**BSCS 22A Second Semester 2024 – 2025**



**PAMBAYANG DALUBHASAAN NG MARILAO**

**STATISTICAL ANALYSIS REPORT on the RESEARCH STUDY:**

**AI Tool Usage and College of Computer Studies Students’**

**Academic Performance**

Earl Ruzzle S. Cruz, Joeremy B. Donato, Auriell A. Esquillo

Angelie Mae V. Largo, Lyka Anne E. Canillo

Vince Leinnard C. Pascua

College of Computer Studies,

Pambayang Dalubhasaan ng Marilao

GEE – PStat

Mrs. Evelyn D. Villalon, LPT, MAEd

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**Introduction**

This research study aims to explore in detail the connection between the usage of Artificial Intelligence (AI) tools and the academic performance of students who are currently enrolled in the College of Computer Studies, recognizing the growing influence of advanced digital technologies in the educational environment and how these tools are becoming an integral part of modern learning, particularly for students pursuing courses that are closely related to computing, programming, and other technology-driven disciplines where AI is not only present but increasingly essential.

In recent years, integrating Artificial Intelligence (AI) tools into educational settings has transformed traditional learning paradigms, particularly within higher education. AI-powered platforms, such as intelligent tutoring systems, adaptive learning environments, and AI-based chatbots, have been increasingly adopted to enhance personalized learning experiences, provide immediate feedback, and improve student engagement (Yao et al., 2022; Ceballos & Hernández, 2023; Zaw et al., 2023).

Studies have demonstrated that using AI tools can lead to improved academic outcomes. For instance, the incorporation of AI-based chatbots in after-class reviews has been shown to bolster students' academic performance, self-efficacy, learning attitudes, and motivation (Yao et al., 2022). Similarly, AI-driven educational tools have been linked to increased student engagement and enhanced learning outcomes in higher education contexts (Ceballos & Hernández, 2023).

However, the adoption of AI in education is not without challenges. Concerns have been raised regarding over-reliance on AI technologies, which may impede the development of critical thinking and problem-solving skills (Zaw et al., 2023). Moreover, the accuracy of AI-generated content and the potential for academic dishonesty are issues that necessitate careful consideration (Ceballos & Hernández, 2023).

Despite the growing body of research on AI in education, there remains a paucity of studies focusing specifically on the impact of AI tool usage on the academic performance of students in computer studies programs. Given the technical proficiency and frequent interaction with AI technologies among these students, it is imperative to investigate how AI tool usage influences their academic outcomes.

This study explores the relationship between AI tool usage and students' academic performance in the College of Computer Studies. By examining students' perceptions, usage patterns, and academic results, the research seeks to provide insights into the benefits and potential drawbacks of AI integration in computer studies education. The findings are expected to inform educators, policymakers, and stakeholders on best practices for incorporating AI tools to enhance learning while mitigating associated risks.

**Statistical Treatment**

**z-test for two Sample Means**

The two-sample z-test is used to determine if there is a significant difference between the means of two independent groups. This test is applicable when the population standard deviations are known and the sample sizes are large. It assumes that the data are normally distributed and that the samples are independent. The z-test is commonly used in cases like comparing two population means or sample means to determine statistical significance (Khan, 2023).

**z-test for two Sample Means Formula:**

**z *=***

**t-test for two dependent Sample Means**

The paired sample t-test (or dependent sample t-test) compares the means of two related groups. This test is typically used when the same subjects are measured at two different times or under two different conditions. It helps assess whether the average difference between paired observations is statistically significant. This method is particularly useful in experimental and longitudinal research (AlmaBetter, 2023).

**t-test for two dependent Sample Means Formula:**

***t =***

**Pearson r**

The Pearson correlation coefficient quantifies the degree to which two continuous variables are linearly related. It ranges from -1 to +1, where +1 indicates a perfect positive correlation, -1 represents a perfect negative correlation, and 0 indicates no linear relationship. This statistic is widely used in research to understand and measure relationships between variables (Sheposh, 2025).

**Pearson r Formula:**

r =

**Correlation and Its Significance**

To determine whether the observed Pearson correlation coefficient is statistically significant, researchers use a t-test. The significance test evaluates if the correlation is significantly different from zero, helping confirm that the relationship is not due to random chance. This test is essential for validating correlations observed in data analysis (Scribbr, n.d.).

**Correlation and Its Significance Formula:**

***t = r***

**ANOVA**

This is a statistical method used to compare the means of three or more independent groups. It assesses whether at least one group mean is significantly different from the others by analyzing the variation within groups and between groups. This technique is widely used in experimental designs where multiple treatments or conditions are being compared (Investopedia, 2023).

**ANOVA Formula:**

GM  = = = *F =*

**Application**

1. **z–test for 2 sample means**

|  |  |  |  |
| --- | --- | --- | --- |
| SAMPLE | Variable | | |
| FOU | APB | APA |
| MALE & FEMALE | 1st | 1st | 1st |
| 2nd | 2nd | 2nd |
| 3rd | 3rd | 3rd |
| 4th | 4th | 4th |
| 1st to 4th | 1st to 4th | 1st to 4th |

1. **t–test for 2 dependent means**

|  |  |  |  |
| --- | --- | --- | --- |
| COMPARED VARIABLE | Sample | | |
| MALE | FEMALE | COMBINED |
| APB  &  APA | 1st | 1st | 1st |
| 2nd | 2nd | 2nd |
| 3rd | 3rd | 3rd |
| 4th | 4th | 4th |
| 1st to 4th | 1st to 4th | 1st to 4th |

1. **Pearson r**

|  |  |  |  |
| --- | --- | --- | --- |
| PAIRED VARIABLE | Sample | | |
| MALE | FEMALE | COMBINED |
| FOU  &  APA | 1st | 1st | 1st |
| 2nd | 2nd | 2nd |
| 3rd | 3rd | 3rd |
| 4th | 4th | 4th |
| 1st to 4th | 1st to 4th | 1st to 4th |

1. **t-test for the significance of correlation**

|  |  |  |  |
| --- | --- | --- | --- |
| PAIRED VARIABLE | Sample | | |
| MALE | FEMALE | COMBINED |
| FOU  &  APA | 1st | 1st | 1st |
| 2nd | 2nd | 2nd |
| 3rd | 3rd | 3rd |
| 4th | 4th | 4th |
| 1st to 4th | 1st to 4th | 1st to 4th |

1. **Regression Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| PAIRED VARIABLE | Sample | | |
| MALE | FEMALE | COMBINED |
| FOU  &  APA | 1st | 1st | 1st |
| 2nd | 2nd | 2nd |
| 3rd | 3rd | 3rd |
| 4th | 4th | 4th |
| 1st to 4th | 1st to 4th | 1st to 4th |

1. **ANOVA**

|  |  |  |  |
| --- | --- | --- | --- |
| COMPARED GROUP | Sample | | |
| FOU | APB | APA |
| 1st – 2nd – 3rd – 4th | Male | Male | Male |
| Female | Female | Female |
| Combined | Combined | Combined |

**Results**

**z-test for Two Sample Means**

|  |  |  |
| --- | --- | --- |
| **I. z – test: FOU 1st Year of Male & Female Students** | | |
| **Respondent No.** | **1st Year** | |
| **Male** | **Female** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 4 |
| 6 | 3 | 3 |
| 7 | 4 | 4 |
| 8 | 4 | 3 |
| 9 | 4 | 3 |
| 10 | 3 | 4 |
| 11 | 3 | 4 |
| 12 | 3 | 4 |
| 13 | 2 | 4 |
| 14 | 4 | 3 |
| 15 | 3 | 3 |
| 16 | 3 | 4 |
| 17 | 4 | 3 |
| 18 | 2 | 4 |
| 19 | 4 | 4 |
| 20 | 4 | 4 |
| 21 | 2 | 3 |
| 22 | 4 | 4 |
| 23 | 4 | 4 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 4 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 3 |

**HYPOTHESES TESTING:**

**z-test for Significance of difference between the FOU of 1st year Male & Female Students**

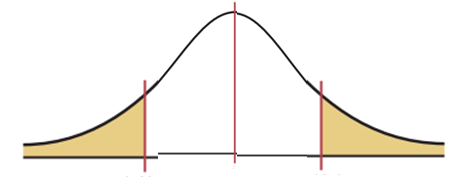
**Step 1: Hypotheses**

**Step 2:**

α = 0.05 ; CV = ±1.96

**Step 3: Computation of test value:**

**= -2.20**

****

TV= -2.20CV= -1.96 CV= +1.96

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in the average frequency of use (FOU) of AI tools between first-year male and female students.

|  |  |  |
| --- | --- | --- |
| **I. z – test: APB 2nd Year of Male & Female Students** | | |
| **Respondent No.** | **2nd Year** | |
| **Male** | **Female** |
| 1 | 4 | 3 |
| 2 | 3 | 4 |
| 3 | 4 | 2 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 4 |
| 7 | 4 | 4 |
| 8 | 4 | 3 |
| 9 | 4 | 4 |
| 10 | 3 | 3 |
| 11 | 4 | 3 |
| 12 | 4 | 4 |
| 13 | 3 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 3 |
| 16 | 3 | 4 |
| 17 | 4 | 3 |
| 18 | 3 | 4 |
| 19 | 4 | 3 |
| 20 | 3 | 2 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 3 | 3 |
| 24 | 4 | 2 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 3 |
| 29 | 3 | 4 |
| 30 | 3 | 4 |

**HYPOTHESES TESTING:**

**z-test for Significance of difference between the APB of 2nd year Male & Female Students**

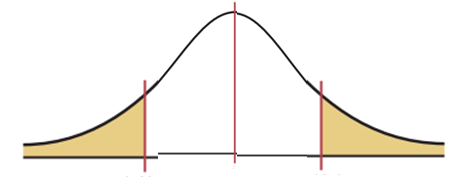
**Step 1: Hypotheses**

**Step 2:**

α = 0.05; CV = ±1.96

**Step 3: Computation of test value:**

**= 1.11**

****

CV= -1.96 TV= 1.11 CV=+1.96

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in the average of academic performance before (APB) use of AI tools between second-year male and female students.

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 3rd Year of Male & Female Students** | | |
| **Respondent No.** | **3rd Year** | |
| **Male** | **Female** |
| 1 | 4 | 3 |
| 2 | 3 | 3 |
| 3 | 3 | 3 |
| 4 | 4 | 3 |
| 5 | 3 | 4 |
| 6 | 3 | 4 |
| 7 | 3 | 3 |
| 8 | 3 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 3 | 4 |
| 12 | 4 | 4 |
| 13 | 4 | 4 |
| 14 | 4 | 2 |
| 15 | 2 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 4 | 3 |
| 19 | 3 | 3 |
| 20 | 4 | 4 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 4 |

**HYPOTHESES TESTING:**

**z-test for Significance of difference between the APA of 3rd year Male & Female Students**

**Step 1: Hypotheses**

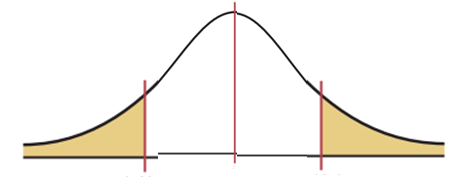
2

**Step 2:**

α = 0.05; CV = ±1.96

**Step 3: Computation of test value:**

**= -0.21**

****

CV= -1.96 TV= -0.21 CV= +1.96

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in the average of academic performance after (APA) use of AI tools between third-year male and female students.

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 4th Year of Male & Female Students** | | |
| **Respondent No.** | **4th Year** | |
| **Male** | **Female** |
| 1 | 4 | 4 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 2 | 3 |
| 7 | 4 | 4 |
| 8 | 3 | 4 |
| 9 | 2 | 4 |
| 10 | 3 | 3 |
| 11 | 4 | 4 |
| 12 | 3 | 4 |
| 13 | 3 | 3 |
| 14 | 4 | 4 |
| 15 | 2 | 3 |
| 16 | 3 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 3 |
| 19 | 3 | 4 |
| 20 | 3 | 3 |
| 21 | 4 | 4 |
| 22 | 2 | 4 |
| 23 | 3 | 3 |
| 24 | 3 | 4 |
| 25 | 3 | 4 |
| 26 | 4 | 4 |
| 27 | 3 | 4 |
| 28 | 3 | 4 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |

**HYPOTHESES TESTING:**

**z-test for Significance of difference between the APA of 4th year Male & Female Students**

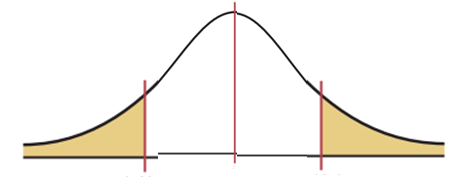
**Step 1: Hypotheses**

**Step 2:**

α = 0.05; CV = ±1.96

**Step 3: Computation of test value:**

**= -2.88**

****

TV= -2.88 CV= -1.96 CV= +1.96

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in the average of academic performance after (APA) use of AI tools between third-year male and female students.

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 1st-4th Year of Male & Female Students** | | |
| **Respondent No.** | **1st – 4th Year** | |
| **Male** | **Female** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 3 | 4 |
| 6 | 3 | 2 |
| 7 | 3 | 4 |
| 8 | 4 | 3 |
| 9 | 3 | 2 |
| 10 | 3 | 3 |
| 11 | 4 | 4 |
| 12 | 3 | 3 |
| 13 | 4 | 3 |
| 14 | 4 | 4 |
| 15 | 4 | 2 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 3 |
| 19 | 4 | 3 |
| 20 | 3 | 3 |
| 21 | 4 | 4 |
| 22 | 4 | 2 |
| 23 | 3 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 3 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 4 | 3 |

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 1st-4th Year of Male & Female Students** | | |
| **Respondent No.** | **1st – 4th Year** | |
| **Male** | **Female** |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 3 | 2 |
| 34 | 3 | 4 |
| 35 | 4 | 3 |
| 36 | 4 | 4 |
| 37 | 3 | 4 |
| 38 | 4 | 3 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 4 | 4 |
| 42 | 4 | 3 |
| 43 | 4 | 4 |
| 44 | 2 | 4 |
| 45 | 4 | 4 |
| 46 | 4 | 4 |
| 47 | 4 | 4 |
| 48 | 3 | 4 |
| 49 | 3 | 4 |
| 50 | 4 | 4 |
| 51 | 4 | 3 |
| 52 | 4 | 3 |
| 53 | 3 | 3 |
| 54 | 4 | 2 |
| 55 | 4 | 4 |
| 56 | 4 | 2 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 3 | 4 |
| 60 | 4 | 4 |

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 1st-4th Year of Male & Female Students** | | |
| **Respondent No.** | **1st – 4th Year** | |
| **Male** | **Female** |
| 61 | 4 | 3 |
| 62 | 3 | 3 |
| 63 | 3 | 3 |
| 64 | 4 | 3 |
| 65 | 3 | 4 |
| 66 | 3 | 4 |
| 67 | 3 | 3 |
| 68 | 3 | 4 |
| 69 | 4 | 4 |
| 70 | 4 | 4 |
| 71 | 3 | 4 |
| 72 | 4 | 4 |
| 73 | 4 | 4 |
| 74 | 4 | 2 |
| 75 | 2 | 4 |
| 76 | 3 | 4 |
| 77 | 4 | 4 |
| 78 | 4 | 3 |
| 79 | 3 | 3 |
| 80 | 4 | 4 |
| 81 | 4 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 3 |
| 84 | 4 | 4 |
| 85 | 4 | 4 |
| 86 | 4 | 4 |
| 87 | 4 | 4 |
| 88 | 4 | 4 |
| 89 | 3 | 3 |
| 90 | 4 | 4 |

|  |  |  |
| --- | --- | --- |
| **I. z – test: APA 1st-4th Year of Male & Female Students** | | |
| **Respondent No.** | **1st – 4th Year** | |
| **Male** | **Female** |
| 91 | 4 | 4 |
| 92 | 4 | 3 |
| 93 | 3 | 4 |
| 94 | 3 | 3 |
| 95 | 4 | 4 |
| 96 | 2 | 3 |
| 97 | 4 | 4 |
| 98 | 3 | 4 |
| 99 | 2 | 4 |
| 100 | 3 | 3 |
| 101 | 4 | 4 |
| 102 | 3 | 4 |
| 103 | 3 | 3 |
| 104 | 4 | 4 |
| 105 | 2 | 3 |
| 106 | 3 | 3 |
| 107 | 4 | 4 |
| 108 | 3 | 3 |
| 109 | 3 | 4 |
| 110 | 3 | 3 |
| 111 | 4 | 4 |
| 112 | 2 | 4 |
| 113 | 3 | 3 |
| 114 | 3 | 4 |
| 115 | 3 | 4 |
| 116 | 4 | 4 |
| 117 | 3 | 4 |
| 118 | 3 | 4 |
| 119 | 3 | 3 |
| 120 | 3 | 3 |

**HYPOTHESES TESTING:**

**z-test for Significance of difference between the APA of 1st – 4th year Male & Female Students**

**Step 1: Hypotheses**

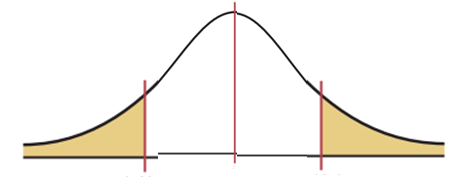
2

**Step 2:**

α = 0.05; CV = ±1.96

**Step 3: Computation of test value:**

**= -0.13**

****

CV= -1.96 TV= -0.13 CV= +1.96

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in the average of academic performance after (APA) use of AI tools between third-year male and female students.

**t-test for Two Dependent Sample Means**

| **II. t-test for Two Dependent Sample Means: Academic Performance Before & After Use of AI Tools of Third Year Male** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **Third Year Male** | | | |
| **APB** | **APA** | ***D*** | ***D2*** |
| 1 | 3 | 4 | 1 | 1 |
| 2 | 4 | 3 | -1 | 1 |
| 3 | 3 | 3 | 0 | 0 |
| 4 | 4 | 4 | 0 | 0 |
| 5 | 3 | 3 | 0 | 0 |
| 6 | 3 | 3 | 0 | 0 |
| 7 | 3 | 3 | 0 | 0 |
| 8 | 4 | 3 | -1 | 1 |
| 9 | 3 | 4 | 1 | 1 |
| 10 | 4 | 4 | 0 | 0 |
| 11 | 3 | 3 | 0 | 0 |
| 12 | 4 | 4 | 0 | 0 |
| 13 | 3 | 4 | 1 | 1 |
| 14 | 4 | 4 | 0 | 0 |
| 15 | 3 | 2 | -1 | 1 |
| 16 | 2 | 3 | 1 | 1 |
| 17 | 2 | 4 | 2 | 4 |
| 18 | 4 | 4 | 0 | 0 |
| 19 | 4 | 3 | -1 | 1 |
| 20 | 4 | 4 | 0 | 0 |
| 21 | 2 | 4 | 2 | 4 |
| 22 | 4 | 4 | 0 | 0 |
| 23 | 3 | 4 | 1 | 1 |
| 24 | 2 | 4 | 2 | 4 |
| 25 | 4 | 4 | 0 | 0 |
| 26 | 4 | 4 | 0 | 0 |
| 27 | 4 | 4 | 0 | 0 |
| 28 | 4 | 4 | 0 | 0 |
| 29 | 2 | 3 | 1 | 1 |
| 30 | 4 | 4 | 0 | 0 |
|  |  | | ∑D= 8 | ∑D^2= 22 |

**HYPOTHESES TESTING:**

**t-test for Dependent Sample Means: APB & APA – Male 3rd Year Students**

**Step 1: Hypotheses**

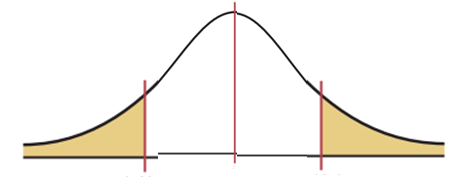
**Step 2:**

● α = 0.05 df = 30-1= 29 CV = ±2.045

**Step 3: Computation of test value:**

**=**

**TV = 1.765**

****

CV= -2.045 TV= 1.765 CV= +2.045

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in academic performance before (APB) and academic performance after (APA) use of AI tools among third-year male students.

| **II. t-test for Two Dependent Sample Means: Academic Performance Before & After Use of AI Tools of Fourth Year Male** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **Fourth Year Male** | | | |
| **APB** | **APA** | ***D*** | ***D2*** |
| 1 | 4 | 4 | 0 | 0 |
| 2 | 3 | 4 | 1 | 1 |
| 3 | 2 | 3 | 1 | 1 |
| 4 | 3 | 3 | 0 | 0 |
| 5 | 4 | 4 | 0 | 0 |
| 6 | 4 | 2 | -2 | 4 |
| 7 | 4 | 4 | 0 | 0 |
| 8 | 3 | 3 | 0 | 0 |
| 9 | 4 | 2 | -2 | 4 |
| 10 | 4 | 3 | -1 | 1 |
| 11 | 3 | 4 | 1 | 1 |
| 12 | 4 | 3 | -1 | 1 |
| 13 | 4 | 3 | -1 | 1 |
| 14 | 3 | 4 | 1 | 1 |
| 15 | 4 | 2 | -2 | 4 |
| 16 | 4 | 3 | -1 | 1 |
| 17 | 3 | 4 | 1 | 1 |
| 18 | 3 | 3 | 0 | 0 |
| 19 | 3 | 3 | 0 | 0 |
| 20 | 3 | 3 | 0 | 0 |
| 21 | 4 | 4 | 0 | 0 |
| 22 | 3 | 2 | -1 | 1 |
| 23 | 3 | 3 | 0 | 0 |
| 24 | 3 | 3 | 0 | 0 |
| 25 | 4 | 3 | -1 | 1 |
| 26 | 2 | 4 | 2 | 4 |
| 27 | 4 | 3 | -1 | 1 |
| 28 | 3 | 3 | 0 | 0 |
| 29 | 3 | 3 | 0 | 0 |
| 30 | 3 | 3 | 0 | 0 |
|  |  | | ∑D= -6 | ∑D^2= 28 |

**HYPOTHESES TESTING:**

**t-test for Dependent Sample Means: APB & APA – Male 4th Year Students**

**Step 1: Hypotheses**

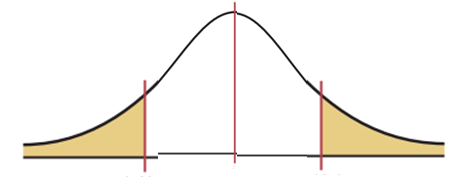
**Step 2:**

● α = 0.05 df = 30-1= 29 CV = ±2.045

**Step 3: Computation of test value:**

**=**

**TV = -1.140**

****

CV= -2.045 TV= -1.140 CV= +2.045

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in academic performance before (APB) and academic performance after (APA) use of AI tools among fourth-year male students.

| **II. t-test for Two Dependent Sample Means: Academic Performance Before & After Use of AI Tools of First to Fourth Year Male** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **First to Fourth Year Male** | | | |
| **APB** | **APA** | ***D*** | ***D2*** |
| 1 | 3 | 3 | 0 | 0 |
| 2 | 3 | 3 | 0 | 0 |
| 3 | 4 | 4 | 0 | 0 |
| 4 | 3 | 4 | 1 | 1 |
| 5 | 4 | 3 | -1 | 1 |
| 6 | 3 | 3 | 0 | 0 |
| 7 | 4 | 3 | -1 | 1 |
| 8 | 4 | 4 | 0 | 0 |
| 9 | 4 | 3 | -1 | 1 |
| 10 | 3 | 3 | 0 | 0 |
| 11 | 4 | 4 | 0 | 0 |
| 12 | 3 | 3 | 0 | 0 |
| 13 | 4 | 4 | 0 | 0 |
| 14 | 4 | 4 | 0 | 0 |
| 15 | 3 | 4 | 1 | 1 |
| 16 | 1 | 4 | 3 | 9 |
| 17 | 4 | 4 | 0 | 0 |
| 18 | 3 | 3 | 0 | 0 |
| 19 | 4 | 4 | 0 | 0 |
| 20 | 4 | 3 | -1 | 1 |
| 21 | 4 | 4 | 0 | 0 |
| 22 | 4 | 4 | 0 | 0 |
| 23 | 4 | 3 | -1 | 1 |
| 24 | 4 | 3 | -1 | 1 |
| 25 | 4 | 4 | 0 | 0 |
| 26 | 4 | 3 | -1 | 1 |
| 27 | 3 | 4 | 1 | 1 |
| 28 | 4 | 4 | 0 | 0 |
| 29 | 3 | 3 | 0 | 0 |
| 30 | 3 | 4 | 1 | 1 |
| 31 | 4 | 3 | -1 | 1 |
| 32 | 3 | 3 | 0 | 0 |
| 33 | 4 | 3 | -1 | 1 |
| 34 | 3 | 3 | 0 | 0 |
| 35 | 4 | 4 | 0 | 0 |
| 36 | 3 | 4 | 1 | 1 |
| 37 | 4 | 3 | -1 | 1 |
| 38 | 4 | 4 | 0 | 0 |
| 39 | 4 | 4 | 0 | 0 |
| 40 | 3 | 4 | 1 | 1 |
| 41 | 4 | 4 | 0 | 0 |
| 42 | 4 | 4 | 0 | 0 |
| 43 | 3 | 4 | 1 | 1 |
| 44 | 4 | 2 | -2 | 4 |
| 45 | 3 | 4 | 1 | 1 |
| 46 | 3 | 4 | 1 | 1 |
| 47 | 4 | 4 | 0 | 0 |
| 48 | 3 | 3 | 0 | 0 |
| 49 | 4 | 3 | -1 | 1 |
| 50 | 3 | 4 | 1 | 1 |
| 51 | 4 | 4 | 0 | 0 |
| 52 | 4 | 4 | 0 | 0 |
| 53 | 3 | 3 | 0 | 0 |
| 54 | 4 | 4 | 0 | 0 |
| 55 | 4 | 4 | 0 | 0 |
| 56 | 4 | 4 | 0 | 0 |
| 57 | 4 | 4 | 0 | 0 |
| 58 | 4 | 4 | 0 | 0 |
| 59 | 3 | 3 | 0 | 0 |
| 60 | 3 | 4 | 1 | 1 |
| 61 | 3 | 4 | 1 | 1 |
| 62 | 4 | 3 | -1 | 1 |
| 63 | 3 | 3 | 0 | 0 |
| 64 | 4 | 4 | 0 | 0 |
| 65 | 3 | 3 | 0 | 0 |
| 66 | 3 | 3 | 0 | 0 |
| 67 | 3 | 3 | 0 | 0 |
| 68 | 4 | 3 | -1 | 1 |
| 69 | 3 | 4 | 1 | 1 |
| 70 | 4 | 4 | 0 | 0 |
| 71 | 3 | 3 | 0 | 0 |
| 72 | 4 | 4 | 0 | 0 |
| 73 | 3 | 4 | 1 | 1 |
| 74 | 4 | 4 | 0 | 0 |
| 75 | 3 | 2 | -1 | 1 |
| 76 | 2 | 3 | 1 | 1 |
| 77 | 2 | 4 | 2 | 4 |
| 78 | 4 | 4 | 0 | 0 |
| 79 | 4 | 3 | -1 | 1 |
| 80 | 4 | 4 | 0 | 0 |
| 81 | 2 | 4 | 2 | 4 |
| 82 | 4 | 4 | 0 | 0 |
| 83 | 3 | 4 | 1 | 1 |
| 84 | 2 | 4 | 2 | 4 |
| 85 | 4 | 4 | 0 | 0 |
| 86 | 4 | 4 | 0 | 0 |
| 87 | 4 | 4 | 0 | 0 |
| 88 | 4 | 4 | 0 | 0 |
| 89 | 2 | 3 | 1 | 1 |
| 90 | 4 | 4 | 0 | 0 |
| 91 | 4 | 4 | 0 | 0 |
| 92 | 3 | 4 | 1 | 1 |
| 93 | 2 | 3 | 1 | 1 |
| 94 | 3 | 3 | 0 | 0 |
| 95 | 4 | 4 | 0 | 0 |
| 96 | 4 | 2 | -2 | 4 |
| 97 | 4 | 4 | 0 | 0 |
| 98 | 3 | 3 | 0 | 0 |
| 99 | 4 | 2 | -2 | 4 |
| 100 | 4 | 3 | -1 | 1 |
| 101 | 3 | 4 | 1 | 1 |
| 102 | 4 | 3 | -1 | 1 |
| 103 | 4 | 3 | -1 | 1 |
| 104 | 3 | 4 | 1 | 1 |
| 105 | 4 | 2 | -2 | 4 |
| 106 | 4 | 3 | -1 | 1 |
| 107 | 3 | 4 | 1 | 1 |
| 108 | 3 | 3 | 0 | 0 |
| 109 | 3 | 3 | 0 | 0 |
| 110 | 3 | 3 | 0 | 0 |
| 111 | 4 | 4 | 0 | 0 |
| 112 | 3 | 2 | -1 | 1 |
| 113 | 3 | 3 | 0 | 0 |
| 114 | 3 | 3 | 0 | 0 |
| 115 | 4 | 3 | -1 | 1 |
| 116 | 2 | 4 | 2 | 4 |
| 117 | 4 | 3 | -1 | 1 |
| 118 | 3 | 3 | 0 | 0 |
| 119 | 3 | 3 | 0 | 0 |
| 120 | 3 | 3 | 0 | 0 |
|  |  | | ∑D= 3 | ∑D^2= 85 |

**HYPOTHESES TESTING:**

**t-test for Dependent Sample Means: APB & APA – Male 1st – 4th Year Students**

**Step 1: Hypotheses**

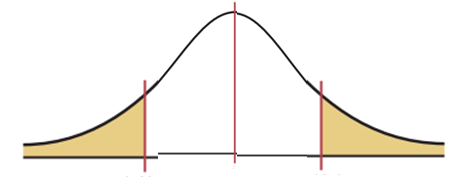
**Step 2:**

● α = 0.05 df = 120-1= 119 CV = ±1.980

**Step 3: Computation of test value:**

**=**

**TV = 0.323**

****

CV= -1.980 TV= 0.323 CV= +1.980

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in academic performance before (APB) and academic performance after (APA) use of AI tools among first-year to fourth-year male students.

| **II. t-test for Two Dependent Sample Means: Academic Performance Before & After Use of AI Tools of Second Year Female** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **Second Year Female** | | | |
| **APB** | **APA** | ***D*** | ***D2*** |
| 1 | 3 | 4 | 1 | 1 |
| 2 | 4 | 4 | 0 | 0 |
| 3 | 2 | 2 | 0 | 0 |
| 4 | 4 | 4 | 0 | 0 |
| 5 | 3 | 3 | 0 | 0 |
| 6 | 4 | 4 | 0 | 0 |
| 7 | 4 | 4 | 0 | 0 |
| 8 | 3 | 3 | 0 | 0 |
| 9 | 4 | 4 | 0 | 0 |
| 10 | 3 | 4 | 1 | 1 |
| 11 | 3 | 4 | 1 | 1 |
| 12 | 4 | 3 | -1 | 1 |
| 13 | 4 | 4 | 0 | 0 |
| 14 | 4 | 4 | 0 | 0 |
| 15 | 3 | 4 | 1 | 1 |
| 16 | 4 | 4 | 0 | 0 |
| 17 | 3 | 4 | 1 | 1 |
| 18 | 4 | 4 | 0 | 0 |
| 19 | 3 | 4 | 1 | 1 |
| 20 | 2 | 4 | 2 | 4 |
| 21 | 4 | 3 | -1 | 1 |
| 22 | 4 | 3 | -1 | 1 |
| 23 | 3 | 3 | 0 | 0 |
| 24 | 2 | 2 | 0 | 0 |
| 25 | 3 | 4 | 1 | 1 |
| 26 | 4 | 2 | -2 | 4 |
| 27 | 4 | 4 | 0 | 0 |
| 28 | 3 | 4 | 1 | 1 |
| 29 | 4 | 4 | 0 | 0 |
| 30 | 4 | 4 | 0 | 0 |
|  |  | | ∑D= 5 | ∑D^2= 19 |

**HYPOTHESES TESTING:**

**t-test for Dependent Sample Means: APB & APA – Female 2nd Year Students**

**Step 1: Hypotheses**

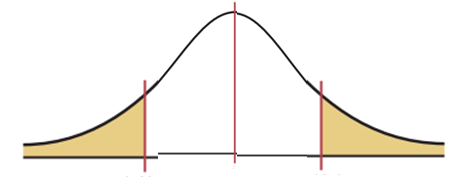
**Step 2:**

● α = 0.05 df = 30-1= 29 CV = ±2.045

**Step 3: Computation of test value:**

**=**

**TV = 1.153**

****

CV= -2.045 TV= 1.153 CV= +2.045

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in academic performance before (APB) and academic performance after (APA) use of AI tools among second-year female students.

| **II. t-test for Two Dependent Sample Means: Academic Performance Before & After Use of AI Tools of First Year Male and Female** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **First Year Male and Female** | | | |
| **APB** | **APA** | ***D*** | ***D2*** |
| 1 | 3 | 3 | 0 | 0 |
| 2 | 3 | 3 | 0 | 0 |
| 3 | 4 | 4 | 0 | 0 |
| 4 | 3 | 4 | 1 | 1 |
| 5 | 4 | 3 | -1 | 1 |
| 6 | 3 | 3 | 0 | 0 |
| 7 | 4 | 3 | -1 | 1 |
| 8 | 4 | 4 | 0 | 0 |
| 9 | 4 | 3 | -1 | 1 |
| 10 | 3 | 3 | 0 | 0 |
| 11 | 4 | 4 | 0 | 0 |
| 12 | 3 | 3 | 0 | 0 |
| 13 | 4 | 4 | 0 | 0 |
| 14 | 4 | 4 | 0 | 0 |
| 15 | 3 | 4 | 1 | 1 |
| 16 | 1 | 4 | 3 | 9 |
| 17 | 4 | 4 | 0 | 0 |
| 18 | 3 | 3 | 0 | 0 |
| 19 | 4 | 4 | 0 | 0 |
| 20 | 4 | 3 | -1 | 1 |
| 21 | 4 | 4 | 0 | 0 |
| 22 | 4 | 4 | 0 | 0 |
| 23 | 4 | 3 | -1 | 1 |
| 24 | 4 | 3 | -1 | 1 |
| 25 | 4 | 4 | 0 | 0 |
| 26 | 4 | 3 | -1 | 1 |
| 27 | 3 | 4 | 1 | 1 |
| 28 | 4 | 4 | 0 | 0 |
| 29 | 3 | 3 | 0 | 0 |
| 30 | 3 | 4 | 1 | 1 |
| 31 | 4 | 4 | 0 | 0 |
| 32 | 3 | 4 | 1 | 1 |
| 33 | 2 | 3 | 1 | 1 |
| 34 | 3 | 3 | 0 | 0 |
| 35 | 4 | 4 | 0 | 0 |
| 36 | 4 | 2 | -2 | 4 |
| 37 | 4 | 4 | 0 | 0 |
| 38 | 3 | 3 | 0 | 0 |
| 39 | 4 | 2 | -2 | 4 |
| 40 | 4 | 3 | -1 | 1 |
| 41 | 3 | 4 | 1 | 1 |
| 42 | 4 | 3 | -1 | 1 |
| 43 | 4 | 3 | -1 | 1 |
| 44 | 3 | 4 | 1 | 1 |
| 45 | 4 | 2 | -2 | 4 |
| 46 | 4 | 3 | -1 | 1 |
| 47 | 3 | 4 | 1 | 1 |
| 48 | 3 | 3 | 0 | 0 |
| 49 | 3 | 3 | 0 | 0 |
| 50 | 3 | 3 | 0 | 0 |
| 51 | 4 | 4 | 0 | 0 |
| 52 | 3 | 2 | -1 | 1 |
| 53 | 3 | 3 | 0 | 0 |
| 54 | 3 | 3 | 0 | 0 |
| 55 | 4 | 3 | -1 | 1 |
| 56 | 2 | 4 | 2 | 4 |
| 57 | 4 | 3 | -1 | 1 |
| 58 | 3 | 3 | 0 | 0 |
| 59 | 3 | 3 | 0 | 0 |
| 60 | 3 | 3 | 0 | 0 |
|  |  | | ∑D= -6 | ∑D^2= 48 |

**HYPOTHESES TESTING:**

**t-test for Dependent Sample Means: APB & APA – Male and Female 1st Year Students**

**Step 1: Hypotheses**

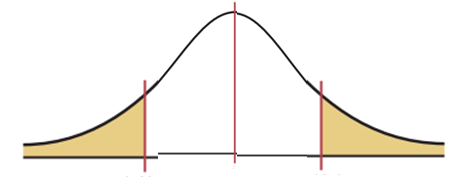
**Step 2:**

● α = 0.05 df = 60-1= 59 CV = ±2.001

**Step 3: Computation of test value:**

**=**

**TV = -0.864**

****

CV= -2.001 TV= -0.864 CV= +2.001

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in academic performance before (APB) and academic performance after (APA) use of AI tools among first-year male and female students.

**Correlation & Hypothesis Testing**

| **III. CORRELATION: FOU & APA – Male 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |

r = -0.240 (Low negative relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male 1st Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male students.

**Step 2:**

= 0.05 df = n – 2 = 30-2= 28 CV = ±2.048

**Step 3: Computation of test value:**

***t = r =***

= **-1.915**

****

****

CV= -2.048 TV= -1.915 CV= +2.048

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male students.

| **III. CORRELATION: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 2 | 3 |
| 32 | 3 | 3 |
| 33 | 2 | 3 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 4 |
| 37 | 4 | 3 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 2 | 4 |
| 42 | 3 | 4 |

| **III. CORRELATION: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 43 | 2 | 4 |
| 44 | 4 | 2 |
| 45 | 3 | 4 |
| 46 | 4 | 4 |
| 47 | 4 | 4 |
| 48 | 2 | 3 |
| 49 | 3 | 3 |
| 50 | 4 | 4 |
| 51 | 2 | 4 |
| 52 | 4 | 4 |
| 53 | 4 | 3 |
| 54 | 3 | 4 |
| 55 | 2 | 4 |
| 56 | 4 | 4 |
| 57 | 2 | 4 |
| 58 | 4 | 4 |
| 59 | 2 | 3 |
| 60 | 2 | 4 |
| 61 | 3 | 4 |
| 62 | 3 | 3 |
| 63 | 3 | 3 |
| 64 | 4 | 4 |
| 65 | 4 | 3 |
| 66 | 2 | 3 |
| 67 | 3 | 3 |
| 68 | 3 | 3 |
| 69 | 3 | 4 |
| 70 | 4 | 4 |
| 71 | 4 | 3 |
| 72 | 4 | 4 |
| 73 | 4 | 4 |
| 74 | 4 | 4 |
| 75 | 4 | 2 |
| 76 | 4 | 3 |
| 77 | 4 | 4 |
| 78 | 3 | 4 |
| 79 | 3 | 3 |
| 80 | 3 | 4 |
| 81 | 4 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 4 |
| 84 | 4 | 4 |
| 85 | 4 | 4 |
| 86 | 4 | 4 |

| **III. CORRELATION: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 87 | 4 | 4 |
| 88 | 4 | 4 |
| 89 | 3 | 3 |
| 90 | 4 | 4 |
| 91 | 3 | 4 |
| 92 | 3 | 4 |
| 93 | 4 | 3 |
| 94 | 4 | 3 |
| 95 | 4 | 4 |
| 96 | 3 | 2 |
| 97 | 4 | 4 |
| 98 | 3 | 3 |
| 99 | 3 | 2 |
| 100 | 4 | 3 |
| 101 | 4 | 4 |
| 102 | 4 | 3 |
| 103 | 4 | 3 |
| 104 | 3 | 4 |
| 105 | 3 | 2 |
| 106 | 4 | 3 |
| 107 | 3 | 4 |
| 108 | 4 | 3 |
| 109 | 4 | 3 |
| 110 | 4 | 3 |
| 111 | 3 | 4 |
| 112 | 4 | 2 |
| 113 | 4 | 3 |
| 114 | 3 | 3 |
| 115 | 4 | 3 |
| 116 | 4 | 4 |
| 117 | 4 | 3 |
| 118 | 4 | 3 |
| 119 | 3 | 3 |
| 120 | 3 | 3 |

r = -0.024 (Very low negative relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male 1st to 4th Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male students.

**Step 2:**

= 0.05 df = n – 2 = 120-2= 118 CV = ±1.980

**Step 3: Computation of test value:**

***t = r = -***

= -0.372

****

****

CV= -1.980 TV= -0.372 CV= +1.980

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male students.

| **III. CORRELATION: FOU & APA – Female 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 2nd Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 2 | 2 |
| 4 | 4 | 4 |
| 5 | 3 | 3 |
| 6 | 3 | 4 |
| 7 | 4 | 4 |
| 8 | 4 | 3 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 4 | 4 |
| 12 | 3 | 3 |
| 13 | 4 | 4 |
| 14 | 4 | 4 |
| 15 | 4 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 3 | 4 |
| 19 | 4 | 4 |
| 20 | 4 | 4 |
| 21 | 4 | 3 |
| 22 | 4 | 3 |
| 23 | 3 | 3 |
| 24 | 4 | 2 |
| 25 | 3 | 4 |
| 26 | 4 | 2 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 4 | 4 |
| 30 | 4 | 4 |

r = 0.239 (Low positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Female 2nd Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year female students.

**Step 2:**

= 0.05 df = n – 2 = 30-2= 28 CV = ±2.048

**Step 3: Computation of test value:**

***t = r =***

=**1.907**

****

****

CV= -2.048 TV= 1.907 CV= +2.048

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year female students.

| **III. CORRELATION: FOU & APA – Female 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 4 | 3 |
| 7 | 3 | 4 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 4 |
| 13 | 4 | 3 |
| 14 | 2 | 4 |
| 15 | 4 | 3 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 3 |
| 19 | 3 | 4 |
| 20 | 4 | 3 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 3 | 3 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 3 |

r = 0.075 (Very low positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Female 4th Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year female students.

**Step 2:**

= 0.05 df = n – 2 = 30-2= 28 CV = ±2.048

**Step 3: Computation of test value:**

***t = r***

= **0.583**

****

****

CV= -2.048 TV= 0.583 CV= +2.048

**Step 4: Decision:**

Do not Reject Ho.

**Step 5: Conclusion:**

There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year female students.

| **III. CORRELATION: FOU & APA – Male and Female 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 4 | 3 |
| 34 | 4 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 2 |
| 37 | 4 | 4 |
| 38 | 3 | 3 |
| 39 | 3 | 2 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |
| 42 | 4 | 3 |

| **III. CORRELATION: FOU & APA – Male and Female 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st Year** | |
| **FOU** | **APA** |
| 43 | 4 | 3 |
| 44 | 3 | 4 |
| 45 | 3 | 2 |
| 46 | 4 | 3 |
| 47 | 3 | 4 |
| 48 | 4 | 3 |
| 49 | 4 | 3 |
| 50 | 4 | 3 |
| 51 | 3 | 4 |
| 52 | 4 | 2 |
| 53 | 4 | 3 |
| 54 | 3 | 3 |
| 55 | 4 | 3 |
| 56 | 4 | 4 |
| 57 | 4 | 3 |
| 58 | 4 | 3 |
| 59 | 3 | 3 |
| 60 | 3 | 3 |

r = 0.949 (Very strong positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male and Female 1st Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male and female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male and female students.

**Step 2:**

= 0.05 df = n – 2 = 60-2= 58 CV = ±2.002

**Step 3: Computation of test value:**

***t = r =***

= 32.974

****

****

CV= -2.002 CV= +2.002 TV= 32.974

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year male and female students.

| **III. CORRELATION: FOU & APA – Male and Female 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 2nd Year** | |
| **FOU** | **APA** |
| 1 | 2 | 3 |
| 2 | 3 | 3 |
| 3 | 2 | 3 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 4 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 2 | 4 |
| 12 | 3 | 4 |
| 13 | 2 | 4 |
| 14 | 4 | 2 |
| 15 | 3 | 4 |
| 16 | 4 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 3 | 3 |
| 20 | 4 | 4 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 4 |
| 25 | 2 | 4 |
| 26 | 4 | 4 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 2 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 2 | 2 |
| 34 | 4 | 4 |
| 35 | 3 | 3 |
| 36 | 3 | 4 |
| 37 | 4 | 4 |
| 38 | 4 | 3 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 4 | 4 |
| 42 | 3 | 3 |

| **III. CORRELATION: FOU & APA – Male and Female 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 2nd Year** | |
| **FOU** | **APA** |
| 43 | 4 | 4 |
| 44 | 4 | 4 |
| 45 | 4 | 4 |
| 46 | 3 | 4 |
| 47 | 4 | 4 |
| 48 | 3 | 4 |
| 49 | 4 | 4 |
| 50 | 4 | 4 |
| 51 | 4 | 3 |
| 52 | 4 | 3 |
| 53 | 3 | 3 |
| 54 | 4 | 2 |
| 55 | 3 | 4 |
| 56 | 4 | 2 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 4 | 4 |
| 60 | 4 | 4 |

r = 0.958 (Very strong positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male and Female 2nd Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year male and female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year male and female students.

**Step 2:**

= 0.05 df = n – 2 = 60-2= 58 CV = ±2.002

**Step 3: Computation of test value:**

***t = r =***

= 36.959

****

****

CV= -2.002 CV= +2.002 TV= 36.959

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among second-year male and female students.

| **III. CORRELATION: FOU & APA – Male and Female 3rd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 3rd Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 3 |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
| 5 | 4 | 3 |
| 6 | 2 | 3 |
| 7 | 3 | 3 |
| 8 | 3 | 3 |
| 9 | 3 | 4 |
| 10 | 4 | 4 |
| 11 | 4 | 3 |
| 12 | 4 | 4 |
| 13 | 4 | 4 |
| 14 | 4 | 4 |
| 15 | 4 | 2 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 4 |
| 19 | 3 | 3 |
| 20 | 3 | 4 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 4 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 4 |
| 31 | 2 | 3 |
| 32 | 3 | 3 |
| 33 | 2 | 3 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 4 |
| 37 | 4 | 3 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 2 | 4 |
| 42 | 3 | 4 |

| **III. CORRELATION: FOU & APA – Male and Female 3rd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 3rd Year** | |
| **FOU** | **APA** |
| 43 | 2 | 4 |
| 44 | 4 | 2 |
| 45 | 3 | 4 |
| 46 | 4 | 4 |
| 47 | 4 | 4 |
| 48 | 2 | 3 |
| 49 | 3 | 3 |
| 50 | 4 | 4 |
| 51 | 2 | 4 |
| 52 | 4 | 4 |
| 53 | 4 | 3 |
| 54 | 3 | 4 |
| 55 | 2 | 4 |
| 56 | 4 | 4 |
| 57 | 2 | 4 |
| 58 | 4 | 4 |
| 59 | 2 | 3 |
| 60 | 2 | 4 |

r = 0.959 (Very strong positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male and Female 3rd Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among third-year male and female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among third-year male and female students.

**Step 2:**

= 0.05 df = n – 2 = 60-2= 58 CV = ±2.002

**Step 3: Computation of test value:**

***t = r =***

= 37.068

****

****

CV= -2.002 CV= +2.002 TV= 37.068

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among third-year male and female students.

| **III. CORRELATION: FOU & APA – Male and Female 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 2 |
| 7 | 4 | 4 |
| 8 | 3 | 3 |
| 9 | 3 | 2 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 3 |
| 13 | 4 | 3 |
| 14 | 3 | 4 |
| 15 | 3 | 2 |
| 16 | 4 | 3 |
| 17 | 3 | 4 |
| 18 | 4 | 3 |
| 19 | 4 | 3 |
| 20 | 4 | 3 |
| 21 | 3 | 4 |
| 22 | 4 | 2 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |
| 31 | 3 | 4 |
| 32 | 3 | 3 |
| 33 | 3 | 4 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 4 | 3 |
| 37 | 3 | 4 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |
| 42 | 4 | 4 |

| **III. CORRELATION: FOU & APA – Male and Female 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 4th Year** | |
| **FOU** | **APA** |
| 43 | 4 | 3 |
| 44 | 2 | 4 |
| 45 | 4 | 3 |
| 46 | 4 | 3 |
| 47 | 4 | 4 |
| 48 | 3 | 3 |
| 49 | 3 | 4 |
| 50 | 4 | 3 |
| 51 | 4 | 4 |
| 52 | 4 | 4 |
| 53 | 3 | 3 |
| 54 | 4 | 4 |
| 55 | 4 | 4 |
| 56 | 4 | 4 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 3 | 3 |
| 60 | 4 | 3 |

r = 0.969 (Very strong positive relationship)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male and Female 4th Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year male and female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year male and female students.

**Step 2:**

= 0.05 df = n – 2 = 60-2= 58 CV = ±2.002

**Step 3: Computation of test value:**

***t = r =***

= 42.965

****

****

CV= -2.002 CV= +2.002 TV= 42.965

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among fourth-year male and female students.

| **III. CORRELATION: FOU & APA – Male and Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 4 | 3 |
| 34 | 4 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 2 |
| 37 | 4 | 4 |
| 38 | 3 | 3 |
| 39 | 3 | 2 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |
| 42 | 4 | 3 |

| **III. CORRELATION: FOU & APA – Male and Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 43 | 4 | 3 |
| 44 | 3 | 4 |
| 45 | 3 | 2 |
| 46 | 4 | 3 |
| 47 | 3 | 4 |
| 48 | 4 | 3 |
| 49 | 4 | 3 |
| 50 | 4 | 3 |
| 51 | 3 | 4 |
| 52 | 4 | 2 |
| 53 | 4 | 3 |
| 54 | 3 | 3 |
| 55 | 4 | 3 |
| 56 | 4 | 4 |
| 57 | 4 | 3 |
| 58 | 4 | 3 |
| 59 | 3 | 3 |
| 60 | 3 | 3 |
| 61 | 2 | 3 |
| 62 | 3 | 3 |
| 63 | 2 | 3 |
| 64 | 3 | 3 |
| 65 | 4 | 4 |
| 66 | 3 | 4 |
| 67 | 4 | 3 |
| 68 | 4 | 4 |
| 69 | 4 | 4 |
| 70 | 4 | 4 |
| 71 | 2 | 4 |
| 72 | 3 | 4 |
| 73 | 2 | 4 |
| 74 | 4 | 2 |
| 75 | 3 | 4 |
| 76 | 4 | 4 |
| 77 | 4 | 4 |
| 78 | 2 | 3 |
| 79 | 3 | 3 |
| 80 | 4 | 4 |
| 81 | 2 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 3 |
| 84 | 3 | 4 |
| 85 | 2 | 4 |
| 86 | 4 | 4 |

| **III. CORRELATION: FOU & APA – Male and Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 87 | 2 | 4 |
| 88 | 4 | 4 |
| 89 | 2 | 3 |
| 90 | 2 | 4 |
| 91 | 3 | 4 |
| 92 | 3 | 4 |
| 93 | 2 | 2 |
| 94 | 4 | 4 |
| 95 | 3 | 3 |
| 96 | 3 | 4 |
| 97 | 4 | 4 |
| 98 | 4 | 3 |
| 99 | 4 | 4 |
| 100 | 4 | 4 |
| 101 | 4 | 4 |
| 102 | 3 | 3 |
| 103 | 4 | 4 |
| 104 | 4 | 4 |
| 105 | 4 | 4 |
| 106 | 3 | 4 |
| 107 | 4 | 4 |
| 108 | 3 | 4 |
| 109 | 4 | 4 |
| 110 | 4 | 4 |
| 111 | 4 | 3 |
| 112 | 4 | 3 |
| 113 | 3 | 3 |
| 114 | 4 | 2 |
| 115 | 3 | 4 |
| 116 | 4 | 2 |
| 117 | 4 | 4 |
| 118 | 4 | 4 |
| 119 | 4 | 4 |
| 120 | 4 | 4 |
| 121 | 3 | 4 |
| 122 | 3 | 3 |
| 123 | 3 | 3 |
| 124 | 4 | 4 |
| 125 | 4 | 3 |
| 126 | 2 | 3 |
| 127 | 3 | 3 |
| 128 | 3 | 3 |
| 129 | 3 | 4 |
| 130 | 4 | 4 |
| 131 | 4 | 3 |
| 132 | 4 | 4 |
| 133 | 4 | 4 |
| 134 | 4 | 4 |
| 135 | 4 | 2 |
| 136 | 4 | 3 |
| 137 | 4 | 4 |
| 138 | 3 | 4 |
| 139 | 3 | 3 |
| 140 | 3 | 4 |
| 141 | 4 | 4 |
| 142 | 4 | 4 |
| 143 | 4 | 4 |
| 144 | 4 | 4 |
| 145 | 4 | 4 |
| 146 | 4 | 4 |
| 147 | 4 | 4 |
| 148 | 4 | 4 |
| 149 | 3 | 3 |
| 150 | 4 | 4 |
| 151 | 2 | 3 |
| 152 | 3 | 3 |
| 153 | 2 | 3 |
| 154 | 3 | 3 |
| 155 | 4 | 4 |
| 156 | 3 | 4 |
| 157 | 4 | 3 |
| 158 | 4 | 4 |
| 159 | 4 | 4 |
| 160 | 4 | 4 |
| 161 | 2 | 4 |
| 162 | 3 | 4 |
| 163 | 2 | 4 |
| 164 | 4 | 2 |
| 165 | 3 | 4 |
| 166 | 4 | 4 |
| 167 | 4 | 4 |
| 168 | 2 | 3 |
| 169 | 3 | 3 |
| 170 | 4 | 4 |
| 171 | 2 | 4 |
| 172 | 4 | 4 |
| 173 | 4 | 3 |
| 174 | 3 | 4 |
| 175 | 2 | 4 |
| 176 | 4 | 4 |
| 177 | 2 | 4 |
| 178 | 4 | 4 |
| 179 | 2 | 3 |
| 180 | 2 | 4 |
| 181 | 3 | 4 |
| 182 | 3 | 4 |
| 183 | 4 | 3 |
| 184 | 4 | 3 |
| 185 | 4 | 4 |
| 186 | 3 | 2 |
| 187 | 4 | 4 |
| 188 | 3 | 3 |
| 189 | 3 | 2 |
| 190 | 4 | 3 |
| 191 | 4 | 4 |
| 192 | 4 | 3 |
| 193 | 4 | 3 |
| 194 | 3 | 4 |
| 195 | 3 | 2 |
| 196 | 4 | 3 |
| 197 | 3 | 4 |
| 198 | 4 | 3 |
| 199 | 4 | 3 |
| 200 | 4 | 3 |
| 201 | 3 | 4 |
| 202 | 4 | 2 |
| 203 | 4 | 3 |
| 204 | 3 | 3 |
| 205 | 4 | 3 |
| 206 | 4 | 4 |
| 207 | 4 | 3 |
| 208 | 4 | 3 |
| 209 | 3 | 3 |
| 210 | 3 | 3 |
| 211 | 3 | 4 |
| 212 | 3 | 3 |
| 213 | 3 | 4 |
| 214 | 3 | 3 |
| 215 | 4 | 4 |
| 216 | 4 | 3 |
| 217 | 3 | 4 |
| 218 | 4 | 4 |
| 219 | 4 | 4 |
| 220 | 4 | 3 |
| 221 | 4 | 4 |
| 222 | 4 | 4 |
| 223 | 4 | 3 |
| 224 | 2 | 4 |
| 225 | 4 | 3 |
| 226 | 4 | 3 |
| 227 | 4 | 4 |
| 228 | 3 | 3 |
| 229 | 3 | 4 |
| 230 | 4 | 3 |
| 231 | 4 | 4 |
| 232 | 4 | 4 |
| 233 | 3 | 3 |
| 234 | 4 | 4 |
| 235 | 4 | 4 |
| 236 | 4 | 4 |
| 237 | 4 | 4 |
| 238 | 4 | 4 |
| 239 | 3 | 3 |
| 240 | 4 | 3 |

r = -0.226 (description)

**HYPOTHESES TESTING:**

1. **t-test for Significance of Correlation between FOU & APA – Male and Female 1st to 4th Year Students**

**Step 1: Hypotheses**

Ho: = 0 There is no significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male and female students.

H1: 0 There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male and female students.

**Step 2:**

= 0.05 df = n – 2 = 240-2= 238 CV = ±1.970

**Step 3: Computation of test value:**

***t = r =***

= -6.046

****

****

TV= -6.046 CV= -1.970 CV= +1.970

**Step 4: Decision:**

Reject Ho.

**Step 5: Conclusion:**

There is a significant difference in frequency of use (FOU) and academic performance after (APA) use of AI tools among first-year to fourth-year male and female students.

**Application of Simple Regression Analysis**

| **V. Simple Regression Analysis: FOU & APA – Male 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Male 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 2nd Year** | |
| **FOU** | **APA** |
| 1 | 2 | 3 |
| 2 | 3 | 3 |
| 3 | 2 | 3 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 4 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 2 | 4 |
| 12 | 3 | 4 |
| 13 | 2 | 4 |
| 14 | 4 | 2 |
| 15 | 3 | 4 |
| 16 | 4 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 3 | 3 |
| 20 | 4 | 4 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 4 |
| 25 | 2 | 4 |
| 26 | 4 | 4 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 2 | 3 |
| 30 | 2 | 4 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Male 3rd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 3rd Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 3 |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
| 5 | 4 | 3 |
| 6 | 2 | 3 |
| 7 | 3 | 3 |
| 8 | 3 | 3 |
| 9 | 3 | 4 |
| 10 | 4 | 4 |
| 11 | 4 | 3 |
| 12 | 4 | 4 |
| 13 | 4 | 4 |
| 14 | 4 | 4 |
| 15 | 4 | 2 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 4 |
| 19 | 3 | 3 |
| 20 | 3 | 4 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 4 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 4 |

**a = 2.35 b = 0.35**

***y =* 2.35 *+* 0.35*x***

| **V. Simple Regression Analysis: FOU & APA – Male 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 2 |
| 7 | 4 | 4 |
| 8 | 3 | 3 |
| 9 | 3 | 2 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 3 |
| 13 | 4 | 3 |
| 14 | 3 | 4 |
| 15 | 3 | 2 |
| 16 | 4 | 3 |
| 17 | 3 | 4 |
| 18 | 4 | 3 |
| 19 | 4 | 3 |
| 20 | 4 | 3 |
| 21 | 3 | 4 |
| 22 | 4 | 2 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 2 | 3 |
| 32 | 3 | 3 |
| 33 | 2 | 3 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 4 |
| 37 | 4 | 3 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 2 | 4 |
| 42 | 3 | 4 |

| **V. Simple Regression Analysis: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 43 | 2 | 4 |
| 44 | 4 | 2 |
| 45 | 3 | 4 |
| 46 | 4 | 4 |
| 47 | 4 | 4 |
| 48 | 2 | 3 |
| 49 | 3 | 3 |
| 50 | 4 | 4 |
| 51 | 2 | 4 |
| 52 | 4 | 4 |
| 53 | 4 | 3 |
| 54 | 3 | 4 |
| 55 | 2 | 4 |
| 56 | 4 | 4 |
| 57 | 2 | 4 |
| 58 | 4 | 4 |
| 59 | 2 | 3 |
| 60 | 2 | 4 |
| 61 | 3 | 4 |
| 62 | 3 | 3 |
| 63 | 3 | 3 |
| 64 | 4 | 4 |
| 65 | 4 | 3 |
| 66 | 2 | 3 |
| 67 | 3 | 3 |
| 68 | 3 | 3 |
| 69 | 3 | 4 |
| 70 | 4 | 4 |
| 71 | 4 | 3 |
| 72 | 4 | 4 |
| 73 | 4 | 4 |
| 74 | 4 | 4 |
| 75 | 4 | 2 |
| 76 | 4 | 3 |
| 77 | 4 | 4 |
| 78 | 3 | 4 |
| 79 | 3 | 3 |
| 80 | 3 | 4 |
| 81 | 4 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 4 |
| 84 | 4 | 4 |
| 85 | 4 | 4 |
| 86 | 4 | 4 |

| **V. Simple Regression Analysis: FOU & APA – Male 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male 1st to 4th Year** | |
| **FOU** | **APA** |
| 87 | 4 | 4 |
| 88 | 4 | 4 |
| 89 | 3 | 3 |
| 90 | 4 | 4 |
| 91 | 3 | 4 |
| 92 | 3 | 4 |
| 93 | 4 | 3 |
| 94 | 4 | 3 |
| 95 | 4 | 4 |
| 96 | 3 | 2 |
| 97 | 4 | 4 |
| 98 | 3 | 3 |
| 99 | 3 | 2 |
| 100 | 4 | 3 |
| 101 | 4 | 4 |
| 102 | 4 | 3 |
| 103 | 4 | 3 |
| 104 | 3 | 4 |
| 105 | 3 | 2 |
| 106 | 4 | 3 |
| 107 | 3 | 4 |
| 108 | 4 | 3 |
| 109 | 4 | 3 |
| 110 | 4 | 3 |
| 111 | 3 | 4 |
| 112 | 4 | 2 |
| 113 | 4 | 3 |
| 114 | 3 | 3 |
| 115 | 4 | 3 |
| 116 | 4 | 4 |
| 117 | 4 | 3 |
| 118 | 4 | 3 |
| 119 | 3 | 3 |
| 120 | 3 | 3 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Female 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 1st Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 2 |
| 7 | 4 | 4 |
| 8 | 3 | 3 |
| 9 | 3 | 2 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 3 |
| 13 | 4 | 3 |
| 14 | 3 | 4 |
| 15 | 3 | 2 |
| 16 | 4 | 3 |
| 17 | 3 | 4 |
| 18 | 4 | 3 |
| 19 | 4 | 3 |
| 20 | 4 | 3 |
| 21 | 3 | 4 |
| 22 | 4 | 2 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Female 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 2nd Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 2 | 2 |
| 4 | 4 | 4 |
| 5 | 3 | 3 |
| 6 | 3 | 4 |
| 7 | 4 | 4 |
| 8 | 4 | 3 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 4 | 4 |
| 12 | 3 | 3 |
| 13 | 4 | 4 |
| 14 | 4 | 4 |
| 15 | 4 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 3 | 4 |
| 19 | 4 | 4 |
| 20 | 4 | 4 |
| 21 | 4 | 3 |
| 22 | 4 | 3 |
| 23 | 3 | 3 |
| 24 | 4 | 2 |
| 25 | 3 | 4 |
| 26 | 4 | 2 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 4 | 4 |
| 30 | 4 | 4 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Female 3rd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 3rd Year** | |
| **FOU** | **APA** |
| 1 | 2 | 3 |
| 2 | 3 | 3 |
| 3 | 2 | 3 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 4 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 2 | 4 |
| 12 | 3 | 4 |
| 13 | 2 | 4 |
| 14 | 4 | 2 |
| 15 | 3 | 4 |
| 16 | 4 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 3 | 3 |
| 20 | 4 | 4 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 4 |
| 25 | 2 | 4 |
| 26 | 4 | 4 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 2 | 3 |
| 30 | 2 | 4 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Female 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 4 | 3 |
| 7 | 3 | 4 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 4 |
| 13 | 4 | 3 |
| 14 | 2 | 4 |
| 15 | 4 | 3 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 3 |
| 19 | 3 | 4 |
| 20 | 4 | 3 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 3 | 3 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 3 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 2 |
| 7 | 4 | 4 |
| 8 | 3 | 3 |
| 9 | 3 | 2 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 3 |
| 13 | 4 | 3 |
| 14 | 3 | 4 |
| 15 | 3 | 2 |
| 16 | 4 | 3 |
| 17 | 3 | 4 |
| 18 | 4 | 3 |
| 19 | 4 | 3 |
| 20 | 4 | 3 |
| 21 | 3 | 4 |
| 22 | 4 | 2 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 2 | 2 |
| 34 | 4 | 4 |
| 35 | 3 | 3 |
| 36 | 3 | 4 |
| 37 | 4 | 4 |
| 38 | 4 | 3 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 4 | 4 |
| 42 | 3 | 3 |

| **V. Simple Regression Analysis: FOU & APA – Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 43 | 4 | 4 |
| 44 | 4 | 4 |
| 45 | 4 | 4 |
| 46 | 3 | 4 |
| 47 | 4 | 4 |
| 48 | 3 | 4 |
| 49 | 4 | 4 |
| 50 | 4 | 4 |
| 51 | 4 | 3 |
| 52 | 4 | 3 |
| 53 | 3 | 3 |
| 54 | 4 | 2 |
| 55 | 3 | 4 |
| 56 | 4 | 2 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 4 | 4 |
| 60 | 4 | 4 |
| 61 | 2 | 3 |
| 62 | 3 | 3 |
| 63 | 2 | 3 |
| 64 | 3 | 3 |
| 65 | 4 | 4 |
| 66 | 3 | 4 |
| 67 | 4 | 3 |
| 68 | 4 | 4 |
| 69 | 4 | 4 |
| 70 | 4 | 4 |
| 71 | 2 | 4 |
| 72 | 3 | 4 |
| 73 | 2 | 4 |
| 74 | 4 | 2 |
| 75 | 3 | 4 |
| 76 | 4 | 4 |
| 77 | 4 | 4 |
| 78 | 2 | 3 |
| 79 | 3 | 3 |
| 80 | 4 | 4 |
| 81 | 2 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 3 |
| 84 | 3 | 4 |
| 85 | 2 | 4 |
| 86 | 4 | 4 |

| **V. Simple Regression Analysis: FOU & APA – Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 87 | 2 | 4 |
| 88 | 4 | 4 |
| 89 | 2 | 3 |
| 90 | 2 | 4 |
| 91 | 3 | 4 |
| 92 | 3 | 3 |
| 93 | 3 | 4 |
| 94 | 3 | 3 |
| 95 | 4 | 4 |
| 96 | 4 | 3 |
| 97 | 3 | 4 |
| 98 | 4 | 4 |
| 99 | 4 | 4 |
| 100 | 4 | 3 |
| 101 | 4 | 4 |
| 102 | 4 | 4 |
| 103 | 4 | 3 |
| 104 | 2 | 4 |
| 105 | 4 | 3 |
| 106 | 4 | 3 |
| 107 | 4 | 4 |
| 108 | 3 | 3 |
| 109 | 3 | 4 |
| 110 | 4 | 3 |
| 111 | 4 | 4 |
| 112 | 4 | 4 |
| 113 | 3 | 3 |
| 114 | 4 | 4 |
| 115 | 4 | 4 |
| 116 | 4 | 4 |
| 117 | 4 | 4 |
| 118 | 4 | 4 |
| 119 | 3 | 3 |
| 120 | 4 | 3 |

**a = \_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_\_\_**

***y = \_\_\_\_ + \_\_\_\_\_x***

**Note:**

There is no significant relationship hence simple regression analysis is not applicable for this data.

| **V. Simple Regression Analysis: FOU & APA – Male and Female 1st Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 4 | 3 |
| 34 | 4 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 2 |
| 37 | 4 | 4 |
| 38 | 3 | 3 |
| 39 | 3 | 2 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |
| 42 | 4 | 3 |
| 43 | 4 | 3 |
| 44 | 3 | 4 |
| 45 | 3 | 2 |
| 46 | 4 | 3 |
| 47 | 3 | 4 |
| 48 | 4 | 3 |
| 49 | 4 | 3 |
| 50 | 4 | 3 |
| 51 | 3 | 4 |
| 52 | 4 | 2 |
| 53 | 4 | 3 |
| 54 | 3 | 3 |
| 55 | 4 | 3 |
| 56 | 4 | 4 |
| 57 | 4 | 3 |
| 58 | 4 | 3 |
| 59 | 3 | 3 |
| 60 | 3 | 3 |

**a = 0.88 b = 0.82**

***y =* 0.88 *+* 0.82*x***

| **V. Simple Regression Analysis: FOU & APA – Male and Female 2nd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 2nd Year** | |
| **FOU** | **APA** |
| 1 | 2 | 3 |
| 2 | 3 | 3 |
| 3 | 2 | 3 |
| 4 | 3 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 4 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 4 |
| 10 | 4 | 4 |
| 11 | 2 | 4 |
| 12 | 3 | 4 |
| 13 | 2 | 4 |
| 14 | 4 | 2 |
| 15 | 3 | 4 |
| 16 | 4 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 3 | 3 |
| 20 | 4 | 4 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 4 |
| 25 | 2 | 4 |
| 26 | 4 | 4 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 2 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 2 | 2 |
| 34 | 4 | 4 |
| 35 | 3 | 3 |
| 36 | 3 | 4 |
| 37 | 4 | 4 |
| 38 | 4 | 3 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 4 | 4 |
| 42 | 3 | 3 |
| 43 | 4 | 4 |
| 44 | 4 | 4 |
| 45 | 4 | 4 |
| 46 | 3 | 4 |
| 47 | 4 | 4 |
| 48 | 3 | 4 |
| 49 | 4 | 4 |
| 50 | 4 | 4 |
| 51 | 4 | 3 |
| 52 | 4 | 3 |
| 53 | 3 | 3 |
| 54 | 4 | 2 |
| 55 | 3 | 4 |
| 56 | 4 | 2 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 4 | 4 |
| 60 | 4 | 4 |

**a = 0.76 b = 0.93**

***y =* 0.76 *+* 0.93*x***

| **V. Simple Regression Analysis: FOU & APA – Male and Female 3rd Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 3rd Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 3 |
| 3 | 3 | 3 |
| 4 | 4 | 4 |
| 5 | 4 | 3 |
| 6 | 2 | 3 |
| 7 | 3 | 3 |
| 8 | 3 | 3 |
| 9 | 3 | 4 |
| 10 | 4 | 4 |
| 11 | 4 | 3 |
| 12 | 4 | 4 |
| 13 | 4 | 4 |
| 14 | 4 | 4 |
| 15 | 4 | 2 |
| 16 | 4 | 3 |
| 17 | 4 | 4 |
| 18 | 3 | 4 |
| 19 | 3 | 3 |
| 20 | 3 | 4 |
| 21 | 4 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 4 |
| 24 | 4 | 4 |
| 25 | 4 | 4 |
| 26 | 4 | 4 |
| 27 | 4 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 4 | 4 |
| 31 | 2 | 3 |
| 32 | 3 | 3 |
| 33 | 2 | 3 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 4 |
| 37 | 4 | 3 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 4 |
| 41 | 2 | 4 |
| 42 | 3 | 4 |
| 43 | 2 | 4 |
| 44 | 4 | 2 |
| 45 | 3 | 4 |
| 46 | 4 | 4 |
| 47 | 4 | 4 |
| 48 | 2 | 3 |
| 49 | 3 | 3 |
| 50 | 4 | 4 |
| 51 | 2 | 4 |
| 52 | 4 | 4 |
| 53 | 4 | 3 |
| 54 | 3 | 4 |
| 55 | 2 | 4 |
| 56 | 4 | 4 |
| 57 | 2 | 4 |
| 58 | 4 | 4 |
| 59 | 2 | 3 |
| 60 | 2 | 4 |

**a = -0.25 b = 1.07**

***y =* -0.25 *+* 1.07*x***

| **V. Simple Regression Analysis: FOU & APA – Male and Female 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 4 |
| 2 | 3 | 4 |
| 3 | 4 | 3 |
| 4 | 4 | 3 |
| 5 | 4 | 4 |
| 6 | 3 | 2 |
| 7 | 4 | 4 |
| 8 | 3 | 3 |
| 9 | 3 | 2 |
| 10 | 4 | 3 |
| 11 | 4 | 4 |
| 12 | 4 | 3 |
| 13 | 4 | 3 |
| 14 | 3 | 4 |
| 15 | 3 | 2 |
| 16 | 4 | 3 |
| 17 | 3 | 4 |
| 18 | 4 | 3 |
| 19 | 4 | 3 |
| 20 | 4 | 3 |
| 21 | 3 | 4 |
| 22 | 4 | 2 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 4 | 3 |
| 26 | 4 | 4 |
| 27 | 4 | 3 |
| 28 | 4 | 3 |
| 29 | 3 | 3 |
| 30 | 3 | 3 |
| 31 | 3 | 4 |
| 32 | 3 | 3 |
| 33 | 3 | 4 |
| 34 | 3 | 3 |
| 35 | 4 | 4 |
| 36 | 4 | 3 |
| 37 | 3 | 4 |
| 38 | 4 | 4 |
| 39 | 4 | 4 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |
| 42 | 4 | 4 |
| 43 | 4 | 3 |
| 44 | 2 | 4 |
| 45 | 4 | 3 |
| 46 | 4 | 3 |
| 47 | 4 | 4 |
| 48 | 3 | 3 |
| 49 | 3 | 4 |
| 50 | 4 | 3 |
| 51 | 4 | 4 |
| 52 | 4 | 4 |
| 53 | 3 | 3 |
| 54 | 4 | 4 |
| 55 | 4 | 4 |
| 56 | 4 | 4 |
| 57 | 4 | 4 |
| 58 | 4 | 4 |
| 59 | 3 | 3 |
| 60 | 4 | 3 |

**a = -0.27 b = 0.95**

***y =* -0.27 *+* 0.95*x***

| **V. Simple Regression Analysis: FOU & APA – Male and Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 1 | 3 | 3 |
| 2 | 4 | 3 |
| 3 | 3 | 4 |
| 4 | 3 | 4 |
| 5 | 4 | 3 |
| 6 | 3 | 3 |
| 7 | 4 | 3 |
| 8 | 4 | 4 |
| 9 | 4 | 3 |
| 10 | 3 | 3 |
| 11 | 3 | 4 |
| 12 | 3 | 3 |
| 13 | 2 | 4 |
| 14 | 4 | 4 |
| 15 | 3 | 4 |
| 16 | 3 | 4 |
| 17 | 4 | 4 |
| 18 | 2 | 3 |
| 19 | 4 | 4 |
| 20 | 4 | 3 |
| 21 | 2 | 4 |
| 22 | 4 | 4 |
| 23 | 4 | 3 |
| 24 | 3 | 3 |
| 25 | 2 | 4 |
| 26 | 4 | 3 |
| 27 | 2 | 4 |
| 28 | 4 | 4 |
| 29 | 3 | 3 |
| 30 | 2 | 4 |
| 31 | 3 | 4 |
| 32 | 3 | 4 |
| 33 | 4 | 3 |
| 34 | 4 | 3 |
| 35 | 4 | 4 |
| 36 | 3 | 2 |
| 37 | 4 | 4 |
| 38 | 3 | 3 |
| 39 | 3 | 2 |
| 40 | 4 | 3 |
| 41 | 4 | 4 |

| **V. Simple Regression Analysis: FOU & APA – Male and Female 1st to 4th Year Students** | | |
| --- | --- | --- |
| **Respondent No.** | **Male and Female 1st to 4th Year** | |
| **FOU** | **APA** |
| 42 | 4 | 3 |
| 43 | 4 | 3 |
| 44 | 3 | 4 |
| 45 | 3 | 2 |
| 46 | 4 | 3 |
| 47 | 3 | 4 |
| 48 | 4 | 3 |
| 49 | 4 | 3 |
| 50 | 4 | 3 |
| 51 | 3 | 4 |
| 52 | 4 | 2 |
| 53 | 4 | 3 |
| 54 | 3 | 3 |
| 55 | 4 | 3 |
| 56 | 4 | 4 |
| 57 | 4 | 3 |
| 58 | 4 | 3 |
| 59 | 3 | 3 |
| 60 | 3 | 3 |
| 61 | 2 | 3 |
| 62 | 3 | 3 |
| 63 | 2 | 3 |
| 64 | 3 | 3 |
| 65 | 4 | 4 |
| 66 | 3 | 4 |
| 67 | 4 | 3 |
| 68 | 4 | 4 |
| 69 | 4 | 4 |
| 70 | 4 | 4 |
| 71 | 2 | 4 |
| 72 | 3 | 4 |
| 73 | 2 | 4 |
| 74 | 4 | 2 |
| 75 | 3 | 4 |
| 76 | 4 | 4 |
| 77 | 4 | 4 |
| 78 | 2 | 3 |
| 79 | 3 | 3 |
| 80 | 4 | 4 |
| 81 | 2 | 4 |
| 82 | 4 | 4 |
| 83 | 4 | 3 |
| 84 | 3 | 4 |
| 85 | 2 | 4 |
| 86 | 4 | 4 |
| 87 | 2 | 4 |
| 88 | 4 | 4 |
| 89 | 2 | 3 |
| 90 | 2 | 4 |
| 91 | 3 | 4 |
| 92 | 3 | 4 |
| 93 | 2 | 2 |
| 94 | 4 | 4 |
| 95 | 3 | 3 |
| 96 | 3 | 4 |
| 97 | 4 | 4 |
| 98 | 4 | 3 |
| 99 | 4 | 4 |
| 100 | 4 | 4 |
| 101 | 4 | 4 |
| 102 | 3 | 3 |
| 103 | 4 | 4 |
| 104 | 4 | 4 |
| 105 | 4 | 4 |
| 106 | 3 | 4 |
| 107 | 4 | 4 |
| 108 | 3 | 4 |
| 109 | 4 | 4 |
| 110 | 4 | 4 |
| 111 | 4 | 3 |
| 112 | 4 | 3 |
| 113 | 3 | 3 |
| 114 | 4 | 2 |
| 115 | 3 | 4 |
| 116 | 4 | 2 |
| 117 | 4 | 4 |
| 118 | 4 | 4 |
| 119 | 4 | 4 |
| 120 | 4 | 4 |
| 121 | 3 | 4 |
| 122 | 3 | 3 |
| 123 | 3 | 3 |
| 124 | 4 | 4 |
| 125 | 4 | 3 |
| 126 | 2 | 3 |
| 127 | 3 | 3 |
| 128 | 3 | 3 |
| 129 | 3 | 4 |
| 130 | 4 | 4 |
| 131 | 4 | 3 |
| 132 | 4 | 4 |
| 133 | 4 | 4 |
| 134 | 4 | 4 |
| 135 | 4 | 2 |
| 136 | 4 | 3 |
| 137 | 4 | 4 |
| 138 | 3 | 4 |
| 139 | 3 | 3 |
| 140 | 3 | 4 |
| 141 | 4 | 4 |
| 142 | 4 | 4 |
| 143 | 4 | 4 |
| 144 | 4 | 4 |
| 145 | 4 | 4 |
| 146 | 4 | 4 |
| 147 | 4 | 4 |
| 148 | 4 | 4 |
| 149 | 3 | 3 |
| 150 | 4 | 4 |
| 151 | 2 | 3 |
| 152 | 3 | 3 |
| 153 | 2 | 3 |
| 154 | 3 | 3 |
| 155 | 4 | 4 |
| 156 | 3 | 4 |
| 157 | 4 | 3 |
| 158 | 4 | 4 |
| 159 | 4 | 4 |
| 160 | 4 | 4 |
| 161 | 2 | 4 |
| 162 | 3 | 4 |
| 163 | 2 | 4 |
| 164 | 4 | 2 |
| 165 | 3 | 4 |
| 166 | 4 | 4 |
| 167 | 4 | 4 |
| 168 | 2 | 3 |
| 169 | 3 | 3 |
| 170 | 4 | 4 |
| 171 | 2 | 4 |
| 172 | 4 | 4 |
| 173 | 4 | 3 |
| 174 | 3 | 4 |
| 175 | 2 | 4 |
| 176 | 4 | 4 |
| 177 | 2 | 4 |
| 178 | 4 | 4 |
| 179 | 2 | 3 |
| 180 | 2 | 4 |
| 181 | 3 | 4 |
| 182 | 3 | 4 |
| 183 | 4 | 3 |
| 184 | 4 | 3 |
| 185 | 4 | 4 |
| 186 | 3 | 2 |
| 187 | 4 | 4 |
| 188 | 3 | 3 |
| 189 | 3 | 2 |
| 190 | 4 | 3 |
| 191 | 4 | 4 |
| 192 | 4 | 3 |
| 193 | 4 | 3 |
| 194 | 3 | 4 |
| 195 | 3 | 2 |
| 196 | 4 | 3 |
| 197 | 3 | 4 |
| 198 | 4 | 3 |
| 199 | 4 | 3 |
| 200 | 4 | 3 |
| 201 | 3 | 4 |
| 202 | 4 | 2 |
| 203 | 4 | 3 |
| 204 | 3 | 3 |
| 205 | 4 | 3 |
| 206 | 4 | 4 |
| 207 | 4 | 3 |
| 208 | 4 | 3 |
| 209 | 3 | 3 |
| 210 | 3 | 3 |
| 211 | 3 | 4 |
| 212 | 3 | 3 |
| 213 | 3 | 4 |
| 214 | 3 | 3 |
| 215 | 4 | 4 |
| 216 | 4 | 3 |
| 217 | 3 | 4 |
| 218 | 4 | 4 |
| 219 | 4 | 4 |
| 220 | 4 | 3 |
| 221 | 4 | 4 |
| 222 | 4 | 4 |
| 223 | 4 | 3 |
| 224 | 2 | 4 |
| 225 | 4 | 3 |
| 226 | 4 | 3 |
| 227 | 4 | 4 |
| 228 | 3 | 3 |
| 229 | 3 | 4 |
| 230 | 4 | 3 |
| 231 | 4 | 4 |
| 232 | 4 | 4 |
| 233 | 3 | 3 |
| 234 | 4 | 4 |
| 235 | 4 | 4 |
| 236 | 4 | 4 |
| 237 | 4 | 4 |
| 238 | 4 | 4 |
| 239 | 3 | 3 |
| 240 | 4 | 3 |

**a = -0.15 b = 1.02**

***y =* -0.15 *+* 1.02*x***

**ANOVA**

| **ANOVA: Significant Difference in FOU Among Male Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **FOU – Male** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 2 | 3 | 3 |
| 2 | 4 | 3 | 3 | 3 |
| 3 | 3 | 2 | 3 | 4 |
| 4 | 3 | 3 | 4 | 4 |
| 5 | 4 | 4 | 4 | 4 |
| 6 | 3 | 3 | 2 | 3 |
| 7 | 4 | 4 | 3 | 4 |
| 8 | 4 | 4 | 3 | 3 |
| 9 | 4 | 4 | 3 | 3 |
| 10 | 3 | 4 | 4 | 4 |
| 11 | 3 | 2 | 4 | 4 |
| 12 | 3 | 3 | 4 | 4 |
| 13 | 2 | 2 | 4 | 4 |
| 14 | 4 | 4 | 4 | 3 |
| 15 | 3 | 3 | 4 | 3 |
| 16 | 3 | 4 | 4 | 4 |
| 17 | 4 | 4 | 4 | 3 |
| 18 | 2 | 2 | 3 | 4 |
| 19 | 4 | 3 | 3 | 4 |
| 20 | 4 | 4 | 3 | 4 |
| 21 | 2 | 2 | 4 | 3 |
| 22 | 4 | 4 | 4 | 4 |
| 23 | 4 | 4 | 4 | 4 |
| 24 | 3 | 3 | 4 | 3 |
| 25 | 2 | 2 | 4 | 4 |
| 26 | 4 | 4 | 4 | 4 |
| 27 | 2 | 2 | 4 | 4 |
| 28 | 4 | 4 | 4 | 4 |
| 29 | 3 | 2 | 3 | 3 |
| 30 | 2 | 2 | 4 | 3 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.45

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 4.04

**Step 4:**

Reject Ho.

**Step 5:**

There is a significant difference in the frequency of use (FOU) of AI tools among

male students from first to fourth year.

1. **ANOVA SUMMARY Results for Significant Difference in FOU Among Male Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 5.931 | 3 | 1.98 | ±2.45 | 4.04 |
| Within(error) | 56.55 | 116 | 0.49 |  |  |
| Total | 62.481 | 119 |  |  |  |

| **ANOVA: Significant Difference in FOU Among Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **FOU – Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 3 | 2 | 3 |
| 2 | 3 | 3 | 3 | 3 |
| 3 | 4 | 2 | 2 | 3 |
| 4 | 4 | 4 | 3 | 3 |
| 5 | 4 | 3 | 4 | 4 |
| 6 | 3 | 3 | 3 | 4 |
| 7 | 4 | 4 | 4 | 3 |
| 8 | 3 | 4 | 4 | 4 |
| 9 | 3 | 4 | 4 | 4 |
| 10 | 4 | 4 | 4 | 4 |
| 11 | 4 | 4 | 2 | 4 |
| 12 | 4 | 3 | 3 | 4 |
| 13 | 4 | 4 | 2 | 4 |
| 14 | 3 | 4 | 4 | 2 |
| 15 | 3 | 4 | 3 | 4 |
| 16 | 4 | 3 | 4 | 4 |
| 17 | 3 | 4 | 4 | 4 |
| 18 | 4 | 3 | 2 | 3 |
| 19 | 4 | 4 | 3 | 3 |
| 20 | 4 | 4 | 4 | 4 |
| 21 | 3 | 4 | 2 | 4 |
| 22 | 4 | 4 | 4 | 4 |
| 23 | 4 | 3 | 4 | 3 |
| 24 | 3 | 4 | 3 | 4 |
| 25 | 4 | 3 | 2 | 4 |
| 26 | 4 | 4 | 4 | 4 |
| 27 | 4 | 4 | 2 | 4 |
| 28 | 4 | 4 | 4 | 4 |
| 29 | 3 | 4 | 2 | 3 |
| 30 | 3 | 4 | 2 | 4 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.68

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 4.95

**Step 4:**

Reject Ho.

**Step 5:**

There is a significant difference in the frequency of use (FOU) of AI tools among female students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in FOU Among Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 6.102 | 3 | 2.03 | ±2.68 | 4.95 |
| Within(error) | 47.85 | 16 | 0.41 |  |  |
| Total | 53.952 | 119 |  |  |  |

| **ANOVA: Significant Difference in FOU Among Male and Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **FOU – Male and Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 2 | 3 | 3 |
| 2 | 4 | 3 | 3 | 3 |
| 3 | 3 | 2 | 3 | 4 |
| 4 | 3 | 3 | 4 | 4 |
| 5 | 4 | 4 | 4 | 4 |
| 6 | 3 | 3 | 2 | 3 |
| 7 | 4 | 4 | 3 | 4 |
| 8 | 4 | 4 | 3 | 3 |
| 9 | 4 | 4 | 3 | 3 |
| 10 | 3 | 4 | 4 | 4 |
| 11 | 3 | 2 | 4 | 4 |
| 12 | 3 | 3 | 4 | 4 |
| 13 | 2 | 2 | 4 | 4 |
| 14 | 4 | 4 | 4 | 3 |
| 15 | 3 | 3 | 4 | 3 |
| 16 | 3 | 4 | 4 | 4 |
| 17 | 4 | 4 | 4 | 3 |
| 18 | 2 | 2 | 3 | 4 |
| 19 | 4 | 3 | 3 | 4 |
| 20 | 4 | 4 | 3 | 4 |
| 21 | 2 | 2 | 4 | 3 |
| 22 | 4 | 4 | 4 | 4 |
| 23 | 4 | 4 | 4 | 4 |
| 24 | 3 | 3 | 4 | 3 |
| 25 | 2 | 2 | 4 | 4 |
| 26 | 4 | 4 | 4 | 4 |
| 27 | 2 | 2 | 4 | 4 |
| 28 | 4 | 4 | 4 | 4 |
| 29 | 3 | 2 | 3 | 3 |
| 30 | 2 | 2 | 4 | 3 |
| 31 | 3 | 3 | 2 | 3 |
| 32 | 3 | 3 | 3 | 3 |
| 33 | 4 | 2 | 2 | 3 |
| 34 | 4 | 4 | 3 | 3 |
| 35 | 4 | 3 | 4 | 4 |
| 36 | 3 | 3 | 3 | 4 |
| 37 | 4 | 4 | 4 | 3 |
| 38 | 3 | 4 | 4 | 4 |
| 39 | 3 | 4 | 4 | 4 |
| 40 | 4 | 4 | 4 | 4 |
| 41 | 4 | 4 | 2 | 4 |
| 42 | 4 | 3 | 3 | 4 |
| 43 | 4 | 4 | 2 | 4 |
| 44 | 3 | 4 | 4 | 2 |
| 45 | 3 | 4 | 3 | 4 |
| 46 | 4 | 3 | 4 | 4 |
| 47 | 3 | 4 | 4 | 4 |
| 48 | 4 | 3 | 2 | 3 |
| 49 | 4 | 4 | 3 | 3 |
| 50 | 4 | 4 | 4 | 4 |
| 51 | 3 | 4 | 2 | 4 |
| 52 | 4 | 4 | 4 | 4 |
| 53 | 4 | 3 | 4 | 3 |
| 54 | 3 | 4 | 3 | 4 |
| 55 | 4 | 3 | 2 | 4 |
| 56 | 4 | 4 | 4 | 4 |
| 57 | 4 | 4 | 2 | 4 |
| 58 | 4 | 4 | 4 | 4 |
| 59 | 3 | 4 | 2 | 3 |
| 60 | 3 | 4 | 2 | 4 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.6

**d.f.D.** = 240-4= 236

**Step 3: TV**

F = 1.92

**Step 4:**

Do not Reject Ho.

**Step 5:**

There is no significant difference in the frequency of use (FOU) of AI tools among male and female students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in FOU Among Male and Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 2.75 | 3 | 0.92 | ±2.6 | 1.92 |
| Within(error) | 113.87 | 236 | 0.48 |  |  |
| Total | 116.62 | 239 |  |  |  |

| **ANOVA: Significant Difference in APB Among Male Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APB – Male** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 4 | 3 | 4 |
| 2 | 3 | 3 | 4 | 3 |
| 3 | 4 | 4 | 3 | 2 |
| 4 | 3 | 3 | 4 | 3 |
| 5 | 4 | 4 | 3 | 4 |
| 6 | 3 | 3 | 3 | 4 |
| 7 | 4 | 4 | 3 | 4 |
| 8 | 4 | 4 | 4 | 3 |
| 9 | 4 | 4 | 3 | 4 |
| 10 | 3 | 3 | 4 | 4 |
| 11 | 4 | 4 | 3 | 3 |
| 12 | 3 | 4 | 4 | 4 |
| 13 | 4 | 3 | 3 | 4 |
| 14 | 4 | 4 | 4 | 3 |
| 15 | 3 | 3 | 3 | 4 |
| 16 | 1 | 3 | 2 | 4 |
| 17 | 4 | 4 | 2 | 3 |
| 18 | 3 | 3 | 4 | 3 |
| 19 | 4 | 4 | 4 | 3 |
| 20 | 4 | 3 | 4 | 3 |
| 21 | 4 | 4 | 2 | 4 |
| 22 | 4 | 4 | 4 | 3 |
| 23 | 4 | 3 | 3 | 3 |
| 24 | 4 | 4 | 2 | 3 |
| 25 | 4 | 4 | 4 | 4 |
| 26 | 4 | 4 | 4 | 2 |
| 27 | 3 | 4 | 4 | 4 |
| 28 | 4 | 4 | 4 | 3 |
| 29 | 3 | 3 | 2 | 3 |
| 30 | 3 | 3 | 4 | 3 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.68

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 1.19

**Step 4:**

Do not Reject Ho.

**Step 5:**

There is no significant difference in the academic performance before (APB) use of AI tools among male students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in APB Among Male Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 1.485 | 3 | 0.50 | ±2.68 | 1.19 |
| Within(error) | 48.14 | 116 | 0.42 |  |  |
| Total | 49.625 | 119 |  |  |  |

| **ANOVA: Significant Difference in APB Among Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APB – Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 4 | 3 | 4 | 2 |
| 2 | 3 | 4 | 3 | 3 |
| 3 | 2 | 2 | 4 | 2 |
| 4 | 3 | 4 | 3 | 3 |
| 5 | 4 | 3 | 4 | 4 |
| 6 | 4 | 4 | 3 | 3 |
| 7 | 4 | 4 | 4 | 4 |
| 8 | 3 | 3 | 4 | 4 |
| 9 | 4 | 4 | 4 | 4 |
| 10 | 4 | 3 | 3 | 4 |
| 11 | 3 | 3 | 4 | 2 |
| 12 | 4 | 4 | 4 | 3 |
| 13 | 4 | 4 | 3 | 2 |
| 14 | 3 | 4 | 4 | 4 |
| 15 | 4 | 3 | 3 | 3 |
| 16 | 4 | 4 | 3 | 4 |
| 17 | 3 | 3 | 4 | 4 |
| 18 | 3 | 4 | 3 | 2 |
| 19 | 3 | 3 | 4 | 3 |
| 20 | 3 | 2 | 3 | 4 |
| 21 | 4 | 4 | 4 | 2 |
| 22 | 3 | 4 | 4 | 4 |
| 23 | 3 | 3 | 3 | 4 |
| 24 | 3 | 2 | 4 | 3 |
| 25 | 4 | 3 | 4 | 2 |
| 26 | 2 | 4 | 4 | 4 |
| 27 | 4 | 4 | 4 | 2 |
| 28 | 3 | 3 | 4 | 4 |
| 29 | 3 | 4 | 3 | 2 |
| 30 | 3 | 4 | 3 | 2 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.68

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 2.77

**Step 4:**

Reject Ho..

**Step 5:**

There is a significant difference in the academic performance before (APB) use of AI tools among female students from first-year to fourth-year.

1. **ANOVA SUMMARY Results for Significant Difference in APB Among Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 3.88 | 3 | 1.29 | ±2.68 | 2.77 |
| Within(error) | 54.23 | 116 | 0.47 |  |  |
| Total | 58.11 | 119 |  |  |  |

| **ANOVA: Significant Difference in APB Among Male and Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APB – Male and Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 4 | 3 | 4 |
| 2 | 3 | 3 | 4 | 3 |
| 3 | 4 | 4 | 3 | 2 |
| 4 | 3 | 3 | 4 | 3 |
| 5 | 4 | 4 | 3 | 4 |
| 6 | 3 | 3 | 3 | 4 |
| 7 | 4 | 4 | 3 | 4 |
| 8 | 4 | 4 | 4 | 3 |
| 9 | 4 | 4 | 3 | 4 |
| 10 | 3 | 3 | 4 | 4 |
| 11 | 4 | 4 | 3 | 3 |
| 12 | 3 | 4 | 4 | 4 |
| 13 | 4 | 3 | 3 | 4 |
| 14 | 4 | 4 | 4 | 3 |
| 15 | 3 | 3 | 3 | 4 |
| 16 | 1 | 3 | 2 | 4 |
| 17 | 4 | 4 | 2 | 3 |
| 18 | 3 | 3 | 4 | 3 |
| 19 | 4 | 4 | 4 | 3 |
| 20 | 4 | 3 | 4 | 3 |
| 21 | 4 | 4 | 2 | 4 |
| 22 | 4 | 4 | 4 | 3 |
| 23 | 4 | 3 | 3 | 3 |
| 24 | 4 | 4 | 2 | 3 |
| 25 | 4 | 4 | 4 | 4 |
| 26 | 4 | 4 | 4 | 2 |
| 27 | 3 | 4 | 4 | 4 |
| 28 | 4 | 4 | 4 | 3 |
| 29 | 3 | 3 | 2 | 3 |
| 30 | 3 | 3 | 4 | 3 |
| 31 | 4 | 3 | 4 | 2 |
| 32 | 3 | 4 | 3 | 3 |
| 33 | 2 | 2 | 4 | 2 |
| 34 | 3 | 4 | 3 | 3 |
| 35 | 4 | 3 | 4 | 4 |
| 36 | 4 | 4 | 3 | 3 |
| 37 | 4 | 4 | 4 | 4 |
| 38 | 3 | 3 | 4 | 4 |
| 39 | 4 | 4 | 4 | 4 |
| 40 | 4 | 3 | 3 | 4 |
| 41 | 3 | 3 | 4 | 2 |
| 42 | 4 | 4 | 4 | 3 |

| **ANOVA: Significant Difference in APB Among Male and Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APB – Male and Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 43 | 4 | 4 | 3 | 2 |
| 44 | 3 | 4 | 4 | 4 |
| 45 | 4 | 3 | 3 | 3 |
| 46 | 4 | 4 | 3 | 4 |
| 47 | 3 | 3 | 4 | 4 |
| 48 | 3 | 4 | 3 | 2 |
| 49 | 3 | 3 | 4 | 3 |
| 50 | 3 | 2 | 3 | 4 |
| 51 | 4 | 4 | 4 | 2 |
| 52 | 3 | 4 | 4 | 4 |
| 53 | 3 | 3 | 3 | 4 |
| 54 | 3 | 2 | 4 | 3 |
| 55 | 4 | 3 | 4 | 2 |
| 56 | 2 | 4 | 4 | 4 |
| 57 | 4 | 4 | 4 | 2 |
| 58 | 3 | 3 | 4 | 4 |
| 59 | 3 | 4 | 3 | 2 |
| 60 | 3 | 4 | 3 | 2 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.6

**d.f.D.** = 240-4= 236

**Step 3: TV**

F = 2.20

**Step 4:**

Do not Reject Ho.

**Step 5:**

There is no significant difference in the academic performance before (APB) use of AI tools among male and female students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in APB Among Male and Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 2.97 | 3 | 0.99 | ±2.68 | 2.20 |
| Within(error) | 105.49 | 236 | 0.45 |  |  |
| Total | 108.46 | 239 |  |  |  |

| **ANOVA: Significant Difference in APA Among Male Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APA – Male** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 3 | 4 | 4 |
| 2 | 3 | 3 | 3 | 4 |
| 3 | 4 | 3 | 3 | 3 |
| 4 | 4 | 3 | 4 | 3 |
| 5 | 3 | 4 | 3 | 4 |
| 6 | 3 | 4 | 3 | 2 |
| 7 | 3 | 3 | 3 | 4 |
| 8 | 4 | 4 | 3 | 3 |
| 9 | 3 | 4 | 4 | 2 |
| 10 | 3 | 4 | 4 | 3 |
| 11 | 4 | 4 | 3 | 4 |
| 12 | 3 | 4 | 4 | 3 |
| 13 | 4 | 4 | 4 | 3 |
| 14 | 4 | 2 | 4 | 4 |
| 15 | 4 | 4 | 2 | 2 |
| 16 | 4 | 4 | 3 | 3 |
| 17 | 4 | 4 | 4 | 4 |
| 18 | 3 | 3 | 4 | 3 |
| 19 | 4 | 3 | 3 | 3 |
| 20 | 3 | 4 | 4 | 3 |
| 21 | 4 | 4 | 4 | 4 |
| 22 | 4 | 4 | 4 | 2 |
| 23 | 3 | 3 | 4 | 3 |
| 24 | 3 | 4 | 4 | 3 |
| 25 | 4 | 4 | 4 | 3 |
| 26 | 3 | 4 | 4 | 4 |
| 27 | 4 | 4 | 4 | 3 |
| 28 | 4 | 4 | 4 | 3 |
| 29 | 3 | 3 | 3 | 3 |
| 30 | 4 | 4 | 4 | 3 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.68

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 4.12

**Step 4:**

Reject Ho.

**Step 5:**

There is a significant difference in the academic performance after (APA) use of AI tools among male students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in APA Among Male Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 4.08 | 3 | 1.36 | ±2.68 | 4.12 |
| Within(error) | 37.81 | 116 | 0.33 |  |  |
| Total | 41.89 | 119 |  |  |  |

| **ANOVA: Significant Difference in APA Among Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APA – Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 4 | 4 | 3 | 4 |
| 2 | 4 | 4 | 3 | 3 |
| 3 | 3 | 2 | 3 | 4 |
| 4 | 3 | 4 | 3 | 3 |
| 5 | 4 | 3 | 4 | 4 |
| 6 | 2 | 4 | 4 | 3 |
| 7 | 4 | 4 | 3 | 4 |
| 8 | 3 | 3 | 4 | 4 |
| 9 | 2 | 4 | 4 | 4 |
| 10 | 3 | 4 | 4 | 3 |
| 11 | 4 | 4 | 4 | 4 |
| 12 | 3 | 3 | 4 | 4 |
| 13 | 3 | 4 | 4 | 3 |
| 14 | 4 | 4 | 2 | 4 |
| 15 | 2 | 4 | 4 | 3 |
| 16 | 3 | 4 | 4 | 3 |
| 17 | 4 | 4 | 4 | 4 |
| 18 | 3 | 4 | 3 | 3 |
| 19 | 3 | 4 | 3 | 4 |
| 20 | 3 | 4 | 4 | 3 |
| 21 | 4 | 3 | 4 | 4 |
| 22 | 2 | 3 | 4 | 4 |
| 23 | 3 | 3 | 3 | 3 |
| 24 | 3 | 2 | 4 | 4 |
| 25 | 3 | 4 | 4 | 4 |
| 26 | 4 | 2 | 4 | 4 |
| 27 | 3 | 4 | 4 | 4 |
| 28 | 3 | 4 | 4 | 4 |
| 29 | 3 | 4 | 3 | 3 |
| 30 | 3 | 4 | 4 | 3 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.68

**d.f.D.** = 120-4= 116

**Step 3: TV**

F = 4.15

**Step 4:**

Reject Ho..

**Step 5:**

There is a significant difference in the academic performance after (APA) use of AI tools among female students from first-year to fourth-year.

1. **ANOVA SUMMARY Results for Significant Difference in APA Among Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 4.46 | 3 | 1.49 | ±2.68 | 4.15 |
| Within(error) | 41.53 | 116 | 0.36 |  |  |
| Total | 45.99 | 119 |  |  |  |

| **ANOVA: Significant Difference in APA Among Male and Female Students from 1st to 4th Year** | | | | |
| --- | --- | --- | --- | --- |
| **Respondent No.** | **APA – Male and Female** | | | |
| **1st** | **2nd** | **3rd** | **4th** |
| 1 | 3 | 3 | 4 | 4 |
| 2 | 3 | 3 | 3 | 4 |
| 3 | 4 | 3 | 3 | 3 |
| 4 | 4 | 3 | 4 | 3 |
| 5 | 3 | 4 | 3 | 4 |
| 6 | 3 | 4 | 3 | 2 |
| 7 | 3 | 3 | 3 | 4 |
| 8 | 4 | 4 | 3 | 3 |
| 9 | 3 | 4 | 4 | 2 |
| 10 | 3 | 4 | 4 | 3 |
| 11 | 4 | 4 | 3 | 4 |
| 12 | 3 | 4 | 4 | 3 |
| 13 | 4 | 4 | 4 | 3 |
| 14 | 4 | 2 | 4 | 4 |
| 15 | 4 | 4 | 2 | 2 |
| 16 | 4 | 4 | 3 | 3 |
| 17 | 4 | 4 | 4 | 4 |
| 18 | 3 | 3 | 4 | 3 |
| 19 | 4 | 3 | 3 | 3 |
| 20 | 3 | 4 | 4 | 3 |
| 21 | 4 | 4 | 4 | 4 |
| 22 | 4 | 4 | 4 | 2 |
| 23 | 3 | 3 | 4 | 3 |
| 24 | 3 | 4 | 4 | 3 |
| 25 | 4 | 4 | 4 | 3 |
| 26 | 3 | 4 | 4 | 4 |
| 27 | 4 | 4 | 4 | 3 |
| 28 | 4 | 4 | 4 | 3 |
| 29 | 3 | 3 | 3 | 3 |
| 30 | 4 | 4 | 4 | 3 |
| 31 | 4 | 4 | 3 | 4 |
| 32 | 4 | 4 | 3 | 3 |
| 33 | 3 | 2 | 3 | 4 |
| 34 | 3 | 4 | 3 | 3 |
| 35 | 4 | 3 | 4 | 4 |
| 36 | 2 | 4 | 4 | 3 |
| 37 | 4 | 4 | 3 | 4 |
| 38 | 3 | 3 | 4 | 4 |
| 39 | 2 | 4 | 4 | 4 |
| 40 | 3 | 4 | 4 | 3 |
| 41 | 4 | 4 | 4 | 4 |
| 42 | 3 | 3 | 4 | 4 |
| 43 | 3 | 4 | 4 | 3 |
| 44 | 4 | 4 | 2 | 4 |
| 45 | 2 | 4 | 4 | 3 |
| 46 | 3 | 4 | 4 | 3 |
| 47 | 4 | 4 | 4 | 4 |
| 48 | 3 | 4 | 3 | 3 |
| 49 | 3 | 4 | 3 | 4 |
| 50 | 3 | 4 | 4 | 3 |
| 51 | 4 | 3 | 4 | 4 |
| 52 | 2 | 3 | 4 | 4 |
| 53 | 3 | 3 | 3 | 3 |
| 54 | 3 | 2 | 4 | 4 |
| 55 | 3 | 4 | 4 | 4 |
| 56 | 4 | 2 | 4 | 4 |
| 57 | 3 | 4 | 4 | 4 |
| 58 | 3 | 4 | 4 | 4 |
| 59 | 3 | 4 | 3 | 3 |
| 60 | 3 | 4 | 4 | 3 |

**HYPOTHESES TESTING:**

**Step 1: Hypotheses**

Ho: = = =

H1:

**Step 2:**  = 0.05;

**d.f.N.** = 4-1= 3 **CV =** ±2.6

**d.f.D.** = 240-4= 236

**Step 3: TV**

F = 3.53

**Step 4:**

Reject Ho..

**Step 5:**

There is a significant difference in the academic performance after (APA) use of AI tools among male and female students from first-year to fourth-year.

**ANOVA SUMMARY Results for Significant Difference in APA Among Male and Female Students from 1st to 4th Year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Sum of Squares** | **d.f.** | **Mean Square** | ***F*** | |
| ***CV*** | ***TV*** |
| Between | 3.78 | 3 | 1.26 | ±2.6 | 3.53 |
| Within(error) | 84.2 | 236 | 0.36 |  |  |
| Total | 87.98 | 239 |  |  |  |

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**Appendices**

1. **Data**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Respondent No.** | **FIRST YEAR** | | | **SECOND YEAR** | | | **THIRD YEAR** | | | **FOURTH YEAR** | | |
| FOU | APB | APA | FOU | APB | APA | FOU | APB | APA | FOU | APB | APA |
| **MALE** | | | | **MALE** | | | **MALE** | | | **MALE** | | |
| **1** | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 |
| **2** | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 |
| **3** | 3 | 4 | 4 | 2 | 4 | 3 | 3 | 3 | 3 | 4 | 2 | 3 |
| **4** | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 |
| **5** | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 |
| **6** | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 3 | 4 | 2 |
| **7** | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| **8** | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 |
| **9** | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 2 |
| **10** | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| **11** | 3 | 4 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 4 |
| **12** | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| **13** | 2 | 4 | 4 | 2 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| **14** | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 4 |
| **15** | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | 4 | 2 |
| **16** | 3 | 1 | 4 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 4 | 3 |
| **17** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 4 |
| **18** | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 |
| **19** | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 |
| **20** | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 |
| **21** | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 2 | 4 | 3 | 4 | 4 |
| **22** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 |
| **23** | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 3 |
| **24** | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 3 |
| **25** | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| **26** | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 |
| **27** | 2 | 3 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| **28** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |
| **29** | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **30** | 2 | 3 | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Respondent No.** | **FIRST YEAR** | | | **SECOND YEAR** | | | **THIRD YEAR** | | | **FOURTH YEAR** | | |
| FOU | APB | APA | FOU | APB | APA | FOU | APB | APA | FOU | APB | APA |
| **FEMALE** | | | | **FEMALE** | | | **FEMALE** | | | **FEMALE** | | |
| **31** | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 4 | 3 | 3 | 2 | 4 |
| **32** | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| **33** | 4 | 2 | 3 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 2 | 4 |
| **34** | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| **35** | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| **36** | 3 | 4 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 |
| **37** | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 |
| **38** | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| **39** | 3 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **40** | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| **41** | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | 2 | 4 |
| **42** | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 |
| **43** | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 2 | 3 |
| **44** | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 4 | 4 |
| **45** | 3 | 4 | 2 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 |
| **46** | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| **47** | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **48** | 4 | 3 | 3 | 3 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 3 |
| **49** | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 |
| **50** | 4 | 3 | 3 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 3 |
| **51** | 3 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 2 | 4 |
| **52** | 4 | 3 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| **53** | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 |
| **54** | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 4 | 4 | 4 | 3 | 4 |
| **55** | 4 | 4 | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 2 | 4 |
| **56** | 4 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| **57** | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 2 | 4 |
| **58** | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **59** | 3 | 3 | 3 | 4 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 3 |
| **60** | 3 | 3 | 3 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 2 | 3 |

**B. Organized Data**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | FOU | | | | |  | FOU | | | | |
|  | 1ST | 2ND | 3RD | 4TH |  |  | 1ST | 2ND | 3RD | 4TH |  |
|  | MALE | | | |  |  | FEMALE | | | |  |
| **1** | 3 | 2 | 3 | 3 | 2.75 | **31** | 3 | 3 | 2 | 3 | 2.75 |
| **2** | 4 | 3 | 3 | 3 | 3.25 | **32** | 3 | 3 | 3 | 3 | 3 |
| **3** | 3 | 2 | 3 | 4 | 3 | **33** | 4 | 2 | 2 | 3 | 2.75 |
| **4** | 3 | 3 | 4 | 4 | 3.5 | **34** | 4 | 4 | 3 | 3 | 3.5 |
| **5** | 4 | 4 | 4 | 4 | 4 | **35** | 4 | 3 | 4 | 4 | 3.75 |
| **6** | 3 | 3 | 2 | 3 | 2.75 | **36** | 3 | 3 | 3 | 4 | 3.25 |
| **7** | 4 | 4 | 3 | 4 | 3.75 | **37** | 4 | 4 | 4 | 3 | 3.75 |
| **8** | 4 | 4 | 3 | 3 | 3.5 | **38** | 3 | 4 | 4 | 4 | 3.75 |
| **9** | 4 | 4 | 3 | 3 | 3.5 | **39** | 3 | 4 | 4 | 4 | 3.75 |
| **10** | 3 | 4 | 4 | 4 | 3.75 | **40** | 4 | 4 | 4 | 4 | 4 |
| **11** | 3 | 2 | 4 | 4 | 3.25 | **41** | 4 | 4 | 2 | 4 | 3.5 |
| **12** | 3 | 3 | 4 | 4 | 3.5 | **42** | 4 | 3 | 3 | 4 | 3.5 |
| **13** | 2 | 2 | 4 | 4 | 3 | **43** | 4 | 4 | 2 | 4 | 3.5 |
| **14** | 4 | 4 | 4 | 3 | 3.75 | **44** | 3 | 4 | 4 | 2 | 3.25 |
| **15** | 3 | 3 | 4 | 3 | 3.25 | **45** | 3 | 4 | 3 | 4 | 3.5 |
| **16** | 3 | 4 | 4 | 4 | 3.75 | **46** | 4 | 3 | 4 | 4 | 3.75 |
| **17** | 4 | 4 | 4 | 3 | 3.75 | **47** | 3 | 4 | 4 | 4 | 3.75 |
| **18** | 2 | 2 | 3 | 4 | 2.75 | **48** | 4 | 3 | 2 | 3 | 3 |
| **19** | 4 | 3 | 3 | 4 | 3.5 | **49** | 4 | 4 | 3 | 3 | 3.5 |
| **20** | 4 | 4 | 3 | 4 | 3.75 | **50** | 4 | 4 | 4 | 4 | 4 |
| **21** | 2 | 2 | 4 | 3 | 2.75 | **51** | 3 | 4 | 2 | 4 | 3.25 |
| **22** | 4 | 4 | 4 | 4 | 4 | **52** | 4 | 4 | 4 | 4 | 4 |
| **23** | 4 | 4 | 4 | 4 | 4 | **53** | 4 | 3 | 4 | 3 | 3.5 |
| **24** | 3 | 3 | 4 | 3 | 3.25 | **54** | 3 | 4 | 3 | 4 | 3.5 |
| **25** | 2 | 2 | 4 | 4 | 3 | **55** | 4 | 3 | 2 | 4 | 3.25 |
| **26** | 4 | 4 | 4 | 4 | 4 | **56** | 4 | 4 | 4 | 4 | 4 |
| **27** | 2 | 2 | 4 | 4 | 3 | **57** | 4 | 4 | 2 | 4 | 3.5 |
| **28** | 4 | 4 | 4 | 4 | 4 | **58** | 4 | 4 | 4 | 4 | 4 |
| **29** | 3 | 2 | 3 | 3 | 2.75 | **59** | 3 | 4 | 2 | 3 | 3 |
| **30** | 2 | 2 | 4 | 3 | 2.75 | **60** | 3 | 4 | 2 | 4 | 3.25 |
| x̄ | 3.233333 | 3.1 | 3.6 | 3.6 |  | x̄ | 3.6 | 3.633333 | 3.1 | 3.633333 |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | APB | | | | |  | APB | | | | |
|  | 1ST | 2ND | 3RD | 4TH |  |  | 1ST | 2ND | 3RD | 4TH |  |
|  | MALE | | | |  |  | FEMALE | | | |  |
| **1** | 3 | 4 | 3 | 4 | 3.5 | **31** | 4 | 3 | 4 | 2 | 3.25 |
| **2** | 3 | 3 | 4 | 3 | 3.25 | **32** | 3 | 4 | 3 | 3 | 3.25 |
| **3** | 4 | 4 | 3 | 2 | 3.25 | **33** | 2 | 2 | 4 | 2 | 2.5 |
| **4** | 3 | 3 | 4 | 3 | 3.25 | **34** | 3 | 4 | 3 | 3 | 3.25 |
| **5** | 4 | 4 | 3 | 4 | 3.75 | **35** | 4 | 3 | 4 | 4 | 3.75 |
| **6** | 3 | 3 | 3 | 4 | 3.25 | **36** | 4 | 4 | 3 | 3 | 3.5 |
| **7** | 4 | 4 | 3 | 4 | 3.75 | **37** | 4 | 4 | 4 | 4 | 4 |
| **8** | 4 | 4 | 4 | 3 | 3.75 | **38** | 3 | 3 | 4 | 4 | 3.5 |
| **9** | 4 | 4 | 3 | 4 | 3.75 | **39** | 4 | 4 | 4 | 4 | 4 |
| **10** | 3 | 3 | 4 | 4 | 3.5 | **40** | 4 | 3 | 3 | 4 | 3.5 |
| **11** | 4 | 4 | 3 | 3 | 3.5 | **41** | 3 | 3 | 4 | 2 | 3 |
| **12** | 3 | 4 | 4 | 4 | 3.75 | **42** | 4 | 4 | 4 | 3 | 3.75 |
| **13** | 4 | 3 | 3 | 4 | 3.5 | **43** | 4 | 4 | 3 | 2 | 3.25 |
| **14** | 4 | 4 | 4 | 3 | 3.75 | **44** | 3 | 4 | 4 | 4 | 3.75 |
| **15** | 3 | 3 | 3 | 4 | 3.25 | **45** | 4 | 3 | 3 | 3 | 3.25 |
| **16** | 1 | 3 | 2 | 4 | 2.5 | **46** | 4 | 4 | 3 | 4 | 3.75 |
| **17** | 4 | 4 | 2 | 3 | 3.25 | **47** | 3 | 3 | 4 | 4 | 3.5 |
| **18** | 3 | 3 | 4 | 3 | 3.25 | **48** | 3 | 4 | 3 | 2 | 3 |
| **19** | 4 | 4 | 4 | 3 | 3.75 | **49** | 3 | 3 | 4 | 3 | 3.25 |
| **20** | 4 | 3 | 4 | 3 | 3.5 | **50** | 3 | 2 | 3 | 4 | 3 |
| **21** | 4 | 4 | 2 | 4 | 3.5 | **51** | 4 | 4 | 4 | 2 | 3.5 |
| **22** | 4 | 4 | 4 | 3 | 3.75 | **52** | 3 | 4 | 4 | 4 | 3.75 |
| **23** | 4 | 3 | 3 | 3 | 3.25 | **53** | 3 | 3 | 3 | 4 | 3.25 |
| **24** | 4 | 4 | 2 | 3 | 3.25 | **54** | 3 | 2 | 4 | 3 | 3 |
| **25** | 4 | 4 | 4 | 4 | 4 | **55** | 4 | 3 | 4 | 2 | 3.25 |
| **26** | 4 | 4 | 4 | 2 | 3.5 | **56** | 2 | 4 | 4 | 4 | 3.5 |
| **27** | 3 | 4 | 4 | 4 | 3.75 | **57** | 4 | 4 | 4 | 2 | 3.5 |
| **28** | 4 | 4 | 4 | 3 | 3.75 | **58** | 3 | 3 | 4 | 4 | 3.5 |
| **29** | 3 | 3 | 2 | 3 | 2.75 | **59** | 3 | 4 | 3 | 2 | 3 |
| **30** | 3 | 3 | 4 | 3 | 3.25 | **60** | 3 | 4 | 3 | 2 | 3 |
| x̄ | 3.533333 | 3.6 | 3.333333 | 3.366667 |  | x̄ | 3.366667 | 3.433333 | 3.6 | 3.1 |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | APA | | | | |  | APA | | | | |
|  | 1ST | 2ND | 3RD | 4TH |  |  | 1ST | 2ND | 3RD | 4TH |  |
|  | MALE | | | |  |  | FEMALE | | | |  |
| **1** | 3 | 3 | 4 | 4 | 3.5 | **31** | 4 | 4 | 3 | 4 | 3.75 |
| **2** | 3 | 3 | 3 | 4 | 3.25 | **32** | 4 | 4 | 3 | 3 | 3.5 |
| **3** | 4 | 3 | 3 | 3 | 3.25 | **33** | 3 | 2 | 3 | 4 | 3 |
| **4** | 4 | 3 | 4 | 3 | 3.5 | **34** | 3 | 4 | 3 | 3 | 3.25 |
| **5** | 3 | 4 | 3 | 4 | 3.5 | **35** | 4 | 3 | 4 | 4 | 3.75 |
| **6** | 3 | 4 | 3 | 2 | 3 | **36** | 2 | 4 | 4 | 3 | 3.25 |
| **7** | 3 | 3 | 3 | 4 | 3.25 | **37** | 4 | 4 | 3 | 4 | 3.75 |
| **8** | 4 | 4 | 3 | 3 | 3.5 | **38** | 3 | 3 | 4 | 4 | 3.5 |
| **9** | 3 | 4 | 4 | 2 | 3.25 | **39** | 2 | 4 | 4 | 4 | 3.5 |
| **10** | 3 | 4 | 4 | 3 | 3.5 | **40** | 3 | 4 | 4 | 3 | 3.5 |
| **11** | 4 | 4 | 3 | 4 | 3.75 | **41** | 4 | 4 | 4 | 4 | 4 |
| **12** | 3 | 4 | 4 | 3 | 3.5 | **42** | 3 | 3 | 4 | 4 | 3.5 |
| **13** | 4 | 4 | 4 | 3 | 3.75 | **43** | 3 | 4 | 4 | 3 | 3.5 |
| **14** | 4 | 2 | 4 | 4 | 3.5 | **44** | 4 | 4 | 2 | 4 | 3.5 |
| **15** | 4 | 4 | 2 | 2 | 3 | **45** | 2 | 4 | 4 | 3 | 3.25 |
| **16** | 4 | 4 | 3 | 3 | 3.5 | **46** | 3 | 4 | 4 | 3 | 3.5 |
| **17** | 4 | 4 | 4 | 4 | 4 | **47** | 4 | 4 | 4 | 4 | 4 |
| **18** | 3 | 3 | 4 | 3 | 3.25 | **48** | 3 | 4 | 3 | 3 | 3.25 |
| **19** | 4 | 3 | 3 | 3 | 3.25 | **49** | 3 | 4 | 3 | 4 | 3.5 |
| **20** | 3 | 4 | 4 | 3 | 3.5 | **50** | 3 | 4 | 4 | 3 | 3.5 |
| **21** | 4 | 4 | 4 | 4 | 4 | **51** | 4 | 3 | 4 | 4 | 3.75 |
| **22** | 4 | 4 | 4 | 2 | 3.5 | **52** | 2 | 3 | 4 | 4 | 3.25 |
| **23** | 3 | 3 | 4 | 3 | 3.25 | **53** | 3 | 3 | 3 | 3 | 3 |
| **24** | 3 | 4 | 4 | 3 | 3.5 | **54** | 3 | 2 | 4 | 4 | 3.25 |
| **25** | 4 | 4 | 4 | 3 | 3.75 | **55** | 3 | 4 | 4 | 4 | 3.75 |
| **26** | 3 | 4 | 4 | 4 | 3.75 | **56** | 4 | 2 | 4 | 4 | 3.5 |
| **27** | 4 | 4 | 4 | 3 | 3.75 | **57** | 3 | 4 | 4 | 4 | 3.75 |
| **28** | 4 | 4 | 4 | 3 | 3.75 | **58** | 3 | 4 | 4 | 4 | 3.75 |
| **29** | 3 | 3 | 3 | 3 | 3 | **59** | 3 | 4 | 3 | 3 | 3.25 |
| **30** | 4 | 4 | 4 | 3 | 3.75 | **60** | 3 | 4 | 4 | 3 | 3.5 |
| x̄ | 3.533333 | 3.633333 | 3.6 | 3.166667 |  | x̄ | 3.166667 | 3.6 | 3.633333 | 3.6 |  |