PREFACE

We extend our deepest gratitude to the Almighty God for His blessings and guidance, which have enabled us to complete this *Student Satisfaction Survey Report* for the Undergraduate Biology Education Study Program, Faculty of Mathematics and Natural Sciences (FMIPA), Universitas Negeri Surabaya (Unesa).

This report was prepared as part of our continuous commitment to improving the quality of academic services within the Biology Education Study Program, and more broadly, within the Faculty and University.

The completion of this report would not have been possible without the contributions, appreciation, and valuable feedback from various parties. Therefore, we would like to express our sincere appreciation to:

1. The Rector of Universitas Negeri Surabaya and all related officials for their continuous support and guidance throughout the implementation of this survey.
2. The Dean of the Faculty of Mathematics and Natural Sciences, for providing the opportunity and necessary facilities that ensured the smooth execution of this activity.
3. The survey respondents—students of the Biology Education Study Program—who willingly participated by dedicating their time and effort to complete the online survey instrument.

The *Student Satisfaction Survey* serves as an essential instrument in Unesa's academic quality assurance process. Through this survey, we gain valuable feedback regarding students' experiences and perceptions of various academic services provided by the university—including teaching and learning processes, supporting facilities, and administrative support systems.

The results of this survey will fo"m a 'rucial foundation for evaluation and continuous improvement efforts aimed at creating an academic service system that is more effective, efficient, and responsive to the needs of the academic community.

Finally, we hope that this report will serve as a useful reference and benchmark for further enhancement of academic service quality within Unesa, particularly in FMIPA

and the Biology Education Study Program. May this initiative contribute meaningfully to the continuous development of our beloved university, in alignment with the aspirations and expectations of its students.

Surabaya, November 2, 2025

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CHAPTER I – INTRODUCTION

1.1 Background

The enhancement of academic service quality in higher education institutions is a crucial factor in achieving the strategic objectives of educational excellence. As a university that is strongly committed to continuous quality improvement, Universitas Negeri Surabaya (Unesa), through the Faculty of Mathematics and Natural Sciences (FMIPA), consistently strives to deliver the best possible academic services to its entire academic community, particularly to students.

To accomplish this goal, an objective and systematic evaluation mechanism is essential to ensure that the provided services align with students' expectations and needs as the primary stakeholders.

The Undergraduate Biology Education Study Program (Prodi S1 Pendidikan Biologi) acknowledges the importance of conducting a *Student Satisfaction Survey on Academic Services* as an effective evaluative instrument. The survey aims to identify the performance of university services across various dimensions, including teaching and learning processes, academic infrastructure, and administrative support provided by academic staff. Consequently, the survey results offer a comprehensive overview of students' perceptions regarding the quality of academic services.

This survey not only benefits students but also provides valuable insights for other internal stakeholders, such as lecturers and administrative personnel. As the primary users of academic services, students play an essential role in providing accurate and relevant feedback. Such feedback becomes a valuable reference for program managers and faculty administrators in evaluating performance and identifying more effective strategies to enhance service quality.

Furthermore, the survey assists in identifying variables that are already functioning effectively and those requiring improvement. These variables encompass various aspects of service quality, including instructional quality, facility adequacy, administrative efficiency, and accessibility of academic services. By recognizing well-performing aspects, the university can sustain its strengths, while underperforming aspects can be addressed through strategic improvement measures.

Through the implementation of this survey, the study program, faculty, and university are expected to undertake continuous, data-driven improvements based on actual student needs. Consequently, the academic quality and service performance of Unesa can evolve dynamically to meet the expectations of its internal stakeholders.

1.2 Legal Basis

The legal foundation for conducting this survey refers to the following regulations:

1. Law of the Republic of Indonesia No. 20 of 2003 on the National Education System.
2. Law of the Republic of Indonesia No. 12 of 2012 on Higher Education.
3. Government Regulation No. 4 of 2014 on the Administration and Management of Higher Education.
4. Minister of Education and Culture Regulation No. 50 on the Higher Education Quality Assurance System.
5. Minister of Education and Culture Regulation No. 87 of 2014 on Accreditation of Study Programs and Higher Education Institutions.
6. Minister of Research, Technology, and Higher Education Regulation No. 13 of 2015 on the Strategic Plan of the Ministry of Research, Technology, and Higher Education 2015–2019.
7. Minister of Research, Technology, and Higher Education Regulation No. 44 of 2015 on National Standards for Higher Education.
8. Minister of National Education Regulation No. 7 of 2007 on the Organization and Operational Procedures of Educational Quality Assurance Agencies.

1.3 Problems

This survey seeks to address the following research problems:

1. Is there a significant difference between expectations and actual experiences based on statistical testing of student satisfaction survey data in the Biology Education Study Program, FMIPA Unesa, 2025?
2. How do students' expectations compare with their actual satisfaction levels in the 2025 survey results, based on *Gap Analysis*?

3. How does the comparison between expectations and actual satisfaction appear when analyzed using the *Importance–Performance Analysis (IPA)* method?

1.4 Objectives

The objectives of this survey are to determine the level of student satisfaction within the Undergraduate Biology Education Study Program, FMIPA Unesa, in 2025 based on statistical difference testing, gap analysis, and IPA analysis. Additionally, the report is intended to serve as an evaluative and strategic reference for improving service quality in subsequent academic years.

1.5 Structure of the Report

This *Student Satisfaction Survey Report* of Universitas Negeri Surabaya consists of four chapters, structured as follows:

1. **Chapter I – Introduction**

   This chapter presents the background, legal basis, research problems, objectives, and report structure.
2. **Chapter II – Survey Methodology**

   This chapter describes the survey design, operational definitions, survey instruments, implementation procedures, and data processing methods, including *Gap Analysis*, *Suitability Index (TKI)*, *Normality Test*, *Wilcoxon Test*, and *Cartesian Diagram*.
3. **Chapter III – Results and Discussion**

   This chapter discusses statistical findings, gap and suitability analysis, and quadrant analysis using the *Importance–Performance Analysis (IPA)* method.
4. **Chapter IV – Conclusions and Recommendations**

   This chapter presents conclusions derived from the analysis and provides recommendations for subsequent quality evaluation cycles.

CHAPTER II – SURVEY METHODOLOGY

2.1. Type and Design of the Survey

This study employs a quantitative descriptive research design using the survey method. The survey approach was selected because it enables the researcher to describe or quantify trends, attitudes, and opinions of a given population by examining a representative sample (Creswell & Creswell, 2018; Johnson & Christensen, 2014).

The research utilizes a cross-sectional design, which examines the relationship between independent and dependent variables through measurements conducted at a single point in time (*point-time approach*). In this context, each subject is observed only once, and variable measurement is conducted concurrently during the observation period.

Data collection was conducted using a questionnaire instrument based on a Likert scale (1–5) to measure both expectations and perceived realities of students regarding academic service quality.

2.2. Operational Definitions

The operational definitions employed in this study are as follows:

1. **Respondents** – All students of Universitas Negeri Surabaya (Unesa) who utilized university services in 2025.
2. **Respondents' Expectations** – Students' expectations of the academic and administrative services provided by Unesa in 2025.
3. **Respondents' Satisfaction** – Students' perceptions and evaluations of the academic and administrative services they received from Unesa in 2025.
4. **Service Quality Dimensions** – The attributes used to evaluate students' expectations and perceptions of service performance, comprising:
    - **Reliability** – dependability and consistency of the service provided.
    - **Responsiveness** – promptness and willingness of staff to assist students.
    - **Assurance** – competence, courtesy, and credibility of staff in fostering trust.

- **Empathy** – personal attention, understanding, and communication with students.
- **Tangibles** – physical facilities, infrastructure, and communication media that support service delivery.

2.3. Survey Instrument

The survey instrument was an online student satisfaction questionnaire disseminated via Google Forms. The questionnaire contained written statements designed to capture both students' expectations and their actual experiences with the academic services provided.

Respondents selected their responses using a five-point Likert scale, ranging from *strongly disagree (1)* to *strongly agree (5)*.

The questionnaire was structured according to five principal dimensions of the SERVQUAL framework—namely Reliability, Responsiveness, Assurance, Empathy, and Tangibles—to comprehensively assess students' satisfaction levels with academic services at the study program.

2.4. Methods

The analytical framework of this study is based on the SERVQUAL (Service Quality) model developed by Parasuraman, Zeithaml, and Berry (1985). This model evaluates service performance through five key dimensions:

1. Tangibles – Physical appearance, equipment, personnel, and communication materials that represent the university's service image.
2. Reliability – The ability to perform the promised service dependably, accurately, and satisfactorily.
3. Responsiveness – The willingness of staff to assist students and provide prompt service.
4. Assurance – Knowledge, courtesy, trustworthiness, and competence of staff members, ensuring that services are delivered free from risk, error, or uncertainty.

5. Empathy – The degree of care, individualized attention, and understanding shown by university staff toward students' needs.

To complement SERVQUAL, the study also applied the Importance–Performance Analysis (IPA) method, first introduced by Martilla and James (1977). This technique measures the relationship between customers' perceptions (performance) and the relative importance of various service attributes, thereby identifying priority areas for improvement. This analytical approach is also referred to as Quadrant Analysis.

2.5. Data Processing

a. Gap and Suitability Level Analysis (TKI)

Student satisfaction was assessed using Gap Analysis, which compares the mean scores of students' expectations and their actual perceptions (performance). The five SERVQUAL dimensions—reliability, responsiveness, assurance, empathy, and tangibles—serve as the basis for this comparison.

A higher satisfaction level is achieved when perceived performance exceeds expectations, i.e., when the actual service score (4) surpasses the expectation score (1). The formula for calculating the Gap Score is as follows:

$$\text{Gap} = \text{Performance (Reality)} - \text{Expectation}$$

The formula for calculating the Suitability Index (TKI) between expectation and reality is as follows:

$$\text{TKI} = \frac{\text{Performance (Reality)}}{\text{Expectation}} \times 100\%$$

The Gap Score represents the discrepancy between perceived and expected service quality (Parasuraman et al., 1985). A positive (+) gap indicates that the service provided exceeds expectations, while a negative (–) gap signifies that the service falls short of students' expectations (Parasuraman et al., 1988).

According to Wahyuni (2014), the interpretation criteria for the Suitability Index (TKI) are as follows:

1. TKI > 100% → Service quality exceeds students' expectations → *Highly satisfactory service.*
2. TKI = 100% → Service quality meets students' expectations → *Satisfactory service.*
3. TKI < 100% → Service quality falls below students' expectations → *Unsatisfactory service.*

b. Normality Test

The Normality Test was performed to determine whether the data were normally distributed, thereby identifying the appropriate statistical test to be applied. The test used the mean values of students' expectations and perceptions for each questionnaire item.

For large samples ($n > 50$ respondents), the Kolmogorov–Smirnov test was applied, while for smaller samples ($n < 50$), the Shapiro–Wilk test was used.

The decision rule was as follows:

1. If the significance value ($p > 0.05$) → the data are normally distributed (*parametric data*), and a paired t-test can be applied.
2. If the significance value ($p < 0.05$) → the data are not normally distributed (*non-parametric data*), and the Wilcoxon signed-rank test is used.

c. Wilcoxon Signed-Rank Test

The Wilcoxon signed-rank test was employed to assess whether a statistically significant difference exists between the students' expectation scores and actual perception scores.

The hypotheses tested were:

- H_0: There is no significant difference between expectation and reality.
- H_1: There is a significant difference between expectation and reality.

If the *p-value* < 0.05, H_0 is rejected, indicating a significant difference between expectations and perceptions.

When both datasets are normally distributed, the paired t-test is appropriate; otherwise, the Wilcoxon test is the valid alternative.

d. Cartesian Diagram

The Cartesian Diagram (Importance–Performance Grid) was used to visually map satisfaction attributes into four quadrants. This diagram categorizes attributes based on their relative importance (expectation) and performance (reality), enabling prioritization of improvement efforts.

The four quadrants are interpreted as follows:

1. Quadrant I – Concentrate Here (High Importance, Low Performance): Key areas requiring immediate improvement.
2. Quadrant II – Keep Up the Good Work (High Importance, High Performance): Attributes that perform well and must be maintained.
3. Quadrant III – Low Priority (Low Importance, Low Performance): Areas that are less important and need minimal attention.
4. Quadrant IV – Possible Overkill (Low Importance, High Performance): Attributes that are overemphasized relative to their importance.

CHAPTER III – RESULTS AND DISCUSSION

3.1 Statistical Analysis

The survey was administered to students of the Undergraduate Biology Education Study Program, Faculty of Mathematics and Natural Sciences (FMIPA), Universitas Negeri Surabaya, using a random sampling technique through the university's Single Sign-On (SSO) system.

From a total student population of 875, as recorded in the Academic Quality Bureau (BPM) database, 364 valid responses were obtained, satisfying the minimum sample size requirement calculated using Slovin's formula with a 5% margin of error:

$$n = \frac{N}{1 + Ne^2} = \frac{875}{1 + (875 \times 0.05^2)} = 274.5 \approx 275$$

Since the number of respondents (364) exceeded the minimum required sample, the dataset was considered sufficient for statistical analysis.

Before conducting mean-difference testing, a normality test was performed to determine the appropriate statistical method. The following hypotheses were established:

- $\mathbf{H_0}$ **:** The data follow a normal distribution.
- $\mathbf{H_1}$ **:** The data do not follow a normal distribution.

Table 1. Results of the Kolmogorov–Smirnov Normality Test

Variable	K-S Value	p-Value	Description
Expectation	0.238	0.001	Not Normal
Reality	0.163	0.001	Not Normal

The Kolmogorov–Smirnov test results ($p = 0.001 < 0.05$) indicate that both datasets—students' expectations and actual experiences—are not normally distributed. Therefore, a non-parametric test (Wilcoxon Signed-Rank Test) was deemed appropriate for subsequent analysis.

The Wilcoxon Signed-Rank Test serves as the non-parametric alternative to the paired *t*-test. The following hypotheses were tested:

- H_0 : No significant difference exists between expectations and reality in student satisfaction levels.
- H_1 : A significant difference exists between expectations and reality.

Table 2. Results of the Wilcoxon Signed-Rank Test

Variable	***N***	**Median**	**Mode**	**Z Statistic**	***p*-Value**
Expectation	412	3.87	4	–7.717	0.001
Reality	412	3.26	4		

Since the obtained *p*-value < 0.05, H_0 is rejected and H_1 is accepted, confirming a statistically significant difference between students' expectations and their perceived reality.

Descriptive statistics further reveal that the median expectation (3.87) is higher than the median perception (3.26), resulting in a mean gap of 0.61, indicating that students' expectations have not yet been fully met by the current academic service quality.

3.2 Gap Analysis and Suitability Index (TKI)

A *Gap Analysis* was conducted to quantify the discrepancy between students' expectations and perceptions for each dimension of the SERVQUAL model. The summarized results are presented below.

Table 3. Summary of Expectation, Reality, Gap, and Suitability (TKI) Scores

Dimension	Mean Expectation	Mean Reality	Gap	TKI (%)
Tangibles	3.51	3.32	–0.19	94.67
Assurance	3.51	3.34	–0.17	95.16
Responsiveness	3.50	3.33	–0.17	95.15
Empathy	3.50	3.34	–0.16	95.37
Reliability	3.52	3.39	–0.13	96.45
Grand Mean	**3.51**	**3.34**	**–0.17**	**95.19**

All five dimensions exhibit negative gap values, signifying that students' perceived experiences remain below their expectations. The largest negative gap (–0.22) occurs in item P17 (Empathy)—*staff attentiveness in addressing complaints related to financial and facility services*—which also recorded the lowest Suitability Index (93.71%).

This finding suggests that institutional service performance has not fully met student expectations, particularly concerning responsiveness to infrastructure and financial service issues.

Overall, the Grand Mean of 95.19% implies that students are generally satisfied, though continuous quality enhancement remains necessary.

3.3 Quadrant Analysis (Importance–Performance Analysis / IPA)

The Importance–Performance Analysis (IPA) technique provides a visual interpretation of which service attributes should be prioritized for improvement. Attributes are plotted on a Cartesian Diagram, forming four quadrants (Supranto, 2001).

Quadrant I – Concentrate Here (High Importance, Low Performance)

Attributes that are highly important to students but underperform in execution. These areas require immediate managerial attention.

Two indicators fall within this quadrant:

1. P4 (Empathy) – Staff responsiveness to complaints regarding reasoning, interest, and talent development services.
2. P9 (Tangibles) – Availability, adequacy, and quality of counseling, health, and scholarship service facilities.

Both indicators must become top priorities for service enhancement in the next academic cycle.

Quadrant II – Keep Up the Good Work (High Importance, High Performance)

Attributes considered important and already well executed. These reflect institutional strengths that should be maintained or further optimized.

Nine indicators fall into this quadrant, including:

- P1 (Tangibles): Availability and accuracy of online/offline academic and administrative services.
- P2 (Assurance): Clarity of information for talent and interest programs.
- P11 (Responsiveness): Prompt service in career-guidance and entrepreneurship support.
- P14 (Reliability): Transparency of Standard Operating Procedures (SOP) for tuition-fee processes.
- P15 (Assurance): Ease of tuition-fee submission, payment, and adjustment.
- P19 (Reliability): Competence of lecturers and staff in delivering services.
- P20 (Responsiveness): Willingness of lecturers and staff to assist students promptly.
- P21 (Assurance): Staff credibility in ensuring that services comply with institutional standards.
- P22 (Empathy): Lecturers' and staff's attentiveness to students' academic needs.

These elements represent core service strengths that underpin students' positive satisfaction toward the program.

Quadrant III – Low Priority (Low Importance, Low Performance)

Attributes that are perceived as less important and moderately performed; therefore, they require minimal improvement focus.

Nine indicators fall into this category, including items P3, P5, P6, P7, P16, P17, P18, and P23, which relate to facilities, administrative responsiveness, and physical resource availability.

Quadrant IV – Possible Overkill (Low Importance, High Performance)

Attributes that are performed very well despite being of relatively low perceived importance to students. Excessive focus on these areas may divert resources from higher-priority needs.

Five indicators fall within this quadrant, such as:

- P8 (Empathy): Attention to complaints in counseling, health, and scholarship services.
- P10 (Assurance): Clarity of SOPs for career-guidance and entrepreneurship programs.
- P12 (Empathy): Responsiveness to complaints in career-guidance and entrepreneurship services.
- P13 (Tangibles): Quality of facilities for career-guidance and entrepreneurship.

While these indicators reflect commendable service quality, re-allocation of attention toward Quadrant I issues could produce greater overall satisfaction gains.

Summary of Findings

The *Importance–Performance Matrix* demonstrates that students generally perceive Unesa's Biology Education Study Program services as satisfactory. Nonetheless, some critical areas—particularly empathy-related responsiveness and infrastructure adequacy—require improvement to achieve full satisfaction alignment between expectation and experience.

This analysis offers a data-driven foundation for continuous quality enhancement and strategic decision-making within the Study Program and Faculty.

CHAPTER IV – CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on the results of statistical and descriptive analyses of the *Student Satisfaction Survey*, the following conclusions can be drawn:

1. Significant difference between expectation and reality

   The Wilcoxon Signed-Rank Test shows a *p-value* < 0.05, indicating a statistically significant difference between students' expectations and perceived experiences. The mean difference of 0.61 points suggests that the services received by students have not yet fully met their expectations.

2. Gap Analysis findings

   Among all service indicators, item P17 (Empathy)—which measures staff attentiveness in handling complaints related to financial and facility services—recorded the largest negative gap (–0.22) and the lowest Suitability Index (93.71%). This indicates that students perceive weaknesses in responsiveness and care in these administrative and infrastructural aspects.

3. Overall satisfaction level

   Despite certain gaps, the overall Grand Mean Suitability Index (TKI) reached 95.19%, showing that the majority of students are generally satisfied with the academic and administrative services provided by the Study Program and Faculty.

4. Priority improvement areas

   The *Importance–Performance Analysis (IPA)* identified two indicators in Quadrant I that require immediate improvement:

   - P4 (Empathy): Staff attentiveness in responding to complaints regarding reasoning, interest, and talent development services.
   - P9 (Tangibles): Availability, adequacy, and quality of counseling, health, and scholarship facilities.

     These two indicators are highly important to students yet underperformed, and thus must be prioritized for corrective action in future service planning.

4.2 Recommendations

In light of the analytical findings, several recommendations are proposed to support the continuous improvement of service quality in the Undergraduate Biology Education Study Program:

1. Focused corrective actions

   Immediate attention should be given to improving the performance of indicators P4 and P9, which represent critical dimensions of empathy and physical facilities. Enhancement efforts should include:

   - Strengthening communication and feedback mechanisms for student concerns.
   - Improving infrastructure and accessibility of academic support services.
   - Ensuring that health, counseling, and scholarship services operate efficiently and transparently.

2. **Maintaining strengths**

   The Study Program should maintain the high-performing indicators identified in Quadrant II, such as clear administrative procedures, reliable staff performance, and responsiveness to academic needs. Sustaining these areas is essential for preserving the overall satisfaction level and institutional reputation.

3. **Continuous quality improvement (CQI)**

   The Faculty and Study Program are encouraged to institutionalize a Continuous Quality Improvement (CQI) framework based on systematic data collection, periodic surveys, and stakeholder feedback. Such an approach will ensure that the learning environment remains responsive, student-centered, and aligned with Unesa's academic quality standards.

4. **Strategic resource allocation**

   To optimize outcomes, resources and administrative attention should be proportionally distributed according to the Importance–Performance Matrix, emphasizing Quadrant I attributes without neglecting existing service excellence in Quadrant II.

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APPENDIX – Statistical Output Summary

A summary of statistical outputs (Kolmogorov–Smirnov Normality Test, Wilcoxon Signed-Rank Test, and Descriptive Statistics) is provided to substantiate the analytical process. These outputs confirm that:

- The data distribution for both expectation and reality variables is non-normal.
- The Wilcoxon test detected a statistically significant difference between the two datasets.
- Descriptive means indicate higher expectation scores compared to reality scores across all dimensions.

Final Statement

The *Student Satisfaction Survey 2025* has served as a valuable instrument in the Quality Assurance Unit (QAU) of the Undergraduate Biology Education Study Program, FMIPA Unesa. The outcomes of this survey not only offer diagnostic insight into

current service performance but also form the basis for strategic planning, performance evaluation, and evidence-based decision-making to enhance academic service quality in the years ahead.