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Does Academic Preparedness Influence Performance? A Comparative Study Across Programs At Politeknik eLBajo Commodus

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Abstract

This study investigates academic performance variations across study programs at Politeknik eLBajo Commodus, blending quantitative analysis with qualitative insights to provide a holistic view of student achievement. Employing an Analysis of Variance (ANOVA) on 'Tes Bakat Skolastik' scores, we sought to identify significant differences in academic performance among the programs. Additionally, casual interviews with students were conducted to explore their perceptions of program selection, academic preparedness, and the challenges encountered. Our methodology combined statistical rigor with a nuanced understanding of student experiences, offering a comprehensive analysis of the factors influencing academic success. The quantitative phase involved comparing mean scores across programs using ANOVA, while the qualitative phase entailed gathering subjective insights from students regarding their academic journey and preparation. The results revealed no statistically significant differences in performance across study programs, indicating a baseline uniformity in academic achievement. However, student interviews highlighted a significant gap in pre-admission knowledge about program expectations and personal academic readiness. These findings suggest the need for enhanced pre-enrollment assessments and orientation programs to better align student expectations with academic demands. In conclusion, this study underscores the importance of a holistic educational approach that encompasses both statistical analyses and the lived experiences of students, advocating for initiatives that support informed decision-making and academic preparedness at the tertiary level.

Keywords: Academic Performance, Study Programs, ANOVA, Pre-admission Assessment, Student Preparedness

Abstrak

Penelitian ini menyelidiki variasi kinerja akademik di berbagai program studi di Politeknik eLBajo Commodus, menggabungkan analisis kuantitatif dengan wawasan kualitatif untuk memberikan pandangan holistik tentang pencapaian siswa. Dengan menggunakan Analisis Variansi (ANOVA) pada skor 'Tes Bakat Skolastik', kami berusaha untuk mengidentifikasi perbedaan kinerja akademik yang signifikan di antara program-program tersebut. Selain itu, wawancara kasual dengan siswa dilakukan untuk mengeksplorasi persepsi mereka tentang pemilihan program, kesiapan akademik, dan tantangan yang dihadapi. Metodologi kami menggabungkan ketelitian statistik dengan pemahaman nuansa tentang pengalaman siswa, menawarkan analisis komprehensif tentang faktor-faktor yang mempengaruhi kesuksesan akademik. Fase kuantitatif melibatkan perbandingan skor rata-rata di seluruh program menggunakan ANOVA, sementara fase kualitatif melibatkan pengumpulan wawasan subjektif dari siswa mengenai perjalanan dan persiapan akademik mereka. Hasilnya menunjukkan tidak ada perbedaan kinerja yang signifikan secara statistik di seluruh program studi, menunjukkan keseragaman dasar dalam pencapaian akademik. Namun, wawancara siswa menyoroti kesenjangan yang signifikan dalam pengetahuan pra-penerimaan tentang ekspektasi program dan kesiapan akademik pribadi. Temuan ini menyarankan perlunya penilaian dan program orientasi pra-pendaftaran yang ditingkatkan untuk lebih baik menyelaraskan ekspektasi siswa dengan tuntutan akademik. Kesimpulannya, penelitian ini menekankan pentingnya pendekatan pendidikan holistik yang mencakup baik analisis statistik maupun pengalaman hidup siswa, menganjurkan inisiatif yang mendukung pengambilan keputusan yang terinformasi dan kesiapan akademik di tingkat lanjut.

Kata kunci: Kinerja Akademik, Program Studi, ANOVA, Penilaian Pra-penerimaan, Kesiapan Siswa

INTRODUCTION

West Manggarai, identified as a 3T (tertinggal, terdepan, terluar) region within the province of Nusa Tenggara Timur (NTT), exemplifies the challenges faced by areas categorized as lagging, leading, and outermost in Indonesia. Such regions are confronted with a broad range of issues, including socioeconomic disparities, restricted access to healthcare, entrenched cultural norms, and economic limitations. These factors significantly impede West Manggarai's ability to enhance its human resources, as evidenced by its Human Development Index (HDI) being substantially below the national average (Badan Pusat Statistik, 2021; Badan Pusat Statistik Kabupaten Manggarai Barat, 2021). Among the myriad of contributing factors, limited access to educational institutions is particularly notable, prompting the establishment of Politeknik eLBajo Commodus in West Manggarai.

Inaugurated in 2018 within the secluded locale of Labuan Bajo, Politeknik eLBajo Commodus faces distinctive challenges in tailoring its educational programs to meet the needs and potential of its student body. The region's struggle with diverse socioeconomic issues, limited healthcare access, cultural norms, and financial barriers, often results in students finding the academic content challenging. This difficulty is further amplified by a widespread lack of basic knowledge in their chosen areas of study, a prevalent problem in remote and underserved regions. The introduction of an entrance examination at Politeknik eLBajo Commodus emerges as a potential solution to this predicament. However, this approach is met with the complex challenge of balancing the institution's need to maintain or increase student enrollment while ensuring the quality of incoming students. Implementing an entrance test raises concerns about potentially diminishing the number of applicants willing to enroll at Politeknik eLBajo Commodus, a new institution striving to establish its reputation and expand its student base. This scenario underscores the intricate balance required to enhance educational access and quality in emerging institutions within underdeveloped regions. As a consequence, the selection process at Politeknik eLBajo Commodus has become largely ceremonial, relying primarily on the academic reports from Senior High School. This approach underscores the institution's immediate challenge in establishing a rigorous admissions procedure that can effectively gauge prospective students' capabilities and readiness for higher education while simultaneously striving to attract a sufficient number of enrollees.

Given the aforementioned context, it becomes evident that students at Politeknik eLBajo Commodus often choose their majors without a comprehensive understanding of the curriculum or significant personal reflection, their decisions frequently swayed by parental influence rather than individual interest or aptitude. This phenomenon has led to concerns regarding students' compatibility with their selected fields and their readiness to meet the vocational requirements upon graduation. As an institution committed to equipping students for direct industry

participation or entrepreneurship, Politeknik eLBajo Commodus faces the imperative of confronting and navigating these issues (Politeknik eLBajo Commodus, 2022).

Therefore, despite the initial reluctance to implement a stringent selection process, the necessity for an assessment mechanism becomes apparent. Such an evaluation, however, should not serve as a barrier to admission but rather as a diagnostic tool to determine the most suitable major for each student based on their abilities and interests. This tailored approach aims to align students' academic pursuits with their inherent strengths and preferences, thereby enhancing their capacity to keep pace with the educational material and ultimately succeed in their vocational endeavors. This strategic adaptation acknowledges the complexities of student enrollment and curriculum alignment, emphasizing the importance of informed program selection in fostering academic and professional success.

In response to these observations, this research was initiated to assess the baseline academic abilities of students across various study programs, including D-IV hotel management, D-III hotel, D-IV accountant and taxes, D-IV marketing international, D-III eco-tourism, and D-III information technology. Through administering the *"Tes Bakat Skolastik"* (Scholastic Aptitude Test) and engaging in informal discussions with students and lecturers, this study aims to uncover deeper insights into the decision-making process behind program selection and the initial academic readiness of students.

This research not only seeks to evaluate the current academic capabilities of students at Politeknik eLBajo Commodus but also to explore the potential benefits of entrance tests. Such tests could serve as valuable tools for both assessing student preparedness and guiding them towards study programs that align more closely with their abilities and interests. Ultimately, the findings of this study aim to assist the institution in enhancing its educational strategies, ensuring students are better equipped for their academic journey and future vocational roles.

LITERATURE STUDY

The efficacy and implications of entrance examinations across different educational systems have been a subject of extensive research globally. In "Correlations Between Entrance Examination Scores and Academic Performance Following Admission" (HE et al., 2015), a significant relationship between entrance exam scores, particularly in English, and subsequent academic performance in university courses was identified, underscoring the predictive value of entrance examinations for academic success. This correlation highlights the importance of assessing linguistic proficiency as a fundamental component of the admissions process.

Further exploring the methodologies used in evaluating entrance exams, "Combining the Previous Measure of Evidence to Educational Entrance Examination" (Maseleno et al., 2017) employs the Dempster-Shafer theory to assess students' examination results. The study's innovative approach to quantifying the uncertainty in entrance examinations suggests a potential for

enhancing traditional admission processes by incorporating mathematical models to evaluate candidates' suitability for specific academic programs.
The examination system in China, as detailed in "The university entrance examination system in China" (Davey et al., 2007), provides a comprehensive overview of the high-stakes nature of the Gaokao. The analysis of its structure, limitations, and the socio-educational implications offers valuable lessons on the pressures associated with national examinations and the need for systemic reforms to address issues of stress, unequal access, and the integrity of the selection process.

In a European context, "Entrance Examinations as Gatekeepers" focuses on Finland's teacher education entrance exams, advocating for a holistic evaluation of candidates, including demonstration lessons to better predict teaching competencies. This study emphasizes the critical role of practical assessments in identifying candidates most suited for the teaching profession, suggesting a model that could be adapted for broader educational contexts.

Similarly, "Results of attending selective junior high schools on educational attainment and standard of living: a social survey in Japan" (Valli & Johnson, 2007) examines the long-term effects of selective education on individuals' socioeconomic outcomes. The findings indicate that selective junior high education contributes to higher educational attainment and standards of living, with a nuanced impact on income influenced by gender and sociocultural factors. This research underscores the need for equitable educational opportunities and support mechanisms that address the broader implications of selective admissions policies.

Lastly, "Reflecting on the consequences of the Iranian university entrance examination: a systematic-narrative hybrid literature review" (Parviz, 2023) provides a critical analysis of Iran's "Konkour," highlighting the examination's profound socioeconomic, psychological, and educational consequences. The call for comprehensive reforms and the incorporation of diverse assessment methods aligns with the global discourse on minimizing the adverse effects of high-stakes examinations and ensuring a more inclusive and fairer educational pathway for all students.

Adding to this nuanced exploration of entrance examination systems worldwide, "Temperature and High-Stakes Cognitive Performance: Evidence from the National College Entrance Examination in China" (Graff Zivin et al., 2020) delves into the environmental factors affecting exam performance, particularly temperature. This study illustrates the impact of external conditions on cognitive functions during crucial testing periods, emphasizing the need for optimal testing environments to support student performance.

Furthermore, "Discovering the experience of failing university entrance exam among applicants: A grounded theory study" (Ashouri et al., 2021) provides an insightful examination into the personal and psychological impacts of not passing entrance exams. This research brings to light the varied and complex experiences of applicants, suggesting the need for educational support systems that address both the academic and emotional needs of students navigating the entrance examination landscape.

Lastly, "Research on reform and trend of physical education high school entrance examination system under the background of 'double reduction' policy" (Ming & Qing, 2023) advocates for the integration of physical education into entrance examination systems, highlighting the importance of holistic student development. This study underscores the value of physical well-being alongside academic achievement, proposing reforms that align with broader educational objectives to enhance both mental and physical health of students.

METHOD

Research Design and Approach

This study employed a mixed-methods approach to assess the academic capabilities of students at Politeknik eLBajo Commodus and to explore the factors influencing their choice of study programs. Quantitative data was collected through the administration of the Scholastic Aptitude Test, while qualitative insights were gathered through informal conversations with students and lecturers.

Participants and Setting

The participants of this study were students enrolled in various programs at Politeknik eLBajo Commodus, including D-IV hotel management (PP), D-III hotel (PH), D-IV accountant and taxes (AP), D-IV marketing international (MPI), D-III eco-tourism (EKW), and D-III information technology (TI). The research was conducted within the institution's premises, providing a direct insight into the academic environment of the students.

Data Collection Methods

This research gathers two different data type which are quantitative and qualitative. Quantitative data is obtained through Scholastic Aptitude Test comprised 50 multiple-choice questions, covering various academic areas such as linguistic, numeric, logic, and english. Students were given 120 minutes to complete the test.
While, qualitative data is gathered informally, the conversational interviews were conducted with a select group of students and lecturers. These discussions focused on the reasons behind the students' choice of study program and the lecturers' perspectives on student capabilities and preparedness.

Data Analysis

The test scores were analyzed using descriptive statistics to evaluate the average performance of students across different study programs. This involved calculating mean scores, standard deviations, and identifying score ranges and distributions. The information gathered from conversations was qualitatively analyzed to identify common themes and patterns regarding students' decision-making processes and the educational challenges they face.

Hypothesis

In addressing the core inquiry of this study, we formulated hypotheses to assess the presence of significant differences in academic performance, as measured

by scores, across various study programs at Politeknik eLBajo Commodus. This investigation is grounded in the theoretical expectation that standardized educational frameworks and curricula, particularly in institutions drawing students from demographically similar regions such as Nusa Tenggara Timur (NTT), should yield comparable academic outcomes irrespective of the chosen field of study. Such an assumption is supported by a review of data from various sources, including national statistics bureaus and educational performance records, which suggest a baseline uniformity in educational attainment across different academic disciplines within similar educational settings.

Consequently, the null hypothesis (H0) posits that there is no significant difference in the knowledge acquisition and academic performance, as reflected in the scores, among students enrolled in different study programs at Politeknik eLBajo Commodus. Conversely, the alternative hypothesis (H1) contends that significant variations in scores do exist among the study programs, indicating disparities in academic achievement that could be attributed to the specific nature and demands of each program.

H0: There is no significant difference in scores among different study programs at Politeknik eLBajo Commodus.
H1: There is a significant difference in scores among different study programs at Politeknik eLBajo Commodus.

RESULT AND DISCUSSION

Prior to conducting hypothesis-driven analyses, an initial descriptive exploration was undertaken to establish a foundational understanding of the distribution of academic scores and to unearth any discernible patterns or anomalies across study programs. This examination involved students enrolled in a diverse array of academic disciplines, underscoring the breadth of the academic landscape at Politeknik eLBajo Commodus. To facilitate this analysis, we employed Python, a versatile programming language renowned for its efficacy in data analysis and scientific computing. Through Python's powerful libraries such as Pandas for data manipulation and Seaborn for visualization, we computed key statistical measures including the mean and standard deviation of academic scores across the study programs.

This computational approach not only ensured accuracy in our descriptive analysis but also allowed for a reproducible methodology, enhancing the rigor of our investigation.

```
# Sample data generation for demonstration
data = pd.DataFrame({
    'Nilai': np.random.normal(loc=15.95, scale=4.03, size=100)  # Generating sample
scores
})
descriptive_stats = data['Nilai'].describe()

# Enhancing row labels for clarity
descriptive_stats.index = ['Count', 'Mean', 'Standard Deviation', 'Minimum', '25th
Percentile', '50th Percentile (Median)', '75th Percentile', 'Maximum']
```

```
# Convert the Series to DataFrame for better formatting options and add descriptive
column name
descriptive_stats_df = descriptive_stats.to_frame(name='Scores')
```

In the table 1, presented the summarized descriptive statistics for academic scores across study programs, calculated using Python's data analysis capabilities

Table 1. Descriptive Statistics Result

Count	Mean	Standar Deviation	Minimum
132	15,9	4	7
25% Percentile	50% Percentile	75% Percentile	Maximum
13	16	19	27

Data source: Data processing, 2024

The 'Tes Bakat Skolastik,' administered to the incoming students at Politeknik eLBajo Commodus, offers a comprehensive view of their foundational academic capabilities, as evidenced by the analysis of 132 scores. The average score, standing at 15.9, notably falls below the maximum of 100, signaling a considerable gap in the expected versus achieved performance levels. This discrepancy emphasizes the need for a critical examination of both instructional strategies and curriculum design to better meet the educational needs of the student body. The observed standard deviation of 4 points to a moderate yet meaningful variability in scores, suggesting differences in students' preparedness and background that require attention.

The maximum score recorded in this cohort is 27, markedly below the test's full evaluative potential. This finding indicates a widespread challenge among students in reaching the upper echelons of performance, potentially due to a variety of factors including the test's difficulty level or the alignment of students' prior educational experiences with the skills assessed.

An examination of the quartile distribution reveals that 25% of students scored below 13, half of the students achieved scores below or at 16, and 75% scored under 19, highlighting a performance band where the bulk of students' scores are concentrated. This concentration suggests a relatively uniform performance level with a tilt towards the lower end of the scoring spectrum, underlining the imperative for Politeknik eLBajo Commodus to implement targeted support and enrichment programs. Such interventions should aim to elevate the overall academic proficiency, ensuring that students are not only prepared to meet but exceed the foundational standards assessed by the 'Tes Bakat Skolastik.

In our continuous endeavor to elucidate the academic landscape of Politeknik eLBajo Commodus, we delve into an empirical analysis of the 'Tes Bakat Skolastik' scores across various study programs. This examination is predicated on the premise that a comprehensive understanding of score distributions can unveil critical insights into student performance and potential areas for curricular enhancement. To this end, we employ Python, a potent tool in the data scientist’s arsenal, renowned for its versatility in data analysis and visualization capabilities. The forthcoming analysis leverages Python's panda’s library for data

manipulation, alongside seaborn and matplotlib for generating sophisticated visual representations. The objective is to craft a box plot that vividly delineates the distribution of scores, offering a visual comparative analysis across different academic disciplines. This approach not only aids in identifying patterns and outliers within the data but also serves as a foundation for data-driven decision-making aimed at fostering academic excellence.

The code snippet below outlines the methodological framework employed in generating this visualization, encapsulating our analytical rigor and commitment to transparency.

```
# Set the font to Cambria
rcParams['font.family'] = 'Cambria'

# Enhance the aesthetics
sns.set(style="whitegrid")

# Create the box plot with enhanced aesthetics
plt.figure(figsize=(12, 8))
box_plot = sns.boxplot(
    x='Nilai',
    y='Program Studi',
    data=data,
    palette="coolwarm"
)
```

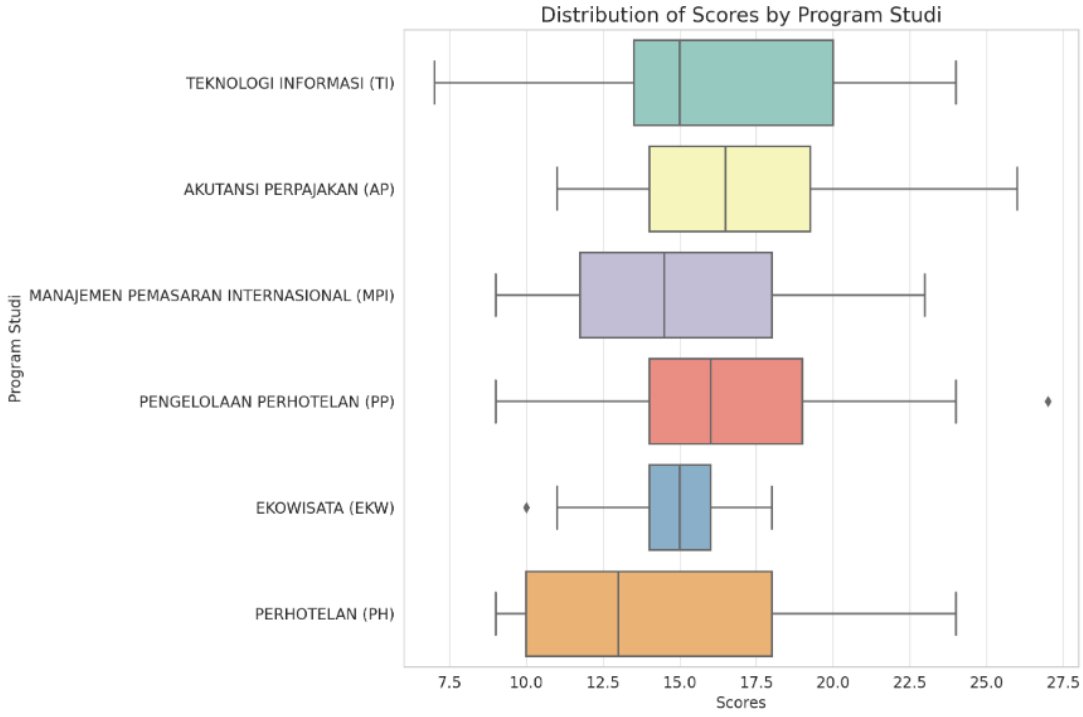

Figure 1. Boxplot Across Different Study Program

Data source: Data processing, 2024

The box plot visualization of 'Tes Bakat Skolastik' scores demonstrates the variability in academic performance across six study programs at Politeknik eLBajo Commodus. Each program's box reflects score distribution characteristics

that may warrant specific educational responses. The 'Teknologi Informasi (TI)' program displays a compact interquartile range, suggesting a homogeneity in scores that could indicate a well-matched curriculum to student capabilities. The absence of outliers suggests consistent achievement within this group. In contrast, 'Akutansi Perpajakan (AP)' presents a broader range, with an outlier suggesting that while most students perform within a predictable score band, there may be individual cases requiring additional academic support. 'Manajemen Pemasaran Internasional (MPI)' shows a considerable spread in scores, indicating diverse academic strengths and weaknesses within the cohort. This could reflect the program's challenging nature or varied student preparation levels. The 'Pengelolaan Perhotelan (PP)' cohort's distribution is less uniform, with a wider interquartile range indicating notable variability in student performance, which could be due to the diverse skill sets required in this field. 'Ekowisata (EKW)' has the lowest median score, and coupled with its broad spread, it suggests this program may face unique challenges that could be explored further to enhance teaching strategies and student understanding. Finally, 'Perhotelan (PH)' stands out with the highest median score, indicating generally strong performance. However, the range is quite expansive, suggesting that while some students excel, others may benefit from additional resources to help them achieve similar success.

To rigorously assess the foundational assumption of normality across the diverse study programs at Politeknik eLBajo Commodus, the Shapiro-Wilk test, a powerful tool for detecting deviations from a normal distribution, was employed. This statistical method facilitates a nuanced examination of the score distributions for each program, ensuring that subsequent analyses rest on solid methodological ground.

The Python code below outlines the process undertaken to perform these critical normality tests.

```
# Perform Shapiro-Wilk test for normality for each study program
normality_results = []
for program in data['Program Studi'].unique():
    scores = data['Nilai'][data['Program Studi'] == program]
    stat, p = shapiro(scores)
    normality_results.append([program, stat, p])

# Convert the results list to a DataFrame for easier tabulation
results_df = pd.DataFrame(normality_results, columns=['Study Program', 'Shapiro-Wilk
Statistic', 'p-value'])
```

Table 2. Normality Test

Study Program	Shapiro-Wilk Statistic	p-value
Teknologi Informasi (TI)	0,97	0,84
Akutansi Perpajakan (AP)	0,97	0,80
Manajemen Pemasaran Internasional (MPI)	0,95	0,60
Pengelolaan Perhotelan (PP)	0,98	0,37
Ekowisata (EKW)	0,92	0,37

Perhotelan (PH)	0,91	0,14

Data source: Data processing, 2024

The results from the Shapiro-Wilk normality tests for each study program reveal that the scores within all programs do not significantly deviate from a normal distribution, as evidenced by p-values exceeding the conventional threshold of 0.05. This finding substantiates the presumption of normality within each group, validating the use of parametric tests for further statistical analysis. Such uniformity in distribution across diverse academic disciplines underscores a notable level of methodological consistency in the assessment processes at Politeknik eLBajo Commodus, paving the way for deeper investigations into the comparative academic performance across study programs.

To ensure that the analysis of academic performance across different study programs at Politeknik eLBajo Commodus adheres to the principles of statistical rigor, it is imperative to verify that the data meet the assumptions underlying the ANOVA test. One such critical assumption is the homogeneity of variances, which posits that the variances among groups should be approximately equal for the ANOVA results to be valid. To ascertain the validity of this assumption, Levene's test, a widely recognized method for assessing the equality of variances across groups, was employed. The following Python code demonstrates the application of Levene's test to the dataset, ensuring the methodological soundness of the subsequent comparative analysis.

```
# Grouping the scores by 'Program Studi' and preparing them for Levene's test
grouped_scores = [data['Nilai'][data['Program Studi'] == program].values for program in
data['Program Studi'].unique()]

# Perform Levene's test for homogeneity of variances
levene_stat, levene_p = levene(*grouped_scores)
```

The test yielded a statistic of 1.0559 with a p-value of 0.3881, indicating no significant difference in score variances among the programs. This outcome validates the appropriateness of proceeding with an ANOVA test to explore the differences in academic performance across the study programs, as it confirms that the assumption of homogeneity of variances is satisfied.

To meticulously examine the potential disparities in academic performance across the various study programs at Politeknik eLBajo Commodus, an Analysis of Variance (ANOVA) test stands as a cornerstone statistical method. This approach enables the identification of statistically significant differences in the mean scores obtained from the *'Tes Bakat Skolastik*,' thereby providing a robust framework for comparing the collective academic achievements across disciplines. The Python script delineated below methodically aggregates the scores by program, applying the ANOVA test to scrutinize the homogeneity of academic performance with precision.

```
# Grouping the scores by 'Program Studi' and preparing them for ANOVA test
grouped_scores = {}
for program in data['Program Studi'].unique():
    grouped_scores[program] = data['Nilai'][data['Program Studi'] == program].values
```

```
# Perform the ANOVA test
anova_result = f_oneway(*grouped_scores.values())
```

The ANOVA test, yielding an F-statistic of 1.602 and a p-value of 0.164, prompts a nuanced interpretation within the educational research domain. This result indicates that the variance observed in *'Tes Bakat Skolastik'* scores across study programs at Politeknik eLBajo Commodus does not significantly deviate from what might be expected by chance alone. Consequently, the p-value exceeding the 0.05 threshold suggests that the disparities in mean scores among the programs, while potentially noteworthy on a descriptive level, do not meet the criteria for statistical significance.

In practical terms, this analysis suggests that the performance of students, as measured by the *'Tes Bakat Skolastik,'* is relatively uniform across different study programs. The lack of significant differences implies that the study program itself might not be a determinant factor in influencing student scores on this test. This outcome might lead to a broader reflection on the factors that do impact academic performance, shifting focus perhaps towards teaching methods, student engagement practices, or even external socio-economic factors.

For educators and administrators at Politeknik eLBajo Commodus, these insights could serve as a call to look beyond programmatic structures when devising strategies to enhance student learning outcomes. It may also highlight the importance of fostering an educational environment that supports all students equally, regardless of their chosen field of study.

This finding, while initially counterintuitive, aligns with a growing body of educational research that suggests academic success is multifaceted and influenced by a complex interplay of factors. As such, further investigation into these areas could yield more actionable insights, potentially guiding future efforts to elevate academic performance across the board.

Reflecting on the insights garnered from student interviews alongside the quantitative data analysis, it becomes evident that while some students at Politeknik eLBajo Commodus enter their chosen study programs with a clear understanding of their academic path, a notable portion embark on their educational journey with limited awareness of the curriculum's content or the foundational knowledge required. This discrepancy not only highlights the diversity of student backgrounds and preparedness but also underscores a critical gap in the orientation process for incoming students.

The revelation that a fraction of the student body navigates their program selection and academic preparation without a comprehensive understanding of what lies ahead suggests an area ripe for intervention. The institution could benefit from implementing a structured pre-admission assessment or orientation program. Such initiatives could serve dual purposes: clarifying program expectations and content for prospective students and identifying areas where incoming students may require foundational support. This approach aligns with best practices in educational settings, fostering an environment where students are better positioned to succeed from the onset of their academic journey.

Moreover, the feedback concerning the perceived difficulty of the *'Tes Bakat Skolastik'* compared to previous educational experiences indicates a potential mismatch between students' preparatory backgrounds and the demands of tertiary education assessments. Addressing this challenge calls for a collaborative effort between secondary education providers and tertiary institutions. By ensuring that high school curricula and assessments are more closely aligned with the expectations of higher education, students can be better prepared for the academic rigors they will face, thereby smoothing their transition into programs such as those offered at Politeknik eLBajo Commodus.

In light of these considerations, it is recommended that Politeknik eLBajo Commodus explores the development of a comprehensive pre-enrollment assessment tool. This tool would not only evaluate the academic readiness of prospective students but also provide them with a clearer understanding of their chosen study programs. By doing so, the institution can enhance the match between student capabilities and program demands, ultimately contributing to improved academic outcomes and student satisfaction. Such measures, grounded in both the qualitative insights from student interviews and the quantitative findings from statistical analyses, exemplify a holistic approach to educational excellence, embracing the full spectrum of student needs and experiences.

CONCLUSION

The exploration of academic performance across various study programs at Politeknik eLBajo Commodus, through both quantitative ANOVA analysis and qualitative insights from student interviews, has illuminated several key areas for institutional enhancement. The statistical investigation revealed no significant differences in *'Tes Bakat Skolastik'* scores among the study programs, suggesting a uniform level of academic achievement across disciplines. However, student narratives provided a richer, more nuanced context, uncovering gaps in pre-admission knowledge and preparation that extend beyond what quantitative measures alone can capture.

This study underscores the critical need for Politeknik eLBajo Commodus to adopt a more integrated approach to student admission and orientation. By implementing comprehensive pre-enrollment assessments and orientation programs, the institution can ensure that students are not only aware of their chosen program's demands but are also adequately prepared to meet those challenges. Furthermore, aligning high school curricula and assessments with tertiary education expectations will be essential in bridging the preparatory gap many students experience.

Moving forward, Politeknik eLBajo Commodus has the opportunity to lead by example, demonstrating how data-driven insights can inform targeted interventions that enhance student readiness and academic success. By fostering a collaborative dialogue between secondary and tertiary education providers, the institution can contribute to a broader educational ecosystem that supports students' seamless transition to higher education. This research highlights the importance of a holistic educational approach, one that balances

rigorous academic analysis with an empathetic understanding of student experiences and needs.

In conclusion, the journey toward educational excellence at Politeknik eLBajo Commodus is both a challenge and an opportunity. It is a call to action for the institution to evolve, ensuring that every student embarks on their academic journey with the tools, knowledge, and confidence needed to succeed. Through continued research, innovation, and a commitment to student-centered education, Politeknik eLBajo Commodus can cultivate an environment where academic achievement is accessible to all, setting a new standard for excellence in higher education.

REFERENCES

Ashouri, M., Vahedi, S., Adib, Y., & Badri, R. (2021). Discovering the experience of failing university entrance exam among applicants: A grounded theory study. *Journal of Psychological Science*, *19*(Journal of Psychological Science), 1593–1605.

Badan Pusat Statistik. (2021). *Indeks Pembangunan Manusia (IPM) Tahun 2021*.

Badan Pusat Statistik Kabupaten Manggarai Barat. (2021). *Analisis Indeks Pembangunan Manusia Badan Pusat Statistik Kabupaten Manggarai Barat*.

Davey, G., De Lian, C., & Higgins, L. (2007). The university entrance examination system in China. *Journal of Further and Higher Education*, *31*(4), 385–396. https://doi.org/10.1080/03098770701625761

Graff Zivin, J., Song, Y., Tang, Q., & Zhang, P. (2020). Temperature and high-stakes cognitive performance: Evidence from the national college entrance examination in China. *Journal of Environmental Economics and Management*, *104*. https://doi.org/10.1016/j.jeem.2020.102365

HE, S., KEMPE, K., TOMIKI, Y., NISHIZUKA, M., SUZUKI, T., DAMBARA, T., & OKADA, T. (2015). Correlations Between Entrance Examination Scores and Academic Performance Following Admission. 順天堂醫事雜誌, *61*(2), 142–148. https://doi.org/10.14789/jmj.61.142

Maseleno, A., Huda, M., Siregar, M., Ahmad, R., Hehsan, A., Haron, Z., Ripin, M. N., Ihwani, S. S., & Jasmi, K. A. (2017). Combining the previous measure of evidence to educational entrance examination. *Journal of Artificial Intelligence*, *10*(3), 85–90. https://doi.org/10.3923/jai.2017.85.90

Ming, H., & Qing, Z. (2023). Research on reform and trend of physical education high school entrance examination system under the background of “double reduction” policy. *Frontiers in Educational Research*, *6*(26), 12–17. https://doi.org/10.25236/fer.2023.062603

Parviz, M. (2023). Reflecting on the consequences of the Iranian university entrance examination: a systematic-narrative hybrid literature review. *Discover Education*, *2*(1). https://doi.org/10.1007/s44217-023-00046-x

Politeknik eLBajo Commodus. (2022). Rencana Strategis Politeknik eLBajo Commodus Tahun 2022-2027. In *Politeknik eLBajo Commodus* (pp. 1–47).

Valli, R., & Johnson, P. (2007). Entrance eaminations as gatekeepers. *Scandinavian Journal of Educational Research*, *51*(5), 493–510. https://doi.org/10.1080/00313830701576631