Student Study Habits and Academic Performance

IEMS 315: DAE
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MOTIVATION

Uncover the secrets to academic success!

We aimed to explore the relationship between study habits and grades. Gain practical insights to boost the students' learning experience and help educators to offer personalized support for a more effective educational journey.

METHODOLOGY

- **Primary Method**: Surveys
- **Objective**: Investigating student study habits and academic performance.
- **Anonymity**: Ensuring privacy and honesty through anonymous surveys.
- **Scope**: Distributed across various universities for diverse insights.
- **Focus Areas**: Quantitative data on study habits, time management, learning environments, participation, lifestyle, peer collaboration, and goal-setting.
- **Format**: Standardized with multiple choice questions

SOME RESULTS FROM THE SURVEY

- Gender Distribution:
  Females: 68.4% Males: 31.6%
- Age Group:
  18-24: 96.8%
- Academic Level:
  Freshman: 12.6%
  Sophomores: 20%
  Junior: 17.9%
  Senior: 34.7%
  Graduate students: 14.7%
- Institution Breakdown:
  a. AUA Students: 64 out of 95 (67.4%)
  b. Armenian Students: 76 out of 95 (80%)

ANALYSIS

DESCRIPTIVE ANALYSIS

CORRELATION ANALYSIS

VISUAL ANALYSIS

COMPARATIVE ANALYSIS

DESCRIPTIVE ANALYSIS

Dataset Characteristics: All variables are categorical, except GPA.

Numerical Variable Analysis

- GPA Distribution Analysis
- Mean, Median Mode

Categorical Variables Analysis:

- Explored the number of levels for each categorical variable.
- Assessed the percentage distribution of each level within the variables.

VISUAL ANALYSIS

We applied data visualization techniques to nearly all variables to visually understand the dataset. This approach allowed us to easily interpret patterns, trends, and anomalies, providing valuable insights for informed decision-making.

CORRELATION ANALYSIS (20 Pairs)

CONTINGENCY TABLE

- Contingency tables (crosstabs) summarize relationships between categorical variables.
- A special frequency distribution table displays two variables simultaneously.

Pearson χ^2 Test

- Assesses categorical data sets, evaluating observed differences' likelihood.
- Most widely used χ^2 test, testing null hypothesis about frequency distribution consistency.

Coefficients using χ^2 Statistic

- Contingency Coefficient C
- Cramer's V

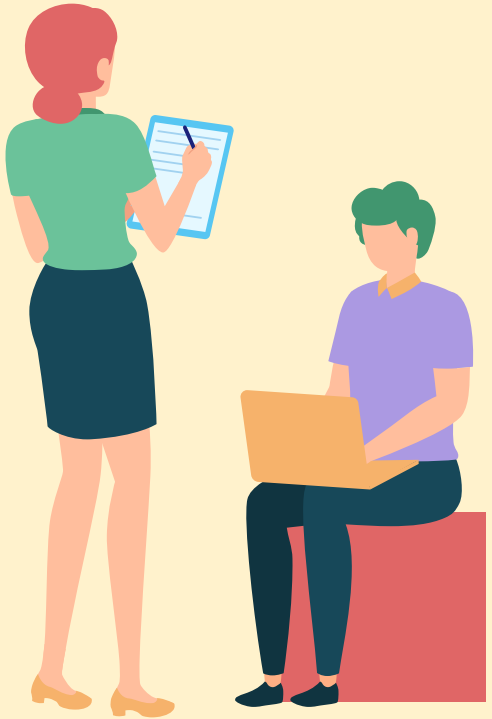
COMPARATIVE ANALYSIS

Comparative Analysis of Good vs. Normal Performing Students

Objective: To understand the factors that contribute to the difference in academic performance between good and normal performing students.

Methods:

- Statistical tests (chi-squared, ANOVA)
- Linear regression



RESULTS

Github Link

Thank You