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## OPTIMIZING GOOGLE SITES FOR LEARNING: INVESTIGATING PERCEIVED USEFULNESS AND EASE OF USE AMONG UiTM KEDAH STUDENTS

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### Abstract:

The popularity of online learning has led to new trends among educators and instructors with their learning management system (LMS) platform. Among prominent LMSs used famously lately are Google Classroom, Moodle, Canvas, and Edmodo. While many resort to a fixed LMS where it is easier to navigate, it lacks creativity and accessibility. This study aims to seek the user's or learners' perceptions of using Google Sites as their LMS during one semester consisting of 14 weeks. The data collected was based on two factors which are perceived usefulness and perceived ease of use. Other than that, the study also asked learners how frequently they use Google Sites and one open-ended question regarding their comments on using Google Sites as LMS. This study applies a mixed-method approach to deducing the results. Based on the findings, the result showed a significant influence on perceived usefulness (POU) and perceived ease of use (PEOU). Despite its perceived usefulness, students expressed a need for enhanced functionalities to support self-directed learning more effectively. These insights offer practical guidance for educators experimenting with free or accessible digital tools while highlighting the balance between simplicity and functionality in tech-driven education.

### Keywords:

Google Sites, Learning Management System, Student Perceptions, ESL Learners

## Introduction

Malaysian higher education specifically has long been practicing the traditional method of delivering teaching and learning particularly on face-to-face lectures, printed materials and also manual assessment. The world was taken by a pandemic storm in which it affects the traditional method of teaching and learning, thus offer opportunities for differentiated learning, independent exploration, and digital skill development (Yuen, Luo, & Wan, 2023) which lacking compared to the traditional method.

In response to this pandemic situation, LMS has come to represent modern-day online instructions and have replaced previous learning practices (Altınpulluk & Kesim, 2021) due to the increase in access to digital technology. Google Classroom, Moodle, Canvas are some of the dominant platforms in this space and offer structured interfaces to streamline course management and engagement (John, 2021; Parimavali, & Surisetti, 2022). Yet these systems may prioritize usability, with their rigid frameworks limiting educators' ability to customize the contents, hence constraining creative instructional design (Parimavali, & Surisetti, 2022).

As a result of these limitations, education has turned to Google Sites, a versatile, free tool that benefits very well teachers who want to create personalized learning spaces. In contrast to other LMS platforms, Google Sites allow instructors organize resources based on specific pedagogical goals and student needs (Ramadannisa & Hartina, 2021). Examples of this have been the case of a focus on research in various educational areas such as in language (Panah et al. 2022) and STEM (Parmar et al. 2020) disciplines. Though increasingly being use, studies on students' attitude toward Google Sites as (LMS)—especially in higher education—are lacking, leaving scholars and educators with little understanding of whether it is effective at fostering engagement and autonomy (Hafid & Barnoto, 2022).

This paper presents exploratory findings on students' experiences with Google Sites as an LMS in a 14-week semester, with an emphasis on two online acceptance factors that adhere to technology acceptance constructs (Ustun, Karaoglan Yilmaz, & Yilmaz, 2022; Galura et al., 2023; Güntem, & Kılıç, 2025) to include: perceived usefulness and perceived ease of use (Panergayo, 2021; Bansah, & Darko Agyei, 2022; Linus et al., 2025). Usage trends and challenges were assessed by analysing quantitative data from Likert-scale surveys and qualitative insights from open-ended responses. The results show that students appreciate the Google Sites platform for its ease of use and the ability to access all materials in one place, but note limitations in interactive features and assessment tools, as noted by previous critiques of earlier LMS platforms (Bueno et al., 2022). This guidance builds from how others have advocated that distance education be pedestrian and not simply physically blind (Panah et al., 2022), noting that such broadening helps educators still access free technology that has been shown to have some effectiveness in supporting self-directed learning.

## Literature Review

There are five points discussed in the literature review, which are Learning Management Systems (LMS), Google Sites as a Learning Management System, Theoretical Framework: Technology Acceptance Model (TAM), Empirical Studies on LMS, and Student Perceptions Challenges and Limitations of Google Sites as an LMS.

### ***Learning Management Systems (LMS)***

Online and blended learning environments are characterized by the use of Learning Management Systems (LMS), through which abstract execution of courses, business principles to conflicting ideas are being taught by the educators more dynamically and strikingly (Altınpulluk & Kesim, 2021). Within this realm, learning management systems (LMS) play a pivotal role in serving as integrated digital ecosystems that facilitate the administration, support, and delivery of online courses, along with resource integration and assessment in a more integrated way (Ustun, Karaoglan Yilmaz, & Yilmaz, 2022; Galura et al., 2023; Güntem, & Kılıç, 2025). This creation integrates tools and materials within a single interface and simplifies instructional workflows, providing structure to the learning process, a key element as the world expands to online education (John, 2021; Parimavali, & Suriseti, 2022).

LMS platforms have developed from static administrative tools (elementary concerns such as course registration and grading) to dynamic systems that prioritize interactivity and learner-centered design (Ustun, Karaoglan Yilmaz, & Yilmaz, 2022; Galura et al., 2023; Güntem, & Kılıç, 2025). The availability of real-time collaboration tools, adaptive learning features, and third-party application support are now components of most modern platforms, highlighting an increased emphasis on fostering student autonomy and engagement (Panah et al., 2022). This shift corresponds to increasing demand for flexible, personalized learning experiences within digital education (Parimavali, & Suriseti, 2022).

Some of the best known LMS platforms include Google classroom, Moodle, Canvas and Edmodo to meet different educational requirements. Google Classroom, for instance, uses the integration with Google Workspace to provide a user-friendly interface for managing assignments and interactions, which is a popular choice at K-12 and higher education levels (John, 2021). Moodle's open-source architecture allows extensive customization, which may appeal to moderately-flexible institutions (Ramadannisa & Hartina, 2021). Canvas, for instance, really shines in its more advanced analytics and extensive course design tools, and Edmodo's social-media-inspired interface encourages interaction in younger classrooms (Bueno et al., 2022). While many (great) platforms exist to support you, they are often criticized for their inflexible structures, which often inhibit creative instructional design (Parmar et al., 2020) leading many educators to look for alternative, free, and highly customizable environments, such as a Google site. With institutions looking to help minimize costs while still providing and managing learning opportunities, and flexibility, the following tool has gained some traction to address some of the gaps open from the traditional LMS platforms, namely Google Sites, in supporting heutagogical (self-determined) learning approaches (Panah et al., 2022).

### ***Google Sites as a Learning Management System***

One of the basic options of Learning Management Systems (LMS) is Google Sites, which can also create online courses that are interactive as well as easy to use without needing superior technical skills (Ramadannisa & Hartina, 2021). As a customizable website builder, as compared to a fixed LMS framework, instructors are able to use Google Sites — while combining other tools in the Google Workspace like Drive, Docs, and Forms (John, 2021) — to make content that aligns with their pedagogical goals. Its adaptability is especially attractive to educators who have a preference for simplicity and cost-effective solutions, since it does not need institutional subscriptions or specialized training (Parmar et al., 2020).

It serves essential education-related pivot functionality where content can be easily segmented into per page settings, multimedia embedding, and assessments deliverable in Google Forms (Panah et al, 2022). A centralized design enables students to access slides, assignments, and announcements from a single location, while real-time collaboration features allow peer interaction and instructor feedback (Parimavali, & Surisetti, 2022). Unlike many LMS #platforms which tend to have storage space limitations, Google Sites has no such restrictions, making it appropriate for educators with large resources and/or multimedia (e.g. continuous courses) (Parmar et al., 2020). However, this platform is not natively integrated with different third party tools for communication and collaboration like Google Meet or Classroom which ought to be integrated by the educators to manage the flow (Bueno et al., 2022).

While it is very powerful, Google's Sites is missing several features including but not limited to built-in grading systems, attendance monitoring features, or automated assessment tools which are built into traditional LMS enabling platforms such as Moodle or Canvas (Altınpulluk & Kesim, 2021). Google Classroom organizes assignment submissions and feedback within its own interface, but Google Sites depends on external plugins, such as using Google Forms to conduct quizzes, exerting more responsibility on teaching staff to organise individual learning pathways (Ustun, Karaoglan Yilmaz, & Yilmaz, 2022). Its absence of integrated analytics or adaptive learning modules still give rise to the challenges that it faces in relation to supporting data-driven instruction (Hafid & Barnoto, 2022). This means that the success of Google Sites as a LMS depends heavily on the ability of educators to find creative ways to stack tools and ways on how to offer an interactive, self-paced learning environment — a usability compromise for advanced features (Panah et al., 2022).

### ***Theoretical Framework: Technology Acceptance Model (TAM)***

LMS have revolutionized the digital learning environment for both students and instructors by providing organized, sequential access to various resources, engaging components, and offering communication tools (Altınpulluk & Kesim, 2021). The rise of LMS platforms such as Google Sites have provided a more flexible and cost-effective alternative for educators seeking ways to develop an interactive course without the consequences of using a predetermined system like Moodle or Canvas (Ramadannisa & Hartina, 2021). Despite focused frameworks, Google Sites emphasizes a customizable, user-friendly interface that allows instructors to tailor content to and address diverse learning needs, while integrating seamlessly with tools like Google Drive and Forms (Hafid & Barnoto, 2022). But doubt persists about how well it fulfills students' practical and navigational expectations.

The Technology Acceptance Model (TAM) examines two crucial facets —Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)— that influence the decision to adopt this technology. PU determines whether students believe Google Sites contributes to their learning outcomes, affordability, and academic success, while PEOU checks the ease of navigation of the tool and technical reliability of the platform (Panah et al., 2022). New studies, for example, showcase the potential of Google Sites for promoting self-directed learning based on heutagogy, but have limitations related to understanding its usability for other academic terms (Panah et al 2022; Hafid & Barnoto 2022). The optimistic views of these elements may contribute to major institutional uptake, especially because educators are keen for low-cost, flexible solutions (Altınpulluk & Kesim, 2021).

The viability of Google Sites in higher education as a primary LMS (Learning Management System) will be assessed using the constructs analyzed. Such insights will guide strategies to enhance its design and integration—tackling gaps in interactive features or automated forms of assessment identified by prior studies (Ramadannisa & Hartina, 2021). With digital affordability and flexibility being of increasing focus for institutions, understanding how learners perceive these working practices is vital to ensuring a balance between innovation and pedagogical effectiveness (Hafid & Barnoto, 2022).

### ***Empirical Studies on LMS and Student Perceptions***

Empirical studies on Learning Management Systems (LMS) have consistently demonstrated their importance in shaping digital learning environments and influencing student engagement and performance. The summary of selected empirical studies are shown in table below;

**Table 1: Summary of Selected Studies on LMS and Google Sites**

<b>Author(s)</b>	<b>Year</b>	<b>Focus Area</b>	<b>Platform</b>	<b>Key Findings</b>
Al-Fraihat et al.	2020	Evaluating e-learning systems success	General LMS	PU and PEOU influence LMS success
Parmar et al.	2020	Use of Google Sites in medical education	Google Sites	Useful for teaching, lacks interactivity
Altinpulluk & Kesim	2021	Trends in LMS usage	General LMS	Increased adoption; varied functionalities
John	2021	Canvas LMS course design	Canvas	Supports interactive course development
Panergayo	2021	PU and PEOU mediating behavioural intention	General LMS	Usefulness and ease predict LMS adoption
Ramadannisa & Hartina	2021	Google Sites for science teaching	Google Sites	Effective for content organisation
Ustun et al.	2021	LMS and student engagement in blended learning	General LMS	Acceptance improves engagement and community
Bansah & Darko Agyei	2022	Students' experiences of LMS	General LMS	Convenience, usefulness, and acceptance affirmed
Bueno et al.	2022	Usability of Google Site and Wordwall	Google Sites, Wordwall	Effective for basic integration learning
Hafid & Barnoto	2022	Google Workspace for classroom management	Google Sites	Simple but limited analytical functions
Panah et al.	2022	Heutagogy in ESL using Google Sites	Google Sites	Promotes autonomy, limited features
Veluvali & Suriseti	2022	Review of LMS for engagement	General LMS	LMS essential for student engagement
Galura et al.	2023	C5-LMS using Google Classroom	Google Classroom	Positive user acceptance via extended UTAUT
Yuen et al.	2023	Differentiated instruction during COVID-19	General ICT	Challenges and adaptive opportunities



Güntem & Kılıç	2025	Sustainability in LMS platforms	General LMS	Efficiency varies across university platforms
Linus et al.	2025	Intention to use online learning tools	Online tools	Usefulness and ease influence intention

Table 1 presents a chronological summary of selected empirical studies from 2020 to 2025, highlighting the evolution of research on Learning Management Systems (LMS), Google Sites, and online learning tools. The early studies, such as Al-Fraihat et al. (2020) and Parmar et al. (2020), primarily focused on evaluating LMS success based on usability constructs like perceived usefulness (PU) and perceived ease of use (PEOU), consistent with the Technology Acceptance Model (TAM). These foundational works established the significance of user perceptions in determining LMS effectiveness. From 2021 onwards, research diversified to include platform-specific evaluations, such as Canvas (John, 2021), Google Sites (Ramadannisa & Hartina, 2021), and broader LMS adoption trends (Altınpulluk & Kesim, 2021).

Studies conducted in 2022 and 2023 reflect a shift toward more nuanced themes, including learner engagement (Veluvali & Suriseti, 2022), autonomous learning through heutagogy (Panah et al., 2022), and user experiences during the pandemic (Yuen et al., 2023). Additionally, the integration of frameworks such as UTAUT (Galura et al., 2023) signalled growing theoretical diversification in examining LMS acceptance. The most recent research from 2025 continues this trajectory, with an emphasis on sustainability (Güntem & Kılıç, 2025) and intention to adopt technology tools among pre-service teachers (Linus et al., 2025). Collectively, these studies highlight a growing consensus on the relevance of accessibility, learner autonomy, and usability in LMS design, while acknowledging persistent challenges in interactivity and integration. This timeline also reinforces the need for continued research into lightweight, adaptable platforms such as Google Sites, particularly in resource-constrained educational settings.

### ***Challenges and Limitations of Google Sites as an LMS***

Despite its adaptability and cost-effectiveness, Google Sites faces significant challenges when positioned as a full-fledged LMS. The platform's lack of native support for core LMS functions such as automated grading systems, attendance tracking, and detailed learning analytics presents clear limitations (Altınpulluk & Kesim, 2021). Educators using Google Sites must often integrate external tools like Google Forms, Drive, and Sheets to approximate the capabilities of more robust LMS platforms, thus increasing their workload and technical demands (Bueno et al., 2022). Moreover, the absence of built-in interactive discussion boards or synchronous communication tools restricts opportunities for real-time engagement and collaboration among students (Parmar et al., 2020).

Such limitations may impact students' learning experiences, particularly those accustomed to more feature-rich systems such as Canvas or Moodle. As Hafid and Barnoto (2022) point out, the lack of integrated feedback mechanisms and personalised learning pathways can hinder efforts towards achieving heutagogical learning goals. Thus, while Google Sites offers a flexible and accessible alternative, its efficacy as a comprehensive LMS remains contingent upon the creative intervention and technological proficiency of the educator.

### ***Significance of the Study***

This study is significant in its attempt to bridge the current gap in the literature regarding students' perceptions of Google Sites as a Learning Management System (LMS) in higher education. By focusing on the constructs of perceived usefulness and perceived ease of use, it offers a nuanced understanding of the platform's strengths and areas for improvement, extending previous research limited mainly to technical evaluations. As educational institutions increasingly seek affordable, flexible, and student-centred digital solutions, insights from this study will provide valuable evidence to inform strategic decisions on technology adoption and instructional design.

Furthermore, understanding the challenges and successes associated with Google Sites can guide educators in enhancing online learning experiences without the reliance on costly LMS platforms. It contributes to the broader discourse on digital inclusivity and pedagogical innovation by highlighting alternative pathways for fostering student engagement, autonomy, and satisfaction within constrained technological ecosystems.

### **Methodology**

#### ***Research Design***

This research used a mixed method, including quantitative and qualitative data to inspect students' acceptance of Google Sites as a Learning Management System (LMS). We adopted the Technology Acceptance Model (TAM) framework, concentrating on two integral factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). The quantitative component included a Likert-scale survey measuring students' general perceptions, while the qualitative component employed an open-ended question to collect participants' comments for more in-depth information about their experiences.

#### ***Participants and Sampling***

The study included 102 undergraduate. A purposive sample method was applied to participants who were students from two different semesters which are 20242 (March 2024 – July 2024) and 20244 (October 2024 – February 2025) and different academic levels that took at least one course (LCC111 - English for Communicative Competence I, LCC112 - English for Communicative Competence II, LCC113 - English for Communicative Competence III and ELC650 - English for Professional Interaction) with the researcher. This sampling approach ensured that all participants used Google Sites as their primary LMS (Learning Management System) throughout a 14-week per semester within one year.

#### ***Data Collection***

The data were collected via an online survey. The first part was used to evaluate students' Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) from (1) Strongly Disagree to (5) Strongly Agree using a 5-level Likert scale. The second portion was open-ended, with the participants providing qualitative data on their experiences, challenges, and suggestions to enhance Google Sites as an LMS.

#### ***Data Analysis***

Descriptive statistical analysis are utilized in order to assess the acceptance level of Google Sites by Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are measured using

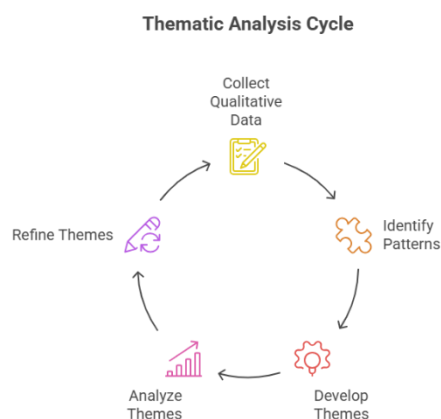
quantitative data. Below is the flowchart to describe the process of descriptive statistical analysis;



**Figure 1: Quantitative Data Collection**

As illustrated in Figure 1, the data collection and analysis process in this study followed a structured sequence. First, the target group of students was identified based on their participation in courses using Google Sites as the primary Learning Management System (LMS). Subsequently, the researcher distributed surveys containing both Likert-scale and open-ended items. After distribution, the next step involved collecting the completed responses, which constituted the quantitative dataset for analysis. Once collected, the data were analysed using descriptive statistics, where responses were categorised and frequencies were computed. The analysis further involved calculating percentages to determine the overall trends in students' perceptions of Google Sites' perceived usefulness and ease of use. Finally, the results were displayed visually through charts and figures to present the findings clearly and effectively. This sequential process ensured methodological rigour and supported the validity of the findings.

Then, the approach of thematic analysis is employed to analyse qualitative responses by identifying common patterns and themes in the comments provided by the students. The process is explained the following flowchart;



**Figure 2: Qualitative Data Collection**

Figure 2 illustrates the Thematic Analysis Cycle, which was employed to analyse the qualitative data collected from students' open-ended responses. The process began with the collection of qualitative data, followed by the identification of recurring patterns across responses. These patterns were then grouped to develop initial themes that reflected the core sentiments shared by participants. The emerging themes were analysed critically to uncover deeper meanings and relevance to the study objectives. Finally, the themes were refined to ensure they were clear, non-overlapping, and representative of the data. This cyclical and



iterative process allowed for a comprehensive understanding of students' perceptions regarding the use of Google Sites as a Learning Management System (LMS).

To obtain a holistic understanding of students' experiences and perceptions, triangulation between the quantitative findings and qualitative insights was performed. Integrating both quantitative and qualitative approaches, this research offers a comprehensive understanding of learner acceptance of Google Sites as an LMS, contributing meaningful insights to educators and institutions evaluating alternative digital learning platforms.

## Findings

In higher education today, perceived usefulness remains a key factor in LMS adoption and impact. It relates to how much users feel that a specific system improves their learning experience and overall academic performance. The uses and gratifications perspective is relevant to understand how people use an LMS as well as how such systems are perceived as useful (Davis, 1989). This study investigated the perceived usefulness of students of Google Sites as an LMS, such as navigation, accessibility, ease of submitting, delivery of content instructions, availability of learning resources, and advantages. The analysis draws on students' responses to these questions:

Ease of Navigation: How easy is it to navigate Google Sites?

Accessibility: Is Google Sites easily accessible for learning purposes?

Content Presentation: Does Google Sites present learning content effectively?

Ease of Assignment Submission: How easy is it to submit assignments via Google Sites?

Clarity of Instructions: Are the instructions on Google Sites clear and understandable?

Availability of Learning Resources: Does Google Sites provide sufficient learning resources?

Overall Perceived Advantage: Do the advantages of Google Sites outweigh its disadvantages?

The purpose of this study is to assess the extent to which Google Sites supports online learning, through examining students' perspectives based on these questions concerning whether Google Sites could be considered as a reliable LMS based on quantitative and qualitative data.

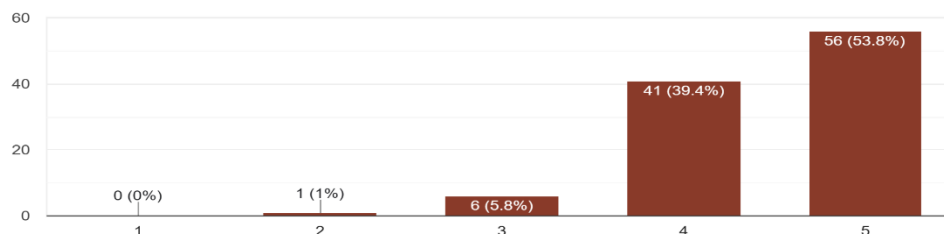
## *Quantitative Analysis*

This section will describe the data collected from quantitative analysis. It provides the results of students' responses.

1. Google Sites enables me to accomplish tasks more quickly when searching for lesson materials.

(Google sites membolehkan saya menyelesaikan tu...lebih cepat apabila mencari bahan pembelajaran)

104 responses

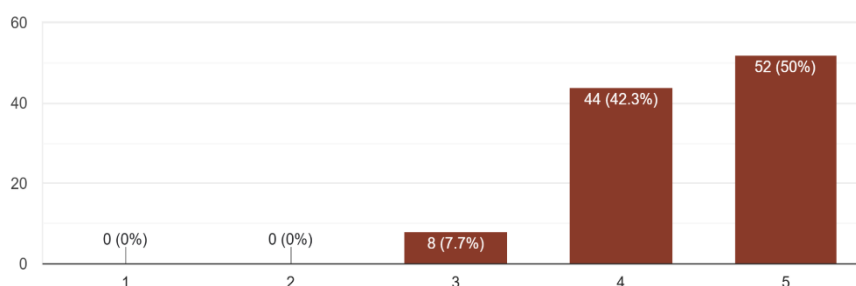


**Figure 3: Perceived Usefulness 1**

Respondents were asked about their overall satisfaction with Google Sites as a Learning Management System (LMS), as shown in Figure 3. The outcomes showed that the highest number of respondents, 4 and 5 (overall 84 respondents, 80.8%) indicated their level of satisfaction, 45 (43.3%) selected ,4 and 39 (37.5%) selected 5. At the same time, 17 respondents (16.3%) were neutral at level 3 and only 3 respondents (2.9%) chose level 2 as an expression of dissatisfaction. None of the respondents chose level 1, which suggests that Google Sites is well accepted.

2. Google sites have improved the quality of searching for lesson materials. (Google sites telah memperbaiki cara pencarian bahan pembelajaran)

104 responses

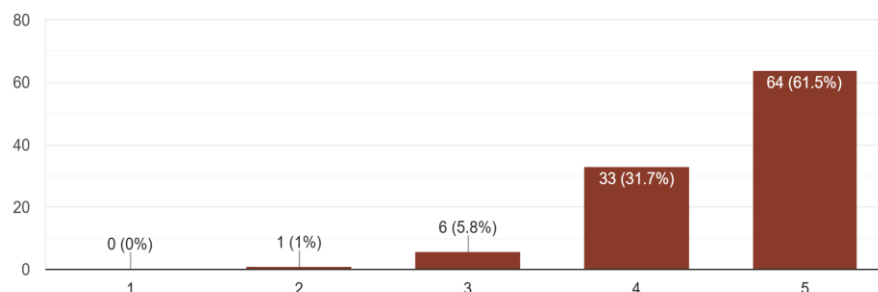


**Figure 4: Perceived Usefulness 2**

The question in Figure 4 covered ease of navigation in Google Sites. The results indicate that 79 respondents (76%) gave a positive rating of navigation experience on levels 4 and 5; 44 (42.3%) chose 4, whereas 35 (33.7%) chose 5. F - In total, 20 respondents (19.2%) were neutral, and 5 respondents (4.8%) selected the 2nd level (some navigation difficulties). None of the respondents said it was very difficult (level 1), showing that navigation is not a commonly highlighted issue.

3. Google Sites make it easier to access lesson materials. (Google Sites memudahkan urusan mendapatkan bahan pembelajaran)

104 responses

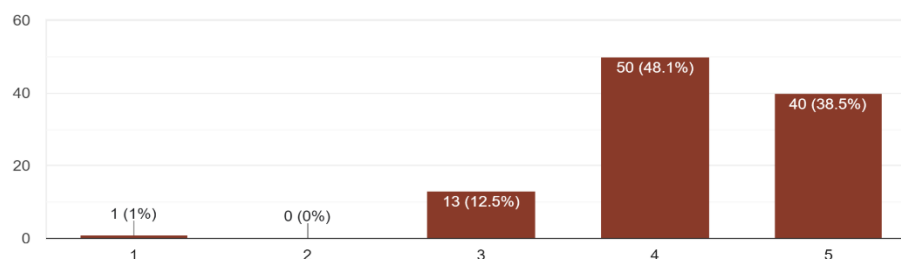


**Figure 5: Perceived Usefulness 3**

Figure 5 Participants rated accessibility of materials in Google Sites. The answers show the fact that an absolute majority of 86 respondents (82.7%) rated accessibility as either good or excellent (levels 4 and 5), where 48 (46.2%) respondents chose rating 4 and 38 (36.5%) rating 5. 14 respondents (13.5%) rated it neutral, and 4 respondents (3.8%) rated it at level 2, so accessibility is only an issue for a small fraction.

4. Google Sites give me greater control over my learning experience. (Google sites membenarkan saya mengawal pengalaman belajar saya)

104 responses



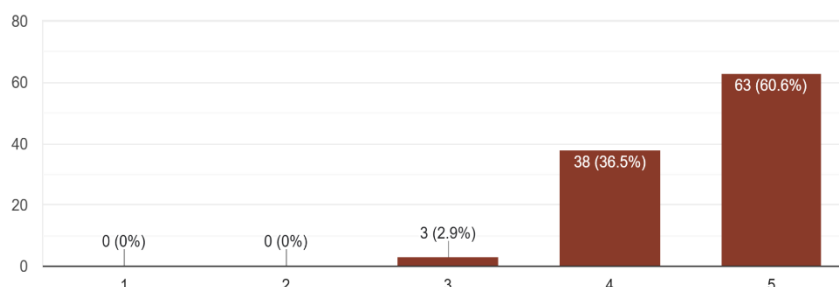
**Figure 6: Perceived Usefulness 4**

The need to analyse how useful Google Sites was in making learning content saw us refer to Figure 6. Responses showed that 83 respondents (79.8%) rated the experience positively at level 4 (41 responses 39.4%) and level 5 (42 responses 40.4%). A total of 17 respondents (16.3%) were neutral, and 4 respondents (3.8%) rated it negatively at level 2, meaning that while most believe it is working, there is some room for improvement.

**Figure 7: Perceived Usefulness 5**

5. The use of google sites increase the effectiveness of performing tasks (e.g. assignments submission, searching for lesson materials). (Pe... menghantar tugas, mencari bahan pembelajaran)

104 responses

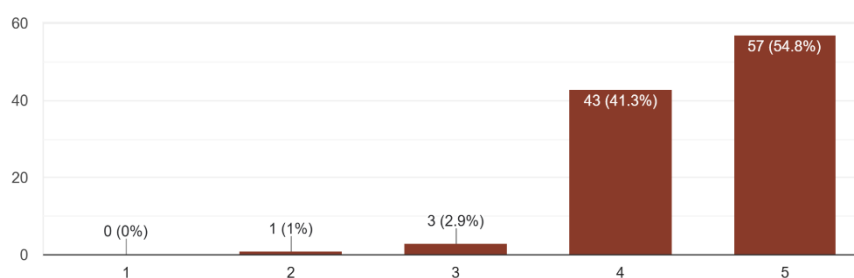


In Figure 7, participants scored the ease of assignment submission on Google Sites. Results: Eighty-two out of a total of 104 respondents (82 respondents or 78.9%) rated submission easy/very easy (level 4/5); 41 level 4 (39.4%) and 41 level 5 (39.4%). 18 respondents (17.3%) were neutral, and 4 respondents (3.8%) chose level 2, which shows that a small number of followers might have problems in proper submission.

**Figure 8: Perceived Usefulness 6**

6. Using Google Sites give me access to my subject lessons materials. (Menggunakan Google sites memberi peluang kepada saya untuk mendapatkan bahan pembelajaran)

104 responses

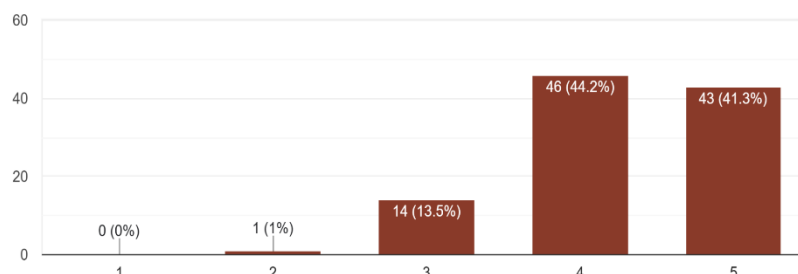


The assessment of instructions and guidelines on Figure 8 are on Google Sites. Results: The response show us that 81 people (77.9%) indicated level 4 and level 5 that instructions clear, 45 (43.3%) selected 4 and 36 (34.6%) selected 5. 3 respondents (2.9%) had level 2 instructions without any clear instructions, while 20 respondents (19.2%) had a neutral response. None of the respondents rated clarity at level 1, indicating that the instructions are generally well-structured.

**Figure 9: Perceived Usefulness 7**

7. Google Sites provide thorough information for my learning purposes. (Google sites menyediakan maklumat yang menyeluruh bagi proses pembelajaran saya)

104 responses

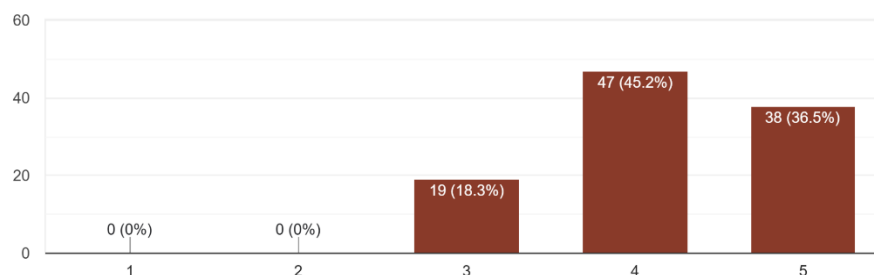


The question asked whether Google Sites provides enough information for learning shown in Figure 9. Of the total respondents, 89 (85.5%) agreed or strongly agreed (levels 4 and 5), (4=45, 43.3%; 5=44, 42.3%) A total of 13 (12.5%) respondents expressed neutrality, while 2 (1.9%) rated it at negative level 2, suggesting an overwhelmingly positive perception of information accuracy.

**Figure 10: Perceived Usefulness 8**

8. The advantages of Google Sites as Learning Management system outweigh the disadvantages. (Kelebihan Google Sites melebihi/mengatasi kekurangannya)

104 responses



The question posed in Figure 10 was whether the advantages of Google Sites outweigh its disadvantages. We found 85 (81.7%) of the respondents agreeing or strongly agreeing (levels 4 and 5) with 4 selected by 47 (45.2%) and 5 selected by 38 (36.5%) [34]. 19 out of 104 respondents (18.3%) indicated neutral, while 0 selected levels 1 or 2, implying none of the respondents believed the disadvantages outweigh the advantages.

### ***Qualitative Analysis***

The qualitative analysis of student feedback yielded four core themes that reflect their perceptions of Google Sites as a Learning Management System (LMS): Accessibility & Ease of Use, Knowledge Building & Skill Development, Learning Support & Academic Resources,



and Limitations & Technical Barriers. These themes are supported by direct quotes from respondents, which are presented in a listing format to preserve authenticity and clarity.

### *Accessibility & Ease of Use*

Many students highlighted how convenient and easy Google Sites was to use. The platform's user-friendly interface was consistently mentioned as a key strength, allowing them to quickly locate materials and interact with content without technical difficulty. Students described their experience with terms like "easy," "good," and "convenient."

**Table 2: Accessibility & Ease of Use**

Respondents	Example
R3	<i>It was a very good experience as it give me ease to access through the website and files</i>
R11	<i>good</i>
R11	<i>good</i>
R41	<i>Good and easy.</i>
R97	<i>it's good and convenient.</i>

Table 2 presents data illustrating students' perceptions of the accessibility and ease of use of Google Sites. Overall, the feedback highlights a generally positive user experience, with respondents emphasising the platform's convenience and simplicity. Respondent 3 (R3) stated that the experience was "very good" and provided "ease to access through the website and files," indicating that navigation and retrieval of materials were straightforward. Several other respondents (R11, R41, R97) echoed similar sentiments by describing the platform as "good," "easy," and "convenient." These concise yet affirmative responses suggest that the majority of students found Google Sites intuitive and user-friendly. The consistent use of positive descriptors such as "good," "easy," and "convenient" across multiple respondents reflects an overall satisfaction with the platform's basic functionality, particularly regarding accessibility to course materials and site navigation. This finding supports previous research that positions simplicity and ease of access as critical determinants of students' acceptance of learning technologies.

### *Knowledge Building & Skill Development*

**Table 3: Knowledge Building & Skill Development**

Respondents	Example
R9	<i>Its very easy to get the information that i want. Through the goggle sites also i can remind and flashback all the thing that i have learned.</i>
R8	<i>I can find or get the information easily because madam categorize the information based on our class or course</i>
R81	<i>easier</i>
R12	<i>make things easier</i>
R43	<i>google site easy to search any information</i>

Table 3 demonstrates how Google Sites contributed to students' knowledge building and skill development. The responses indicate that students found it significantly easier to locate information relevant to their coursework. For instance, Respondent 9 (R9) noted that it was "very easy to get the information" they needed and appreciated the ability to "remind and

flashback" to previously learned material, suggesting that Google Sites supported both new learning and the reinforcement of prior knowledge. Respondent 8 (R8) highlighted the value of the platform's organised structure, where materials were categorised according to class or course, thereby streamlining information retrieval. Other respondents (R81, R12, R43) simply described the experience as "easier" and emphasised the ease of searching for information, further underlining the platform's role in facilitating independent study. Collectively, these findings show that Google Sites not only functioned as a repository of resources but also encouraged students to take greater responsibility for their learning, aligning with theories of autonomous learning and self-regulation in educational settings.

### *Learning Support & Academic Resources*

**Table 4: Knowledge Building & Skill Development**

Respondents	Example
R40	<i>Google site easy to conduct for searching study material</i>
R37	<i>Easy</i>
R34	<i>HELP TO RECALL BACK WHAT WE LEARN AND EASY TO ACESS TO GOOGLE SITES</i>
R64	<i>Google sites memberikan kemudahan untuk menyelesaikan tugas</i>
R6	<i>My experience using google site is interesting. I can learn a variety of new knowledge and can find things that I don't understand.</i>

Table 4 illustrates how students perceived Google Sites as a valuable source of learning support and academic resources. Respondents highlighted the platform's effectiveness in enabling easy access to study materials. For example, Respondent 40 (R40) noted that Google Sites facilitated the search for study materials, while Respondent 34 (R34) emphasised how the platform helped them recall previously learned content. Similarly, Respondent 64 (R64) remarked on the convenience it provided in completing assignments, demonstrating how Google Sites supported task management alongside learning. Respondent 6 (R6) further described the experience as "interesting" and appreciated the opportunity to acquire new knowledge and clarify areas of confusion. These responses collectively suggest that Google Sites served as a centralised and dependable academic hub, providing organised resources that enhanced both the learning experience and academic performance. This finding aligns with literature emphasising the importance of structured digital platforms in fostering effective self-directed learning and academic achievement.

### *Limitations & Technical Barriers*

**Table 5: Limitations & Technical Barriers**

Respondents	Example
R84	<i>For now everything is easy and great to use except if wifi connection is low.</i>
R82	<i>ketika saya menggunakan google sites saya mendapati bawahan terdapat maklumat yang menepati sumber maklumat yang tepat dan ada yang tidak terlalu tepat</i>
R13	<i>Google site is easy to find any materials but requires data which difficult to get..</i>

R79	<i>its honestly quite confusing to use and i prefer using other material</i>
R54	<i>Saya tidak pernah menggunakan google sites, tetapi saya ingin coba menggunakannya.</i>

Table 5 identifies the key limitations and technical barriers faced by students when using Google Sites. Although the overall feedback was positive, several respondents reported specific challenges. Respondent 84 (R84) highlighted the issue of low Wi-Fi connectivity, which affected ease of access. Respondent 13 (R13) noted the requirement for mobile data, posing difficulties for users with limited internet resources. Furthermore, Respondent 82 (R82) raised concerns regarding the accuracy and reliability of the information provided. Confusion about platform navigation was mentioned by Respondent 79 (R79), who preferred using alternative materials. Additionally, Respondent 54 (R54) revealed unfamiliarity with Google Sites, indicating that some students had limited prior exposure to the platform. These findings suggest that while Google Sites generally supports student learning, improvements are necessary to enhance accessibility, ensure content reliability, simplify user interfaces, and provide additional user guidance to maximise its effectiveness as a learning tool.

Thus, the thematic analysis of the qualitative responses presented 4 key themes: Accessibility & Ease of Use, Knowledge Building & Skill Development, Learning Support & Academic Resources, and Limitations & Technical Barriers. Most of the students used terms such as “easy,” “convenient,” “helpful,” and “efficient,” when describing their experiences with Google Sites. However, there are some issues regarding reliance on stable internet, unfamiliarity with the platform, and lack of interactive features under technical issues mentioned by a small number of respondents in which should be taken into consideration for future research.

Overall, the findings indicate that students responded positively to both the perceived usefulness and ease of use of Google Sites as an LMS (Panergayo, 2021; Bansah, & Darko Agyei, 2022; Linus et al., 2025). The data confirmed that the study objectives have been achieved, as the results support the platform’s effectiveness in promoting learner autonomy, accessibility, and clarity—although improvements in interactivity and integration (Al-Fraihat et al., 2020) features may further enhance user experience (Panergayo, 2021; Bansah, & Darko Agyei, 2022; Linus et al., 2025).

## Discussion

This study aimed to assess the extent to which Google Sites supports online learning by evaluating students’ perspectives (Al-Fraihat et al., 2020) across several dimensions, including usability, content accessibility, instructional clarity, and overall satisfaction (Panergayo, 2021; Bansah, & Darko Agyei, 2022; Linus et al., 2025). The findings indicate that students generally perceive Google Sites as a reliable and effective platform for managing online learning, with strong positive responses recorded across key aspects such as ease of navigation, material accessibility, assignment submission, and usefulness in delivering learning content.

Aligned with the Technology Acceptance Model (TAM), the high levels of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) reported by respondents suggest that Google Sites meets core expectations for digital learning tools. A substantial majority of students rated their experience positively, highlighting the platform’s simplicity, accessibility, and integration with Google Workspace tools as major advantages. This reinforces previous

literature suggesting that Google Sites can serve as a viable, low-cost, and customizable alternative to traditional Learning Management Systems (Panah et al., 2022; Parmar et al., 2020; Hafid & Barnoto, 2022).

The findings from both the quantitative and thematic analyses consistently highlight the strong acceptance and perceived effectiveness of Google Sites as a Learning Management System (LMS) among students. Quantitatively, the data shows a dominant trend of positive feedback, with over 80% of respondents selecting high satisfaction levels (4 and 5) across all surveyed dimensions. Specifically, students expressed high satisfaction with the overall experience (80.8%), navigation (76%), accessibility of materials (82.7%), usefulness in learning content (79.8%), and assignment submission ease (78.9%). Similarly, the perceived clarity of instructions (77.9%) and sufficiency of learning information (85.5%) reinforce the platform's effectiveness in supporting academic activities. The finding that 81.7% of respondents believed the advantages of Google Sites outweigh its disadvantages further strengthens its perceived value.

Complementing these statistics, the thematic analysis revealed four major themes: Accessibility & Ease of Use, Learning Support & Academic Resources, Knowledge Building & Skill Development, and Limitations & Technical Barriers. Students consistently described Google Sites as “easy,” “convenient,” and “helpful,” which aligns with the high quantitative scores in accessibility, navigation, and overall satisfaction. Many appreciated how the platform centralised essential materials, simplified assignment management, and facilitated revision, supporting the themes of academic resource access and learning support. Additionally, qualitative responses indicated that Google Sites contributed to students' learning growth and digital skills, affirming its usefulness in enhancing student autonomy and engagement.

The study also acknowledges the limitations inherent in Google Sites, such as the lack of built-in grading tools, progress tracking, and interactive communication features. While the number was small, both data sets acknowledged limitations. A minority (around 3–5%) reported difficulty in navigation or clarity of information, reflected in the thematic theme of “technical barriers.” These insights point toward potential improvements in structuring information and ensuring consistency in digital delivery, especially for students with limited digital literacy or connectivity issues. While these gaps may limit their use in more complex or large-scale educational settings, students in this study did not perceive them as significant barriers to their learning experience. Instead, their overwhelmingly favourable responses suggest that, when used thoughtfully and in combination with complementary tools like Google Forms and Drive, Google Sites can effectively support digital teaching and learning.

The study makes several vital contributions. Academically, it extends the applicability of TAM to alternative, non-commercial LMS platforms, adding to the growing body of research on digital inclusivity in higher education. For educators, the findings offer practical guidance on integrating Google Sites into course delivery, particularly in contexts where cost and infrastructure constraints limit access to paid platforms. From a national perspective, the results align with Malaysia's Digital Education Policy, which promotes affordable and flexible learning tools that can cater to diverse student needs.

In summary, the convergence of qualitative sentiments and quantitative evidence confirms that Google Sites is a largely effective, student-approved platform for learning management. Google Sites demonstrates substantial potential as a basic LMS, especially in contexts where flexibility, affordability, and ease of use are prioritized. Its success, however, largely depends on how educators design and structure the learning environment within the platform. Future research should continue to explore its application across diverse disciplines and educational levels, and assess long-term outcomes in terms of learning achievement, engagement, and instructional effectiveness.

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