



Teachers' Perceptions of Madrasati Learning Management System (LMS) at Public Schools in Jeddah

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ABSTRACT

The research aimed to investigate the perceptions of public education teachers in Jeddah towards Madrasati learning management system during COVID-19. To achieve this goal, the research attempted to answer two questions. The first question investigates the perceptions of public education teachers towards Madrasati learning management system. The second question aimed to know teachers' suggestions to overcome the difficulties they faced while using the system. The research took a mixed methods approach; quantitative approach, descriptive method, to answer the first question by using a questionnaire, 4-point Likert scale, and a qualitative approach to answer the second question by analyzing content through the responses of the participants in the questionnaire, by MAXQDA program. The research sample included 523 male and female teachers from different levels. The quantitative results revealed that 75% of teachers did not use Madrasati learning management system before the current school year, which may affect their perceptions about the system. Also, revealed that most teachers believe that the system tools are either very good or good. In addition, teachers in most of their responses to system use functions went about the system tools most of time or sometimes used it. Moreover, the results showed that male and female teachers have a positive attitude towards Madrasati in terms of its impact on learning, which can be a good start to help them learn about the features and functions of Madrasati through professional development activities. Also, the qualitative results revealed that teachers faced many challenges in using Madrasati; difficulties with Madrasati learning management system, Internet problems, difficulties with learners, availability of electronic devices, learning strategies in the e-learning environment, families of learners, and weak technical skills. The teachers' suggestions came to overcome the difficulties they faced as the following: improve Madrasati learning management system, enhance teacher's performance, availability of electronic devices, enhance the partnership roles with families of learners, provide e-learning strategies and resources, and train the learners.

Keywords: Learning management systems, Madrasati, public schools' teachers, perceptions, Covid-19.



Introduction

The COVID-19 pandemic has caused numerous crises across various aspects of life, including education. Since the World Health Organization (WHO) declared the spread of the COVID-19 pandemic in December 2019 (Luo, Guo, Yu, Jiang, & Wang, 2020), educational institutions worldwide have turned to various digital learning environments. Examples include YouTube, Learning Management Systems, Digital Libraries, Internet Streaming, and Digital Repositories, which aim to continue the educational process and deliver knowledge and skills to learners (Alea, Fabrea, Roldan, & Farooqi, 2020). Simultaneously, the efforts of the Kingdom of Saudi Arabia, represented by the Ministry of Education, have been praised by numerous international organizations for the successful transition from traditional to remote learning during the COVID-19 pandemic. The educational authorities provided diverse options to ensure the continuity of the educational process and the safety of its staff. These options included broadcasting educational lessons through dedicated satellite channels, archiving lessons on YouTube, launching the Unified Education System (Madrasati platform), and activating the IEN ETHRAIA Portal (Najmuddin, 2021). Madrasati learning management system became the cornerstone and official communication channel in Saudi education for all stages of public education from the beginning of the 1442 AH academic year during the COVID-19 pandemic.

In the context of employing Learning Management Systems (LMS) in the educational process, many educational institutions worldwide have adopted various types of LMS, making it a vital component of the educational system. The adoption of LMS by educational institutions has been based on their ability to monitor the entire educational process and provide effective and suitable online support (Black, 2008). Learning Management Systems are defined as digital systems aimed at delivering, tracking, and managing learning (Alhalafawy, 2018). Several studies have highlighted the positive effectiveness of using LMS in the educational process (Alanzi & Alhalafawy, 2022; F. K. J. Alzahrani, Alshammary, & Alhalafawy, 2022; Elbourhamy, Najmi, & Elfeky, 2023). They provide the freedom to schedule online lessons (McGrew, Breakstone, Ortega, Smith, & Wineburg, 2018), eliminating restrictions on specific timeframes set by the teacher (Yawisah, 2021). Additionally, they offer unlimited expression of ideas and questions (Kee, 2020) and enable students to access course materials online at their convenience (Lewis, 2021). Students can engage in learning at any time that suits them (Rabiman, Nurtanto, & Kholifah, 2020). LMS assists in achieving desired educational goals and motivation (F. K. J. Alzahrani & Alhalafawy, 2022). Participants in the learning environment do not need to be present in a specific location (Hamid, Salleh, & Laxman, 2020). Moreover, concise presentation styles and more effective discussions can take place (Koszalka, Pavlov, & Wu, 2021). Electronic messages create new opportunities for workgroups through shared online environments with synchronous and asynchronous discussions (Yilmaz, Karaoglan Yilmaz, & Keser, 2020). Many new options in LMS are meaningful for transforming traditional curricula (Qudratovich & Abdulla ogli, 2021), creating new opportunities for teachers and learners to exchange innovations in



their work while providing instant support for electronic groups (VanLeeuwen, Veletsianos, Belikov, & Johnson, 2020). At present, several LMS are utilized by educational institutions, with the most common ones being Blackboard, Moodle, WebCT, SAKAI, and CANVAS (Alshammary & Alhalafawy, 2023).

Despite the numerous advantages that Learning Management Systems (LMS) offer to all stakeholders in the educational process, specific challenges hinder teachers, preventing them from maximizing the benefits provided by these systems. These challenges, highlighted in various studies, include the need for teachers to plan and prepare electronic materials more extensively than traditional teaching methods (Rice & Deschaine, 2020), continuous updating of content by teachers to align with ongoing technological advancements (Trisiana, 2020), the requirement for teachers to invest more time in learning the components and functions of the LMS (Bahar, Wahab, & Ahmad, 2020), the necessity for teachers to acquire technical skills to aid in creating educational content (F. K. Alzahrani & Alhalafawy, 2023), and the need for teachers to understand learners' characteristics and their needs to design educational content suitable for them (Mukhtar, Javed, Arooj, & Sethi, 2020).

The current research explores the perceptions of public school teachers towards the Madrasati Learning Management System and seeks to understand their suggestions for overcoming challenges they face while using the system, from their perspective. Madrasati Learning Management System is among the latest in a series of global Learning Management Systems. It is defined as a web-based electronic learning environment comprising various tools that support the teaching and learning process across all education levels, from first grade to grade 12 (Shishah, 2021). Therefore, Madrasati Learning Management System shares similarities with many international Learning Management Systems in terms of its concept. It can be defined as a web-based digital program used for planning, executing, and evaluating the teaching and learning process. In the same context, the Teacher's Guide to Using the Unified Education System (2020) outlined the components of the Madrasati platform, including the interactive school community, school assessments and events, communication with school staff, educational activities, educational paths, interactive meetings, regular classes, and reinforcement lessons via Microsoft Teams, reports and statistics, and supporting roles.

Currently, both teachers and students in the public education sector in the Kingdom of Saudi Arabia are undergoing a complete transition to digital learning environments, particularly the Madrasati Learning Management System. This shift is a result of the ongoing global crisis of the COVID-19 pandemic. Due to this unprecedented move from traditional to entirely remote learning, public school teachers have faced numerous challenges in keeping up with the educational authorities' commitment to ensuring the continuity of the teaching and learning process. The current research aims to understand the perceptions of teachers towards



the Madrasati Learning Management System during the COVID-19 pandemic in public schools. It also seeks to explore the suggestions offered by teachers to overcome the challenges they encounter while using the system, from their perspective.

Research Problem

Based on the researcher's role as an educational supervisor at the General Directorate of Education in Jeddah, it was observed through field and virtual supervisory visits throughout the academic year, particularly during the COVID-19 pandemic, that most public school teachers had deficiencies in performing their teaching tasks on the Madrasati Learning Management System. This was evident through their lack of use and activation of many system components and failure to fulfill certain teacher evaluation requirements during the school year. For instance, these deficiencies encompassed not utilizing features such as the electronic portfolio, published activities, educational enrichments, uploading educational content, submitting questions, and posting assignments. Furthermore, teachers expressed concerns and difficulties in dealing with the Madrasati Learning Management System, attributed in part to its novelty in their experience. Therefore, the researcher believes that teachers need a comprehensive understanding of the system's features and components to effectively use it. It is valuable to investigate the perceptions of teachers to enhance students' learning using the Madrasati Learning Management System. This research aims to address these issues and provide insights into improving teachers' proficiency in utilizing the Madrasati system for enhanced student learning outcomes.

As highlighted by several studies within the Saudi education environment, there is a pressing need to research the reality of the Madrasati Learning Management System. Najmuddin (2021) research pointed out that despite the significant efforts made by the Ministry of Education to enhance the educational process through the Madrasati Learning Management System during the COVID-19 pandemic, many teachers faced numerous challenges while using the system. Similarly, Al-Hamoud (2021) research, which aimed to understand the remote training using the Madrasati Learning Management System, emphasized the necessity of providing intensive training courses on Madrasati platform usage. The research recommended exploring the obstacles hindering teachers' training in utilizing the Madrasati Learning Management System. Additionally, Ghaban (2021) research mentioned that some teachers in Saudi education encountered challenges in activating and utilizing certain functions of the Madrasati Learning Management System due to their limited training and knowledge in dealing with learning management systems. These studies underscore the critical need to address training gaps and enhance teachers' proficiency in utilizing the Madrasati system effectively. In general, it is necessary to research the use of technologies in education (Al-Nasheri & Alhalafawy, 2023; Alanzi & Alhalafawy, 2022a, 2022b; Alhalafawy et al., 2021; Alhalafawy & Tawfiq, 2014; Alhalafawy & Zaki, 2019, 2022; Alshammary & Alhalafawy, 2022, 2023; Alzahrani, 2021; Alzahrani & Alhalafawy, 2023; Alzahrani & Alhalafawy, 2022; Alzahrani et



al., 2022; Najmi et al., 2023; Zeidan et al., 2017; Zeidan et al., 2015).

To find solutions that contribute to improving the utilization of the Madrasati Learning Management System, the current research aimed to explore the perceptions of public school teachers towards the Madrasati system. Additionally, it sought to understand the suggestions offered by these teachers to overcome the challenges they face while using the system, from their perspective. the current research attempts to answer the following question:

1. What are the perceptions of teachers regarding the Madrasati Learning Management System during the COVID-19 pandemic in public schools in Jeddah?

Sub-questions stemming from the first question include:

- a) What is your prior experience with using the Madrasati Learning Management System: Have you used the Madrasati Learning Management System before the current academic year 1441-1442 AH?
 - b) What is your evaluation of the Madrasati Learning Management System through its various tools?
 - c) How frequently do you use the components of the Madrasati Learning Management System?
 - d) What impact does the Madrasati Learning Management System have on the teaching and learning process?
2. How would you describe the challenges you face in using the Madrasati Learning Management System during the COVID-19 pandemic, and what suggestions do you have to overcome these challenges?

Importance of Research

1. Supplying researchers and decision-makers in the education sector with contemporary resources; the current research is one of the pioneering research initiatives, as far as the researcher knows, dedicated to the Madrasati Learning Management System.
2. Guiding the administrators of the Madrasati Learning Management System about the prominent challenges faced by public school teachers during the system's usage.
3. Informing the administrators of the Madrasati Learning Management System about the suggestions provided by public school teachers regarding the challenges they face.
4. Guiding the General Administration for Training and Scholarships about the challenges faced by users of the Madrasati Learning Management System to find training solutions through professional development activities.
5. Presenting the conclusions and recommendations of the current research to researchers, encouraging further research on the Madrasati Learning Management System.



Research aims

The research aims to:

1. Explore the perceptions of teachers in the public education sector in Jeddah towards the Madrasati Learning Management System during the COVID-19 pandemic.
2. Identify the challenges faced by teachers in using the Madrasati Learning Management System during the COVID-19 pandemic and gather their suggestions on overcoming these challenges from their perspective.

Research Limitation

- Objective limits: Teachers' perceptions towards the Madrasati Learning Management System.
- Human limits: Teachers in public schools in the Jeddah.
- Location limits: The General Directorate of Education in the Jeddah, Southern Office.
- Time limits: The second semester of the academic year 1441-1442 AH, during the COVID-19 pandemic.

Methods

1. Deign

Based on the research problem and its questions, the current research utilized a mixed-method approach. It employed a quantitative descriptive method using a survey technique to answer the first question, "What are the perceptions of teachers towards the Madrasati Learning Management System during the COVID-19 pandemic in public schools in Jeddah?" The research used a questionnaire tool based on a 4-point Likert scale. Additionally, a qualitative approach was used to address the second question, "What are the difficulties faced by teachers in using the Madrasati Learning Management System during the COVID-19 pandemic, and what are their suggestions for overcoming these difficulties?" This was achieved through analyzing participants' responses to the open-ended question in the questionnaire.

2. Sample

The research population comprises all teachers from public schools at all educational levels (elementary, intermediate, secondary) in the Southern Education Office under the administration of the Education Department in Jeddah. The research population consisted of 5,447 teachers according to the statistics from the Education Office in South Jeddah during the second semester of the academic year 1441-1442 AH, amidst the COVID-19 pandemic. The sample consisted of 523 teachers from public schools at all educational levels in the Southern Education Office, under the administration of the Education Department in Jeddah. This sample represents 9.60% of the research population.



3. Measurements

The current research utilized a questionnaire adapted from Carvalho, Areal, and Silva (2011) to assess students' perceptions of the Blackboard Learning Management System, employing a 4-point Likert scale. The researcher modified the questionnaire to align with the components of the Madrasati Learning Management System, covering four main aspects: teachers' previous experience (1 item), teachers' evaluation of the system through various tools (9 items), frequency of component usage (12 items), and the system's impact on the teaching and learning process (8 items). Additionally, the researcher included an open-ended question in the questionnaire to gather participants' responses regarding the challenges faced by teachers in using the Madrasati Learning Management System during the COVID-19 pandemic and their suggestions to overcome these challenges. Validity and reliability tests were conducted for the research tool, which was then distributed via email to the sample population.

3.1 Validity and Reliability of the Research Instruments

- *Validity of the Research instruments:*

The research instruments were reviewed by 8 experts, including e-learning specialists and educational supervisors, to gather their opinions and observations regarding the relevance of the questionnaire's topics and items to the research's purpose. Based on their feedback, necessary adjustments were made to some items, leading to the final version of the questionnaire.

Also, the research tool was administered to a pilot sample of 20 teachers (outside the main sample), and the internal consistency of the questionnaire items was calculated using the Pearson correlation coefficient. This analysis was conducted to assess the consistency of each item within its respective dimension, as illustrated in Table 1.



Dimension 1: Your Previous Experience with Using Madrasati Learning Management System.				7	0,640**	9	0,477*	9	0,705**	11	0,508*
No.	Correlation Coefficient			8	0,718**	-----		10	0,576**	12	0,499*
1	0,589**			Dimension 3: Reusing Components of the Madrasati Learning Management System				Dimension 4: The Impact of Madrasati Learning Management System on the Teaching and Learning Process			
Dimension 2: Your Evaluation of Madrasati Learning Management System Through Its Various Tools.				No.	Correlation Coefficient	No.	Correlation Coefficient	No.	Correlation Coefficient	No.	Correlation Coefficient
No.	Correlation Coefficient	No.	Correlation Coefficient	1	0,566**	5	0,487*	1	0,829**	5	0,763**
1	0,492*	4	0,572**	2	0,509*	6	0,639**	2	0,587**	6	0,772**
2	0,656**	5	0,543*	3	0,662**	7	0,602**	3	0,743**	7	0,764**
3	0,713**	6	0,705**	4	0,708**	8	0,587**	4	0,825**	8	0,770**
**Function at the level $\alpha \leq 0.01$ *Function at the level $\alpha \leq 0.05$											

Table 1: Calculation of Internal Consistency of Survey Items Using Pearson Correlation Coefficient

- Reliability of the Research Instrument

The research instrument was applied to a sample of 20 teachers (outside the research sample), and the reliability coefficient was calculated using Cronbach's Alpha formula. The obtained value was 0.94, indicating the reliability and readiness of the survey for application.

4. Quantitative and Qualitative Analysis

The research utilized IBM SPSS Statistics 22 software to analyze and extract quantitative results by calculating frequencies, percentages, and means for the responses of teachers in public schools in Jeddah regarding their perceptions of Madrasati Learning Management System during the COVID-19 pandemic. Additionally, the researcher employed MAXQDA software to analyze qualitative data concerning the challenges faced by teachers in using Madrasati Learning Management System during the COVID-19 pandemic, as well as their suggestions for overcoming these challenges.

5. Procedures

After verifying the authenticity and stability of the Study Instrument, the researcher formally sought approval from the Jeddah Education Directorate to conduct the study during the second semester of the academic year 1441-1442 AH, amid the COVID-19 pandemic. Consequently, the electronic questionnaire was distributed to teachers in public schools (elementary, middle, and high school levels) in the southern region's education office. The completed questionnaires were collected and processed. Both quantitative and qualitative data were analyzed using appropriate statistical and qualitative methods to obtain the results. Based on the



findings, conclusions and recommendations were drawn.

Results and Discussion

The study sample comprised 523 teachers from public schools at all educational levels in the southern region's education office in Jeddah. Male teachers constituted 56% of the total responses, while female teachers constituted 44%. The gender ratio did not significantly impact the study results due to the balanced number of boys' and girls' schools in the southern sector of Jeddah.

▪ Perceptions of Teachers Regarding the Madrasati Learning Management System

To address the first question regarding teachers' perceptions of the Madrasati Learning Management System during the COVID-19 pandemic in public schools in Jeddah, the results for the first sub-question, which explored teachers' experiences with Madrasati before the academic year 1441-1442 AH, are presented in Figure 1. It indicates that 78% of teachers did not use the Madrasati system before the academic year started. Among those who did, 14% used the system during professional development activities held before the school year, 5% during ministry programs, and 3% in other locations. Therefore, most teachers did not use the system before the school year, which could influence their perceptions, as discussed in subsequent sub-questions in the study.

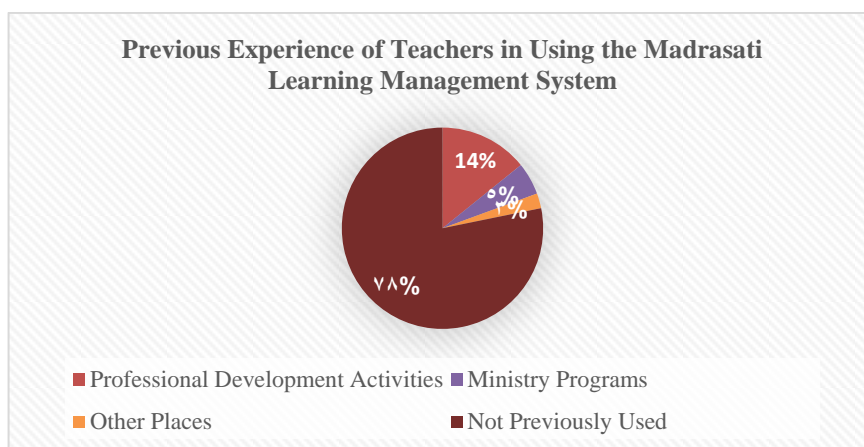


Figure 1: teachers' experiences with Madrasati before the academic year 1441-1442 AH.

To answer the second sub-question which related to evaluating teachers' perceptions of Madrasati Learning Management System through its various features (time required to learn the system, ease of system access, user interface in the system, ease of access to components, organization of tools, ease of uploading assignments, technical support tool, search tool, public meeting tool), the results of frequencies and percentages for teachers' evaluations are presented in Table 2.



No.	Item	Frequencies				Percentage				Mean
		1	2	3	4	1	2	3	4	
1	The time required to learn the system	359	141	18	5	68.6	27	3.4	1	1.37
2	Ease of system access	381	131	9	2	72.8	25	1.7	0.4	1.30
3	User interface in the system	402	111	7	3	76.9	21.2	1.3	0.6	1.26
4	Ease of access to components	374	134	13	2	71.5	25.6	2.5	0.4	1.32
5	Organization of tools	360	140	19	4	68.8	26.8	3.6	0.8	1.36
6	Ease of uploading assignments	283	172	48	0.20	54.1	32.9	9.2	3.8	1.63
7	Technical support tool	253	204	45	21	48.4	39	8.6	4	1.68
8	Search tool	276	212	29	6	52.8	40.5	5.5	1.1	1.55
9	Public meeting tool	332	158	31	2	63.5	30.2	5.9	0.4	1.43

Keys: 1=Excellent; 2=Good; 3=Fair; 4=Poor

Table 2: Frequencies and Percentage Ratings of Teachers' Evaluation of Madrasati

The results of the repetitions and percentages in the table above indicate that the majority of male and female teachers' perceptions regarding their evaluation of the Madrasati Learning Management System through its various features were positive. More than 70% of the participants chose "very good" for three statements, respectively: statement 3 (76.9%), statement 2 (72.8%), and statement 4 (71.5%). Also, more than 60% of the participants chose "very good" for three statements, respectively: statement 5 (68.8%), statement 1 (68.6%), and statement 9 (63.5%). Moreover, 48.4% to 54.1% of the participants chose "very good" for statements 6, 7, and 8. Meanwhile, 21.2% to 40.5% of the participants chose "good" for all statements. Statement 3 (user interface) received the highest evaluation with a repetition rate of 76.9%. The previous results can be explained by the fact that despite the recent experience of using the Madrasati Learning Management System, the evaluations of male and female teachers across its various features were positive; participants' average responses were 64.1% (very good), 29.8% (good), 4.6% (weak), 1.3% (very weak).

To answer the third sub-question, which addressed the frequency of using the components of the Madrasati Learning Management System (uploading course materials, posting announcements, entering grades, uploading curriculum plans and schedules, submitting assignments, monitoring students' answers, creating exams, recording grade distributions, sending emails to students, sending surveys, attending general meetings, answering students' inquiries), the results of repetitions and percentages for teachers' use of the components are shown in Table 3:

No.	Item	Frequencies				Percentage				Mean
		1	2	3	4	1	2	3	4	
1	Uploading course materials	296	161	53	13	56.6	30.8	10.1	2.5	1.59



2	Posting course announcements	185	198	87	53	35.4	37.9	16.6	10.1	2.02
3	Entering grades for the course	291	117	55	60	55.6	22.4	10.5	11.5	1.78
4	Uploading curriculum schedules and timetables	355	107	31	30	67.9	20.5	5.9	5.7	1.50
5	Assigning homework	382	115	20	6	73	22	3.8	1.1	1.33
6	Monitoring Students' responses	349	131	23	20	66.7	25	4.4	3.8	1.45
7	Creating tests	351	122	34	16	67.1	23.3	6.5	3.1	1.46
8	Recording grade distributions	256	126	51	90	48.9	24.1	9.8	17.2	1.95
9	Sending emails to students	197	148	93	85	37.7	28.3	17.3	16.3	2.13
10	Sending surveys	168	167	102	86	32.1	31.9	19.5	16.4	2.20
11	Attending public meetings	289	153	51	30	55.3	29.3	9.8	5.7	1.66
12	Responding to student inquiries	409	75	25	14	78.2	14.3	4.8	2.7	1.32

Keys: 1=Most of the time; 2=Sometimes; 3=Rarely; 4=Never

Table 3: Frequencies and Percentages of Teachers' Use of Madrasati Learning

The repetitions and percentages in the above table indicate that teachers, in most of their responses regarding the use of Madrasati Learning Management System components, mostly use the system's components to some extent. More than 66% of the participants chose "mostly" for five statements, respectively: statement 6 (66.7%), statement 7 (67.1%), statement 4 (67.9%), statement 5 (73%), and 12 (78.2%). Also, more than 55% of the participants chose "mostly" for three statements, respectively: statement 11 (55.3%), statement 3 (55.6%), and statement 1 (56.6%). Moreover, 32.1% to 48.9% of the participants chose "mostly" for the statements (8, 9, 2, 10). Meanwhile, 14.3% to 37.9% of the participants chose "somewhat" for all the statements. Statement 12 (answering student inquiries) received the highest rating with a repetition percentage of 78.2%. Consequently, the results can be explained by the fact that, despite Madrasati Learning Management System being the official channel of communication between teachers and students, there is a weakness in using the system's components due to variations in the participants' response averages: 56.2% (mostly), 25.8% (somewhat), 9.9% (rarely), 8.1% (never). This can be attributed to the newness of teachers' experience in using Madrasati Learning Management System, as well as insufficient training in using the system's components. These issues are also related to the various difficulties encountered by teachers, as perceived by them, while using Madrasati Learning Management System, which specifically pertains to their feedback regarding the system's components, as will be discussed later in response to the second question.

To answer the fourth sub-question, which relates to the impact of Madrasati Learning Management System on the teaching and learning process (helps me find the information I need, has a positive impact on my teaching method, is sufficient to pass the course I teach, assists me in the course-related tasks, helps me organize my teaching tasks, enables me to present all electronic files, assists in creating work groups, helps in communicating with my students), the results of repetitions and percentages for the impact of Madrasati Learning Management System on the



teaching and learning process are presented in Table 4:

No.	Item	Frequencies				Percentage				Mean
		1	2	3	4	1	2	3	4	
1	Helps in finding the information I need.	231	247	33	12	44.2	47.2	6.3	2.3	1.67
2	Has a positive impact on my teaching methods.	276	213	30	4	52.8	40.7	5.7	0.8	1.54
3	Sufficient for passing the course I teach.	279	189	53	2	53.3	36.1	10.1	0.4	1.58
4	Assists in course-related tasks.	292	209	22	0	55.8	40	4.2	0	1.48
5	Helps me organize my teaching tasks.	269	228	24	2	51.4	43.6	4.6	0.4	1.54
6	Facilitates displaying all electronic files.	254	229	34	6	48.6	43.8	6.5	1.1	1.60
7	Helps in creating workgroups.	224	238	49	12	42.8	45.5	9.4	2.3	1.71
8	Facilitates communication with my students.	284	198	37	4	54.3	37.9	7.1	0.8	1.54

Keys: 1=Strongly Agree; 2=Agree; 3=Disagree; 4=Strongly Disagree

Table 4: Frequencies and Percentages of the Impact of Madrasati Learning Management System

The above table indicates that teachers have a positive perception of the impact of the Madrasati Learning Management System on the teaching and learning process, as evidenced by their responses of strongly agree or agree. More than 51% of the participants chose strongly agree for five statements, respectively: statement 5 (51.4%), statement 2 (52.8%), statement 3 (53.3%), statement 8 (54.3%), and statement 4 (55.8%). Additionally, more than 42% of the participants strongly agree with three statements, respectively: statement 7 (42.8%), statement 1 (44.2%), and statement 6 (48.6%). While 40% to 47.2% of the participants chose to agree with statements (1, 7, 6, 5, 2, 4), 36.1% to 37.9% of the participants chose to agree with statements (8, 3). Statement 4 (Assists in course-related tasks) received the highest evaluation with a repetition rate of 55.8%. Therefore, the majority believes that the Madrasati Learning Management System can assist in the teaching and learning process, providing a positive indication for helping teachers gain full proficiency in using the system as an effective educational tool.

Challenges and Suggestions in Using the Madrasati Learning Management System from Teachers' Perceptions

Regarding the second question, which pertains to the challenges faced by teachers in using the Madrasati Learning Management System during the COVID-19 pandemic, as well as their suggestions for overcoming these challenges, teachers' responses were as follow:

▪ Challenges in Using the Madrasati Learning Management System

The following are issues related to the Madrasati Learning Management System (98 comments):

- System Tools (42 comments); difficulties were found in tools such as assignments,



for instance, "the tool lacks flexibility to view assignments submitted by students" (Response 16), enrichment tools, like "I sometimes face difficulties with enrichments not appearing for students" (Response 253), test tools, such as "difficulty in creating test questions without using the question bank" (Response 188), grade monitoring tools, like "Madrasati platform is not linked to the Noor grading system" (Response 5), and attendance tracking tools, such as "difficulty in tracking daily attendance" (Response 198).

- System Downtime (30 comments); all comments focused on system downtime during various times, such as "the site occasionally crashes probably due to overload" (Response 3), also "the site crashes sometimes, especially during exam times" (Response 74).
- Usability Challenges (18 comments); responses varied in this category, such as "not fully understanding all components" (Response 111), "teachers and students are divided between Madrasati and Teams" (Response 44), as well as "not being fully acquainted with the system" (Response 342).
- System Compatibility with Mobile Devices (8 comments); issues included "some minor difficulties, like using the mobile app doesn't accept entering all information" (Response 277), also "activating all icons on mobile and iPad" (Response 262).

The following are issues related to internet problems (66 comments):

- Weak Internet Connection (32 comments):
Difficulties regarding internet strength varied, including issues like "Poor internet networks in neighborhoods where students and teachers live" (Response 57), "Weak internet connection wasting class time" (Response 12), and "Weak internet network" (Response 29).
- Lack of Internet Service (25 comments):
Comments in this category focused on the absence of internet service for both teachers and students, such as "Students lacking internet access" (Response 137) and "No internet service available to conduct virtual classes" (Response 243).
- Learner-Related Challenges (16 comments):
Responses in this category varied concerning challenges faced by teachers with students while using Madrasati Learning Management System, such as "Some students not participating" (Response 4) and "Most students not attending class and not responding to requests" (Response 366).
- Other Problems (9 comments):
Responses in this category varied, including "Issues related to the network" (Response 79) and "Internet connection always being problematic during logins" (Response 304).



Additionally, there are issues related to:

- The Availability of Electronic Devices (11 comments):
 - Some comments emphasized the financial challenges faced by students in accessing electronic devices, citing examples like "lack of availability of devices for some students that enable them to access the system" (Response 134).
 - Other comments noted the "availability of devices for students" (Response 119).
 - Teachers also highlighted the "lack of computers for all students to maximize the use of the Madrasati platform" (Response 184).
- Learning Strategies in Online Learning Environments (7 comments):
 - Responses in this category pointed out the challenges faced by teachers with the educational strategies used in online learning, including difficulties in "organizing activities with diverse learning strategies" (Response 61).
 - Some teachers found the platform "not helpful for implementing active learning strategies" (Response 2).
 - Another concern raised was the "lack of diverse assessment tools, limited to tests" (Response 122).
- Issues Related to Students' Families (7 comments):
 - Teachers reported challenges with students' families, such as "parents not monitoring their children during the lesson and not encouraging them to attend classes" (Response 18).
 - Additionally, some parents displayed a "lack of knowledge about the platform" (Response 71).
 - Teachers also noted instances where "students' parents completed their tasks" (Response 259).
- Issues Related to Technical Skills (3 comments):
 - Respondents discussed the lack of technical skills among both teachers and students, citing "lack of familiarity with computers" (Response 143).
 - Other comments pointed out the "limited knowledge of computers" (Response 183).
- **Suggestions in Using the Madrasati Learning Management System**

While the responses of teachers (138 comments) were predominantly focused on suggestions, particularly concerning solutions to enhance the Madrasati Learning Management System (64 comments):
- Suggestions Regarding Madrasati Learning Management System Improvements (64 comments):
 - Many teachers proposed solutions related to enhancing the Madrasati platform. For example, "It's better to disable the camera in the Madrasati platform as it is useless and invades households' privacy" (Response 23).



- Other suggestions included "creating a private cloud that does not lose uploaded data" (Response 11) and "adding grades for class participation, assignments, and tests to make the system comprehensive" (Response 198).
- Suggestions Related to Internet Issues (27 comments):
 - Respondents proposed solutions addressing internet problems, such as "providing fast internet networks in schools" (Response 27).
 - Other suggestions included "providing high-speed and free internet service for male and female students" (Response 57) and "offering internet packages for teachers and students" (Response 12).
- Suggestions Concerning Teachers (16 comments):
 - Teachers and educators proposed ideas to improve their skills, such as "conducting in-person workshops on how to use the board, create assignments, and upload files" (Response 1).
 - Additionally, suggestions included "organizing structured courses to identify challenges and solve them before the start of the academic year, establishing a Madrasati website for each region in the kingdom, and organizing competitions and incentives for advanced centers" (Response 55) and "conducting more training workshops" (Response 200).
- Suggestions Related to Providing Electronic Devices (14 Comments):
 - Providing computers for teachers and students" (Response 111).
 - Contracting with major companies to provide devices at symbolic prices or on installment plans" (Response 134).
 - High-quality devices equipped with presentation software must be available" (Response 119).
- Suggestions Related to Improving the Role of Students' Families (8 Comments):
 - Intensifying communication with parents" (Response 18).
 - Continuous reminders to parents not to interfere" (Response 71).
 - Collaboration between school management and households in solving all student problems" (Response 43).
- Suggestions Related to Providing Learning Strategies and Resources (5 Comments):
 - Supporting mobile learning, especially since most students connect to the Madrasati platform via mobile phones" (Response 2).
 - Having both virtual and non-virtual lessons, for example, having two science classes per week, the first one being non-virtual to allow students to research information, and in the second class, the teacher discusses and explains the information that is difficult for them" (Response 145).
- Suggestions Related to Students (4 Comments):
 - Providing courses for students to ensure application and positive interaction" (Response 209).



- Increasing students' awareness regarding active participation in the system" (Response 4).

Recommendations

1. Find solutions by Madrasati Learning Management System administrators for the difficulties faced by teachers during system usage.
2. Utilize participants' opinions in the study to enhance Madrasati Learning Management System and its related dimensions.
3. Train teachers, students, and parents on how to use Madrasati Learning Management System and leverage its capabilities in the educational process.

Suggestions

1. Conduct studies focusing on the perspectives of educational supervisors and school administrators regarding Madrasati Learning Management System.
2. Conduct studies related to the perspectives of students and their families regarding Madrasati Learning Management System.

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