

Implementation of Google Forms and Spreadsheet Processing on Mid-Semester Exam Digitization to Support a Paperless Campus

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Abstract

Digital transformation in higher education has accelerated the adoption of digital learning assessment systems that are more efficient and environmentally sustainable. However, mid-semester examinations (UTS) in many universities continue to rely on paper-based methods, resulting in time-consuming assessment processes and excessive paper consumption. This study evaluates the implementation of a digital examination system based on Google Forms integrated with Google Sheets and Microsoft Excel to improve assessment efficiency while supporting paperless campus initiatives. A descriptive quantitative approach was employed involving 45 undergraduate students. Data were collected through observations, interviews, documentation, and questionnaires, and analyzed using descriptive statistics with instrument validity and reliability testing. The findings indicate that the Google Forms-based examination system reduced grading time for multiple-choice tests from approximately 2–3 hours to less than one minute through automated scoring. Furthermore, integration with Google Sheets and Microsoft Excel streamlined grade recapitulation, minimized human error, and eliminated the need for printed examination materials. Students also reported positive perceptions regarding system usability, accessibility, efficiency, and its contribution to paperless learning practices. These findings suggest that Google Forms provides a practical, cost-effective, and easily implementable digital examination solution for higher education institutions, particularly those with limited technological resources.

Keywords:

Google Forms; digital assessment; paperless campus; higher education; Google Sheets.

INTRODUCTION

The development of information technology has encouraged digital transformation in various aspects of higher education, including in the management of academic administration and the learning evaluation process. The use of digital technology not only provides flexibility in the implementation of academic activities, but also increases the efficiency, effectiveness, and accessibility of educational services. Along with these developments, universities are encouraged to adopt various digital solutions that are able to support the learning and evaluation process in a more integrated manner. In addition, digital transformation is also one of the foundations in the development of *smart campuses* and the implementation of the *paperless campus* concept, which aims to reduce the use of physical documents while improving the quality of academic information management (Fernández-Batanero et al., 2022; Hidayat & Sensuse, 2022; Tatli et al., 2024).

Although digital transformation in higher education continues to grow, the implementation of the Mid-Semester Exam (UTS) in some universities still uses conventional paper-based methods. This system requires lecturers to prepare, print, and distribute exam questions manually, then make corrections to answers and recapitulation grades gradually. This process not only requires relatively large time and operational costs, but also increases the risk of *human error* in value processing and requires more physical document storage space. On the other hand, the development of information technology has provided various digital platforms that allow the learning evaluation process to be carried out more efficiently, flexibly, and well documented (Fernández-Batanero et al., 2022; Gusti Putri & Setiawan, 2020).

Various studies have shown that the use of digital technology is able to increase the effectiveness of the learning process and academic evaluation. The use of *e-learning* platforms and web-based quiz applications has been proven to facilitate learning evaluations, increase access flexibility for students, and speed up the assessment process compared to conventional methods (Gusti Putri & Setiawan, 2020; Munzi et al., 2025). In addition, the implementation of *paperless* technology in the university environment is also reported to be able to improve the efficiency of academic administration, reduce the use of physical documents, and support more integrated information management in the *smart campus* ecosystem (Tatli et al., 2024; Susandi, 2025).

Although various studies have discussed the use of digital technology in learning, *e-learning*, and web-based evaluation systems, most of the research still focuses on the development of learning platforms or applications that are integrated with *Learning Management Systems* (LMS). Meanwhile, studies on the use of Google Forms which are integrated with Google Sheets and Microsoft Excel as a simple solution for the implementation of exams as well as grade processing in universities are still relatively limited. In fact, the integration of the three applications can be an easy-to-implement alternative without the need for special software development, so that it has the potential to increase the efficiency of exam implementation and support the implementation of *paperless* campuses, especially in universities with limited technological resources.

Based on the research gap, this study implemented Google Forms which is integrated with Google Sheets and Microsoft Excel as a medium for digitizing the implementation of the Mid-Semester Exam (UTS). Google Forms is used as a platform for preparing questions and conducting online-based exams with *quiz* features for automatic assessment, while Google Sheets and Microsoft Excel are used to support the process of processing, validating, and recapitulating grades more quickly and systematically. This approach offers a solution that is simple, easy to implement, and does not require investment in software or complex technology infrastructure, so it can be an alternative for universities to support digital transformation and the implementation of *paperless* campuses.

From this description, this study aims to analyze the implementation of Google Forms which is integrated with Google Sheets and Microsoft Excel in supporting the digitization of the implementation of Mid-Semester Exams in universities. In particular, this study evaluates the effectiveness of the system in improving the efficiency of exam implementation, accelerating the

process of processing grades, reducing the use of paper, and knowing students' responses to the implementation of the digital exam system as part of efforts to realize *a paperless campus*.

METHODS

Types of Research

This study uses a quantitative descriptive approach to describe the implementation of a Google Forms-based digital exam system in the implementation of the Mid-Semester Exam (UTS). This approach is used to evaluate the effectiveness of the system in terms of exam implementation efficiency, ease of grade processing, and student perception of the implementation of digital exams. Quantitative data was obtained through the distribution of questionnaires and analyzed using descriptive statistics.

Location and Subject of Research

The research was carried out at the Ganesha College of Economics in the Even Semester of the 2025/2026 Academic Year. The research subjects consisted of one lecturer teaching the Computer Application II course as the implementer of the digital exam system and 45 students who took the Mid-Semester Exam (UTS). The selection of locations was carried out purposively because the implementation of Google Forms was applied directly to the course.

Data Collection Techniques

a. Observations

Observations were made on the UTS implementation process before and after the implementation of Google Forms to compare the efficiency of question distribution, exam implementation, correction process, and grade recapitulation.

b. Interview

Semi-structured interviews were conducted with lecturers and several students to obtain information about the experience of using Google Forms and the obstacles faced during the exam.

c. Documentation

Documentation is used as supporting data in the form of Google Forms displays, Google Sheets, grade processing results using Microsoft Excel, and student grade recapitulation documents.

d. Questionnaire

Student perception of the implementation of Google Forms was measured using a five-point Likert scale questionnaire consisting of seven indicators, namely ease of use, speed of exam implementation, ease of access, ease of grade processing, system effectiveness, internet network constraints, and support for the concept of paperless campus.

Stages of System Implementation

The implementation of the digital exam system begins with a need analysis of the conventional exam system, followed by the preparation of questions and the configuration of *the quiz feature* on Google Forms. The implementation of UTS is carried out online, while the results of student answers are automatically saved in Google Sheets to be recapped and validated using Microsoft Excel. The final stage is in the form of evaluating the effectiveness of the system based on the results of observations, questionnaires, and comparisons with conventional exam systems.

Data Analysis Techniques

The research data was analyzed using a quantitative descriptive approach to evaluate the effectiveness of the implementation of Google Forms in the implementation of the Mid-Semester Exam (UTS). The analysis was carried out by comparing the correction time efficiency between

the conventional exam system and the Google Forms-based system, evaluating the ease of grade processing through the integration of Google Sheets and Microsoft Excel, and identifying the reduction in paper use as an indicator of the implementation of *paperless campus*. In addition, the questionnaire results data were analyzed using descriptive statistics in the form of percentages and average scores to describe students' perceptions of the ease of use, effectiveness, and acceptance of the digital exam system.

Instrument Validity and Reliability Test

The questionnaire instrument was tested using a validity test with **Pearson Product Moment** correlation and a reliability test using **Cronbach's Alpha**. The instrument is declared valid if *the calculated r* value is greater than *the r* of the table, while reliability is considered qualified if the Cronbach's Alpha value is greater than 0.70, indicating good internal consistency of the instrument.

RESULT AND DISCUSSION

Conventional Exam System

Prior to the implementation of the digital exam system, the implementation of the Mid-Semester Exam (UTS) at the Ganesha College of Economics still used conventional paper-based methods. This system involves several stages, ranging from the preparation of questions, printing documents, distributing questions to students, conducting exams, to the process of correction and recapitulation of grades that are carried out manually. Based on the results of observations and interviews with lecturers and students, the process is considered less efficient because it takes a relatively long time, uses a large amount of paper, and has the potential to cause errors in the grade processing process. This condition shows the need for the implementation of a digital-based exam system that is able to increase the efficiency of exam implementation and support the concept of *a paperless campus*.

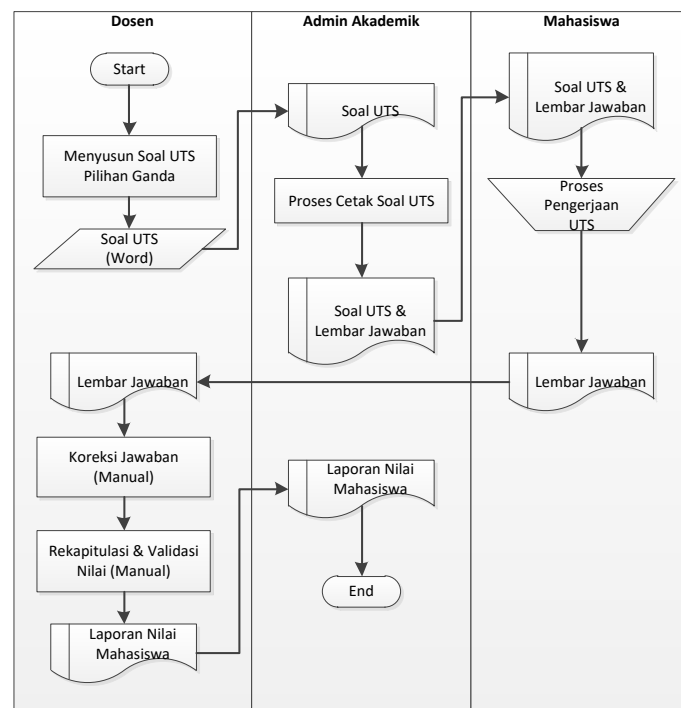


Figure 1. Flowchart Conventional Exam Running System

Based on Figure 1, the UTS implementation process begins with the preparation of questions by lecturers using word processing applications, then the questions are printed and distributed to students through the academic administration section. After the exam is over, the answer sheets are collected to be manually corrected by the lecturer before recapitulation and validation of grades. The flow shows that most processes still rely on manual work, so it takes longer, increases paper usage, and has the potential to cause *human error* in the grading and grading process.

Observation Results of Conventional Examination Systems

The results of observations show that the implementation of the Mid-Semester Exam (UTS) is still dominated by manual processes at almost all stages, starting from the implementation of exams, examination of answers, to grade processing. The correction process that is carried out manually takes a relatively long time, especially when the number of students is quite large. In addition, the use of paper for printing questions and answer sheets is still high, so it does not support the concept *of paperless campus*. Manual processing of grades also has the potential to cause calculation errors and slow down the delivery of exam results to students.

Conventional Exam System Interview Results

The results of interviews with lecturers, academic admins, and students show that the conventional exam system still faces various obstacles. Lecturers stated that the process of correcting answers requires considerable time and effort, while academic admins have difficulties in printing and distributing questions, especially when the number of examinees increases. From the student side, this system is considered less practical because the entire process is still carried out manually and exam results cannot be obtained quickly. These findings indicate the need for the implementation of a digital-based exam system that is more effective, efficient, and supports the acceleration of the learning evaluation process.

Modern Exam System (Google Forms Implementation)

In an effort to improve the efficiency of the learning evaluation process, the conventional exam system is implemented into a Google Forms-based digital exam system. The use of this platform allows all stages of the implementation of the Mid-Semester Exam (UTS), starting from the preparation of questions, exam distribution, collection of answers, to the processing of scores, to be carried out in an integrated manner. In addition to reducing the use of paper, this system also provides convenience in the assessment process, data management, and submission of exam results so that it is more in line with the concept *of a paperless campus*.

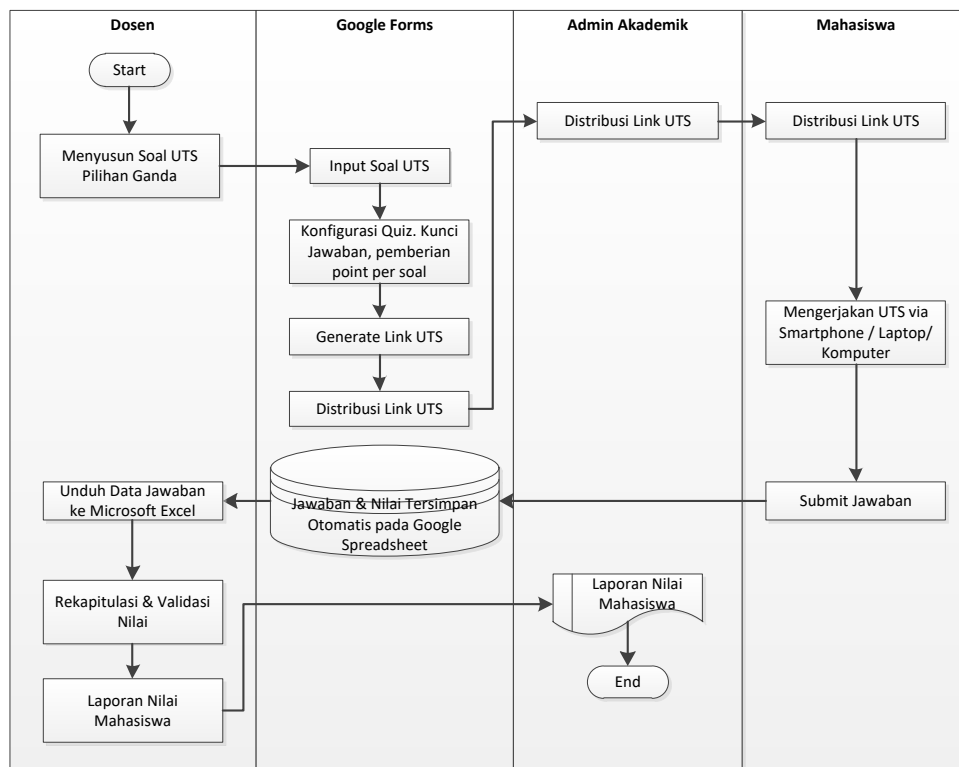


Figure 2. Modern Exam Proposal System Flowchart (Google Forms Implementation)

Based on Figure 2, the UTS implementation process begins with the preparation of questions by lecturers which are then input into Google Forms. Furthermore, the lecturer configures *quiz features*, such as determining the answer key and the weight of the score in each question. Once the configuration is complete, the system generates an exam link that is distributed to students through the academic admin. Students take the exam using an internet-connected device, while all answers are automatically saved to Google Sheets. The system also conducts automatic assessments based on the predetermined answer key. Furthermore, lecturers download the exam result data in Microsoft Excel format for the recapitulation and validation process before the exam result report is submitted to the academic admin. The implementation of this system makes the evaluation process faster, reduces the use of paper, facilitates the distribution of questions, and improves the efficiency of managing exam result data.

Observation Results of the Modern Exam System (Google Forms Implementation)

The results of observations show that the implementation of Google Forms is able to increase the efficiency of UTS implementation compared to conventional systems. The distribution of questions can be done quickly through the exam link without the need for printing documents, while the assessment process takes place automatically, speeding up the correction and processing of grades. In addition, data storage in Google Sheets makes it easy to document and manage exam results. From the student side, this system is considered more flexible because it can be accessed through various devices, such as computers, laptops, and smartphones.

Modern Exam System Interview Results (Google Forms Implementation)

The results of interviews with lecturers, academic admins, and students show that the implementation of Google Forms provides various conveniences in the implementation of UTS. The lecturer stated that the assessment process became faster and more practical because it was supported by the automatic assessment feature. Academic admins also feel the convenience of

distributing questions without the need to print documents. Meanwhile, students consider the Google Forms-based exam system to be more practical and efficient because it can be accessed online through various devices and allows exam results to be obtained in a shorter time. Nevertheless, the smooth implementation of the exam still depends on the availability of a stable internet connection.

Comparison of Manual System and Google Forms

To get an idea of the effectiveness of the implementation of Google Forms in the implementation of the Mid-Semester Exam (UTS), a comparison was made between the conventional exam system and the digital exam system based on several operational aspects. This comparison includes exam media, question distribution process, operational costs, correction time, grade processing, error risk, data storage, access to exam implementation, paper use, and speed of delivery of exam results. The results of the comparison are presented in Table 1.

Table 1. Comparison of Manual and Google Forms Exams

No	Aspects	Conventional Exams	Google Forms
1	Test media	Paper (question and answer sheet)	Digital form (<i>online</i>)
2	Distribution of questions	Printed and shared live	The link is shared online
3	Operating costs	Height	Low
4	Correction time	$\pm 2-3$ jams (manual)	< 1 minute (automatic)
5	Value recapitulation	Guide	Automated via Google Sheets
6	Risk of error	Relatively high (<i>human error</i>)	Relatively low
7	Data storage	Physical archives	<i>Cloud storage</i>
8	Exam access	In the classroom	Through a computer, laptop, or smartphone
9	Paper use	Height	Paperless
10	Delivery of results	Relatively slow	Faster (<i>real-time</i>)

Based on Table 1, the implementation of Google Forms shows increased efficiency in various aspects of exam implementation compared to conventional systems. The most noticeable difference was seen in the correction time, which was reduced from about 2–3 hours to less than a minute for multiple-choice questions through the auto-grading feature. In addition, the process of distributing questions, recapitulating values, and storing data becomes faster and digitally integrated through Google Sheets and *cloud storage*. The implementation of this system is also able to reduce operational costs due to reduced paper use and printing processes, thus supporting the implementation of *the paperless campus* concept in the university environment.

Instrument Validity and Reliability Tests

Before being used in research, the questionnaire instrument is first tested for validity and reliability to ensure that each statement item is able to measure the research construct precisely and consistently.

Validity Test

The validity test is performed using the Pearson Product Moment correlation to all statement items. The test results showed that all items had a calculated r value greater than *the* r of the table (0.294), so that all statement items were declared valid and suitable for use as research instruments. The results of the validity test are presented in Table 2.

Table 2. Validity Test Results

Item	<i>r</i> count	<i>Table r</i>	Remarks
Page 1	0,883	0,294	Valid
Page 2	0,885	0,294	Valid
Page3	0,874	0,294	Valid
Page 4	0,896	0,294	Valid
Page 5	0,885	0,294	Valid
Page-6	0,341	0,294	Valid
Pg. 7	0,514	0,294	Valid

P6's statement uses reverse scoring because it is an unfavorable item related to internet network constraints in the digital exam system.

Test Reliability

Reliability tests are performed using Cronbach's Alpha method to measure the internal consistency of the instrument. The test results showed a Cronbach's Alpha value of 0.849, higher than the minimum limit of 0.70. Thus, the research instrument is declared to have a good level of reliability and is suitable for use in data collection.

Table 3. Reliability Test Results

Method	Value	Criteria	Conclusion
Alpha Cronbach	0,849	> 0.70	Reliable

The results of the reliability test in Table 3 show that the research instrument has a good level of internal consistency with a Cronbach's Alpha value of 0.849. This value meets the required reliability criteria, so that the instrument is declared suitable for use as a data collection tool. Therefore, the measurement results obtained in this study can be considered consistent and have an adequate level of reliability.

Results of the Implementation of Google Forms in the Mid-Semester Exam (UTS)

The implementation of Google Forms in the implementation of the Mid-Semester Exam (UTS) is carried out in stages, starting from the preparation of questions, the implementation of the exam, the storage of answer results, to the processing of scores. This system utilizes the integration between Google Forms, Google Sheets, and Microsoft Excel so that the entire evaluation process can be carried out faster, more accurately, and well documented. The stages of implementation are shown in Figure 3 to Figure 6.

Syafran Nurrahman. Implementation of Google Forms and Spreadsheet Processing on Mid-Semester Exam Digitization to Support a Paperless Campus

UJIAN TENGAH SEMESTER (UTS) APLIKASI KOMPUTER II - SEMESTER GENAP

Mata Kuliah : Aplikasi Komputer II
Nama Dosen : Syafran Nurrahman, S.Kom, M.Kom
Hari / Tanggal :
Prodi : Manajemen & Akuntansi
Kelas : Reguler 0

Silahkan dikumpulkan paling lambat Sabtu 23 Mei 2026, pukul 24.00 WIB

----SELAMAT MENGERJAKAN MAHASISWA HEBAT, TANGGUH----

[syafraan@eslgenesa.ac.id](#) [Switch account](#)

The name, email, and photo associated with your Google account will be recorded when you upload files and submit this form

*** Indicates required question**

NIM *

Your answer

Nama *

Your answer

Semester *

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8

Program Studi *

☐ a. Manajemen
☐ b. Akuntansi

Upload KPU

Upload 1 supported file. Max 10 MB.

[Add file](#)

Tanggal Pengerjaan UTS *

Date

mm / dd / yyyy

Tanggal Pengerjaan UTS *

Date

mm / dd / yyyy

Pengenalan Flowchart 4 points

1. Flowchart adalah ...

☐ a. Diagram untuk menghitung data
☐ b. Diagram yang menggambarkan alur proses atau logika suatu sistem
☐ c. Tabel untuk menyimpan data
☐ d. Grafik untuk analisis data

2. Flowchart dokumen digunakan untuk... 4 points

☐ a. Menggambarkan alur program komputer
☐ b. Menunjukkan hubungan antar database
☐ c. Menggambarkan alur perpindahan dokumen dalam sistem
☐ d. Menyimpan data transaksi

3. Simbol flowchart yang berbentuk oval digunakan untuk... 4 points

☐ a. Proses
☐ b. Input/Output
☐ c. Mulai dan selesai (Start/End)

Figure 3. UTS view of Google Forms

Form Responses	Timestamp	Score	NIM	Nama	Semester	Program Studi	Upload KPU	Tanggal Pengerjaan UTS	Pengenalan Flowchart	2. Flowchart dokumen digunakan untuk...	3. Simbol flowchart yang berbentuk oval digunakan untuk...
1	5/23/2026 13:18:45	100 / 100	125205861	Mohamad Bekti Febrio	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
2	5/23/2026 13:21:10	100 / 100	125214958	Muhammad Febri Agus	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
3	5/23/2026 13:21:11	100 / 100	125204421	OKI SABRI	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
4	5/23/2026 13:21:50	100 / 100	124200080	ANGGOE TRIAN JEREMI	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
5	5/23/2026 13:22:17	96 / 100	124201221	Boyke Rachmat Faizal	6	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
6	5/23/2026 13:22:51	100 / 100	125216296	Widik Anrilanto	6	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
7	5/23/2026 13:23:04	100 / 100	125206344	MUHAMMAD JALALUDIN	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
8	5/23/2026 13:23:15	92 / 100	125100220	Nesa haerunisa	2	b. Akuntansi	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
9	5/23/2026 13:23:59	100 / 100	125204739	Dina Hardianti	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
10	5/23/2026 13:24:51	100 / 100	125205644	Muhammad Dimas Aryo	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
11	5/23/2026 13:25:06	100 / 100	125205549	Anggi	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
12	5/23/2026 13:25:11	100 / 100	125100208	IKHLAS HAMZAH AULY	2	b. Akuntansi	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
13	5/23/2026 13:25:13	100 / 100	125214988	Ade Chandra Rizki	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
14	5/23/2026 13:25:28	100 / 100	125205886	Ridho Ilham ananto	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
15	5/23/2026 13:25:30	100 / 100	125204657	YADI SETIADI	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
16	5/23/2026 13:26:29	100 / 100	125205111	muhammad bintang fati	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
17	5/23/2026 13:26:56	100 / 100	125203677	Vathya Muharyani	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
18	5/23/2026 13:27:13	100 / 100	125100220	Nesa haerunisa	2	b. Akuntansi	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)
19	5/23/2026 13:27:32	100 / 100	125206187	Wahyu Novianti	2	a. Manajemen	https://drive.google.com	5/23/2026	b. Diagram yang menggm...	c. Menggambarkan alur perpindahan dokumen	c. Mulai dan selesai (Start/End)

Figure 4. UTS Google Forms Results Spreadsheet View

Timestamp	Score	NIM	Nama	Semester	Program Studi	Upload KPU	Tanggal Pengerjaan UTS	Pengenalan Flowchart	2. Flowchart dokumen digunakan untuk...	3. Simbol flowchart yang berbentuk oval digunakan untuk...	4. Simbol decision (keputusan)
1	5/23/2026 13:18:45	100 / 100	125205861	Mohamad Bekti Feb	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
2	5/23/2026 13:21:10	100 / 100	125214958	Muhammad Febri Agi	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
3	5/23/2026 13:21:11	100 / 100	125204421	OKI SABRI	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
4	5/23/2026 13:21:50	100 / 100	124200080	ANGGOE TRIAN JEF	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
5	5/23/2026 13:22:17	96 / 100	124210221	Boyke Rachmat Faiz	6	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
6	5/23/2026 13:22:51	100 / 100	125216296	Widik Anrilanto	6	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
7	5/23/2026 13:23:04	100 / 100	125206344	MUHAMMAD JALALUC	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
8	5/23/2026 13:23:15	92 / 100	125100220	Nesa haerunisa	2	b. Akuntansi	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
9	5/23/2026 13:23:59	100 / 100	125204739	Dina Hardianti	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
10	5/23/2026 13:24:51	100 / 100	125205644	Muhammad Dimas Ar	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
11	5/23/2026 13:25:06	100 / 100	125205549	Anggi	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
12	5/23/2026 13:25:11	100 / 100	125100208	IKHLAS HAMZAH AL	2	b. Akuntansi	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
13	5/23/2026 13:25:13	100 / 100	125214988	Ade Chandra Rizki	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
14	5/23/2026 13:25:28	100 / 100	125205886	Ridho Ilham ananto	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
15	5/23/2026 13:25:30	100 / 100	125204657	YADI SETIADI	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
16	5/23/2026 13:26:29	100 / 100	125205111	muhammad bintang f	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
17	5/23/2026 13:26:56	100 / 100	125203677	Vathya Muharyani	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
18	5/23/2026 13:27:32	100 / 100	125206187	Wahyu Novianti	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
19	5/23/2026 13:27:40	100 / 100	125100198	IRFA MILLATI	2	b. Akuntansi	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
20	5/23/2026 13:27:53	100 / 100	125203545	VERDYDAN OKTAVI	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
21	5/23/2026 13:27:58	100 / 100	125204712	YENTI	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat
22	5/23/2026 13:28:04	100 / 100	125203736	Andi Damawan	2	a. Manajemen	https://drive.google.com	23/05/2026	b. Diagram yang menggo...	c. Menggambarkan alur perpindahan dok...	d. Belah ketupat

Figure 5. Excel view of UTS results from Google Forms Spreadsheet

REKAPITULASI NILAI UTS APLIKASI KOMPUTER II REGULER D		
NIM	Nama	Score
125207451	Ade Haryono	100 / 100
124200080	ANGGYE TRIAN JEREMIA SIHOMBING	100 / 100
124210221	Boyke Rachmat Faizal	96 / 100
125100198	IRFA MILLATI	100 / 100
125100208	IKHLAS HAMZAH AULYA	100 / 100
125100220	Nesa haerunisa	92 / 100
125100221	Dinda anjani	100 / 100
125100239	INDRIANI	100 / 100
125203677	Vathya Muharany	100 / 100
125204421	OKI SABRI	100 / 100
125204493	Desta Nurlaila Hajjah	100 / 100
125204647	Syafira Audia	100 / 100
125204712	YENTI	100 / 100
125204739	Dina Hardianti	100 / 100
125204854	Yubi Bastilas	100 / 100
125204857	YADI SETIADI	100 / 100
125205111	muhammad bintang fatchurrahman	100 / 100
125205112	Hutama Putra Karunia akbar	100 / 100
125205549	Anggi	100 / 100
125205644	Muhammad Dimas Aryo Putro	100 / 100
125205736	Andi Darmawan	100 / 100
125205738	MULYONO	100 / 100
125205739	WAWANG NUSANTARA	96 / 100
125205795	Ary Ferdian	100 / 100
125205861	Mochamad Bakti Febrio Bayu Aji	100 / 100
125205886	Ridho ilham ananto	100 / 100

Figure 6. Excel UTS Value Recapitulation Pivot View

Based on Figure 3 to Figure 6, Google Forms functions as a medium for conducting exams as well as collecting student answers online. All submitted answers are automatically saved in Google Sheets, making it easier to document and manage data. Next, the data is downloaded into Microsoft Excel for recapitulation, validation, and presentation of values using the Pivot Table feature. The integration of the three applications is able to speed up the grading process, reduce the potential for recording errors, and support the implementation of more efficient learning evaluations.

Student Response to the Implementation of Google Forms

To find out the level of student acceptance of the implementation of Google Forms in the implementation of the Mid-Semester Exam (UTS), questionnaires were distributed to all respondents. The questionnaire was prepared using a five-point Likert scale which included aspects of ease of use, speed of implementation, ease of access, effectiveness of grade processing, effectiveness of digital exam systems, internet network constraints, and support for *the concept of paperless campus*. The results of the recapitulation of respondents' responses are presented in Table 4.

Table 4. Results of Student Responses to the Implementation of Google Forms

No	Statement	Strongly agree	Agree	Neutral	No Agree	Strongly Disagree
1	Exams Using Google Forms Are Easier To Use Than Online Exams	73,3%	20%	4.40%	0%	2.20%
2	Google Forms-based exam system is faster than conventional exams	71.10%	22.20%	4.40%	0%	2.20%
3	Exam questions are easily accessible via smartphone / Laptop	67.70%	24.40%	6.70%	0%	2.20%

4	Processing exam results becomes more practical with Google Forms	64.40%	24.40%	8.90%	0%	2.20%
5	Digital exam systems are more effective than paper-based exams	56.60%	31.10%	8.90%	2.20%	2.20%
6	Internet network constraints when using the digital exam system	6.70%	22.20%	33.30%	33.30%	4.40%
7	The use of Google Forms supports the concept of paperless campus	53.30%	35.60%	11%	0%	0%

Based on Table 4, most students responded positively to the implementation of Google Forms for the Mid-Semester Examination (UTS). More than 85% of respondents agreed or strongly agreed that the system was easy to use, accessible across various devices, and improved the speed and efficiency of examinations and result processing. Students also perceived the system as supporting the paperless campus initiative. Although a small number of respondents experienced internet connectivity issues, these were not considered a major obstacle. Overall, the findings indicate that Google Forms provides an effective, efficient, and user-friendly digital assessment system that supports higher education digital transformation.

The findings demonstrate that Google Forms significantly improves the efficiency of the examination process compared with conventional paper-based methods. Its automated quiz feature accelerates multiple-choice grading while reducing human error. Integration with Google Sheets and Microsoft Excel further simplifies data management, score compilation, and grade analysis, enabling lecturers to process examination results more quickly and systematically.

From a sustainability perspective, the system supports paperless campus initiatives by eliminating the need for printed examination materials, thereby reducing paper consumption and operational costs. Students also reported positive perceptions regarding usability, accessibility, and efficiency, consistent with the findings of **Tatli et al. (2024)**, who highlighted that paperless technologies improve administrative efficiency and achieve high user acceptance in educational settings.

Despite these advantages, successful implementation depends on reliable internet connectivity and adequate student devices, as network instability may disrupt online examinations. Therefore, technological infrastructure remains an important prerequisite for digital assessment. Overall, the integration of Google Forms, Google Sheets, and Microsoft Excel offers a practical, low-cost, and easily implementable solution for improving assessment efficiency while supporting digital transformation and sustainable paperless practices in higher education.

CONCLUSION

Based on the results of the study, the implementation of Google Forms in the implementation of the Mid-Semester Exam (UTS) has been proven to be able to increase the efficiency of the learning evaluation process compared to the conventional exam system. The use of automatic assessment features, integration with Google Sheets, and data processing using Microsoft Excel speed up the process of correction, recapitulation of scores, and presentation of exam results. In addition, the implementation of this system is able to reduce the use of paper so as to support the implementation of *the paperless campus concept*. The results of the questionnaire also showed that the majority of students gave positive responses to the use of Google Forms because it was considered easier, practical, and more efficient. Thus, Google Forms can be an effective,

economical, and easy-to-apply alternative in supporting the digital transformation of the learning evaluation process in universities.

Based on the results of the research, universities are advised to expand the implementation of digital exam systems as part of digital transformation efforts and the implementation of *paperless* campuses. The success of the implementation of this system needs to be supported by the availability of adequate internet network infrastructure and the improvement of lecturers' competence in utilizing digital learning technology. In addition, further research can develop the implementation of an exam system that is integrated with *the Learning Management System* (LMS) or other digital learning platforms so that the learning evaluation process becomes more comprehensive.

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