Quantitative Methodology Section

Research Design

This study will employ a descriptive quantitative approach to analyze the collected data. A cross-sectional survey design will be used to gather numerical data from participants at a single point in time.

Participants

The target population consists of undergraduate students enrolled at University X during the 2023-2024 academic year. A stratified random sampling method will be used to select 300 participants, ensuring representation across different faculties.

Data Collection

Data will be collected using a structured questionnaire consisting of 20 multiple-choice and Likert-scale items. The questionnaire will be administered online through the universityâ€™s survey platform over a two-week period.

Variables and Measures

- **Independent Variable:** Hours of study per week
- **Dependent Variable:** Academic performance (GPA)
- **Control Variables:** Year of study, field of study, prior academic achievement

Data Analysis

The collected data will be coded and entered into SPSS version 27. Descriptive statistics (means, standard deviations, frequencies) will be calculated. Inferential statistics, specifically Pearson correlation and multiple regression analyses, will be conducted to examine relationships between variables and control for confounding factors.

Ethical Considerations

Participation in the study is voluntary and anonymous. Informed consent will be obtained electronically. The research has been reviewed and approved by the University X Research Ethics Committee.

Important Notes

- Quantitative methodology focuses on numerical data and statistical analysis.
- Clear definition and operationalization of variables are crucial.
- Sampling methods significantly affect the validity and generalizability of results.
- Ethical approval and participant consent are essential in quantitative studies.
- Transparency in data analysis methods enhances the study's credibility.