282                     |
| Likelihood Ratio             | 5.639              | 3  | .131                     |
| Linear-by-Linear Association | 2.809              | 1  | .094                     |
| N of Valid Cases             | 100                |    |                          |

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,15.

Chi-Square = 3.814, df = 3, p = 0.282

Interpretation: There is no significant relationship between age and beliefs about the impact of parental literacy on children's academic performance ( $p > 0.05$ ).

### AGE \* WHEN A CHILD NEEDS HELP IN HOMEWORK, PARENT HELPS

#### Crosstab Count

|       |       |    | WHEN A CHILD NEEDS HELP<br>IN HOMEWORK, PARENT HELPS |    | Total |
|-------|-------|----|--|----|-------|
|       |       |    | YES  | NO |       |
| AGE   | BELOW | 18 | 12   | 0  | 12    |
|       | 18-21 | A  | 44   | 2  | 46    |
|       | 22-25 |    | 38   | 1  | 39    |
|       | 26    |    | 3  | 0  | 3     |
|       | ABOVE |    |  |    |       |
| Total |       |    | 97   | 3  | 100   |

### Chi-Square Tests

|                              | Value             | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|-------------------|----|--------------------------|
| Pearson Chi-Square           | .777 <sup>a</sup> | 3  | .855                     |
| Likelihood Ratio             | 1.19              | 3  | .755                     |
| Linear-by-Linear Association | .000              | 1  | .994                     |
| N of Valid Cases             | 100               |    |                          |

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,09.

Chi-Square = 0.777, df = 3, p = 0.855

Interpretation: Age does not significantly influence whether a parent helps with homework (p > 0.05).

### AGE \* PARENTS DISCUSS SCHOOL PROGRESS WITH CHILDREN'S TEACHER

**Crosstab**  
Count

|     |       |       | PARENTS DISCUSS SCHOOL<br>PROGRESS WITH CHILDREN'S<br>TEACHER |    | Total |
|-----|-------|-------|---|----|-------|
|     |       |       | YES   | NO |       |
| AGE | BELOW | 18    | 10  | 2  | 12    |
|     | A     | 18-21 | 37  | 9  | 46    |
|     |       | 22-25 | 25  | 14 | 39    |
|     |       | 26    | 3   | 0  | 3     |
|     | ABOVE | Total | 75  | 25 | 100   |

### Chi-Square Tests

|                              | Value   | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|---------|----|--------------------------|
| Pearson Chi-Square           | a 4.639 | 3  | .200                     |
| Likelihood Ratio             | 5.256   | 3  | .154                     |
| Linear-by-Linear Association | 1.425   | 1  | .233                     |
| N of Valid Cases             | 100     |    |                          |

a. 3 cells (37,5%) have expected count less than 5. The minimum expected count is ,75.

Chi-Square = 4.639, df = 3, p = 0.200

Interpretation: There is no statistically significant association between age and whether parents discuss children's school progress with teachers ( $p > 0.05$ ).

### LEVEL \* PARENT GIVES IMPORTANT TO CHILDREN TO CHILDREN EDUCATION

#### Crosstab Count

|    |       | PARENT GIVES IMPORTANT TO<br>CHILDREN TO CHILDREN EDUCATION |    | Total |
|----|-------|---|----|-------|
|    |       | YES   | NO |       |
| EL | 1 ND  | 20  | 1  | 21    |
|    | 2 ND  | 37  | 0  | 37    |
|    | D1 HN | 23  | 1  | 24    |
|    | D2 HN | 18  | 0  | 18    |
|    | Total | 98  | 2  | 100   |

### Chi-Square Tests

|                              | Value   | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|---------|----|--------------------------|
| Pearson Chi-Square           | a 2.515 | 3  | .473                     |
| Likelihood Ratio             | 3.253   | 3  | .354                     |
| Linear-by-Linear Association | .302    | 1  | .583                     |
| N of Valid Cases             | 100     |    |                          |

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is ,36.

Chi-Square = 2.515, df = 3, p = 0.473

Interpretation: Level of study does not significantly affect whether students perceive their parents value education ( $p > 0.05$ ).

### **LEVEL \* PARENT MOTIVATE THEIR CHILD(REN) TO TRY HARDER WHEN HE/SHE MAKES A POOR GRADE**

**Crosstab**  
Count

|    |       | PARENT MOTIVATE THEIR<br>CHILD(REN) TO TRY HARDER WHEN<br>HE/SHE MAKES A POOR GRADE |    | Total |
|----|-------|---|----|-------|
|    |       | YES   | NO |       |
| EL | 1 ND  | 19  | 2  | 21    |
|    | 2 ND  | 36  | 1  | 37    |
|    | D1 HN | 22  | 2  | 24    |
|    | D2 HN | 17  | 1  | 18    |
|    | Total | 94  | 6  | 100   |

**Chi-Square Tests**



|                              | Value              | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square           | 1.414 <sup>a</sup> | 3  | .702                     |
| Likelihood Ratio             | 1.498              | 3  | .683                     |
| Linear-by-Linear Association | .020               | 1  | .888                     |
| N of Valid Cases             | 100                |    |                          |

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is 1,08.

**Chi-Square = 1.414, df = 3, p = 0.702**

Interpretation: There is no significant association between level and perception of parental motivation ( $p > 0.05$ ).

### **LEVEL \* WHETHER THE PARENT IS LITERATE OR NOT, HAVE IMPACT ON THE CHILD(REN) ACADEMIC PERFORMANCE**

**Crosstab**  
Count

|    |       | WHETHER THE PARENT IS<br>LITERATE OR NOT, HAVE IMPACT ON THE<br>CHILD(REN) ACADEMIC PERFORMANCE |    | Total |
|----|-------|---|----|-------|
|    |       | YES   | NO |       |
| EL | 1 ND  | 19  | 2  | 21    |
|    | 2 ND  | 36  | 1  | 37    |
|    | D1 HN | 22  | 2  | 24    |
|    | D2 HN | 18  | 0  | 18    |
|    | Total | 95  | 5  | 100   |

**Chi-Square Tests**

|                              | Value              | df | Asymp. Sig. (2-sided) |
|------------------------------|--------------------|----|-----------------------|
| Pearson Chi-Square           | 2.825 <sup>a</sup> | 3  | .419                  |
| Likelihood Ratio             | 3.532              | 3  | .317                  |
| Linear-by-Linear Association | .779               | 1  | .378                  |
| N of Valid Cases             | 100                |    |                       |

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is ,90.

**Chi-Square = 2.825, df = 3, p = 0.419**

Interpretation: Perceptions on literacy's impact are not significantly different across academic levels ( $p > 0.05$ ).

#### **LEVEL \* WHEN A CHILD NEEDS HELP IN HOMEWORK, PARENT HELPS**

**Crosstab**  
Count

|     |       | WHEN A CHILD NEEDS HELP IN HOMEWORK, PARENT HELPS |    | Total |
|-----|-------|---|----|-------|
|     |       | YES   | NO |       |
| VEL | 1 ND  | 20  | 1  | 21    |
|     | 2 ND  | 36  | 1  | 37    |
|     | 2 HN  | 24  | 0  | 24    |
|     | D1 HN | 17  | 1  | 18    |
|     | D2    |   |    |       |
|     | Total | 97  | 3  | 100   |

#### **Chi-Square Tests**

|  | Value | df | Asymp. Sig. (2-sided) |
|--|-------|----|-----------------------|
|  | e     |    |                       |

|                              |                |      |   |      |
|------------------------------|----------------|------|---|------|
| Pearson Chi-Square           | 1 <sup>a</sup> | 1.38 | 3 | .710 |
| Likelihood Ratio             | 9              | 1.98 | 3 | .575 |
| Linear-by-Linear Association |                | .010 | 1 | .922 |
| N of Valid Cases             |                | 100  |   |      |

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is ,54.

**Chi-Square = 1.381, df = 3, p = 0.710**

Interpretation: There is no significant difference across levels in how students perceive parental help with homework ( $p > 0.05$ ).

#### **LEVEL \* PARENTS DISCUSS SCHOOL PROGRESS WITH CHILDREN'S TEACHER**

**Crosstab**  
Count

|       |        | PARENTS DISCUSS SCHOOL PROGRESS WITH CHILDREN'S TEACHER |    | Total |
|-------|--------|---|----|-------|
|       |        |   |    |       |
|       |        | YES   | NO |       |
| EL    | ND1    | 17  | 4  | 21    |
|       | ND2    | 24  | 13 | 37    |
|       | LEV HN | 21  | 3  | 24    |
|       | D1 HN  | 13  | 5  | 18    |
|       | D2     |   |    |       |
| Total |        | 75  | 25 | 100   |

**Chi-Square Tests**

|                              | Value              | df | Asymp. Sig.<br>(2-sided) |
|------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square           | 4.498 <sup>a</sup> | 3  | .212                     |
| Likelihood Ratio             | 4.689              | 3  | .196                     |
| Linear-by-Linear Association | .029               | 1  | .864                     |
| N of Valid Cases             | 100                |    |                          |

a. 1 cells (12,5%) have expected count less than 5. The minimum expected count is 4,50.

Chi-Square = 4.498, df = 3, p = 0.212

Interpretation: Academic level does not significantly influence whether parents discuss school progress with teachers ( $p > 0.05$ ).

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary of findings, conclusion, and recommendations based on the statistical analysis conducted on the relationship between demographic factors (gender, age, and level of study) and students' perceptions of parental involvement in their academic life. The analysis employed chi-square tests of independence to examine associations across various dimensions such as parental importance to education, motivation after poor grades, literacy impact, homework assistance, and parent-teacher communication.

## 5.2 Summary of Findings

### *Gender and Parental Involvement*

- There was **no significant relationship** between gender and the perception that parents give importance to education ( $\chi^2 = 0.001, p = 0.977$ ).
- Gender did **not significantly influence** parental motivation after students received poor grades ( $\chi^2 = 0.003, p = 0.960$ ).
- No significant difference was found between male and female responses on whether parental literacy impacts academic performance ( $\chi^2 = 0.171, p = 0.680$ ).
- While males more frequently reported receiving homework help from parents, the difference was **not statistically significant** ( $\chi^2 = 3.219, p = 0.073$ ).
- Gender had no significant effect on whether parents discuss progress with teachers ( $\chi^2 = 3.001, p = 0.083$ ).

### *Age and Parental Involvement*

- Age did not significantly influence students' perception of parental emphasis on education ( $\chi^2 = 2.396, p = 0.494$ ).
- There was **no significant association** between age and parental motivation ( $\chi^2 = 0.382, p = 0.944$ ).
- Students across different age groups held similar views about the impact of parental literacy ( $\chi^2 = 3.814, p = 0.282$ ).
- Age was not significantly associated with receiving help in homework ( $\chi^2 = 0.777, p = 0.855$ ).
- No significant age-based difference was found in whether parents discussed school progress with teachers ( $\chi^2 = 4.639, p = 0.200$ ).

### ***Academic Level and Parental Involvement***

- Level of study did not significantly impact students' perception of how much importance their parents place on education ( $\chi^2 = 2.515, p = 0.473$ ).
- No significant association was found between academic level and parental motivation ( $\chi^2 = 1.414, p = 0.702$ ).
- Perceptions on the impact of parental literacy on academic performance were similar across academic levels ( $\chi^2 = 2.825, p = 0.419$ ).
- Academic level did not significantly affect whether parents helped with homework ( $\chi^2 = 1.381, p = 0.710$ ).
- Students across ND1, ND2, HND1, and HND2 reported similar levels of parental communication with teachers ( $\chi^2 = 4.498, p = 0.212$ ).

### **5.3 Conclusion**

From the findings of the study, it can be concluded that **demographic characteristics** such as gender, age, and academic level **do not significantly influence** students' perceptions of parental involvement in their education. Regardless of these factors, most students reported that their parents value education, provide motivation, offer academic support, and communicate with teachers when necessary. This suggests a broadly consistent pattern of parental involvement across diverse student groups in the sample studied.

### **5.4 Recommendations**

Based on the findings, the following recommendations are made:

1. **Schools should continue to encourage parental involvement**, as it remains vital for academic success, regardless of students' gender or academic level.
2. **Parents should maintain active engagement** in their children's education by providing encouragement, helping with homework, and maintaining communication with teachers.

3. **Educational institutions can organize parental workshops** to strengthen awareness on the importance of their roles in student academic performance.
4. Further studies could be conducted using larger and more diverse samples across different schools and regions to validate these findings.
5. Researchers should consider longitudinal methods in future studies to capture changes in parental involvement over time.

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