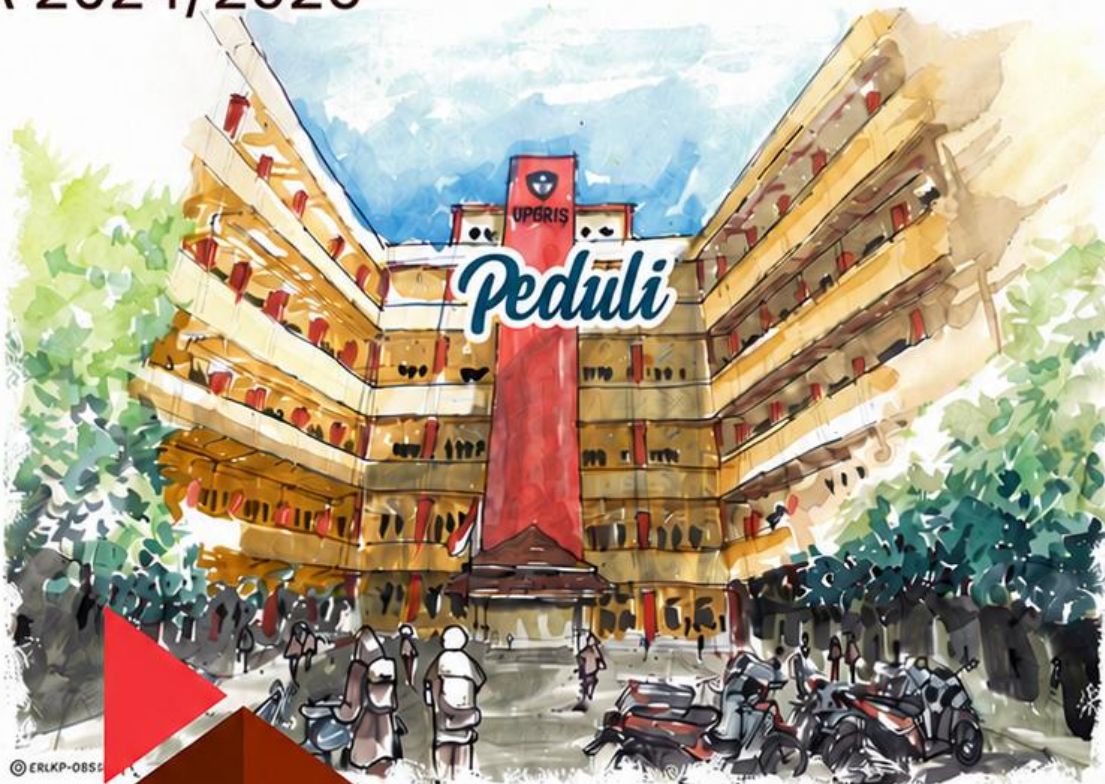




SMART CLASSROOM EVALUATION REPORT

TA 2024/2025



**LEMBAGA PENJAMINAN MUTU
UNIVERSITAS PGRI SEMARANG**

Melaju dengan Mutu

REPORT AUTHOR

1. Chair of the Quality Assurance Agency : Dr Ary Susatyo Nugroho, M.Si.
2. Secretary of the Quality Assurance Agency : Dr Lilik Ariyanto, M.Pd.
3. Head of the Centre for Educational Quality Assurance : Fajar Cahyadi, S.Pd., M.Pd.
4. Head of the Centre for Quality Assurance in Research & Community Service : Setiyawan, S.Pd., M.Or.

TABLE OF CONTENTS

	Page
FRONT COVER	1
TABLE OF CONTENTS	2
FOREWORD	3
A. BACKGROUND	4
B. QUALITY STANDARDS FOR SMART CLASSROOM EVALUATION	5
C. IMPLEMENTATION OF SMART CLASSROOM EVALUATION	5
D. SMART CLASSROOM EVALUATION INSTRUMENTS	6
E. SMART CLASSROOM SCORING METHOD	7
F. EVALUATION RESULTS	7
G. EVALUATION AND FOLLOW-UP	9
H. CONCLUSION	11
I. RECOMMENDATIONS.....	12
J. CONCLUSION	12
K. REFERENCES	12

FOREWORD

Praise and thanks be to Allah SWT, the One and Only God, for His abundant mercy, guidance, and blessings, which have enabled the completion of this Report on the Evaluation Results of the Smart Classroom at the Universitas Persatuan Guru Republik Indonesia Semarang (UPGRIS) for the 2024/2025 Academic Year.

This report has been compiled as a form of accountability and commitment by UPGRIS to maintain and improve the quality of academic services, particularly in the implementation of modern learning technologies. The transformation towards a digital ecosystem through the provision of Smart Classroom facilities is a strategic step taken by the university to realise innovative, interactive, and student-centred learning.



This evaluation presents a comprehensive overview of lecturer and student satisfaction levels, the effectiveness of device utilisation, and the technical challenges encountered in the field over the past academic year.

We would like to express our deepest appreciation and gratitude to:

1. The Rector of UPGRIS, for his full support of the programme to modernise academic facilities and infrastructure.
2. The Evaluation Team from the Quality Assurance Agency (LPM) and the ICT Unit (UPT TIK), who have dedicated their time to data collection and analysis.
3. All UPGRIS lecturers and students, who have actively participated in providing objective feedback for the advancement of our beloved campus.

We are aware that this report is far from perfect. Therefore, we greatly welcome constructive criticism and suggestions to improve the evaluation system and management of academic facilities in the future.

Chair of the LPM UPGRIS



Dr. Ary Susatyo Nugroho, M.Si.

A. BACKGROUND

Advances in information and communication technology in the era of the Fourth Industrial Revolution and Society 5.0 have brought about a major transformation in the higher education landscape. Higher education institutions are no longer merely required to deliver content in a conventional manner, but must be able to create a learning ecosystem that is flexible, interactive and digitally-based. In line with the Merdeka Belajar Kampus Merdeka (MBKM) policy launched by the Ministry of Education, Culture, Research and Technology, the learning model must shift from Teacher-Centred Learning (TCL) towards Student-Centred Learning (SCL) in order to produce graduates who are adaptable, critical and technologically literate.

Universitas Persatuan Guru Republik Indonesia Semarang (UPGRIS), as one of the leading private universities in Central Java, is fully committed to addressing these global challenges. One strategic step taken by UPGRIS management is the modernisation of academic facilities and infrastructure through the provision of Smart Classroom facilities in several lecture hall clusters at the Main Campus and Campus IV. These facilities are equipped with state-of-the-art devices such as Interactive Smart Boards, integrated audio systems, lecture capture features for hybrid learning, and high-speed internet connections designed to enhance student engagement in the teaching and learning process.

However, this significant investment in physical and digital infrastructure will not yield optimal results without structured and ongoing evaluation. Following its implementation during the 2024/2025 academic year, it is essential to assess the extent to which this technology is being effectively utilised by both lecturers and students. Several critical issues, such as the digital competence readiness of teaching staff, network stability during peak hours, system integration with the Learning Management System (LMS UPGRIS) platform, and the responsiveness of on-site technical support (IT Support), need to be measured both quantitatively and qualitatively.

Based on the PPEPP quality assurance cycle (Establishment, Implementation, Evaluation, Control, and Improvement) applied by the UPGRIS Quality Assurance Agency (BPM), the Evaluation stage serves as a crucial bridge before the university undertakes the Control and Improvement of infrastructure quality. Therefore, this Report on the Evaluation Results of the Smart Classroom for the 2024/2025 Academic Year has been compiled. This report not only details user satisfaction levels but also identifies the root causes of technical and pedagogical issues in the field, thereby

generating data-driven policy recommendations for university leadership to ensure continuous improvement in the following academic year.

B. UPGRIS SMART CLASSROOM EVALUATION QUALITY STANDARDS

The Quality Standards for Smart Classroom Evaluation at UPGRIS refer to several Internal Quality provisions, namely:

1. Campus Support Facilities and Infrastructure Standards

Mandates that all public facilities within the UPGRIS environment must meet the requirements of safety, orderliness, and user comfort.

2. Internal Quality User Satisfaction Criteria (LPM)

Stipulate that the satisfaction index regarding the performance of non-academic support service units (including parking) must achieve at least the "Good" category.

3. Service Competency Standards for Staff

Requires consistency, punctuality, speed, and a friendly attitude from all service personnel on campus.

C. IMPLEMENTATION OF THE UPGRIS SMART CLASSROOM EVALUATION

This parking service evaluation will be conducted periodically during the 2024/2025 Academic Year with the following operational details:

Timing:

1. Surveys will be distributed and collected periodically during the middle of the Even Semester of the 2024/2025 Academic Year.

2. Sampling Method

Data collection is carried out using a random sampling technique targeting all active smart classroom facilities at the university.

3. Respondent Characteristics

Respondents were active UPGRIS students across all Departments/Study Programmes, Cohorts/Semesters, Gender (Male and Female), and Levels of Study (Undergraduate and Postgraduate).

4. Nature of the Survey

This questionnaire is anonymous; respondents are not required to provide their names to ensure the objectivity and confidentiality of their responses.

D. UPGRIS SMART CLASSROOM EVALUATION INSTRUMENT

The instrument used was developed directly by the Quality Assurance Agency (LPM) as part of UPGRIS's Internal Quality Control. The questionnaire consists of 8 main statements divided into 2 dimensions/aspects of evaluation focus:

A. Dimension of Room Comfort & Physical Equipment (Hardware)

- 1 I can see the text/material on the Interactive Smart Board clearly from my seat.
- 2 The lecturer's voice or audio from the classroom speakers is clear and evenly distributed throughout the room.
- 3 The air conditioning and lighting in the Smart Classroom make me feel comfortable whilst studying.
- 4 The desks and chairs in this classroom are easy to move/arrange when the lecturer asks for group work (discussion).
- 5 There are plenty of power sockets available for my laptop and smartphone.

B. Digital Connectivity and Applications (Software)

- 6 The Wi-Fi connection in the Smart Classroom is fast and stable when I use it to look up lecture references.
- 7 The attendance process using QR codes or the smart system in this classroom runs quickly and without any issues.
- 8 I can easily share my screen (display a presentation) from my laptop or mobile phone onto the classroom's main screen.

C. Learning Experience & Impact

- 9 The Smart Classroom facilities help me to be more focused, active and enthusiastic about attending lectures.
- 10 The course material presented using interactive features is easier for me to understand.
- 11 The lecture recordings in this class have been very helpful for me to study independently at home via SIMEKAR.

E. SMART CLASSROOM EVALUATION SCORING METHOD

Data was collected from respondents using an online questionnaire via the <https://form.upgris.ac.id/> application. The questionnaire results were subsequently processed using Microsoft Excel and scored on a scale of 1 to 4, with 1 representing 'poor', 2 'fair', 3 'good' and 4 'very good'.

$$N = \frac{((n1 \times 1) + (n2 \times 2) + (n3 \times 3) + (n4 \times 4))}{4}$$

N = Results

n1 = number of 'poor' scores

n3 = number of 'good' scores

n2 = number of 'fairly good' scores

n4 = number of 'very good' scores

F. EVALUATION RESULTS

Based on the tabulation of questionnaire data collected by the Quality Assurance Agency (LPM) from student respondents, the evaluation results for the parking service are as follows:

Table 1. Evaluation Results for the UPGRIS Smart Classroom, Academic Year 2024/2025

No.	Indicator Statement Item	Poor	Fair	Good	Very Good	Total Respondents	Average Score	Achievement Category
A	Dimension of Comfort of Space and Physical Equipment (Hardware)							
1	Readability of text/material on the Interactive Smart Board from student seats.	4	28	415	793	1,240	3.61	Very Good
2	Clarity and balance of lecturer's voice/audio from classroom speakers.	6	62	515	657	1,240	3.47	Good
3	Comfort of the air conditioning temperature and the quality of the lighting inside the room.	2	42	399	797	1,240	3.61	Very Good
4	Ease of arranging table and chair layouts for group work/discussions.	5	88	567	580	1,240	3.39	Good
5	Availability and functional condition of electrical sockets (power sockets) for students.	8	134	545	553	1,240	3.33	Good

No.	Indicator Statement Item	Poor	Fair	Good	Very Good	Total Respondents	Average Score	Achievement Category
B	Digital Connectivity and Applications (Software)							
6	Wi-Fi connection speed and stability when searching for lecture materials.	8	225	532	475	1,240	3.19	OK
7	Speed and efficiency of the attendance process using QR codes/smart systems.	3	104	492	641	1,240	3.43	Good
8	Ease of screen sharing presentations from a personal device to the main screen.	7	141	535	557	1,240	3.32	Good
C	Dimensions of Learning Experience & Impact							
9	Improved focus, engagement and enthusiasm for learning with Smart Classroom facilities.	4	64	490	682	1,240	3.49	Good
10	Ease of understanding the lecture material delivered through interactive features.	2	51	474	713	1,240	3.53	Very Good
11	The benefits of lecture capture for self-directed learning at SIMEKAR.	6	110	468	656	1,240	3.43	Good
TOTAL INDEX SUMMARY		55	1,149	5,434	7,114	13,640	3.45	GOOD / SATISFIED

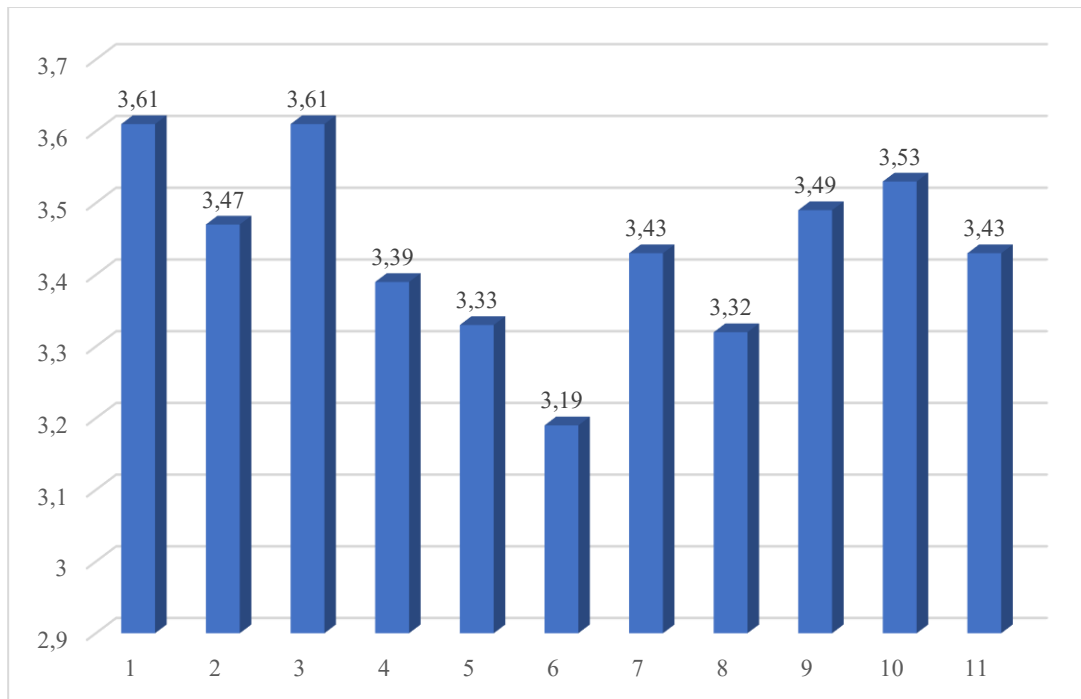


Figure 1. Smart Classroom Evaluation (UPGRIS) Academic Year 2024/2025

G. EVALUATION AND FOLLOW-UP

Based on the results of data tabulation and the calculation of the student satisfaction index in Table 1, the cumulative utilisation of the Smart Classroom at UPGRIS achieved an average score of 3.45, which falls into the GOOD / SATISFIED category. Nevertheless, the Quality Assurance Agency (LPM) together with the ICT Unit (UPT TIK) continue to identify areas requiring special attention and quality control measures to achieve an excellent service level.

The following is an analysis of the evaluation by dimension along with the established action plans (RTL):

1. Dimension of Room Comfort and Physical Equipment (Hardware)

Evaluation Analysis: generally, the physical aspects received a very positive rating. The readability of the Interactive Smart Board and the comfort of the air conditioning temperature achieved the highest score of 3.61 (Very Good). Students felt that the classroom atmosphere was very conducive to concentration. However, the availability of electrical sockets was the lowest indicator in this dimension, with a score of 3.33. The large number of students bringing laptops and smartphones simultaneously means that the current number of power points on desks and the floor is sometimes still insufficient.

Action Plan:

- a. Instruct the campus Facilities and Infrastructure Unit (Sarpras) to add cable runs and install built-in/desktop power sockets in every student seating cluster.
- b. Conduct regular calibration and cleaning of the Interactive Smart Board sensors by laboratory technicians at the end of each semester to ensure that readability and touch sensitivity remain optimal.

2. Digital Connectivity and Applications (Software)

Evaluation Analysis: this dimension identifies the key critical points across all Smart Classroom services. The indicators for Wi-Fi connection speed and stability received the lowest ranking of all the items tested, with a score of 3.19. Although this still falls within the 'Good' category, the proportion of 'Fair' responses for this item was the highest (225 respondents). This is triggered by a surge in network traffic (bandwidth choke) during peak lecture hours (09:00–12:00 WIB) when many students are searching for digital references simultaneously. Meanwhile, the smooth operation of QR Code attendance was rated as very good with a score of 3.43.

Action Plan:

- a. The IT Support Unit (UPT TIK) will implement a bandwidth throttling policy for non-academic websites (such as social media and non-educational video platforms) within the Smart Classroom area.
- b. Allocate a dedicated bandwidth of at least 50 Mbps per smart classroom to ensure that the learning process, access to references, and screen sharing do not experience interruptions or delays (lagging).

3. Dimensions of Learning Experience and Impact

Evaluation analysis shows that the Smart Classroom facilities have proven to have a tangible positive impact on pedagogical transformation at UPGRIS. Students' ease in understanding lecture material through interactive features received a score of 3.53 (Very Good). The availability of lecture recordings (lecture capture) integrated into the SIMEKAR system was also highly appreciated by students, with a score of 3.43, as a means of self-directed learning at home.

Follow-up Plan:

- a. The LPM, together with the Centre for Educational Quality Assurance, will organise a workshop on the development of teaching modules based on the Flipped Classroom and Collaborative Learning for UPGRIS lecturers. This step is crucial so that lecturers are

able to maximise the full of the classroom's interactive hardware and software features, rather than simply using them as a replacement for conventional static projectors.

- b. The ICT Unit is optimising the SIMEKAR web server storage to ensure that the process of uploading and downloading lecture capture video recordings from the Smart Classroom runs faster and is free from server downtime issues.

H. CONCLUSION

Based on the results of data analysis, questionnaire tabulation, and discussions regarding the utilisation of the Smart Classroom at the Universitas Persatuan Guru Republik Indonesia Semarang (UPGRIS) in the 2024/2025 Academic Year, the following conclusions can be drawn:

1. Overall Satisfaction Level (Good Category): The utilisation of the Smart Classroom within UPGRIS has, on the whole, been highly successful. This is evidenced by the Total Index Score of 3.45, which falls within the **“Good”** achievement category. This figure indicates that the university's investment in digital infrastructure has had a tangible impact on the comfort and efficiency of the lecture halls.
2. Highest Success Indicators (Hardware and Learning Impact):
 - a. Physical Dimension (Hardware): The readability of materials on the Interactive Smart Board and the comfort of the air conditioning (AC) received the highest rating with a score of 3.61 (Very Good).
 - b. Learning Experience Dimension: Students' ease in understanding lecture material delivered via interactive features was rated very highly, achieving a score of 3.53 (Very Good). This indicates that the use of technology has successfully driven the transformation towards a student-centred learning model.
3. Benefits of Self-Directed Learning: The integration of the lecture capture system into the SIMEKAR self-directed learning platform was assessed as running very effectively and providing significant benefits for students to review course material at home, achieving a score of 3.43 (Good).

I. RECOMMENDATIONS

Based on the results of data analysis, evaluation, and the conclusions formulated, the Quality Assurance Agency (LPM) of Universitas Persatuan Guru Republik Indonesia Semarang (UPGRIS) offers several strategic recommendations to the university leadership and relevant departments to support continuous quality improvement:

1. Immediately allocate funds for the installation of additional built-in table sockets or floor boxes in every student discussion area to facilitate the power requirements of personal devices (Bring Your Own Device).
 2. Facilitate a regular preventive maintenance programme for physical cleaning, checking of air conditioning (AC) systems, and calibration of Interactive Smart Board screens during the semester break.
 3. Reconfigure the internet network by allocating a dedicated bandwidth of at least 50 Mbps per Smart Classroom to ensure stable connectivity and avoid lagging during peak lecture times.
- Increase the storage capacity (web server storage) and bandwidth performance on the SIMEKAR platform to ensure that the uploading and access of recorded lectures (lecture capture) by students can proceed without technical issues.

J. REFERENCES

YPLP PT PGRI Semarang. 2025. *Strategic Plan for 2025–2029*. YPLP PT PGRI Semarang.

UPGRIS. 2025. *Operational Plan 2025–2029*. UPGRIS.

_____. 2023. *Internal Quality Assurance System of UPGRIS*. UPGRIS

_____. 2023. *UPGRIS Education Guidelines*. UPGRIS.