Perception of B.Ed students towards usage of Learning Management System

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Abstract

In the modern education domain, Learning Management Systems (LMSs) have become very important tools for facilitating teaching and learning processes. During the COVID-19 pandemic, schools, colleges, and universities worldwide resorted to LMS platforms like Google Classroom and Moodle for remote instruction; therefore, in this respect, it is important to understand the educators' perceptions towards these systems. This study focused on exploring the perception of B.Ed students regarding the usage of LMS through a Google Form-based survey. This study, however, revealed that B.Ed students were completely positive about the utility of LMS for enhancing their teaching effectiveness and learner engagement. However, some discrepancies were noticed in certain aspects related to the general perception of the students. The insights from this study are very valuable for educational policymakers and institutions to refine and optimize the usage of LMS in teacher training programs. By addressing the concerns and leveraging strengths highlighted by B.Ed students, the educator will develop a dynamic and interactive learning environment, hence ensuring the graceful integration of technology in education.

Key words: *Learning Management System, Perception of B.Ed students*

Introduction

This has seen institutions, from schools to universities, increasingly adopt the Google Classroom and Moodle platforms to facilitate learning in the digital age. Basically, these are types of Learning Management System. A Learning Management System (LMS) is akin to an online classroom where teachers and students interact and learn online. It can be visualized as the virtual place where teachers can upload learning materials, assignments, quizzes, and even hold live classes. An LMS acts as a centralized platform where administrators can create and organize course content, instructors can deliver classes, and learners can access materials, submit assignments, and hold discussions. Features of most systems include content management, user management, assessment and grading tools, communication tools—like forums and chat functions—reporting, and analytics to track learner progress and performance. LMS platforms can find their deployment in traditional classrooms to supplement in-person instruction or be deployed as fully online learning environments. They can cater to diverse educational needs and preferences from traditional classrooms to fully online learning environments. The evolution of LMS technology has resulted in enriched multimedia content, mobile compatibility, adaptive learning functionalities, and standardization through SCORM and xAPI, leading to more flexibility, accessibility, and efficiency of online education and training. Provided with these materials, students can access them at any time and from any place by using their computer or mobile device. LMS make the learning process more flexible because students can work at their speed of interest, with the liberty to review the material as many times as one wants. It also offers features like discussion forums where one can ask questions and collaborate with one's peers.

Schools, colleges, and businesses use LMS to simplify the learning process and offer education for everybody. With the increased demand for remote and blended learning solutions, the role of LMS in modern education and training ecosystems becomes pivotal by driving innovation and providing lifelong learning opportunities to learners worldwide. However, despite the multiple benefits they have, LMS platforms themselves face challenges such as user adoption, technical issues, and a need for constant updates and support to keep in stride with changing educational practices and technologies. The COVID-19 pandemic thrust educators into an unprecedented reliance on these systems, laying bare a plethora of challenges as teachers navigated through the transition to online teaching. In this backdrop, there is an acute need to know the views of the B.Ed. students—the torchbearers of education—who view LMS as vital. Knowledge of how they conceptualize it, and what their attitude is toward LMS, is extremely vital for shaping the contours of education for the future. Some B.Ed. students may know a thing or two about LMS; they may even be very excited

about it. But there are those B.Ed. students who are confused about how to use LMS. It brings to the fore the need for adequate training and support. The varied comfort levels, technical competencies, and pedagogical fit make it evident that the educational environment has to address the different needs and concerns of B.Ed. students regarding LMS integration. Through research and dialogue, educators and educational institutions can gain valuable insights into how best to equip B.Ed. students with the tools, knowledge, and resources necessary to harness the potential of LMS effectively, ultimately enhancing the quality and accessibility of education for generations to come.

Review Literature

Taha.Fahad & colleagues (2024) have been keen enough on the management systems of higher learning at universities and other institutions as technology developments in the area of higher education continue. Technologies of these systems offer a host of benefits, very useful tools that enhance student performances and learning. The same technologies, however, bear a few problems and difficulties which must be mentioned. Their benefits should also be assessed in order to motivate other nations to adopt, utilize, and develop learning systems. Therefore, this paper provided an overview of LMSs in higher education institutions. It also contains a history of LMSs, their applications, various types of systems, advantages, issues, and challenges.

Ebner.Martin (2023) according to him, the use of the online learning platform affected the quality of learning. This factor affects the degree of fun while learning and, at the same time, the good performance in school. The students who always log into the LMS regularly are more satisfied and perform better in their studies than the students who don't log into the LMS. Also, learning with Moodle and Edmodo has shown that the way of learning with both applications is effective and has great potential in school use. The learning of German language with the use of online tools and face-to-face classes requires a proper plan for each student group. Normally, those who are better in German and computer literate usually get more online classes.

Joshi.D. (2020) investigated the impact of the learning management system in terms of achievement for B.Ed. Teacher Trainees. The type of research design adopted was the Single-Group Pre-test-Post-test Design. The sample consisted of 48 B.Ed. Teacher Trainees of the second semester who were selected by random sampling. The single group was taught by the learning management system, and an achievement test was applied before and after teaching through LMS. The tool was developed by the researcher, i.e., the achievement test. Appropriate statistics, i.e., correlated t-test, were used for the analysis of data. The results of the study revealed that the learning management system was effective in terms of achievement and

significantly affected the achievement of B.Ed. Teacher Trainees. These results were valuable for augmenting achievement using LMS-MOODLE.

Rahman. MJA, Doud M.Y (2019) focused on that modern LMS meets the latest digital educatiion needs. LMS gives learning materials to students and also customizes learning to all kinds of learners, such as school, college, and university students, adults, scholars, and employees. Technology-based facilitating learning is the best mode of facilitating learning in the 21st century. With the LMS app, a student can learn better even in and out of school. It is a good method for people to learn in the modern world. It was observed that college students are highly aware of LMS and also believe LMS helps them learn better. The research suggested that colleges have to give students a bigger and more accessible online system for storing data. This would enable the students to collaborate and learn more while away from the same geographical location. The results also suggested further research on evaluating the effectiveness of LMS in enabling students to learn in comparison with the traditional models and to determine the best approaches to LMS design for active and collaborative learning.

Holmes, K. A. & Prieto.R.E (2018) done in teacher training to see what undergraduate and postgraduate students think. Most of the students wanted to work as school teachers or early childhood teachers, in which face-to-face instruction is the primary mode of delivery. It is interesting to consider how their views of blended learning may influence their instructional practice with their own future students. Increasingly, digital technologies are being utilised within school classrooms. Teachers engage in LMSs to manage student work and communicate with students.

S.Wchadee. (2015) attempted to determine the factors affecting the instructors' attitudes toward the learning management systems and their usage in the classroom. A total of 62 teachers were given a survey to track their usage of LMS after their training. In this respect, the attitude of the respondents regarding LMS, perceptions about its ease of use and usefulness, and the actual usage of LMS in their classes were assessed. The findings indicated that the study's respondents held a favorable attitude towards LMS in general. Also, their attitude bore a significant positive relationship with the usefulness and ease of use of LMS. In addition, the perceptions about the LMS's efficacy were increased by the teachers who considered it easier to use.

Adzharuddin.N. A. (2013) showed that in the modern world, the information spreads rapidly through the internet, the LMS is very

crucial for the college student. This helps the students to update themselves with the school works and even can get rapid notifications of daily tasks. Additionally, the teachers can easily communicate with the students outside of the classroom and can quickly notify the assignment updates to their students via the E-Learning system. Although there are several issues that people may confront with the LMS, it is part of the learning and utilizing the new system. The universities should provide their students and teachers with proper training and support with regard to the e-learning system. They should also provide a supporting team in case of any issue arise. However, Most of the college students will be able to work on the online learning platform of their school or similar ones to make their learning easier. Many people think LMS is important for all universities around the world.

Chourishi.D, Dr.Chanchal (2012) examined the various ways that Moodle helps with online learning. To the tutors, Moodle is a very useful tool as it will enable the tutors to create and store teaching materials quite easily. This has become more of a professional type of online platform where teachers and students

interact in order to learn. Besides developing courses, it is always great to join online groups that help people keep abreast of modern updates and get connected to other scholars worldwide. org website has several very helpful modules that we can add to make our Moodle site even better. These tools help us teach better. Therefore, using technology like e-learning through moodle in education enhances the quality of learning. E-learning helps learners, tutors, and students interact better. E-learning can help the students learn together and the teachers teach. It can also make students and teachers become more motivated towards learning and teaching.

Rationale of the study

The justification to conduct a study on the perception of B.Ed students towards the usage of LMS is to be based on the transformative power of technology in education and the need for teachers to be its active agents. In the current digitized world, technology becomes a part of education that offers various options for personalized learning, collaboration, and learning engagement. LMS platforms like Moodle, Canvas, or Google Classroom offer one-stop digital shop services for course materials, communication, assessment, and collaboration among students and teachers. The perception of teachers toward LMS is very important, for they are the people who can shape the experiences of the student-learners, which are the major stakeholders in educational reform initiatives. B.Ed students are future teachers who would shape the pedagogical landscape for tomorrow. Hence, what their perceptions are toward the use of LMS is important, for this might set the basis of teacher education programs, and professional development initiatives may help close the gap in knowledge, skills, or attitudes with which educators need to be equipped.

Objective

To study the perception of B.Ed students towards the usage of Learning Management Systems (LMS) in their teaching practices.

Research Methodology

A research design is a comprehensive inquiry strategy that delineates theory testing and data analysis as its substantive units. It refers to a set of preparatory steps taken to ensure the gathering of relevant data, collected in such a way that objective evaluation of different hypotheses concerning a research problem are possible. The choice of research methodology depends on the nature of the research problem; as such, there are many methodologies from which a researcher can choose. Descriptive research, as the method used in this study, describes existing phenomena, problems, situations, and relationships by surveying.

Self-made questionnaires have been used to examine the perceptions of B.Ed students towards usage of Learning Management System. The researcher determined that descriptive research was the best design to study the perception of B.Ed students towards usage of Learning Management System.

Population

In research methodology, a population represents the complete set of individuals, items, or entities possessing the qualities or characteristics that a researcher is interested in. It simply refers to the large group that all study findings are aimed to generalize. The population can be defined in line with research goals and criteria, including all probable subjects that the study relates to.

The population for this study was students of Galgotias University located on Yamuna Expressway, Greater Noida, Uttar Pradesh.

Sample

Mostly, the study of the whole population is impractical or impossible because of constraints such as time, resources, or accessibility. Therefore, researchers often use sampling techniques for the selection of a subset of the population, known as the sample, in order to be studied. The sample is chosen in such a way that the findings of the study can be generalized to the entire population.

The sample had been taken from B.Ed students of Galgotias University, Greater Noida, Utttar Pradesh. Samples were selected to be statistically representative for the study. "Both second semester and fourth semester were fairly represented according to their affiliation types." The total number of samples taken for the survey was 50.

Variable

The characteristics or conditions that are manipulated, controlled, or measured by the researcher are called variables. Below is a listing of the variables that, in this study, were considered:

Independent Variable

The dependent measure of behavioral is produced by manipulations, measurements, and selections done by the Researcher in the independent variable. The following term serve as independent variables in this study: B.Ed students

Dependent Variable

Dependent variables are the reliance of the researcher on the outcome. In other words, these measurements depict the interdependence of the previously independent elements. The most crucial factor that will yield the outcome of this study is: Learning Management System.

Tool used

The scale was preceded by thorough literature reviews, and after which consultations were held from various experienced experts. The initial draft consisted of 18 items. Refining the items from the expert's statements ensured the statements were simple, clear, and relevant to the purpose of the research where each statement conveys only one idea and leaves no room for ambiguity from the respondents. The experts were requested to compare all statements with prescribed criteria: simplicity, clarity, and relevance. The results led to some items being revised and others omitted. The final form of the scale, developed and edited after expert evaluation, contains 10 statements. The statements were carefully prepared according to the criteria to best serve the purpose of the research.

The following tool used in the study:

- The Researcher has prepared a 5 point likert scale on perception of B.Ed students towards Learning Management System.
- The Researcher has prepared 10-items based survey to check perception of B.Ed students towards Learning Management System.
- Questionnaire to know the perception of B.Ed students towards Learning Management System.

Results and Interpretation

Table 1.1 Perception of B.Ed students towards usage of Learning Management System

SL.No	Questions	Response				
		SA	A	N	D	SD
1	The LMS is user- friendly	17	30	2	-	1
2	The LMS offers a variety of instructional materials (e.g., videos, quizzes, documents).	20	23	4	2	1
3	The LMS enhances student engagement in the learning process	17	24	8	-	1
4	The LMS allows for easy assessment and grading	19	28	2	-	1
5	The LMS is accessible on multiple devices (e.g., computers, tablets, smartphones)	22	25	2	-	1
6	The LMS respects student privacy and data security	12	30	4	2	2
7	The LMS provides timely feedback on student performance	16	29	4	-	1
8	The LMS enhances teacher – student interaction outside of class	16	28	2	2	2
9	The LMS requires minimal training to use effectively	14	31	4	-	1
10	I will use LMS near future in my Teaching	22	23	3	1	1

Graphical representation of table 1.1

1.   The LMS is user- friendly
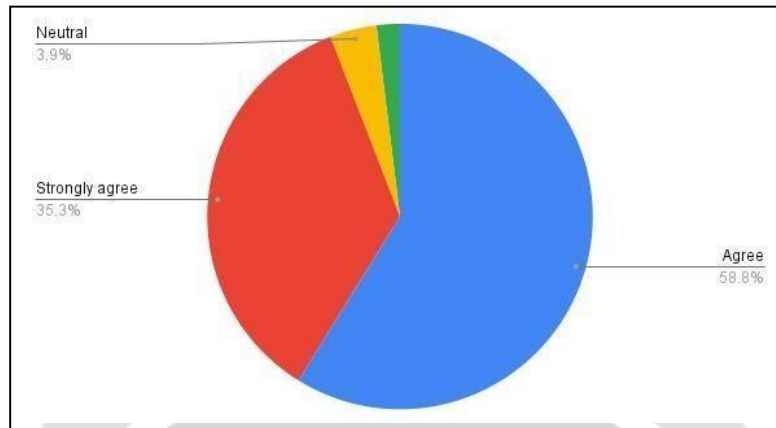
Neutral
3.9%

Strongly agree
35.3%

Agree
58.8%

Figure 1.1 LMS friendliness

In figure 1.1, 35.3% agree strongly that LMS is user-friendly, and 58.8% agree with the same statement. A smaller percentage, 3.9%, remained neutral. The results of the chart suggest the general positive perceptions of the usability of LMS with a huge proportion either strongly agreeing or agreeing. However, the neutral response of 3.9% shows there is room for improving or customization for better satisfaction of users. Overall, the chart shows favorable sentiment towards the use of LMS, but there is some room for improvement to satisfy all user preferences.

2.   The LMS offers a variety of instructional materials (e.g., videos, quizzes, documents).

Neutral
7.8%
Disagree
3.9%
Strongly Disagree
2.0%

Agree
45.1%
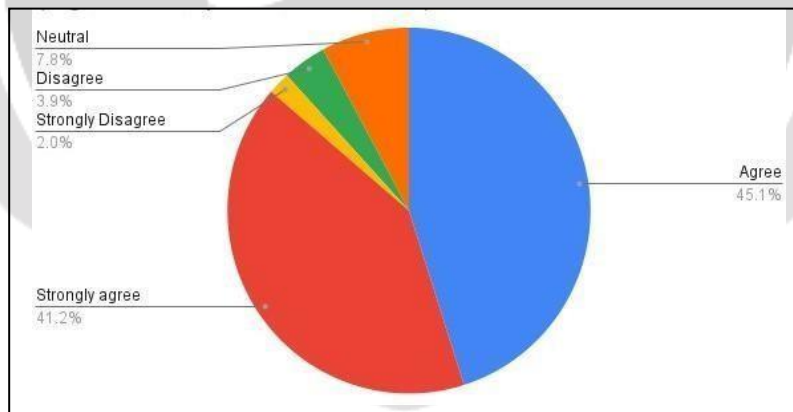
Strongly agree
41.2%

Figure 1.2 LMS offers a variety of instructional material

Figure 1.2, opinions regarding the variety of instructional materials provided by LMS. Respondents are positive, with 41.2% strongly agreeing and 45.1% agreeing. A minority, 7.8%, is neutral to the offering. Very few, 3.9%, are against, with 2.0% strongly disagreeing. The distribution gives a generally favorable view of the diversity of materials provided by LMS platforms, although there is room for improvement by LMS providers to cater to the concerns of the dissenting minority.

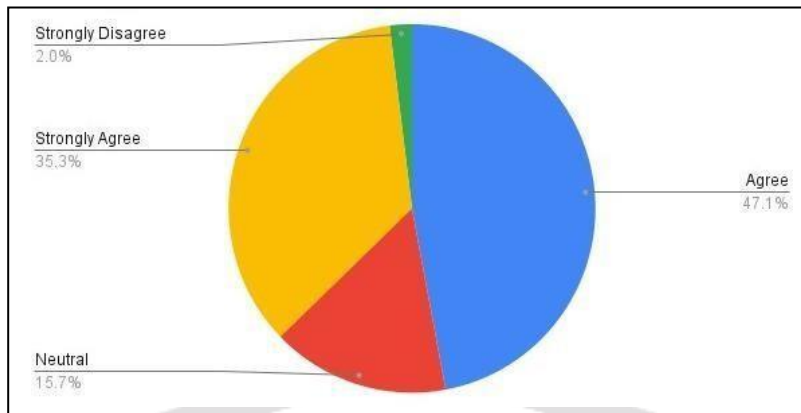**3. The LMS enhances student engagement in the learning process.**

Figure 1.3 Enhance engagement

Figure 1.3 depicts perceptions of the effect of LMS in promoting better student engagement in the learning process. The majority, constituting 82.4% of the respondents, were positive, with 35.3% strongly agreeing and 47.1% agreeing. About 15.7% were neutral, which shows a section that did not have a strong opinion.

Dissatisfaction is low, with only 2.0% strongly disagreeing. These results show that a large proportion of B.Ed students believe LMS contribute to student engagement in a positive fashion, but addressing the concerns of the strongly disagreeing respondents could push the platforms even further for the best learning experience.

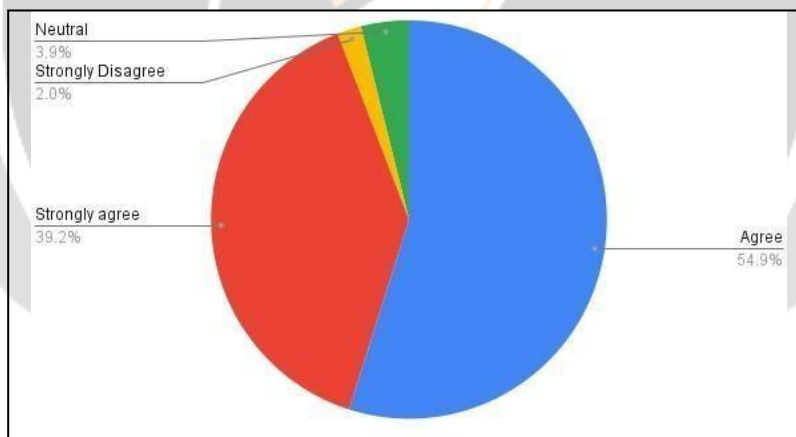**4. The LMS allows for easy assessment and grading.**

Figure 1.4 Easy assessment and grading

Figure 4.5 indicates perceptions about the Ease of Assessment and Grading Afforded by LMS: The majority of 94.1% express positive attitudes towards this question, with 39.2% strongly agreeing and 54.9% agreeing. Only a small proportion, 3.9%, is neutral about this feature, thus indicating a generally positive perception. Dissatisfaction is small, with 2.0% strongly disagreeing. The results suggest that the majority of B.Ed. students find LMS useful for facilitating the processes of assessment and grading. The consideration of the concerns of the dissenting minority would go a long way in enhancing user satisfaction

and optimizing the utility value of these systems for educational purposes.

5. The LMS is accessible on multiple devices (e.g., computers, tablets, smartphones)
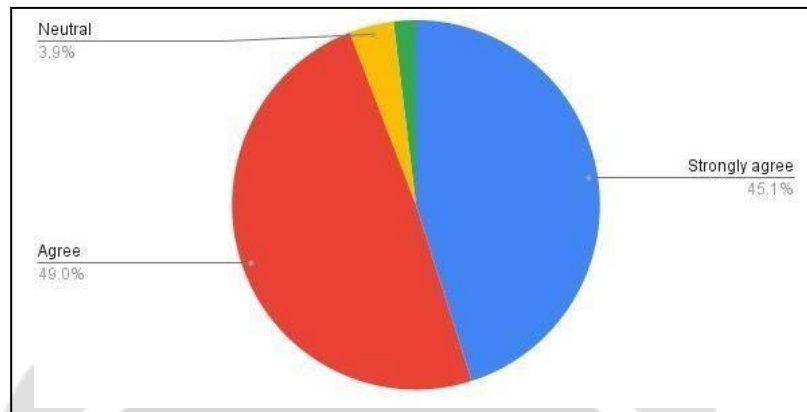

Figure 1.5 Accessible on multiple devices

Figure 1.5 presents perceptions of the ease of access to LMS on various devices, including computers, tablets, and smartphones. The vast majority, 94.1%, expresses positive sentiments in support: 45.1% strongly agree, and 49.0% agree that LMS is accessible on various devices. A tiny proportion, 3.9%, of respondents are neutral towards this particular aspect—a general acknowledgment with no particular strong sentiment either way. These results point out that a big proportion of B.Ed students feels LMS are easy to access from different platforms, making it flexible and convenient to learn. Accessibility features continued to be developed to further optimize user experiences across different devices.

6. The LMS respects student privacy and data security
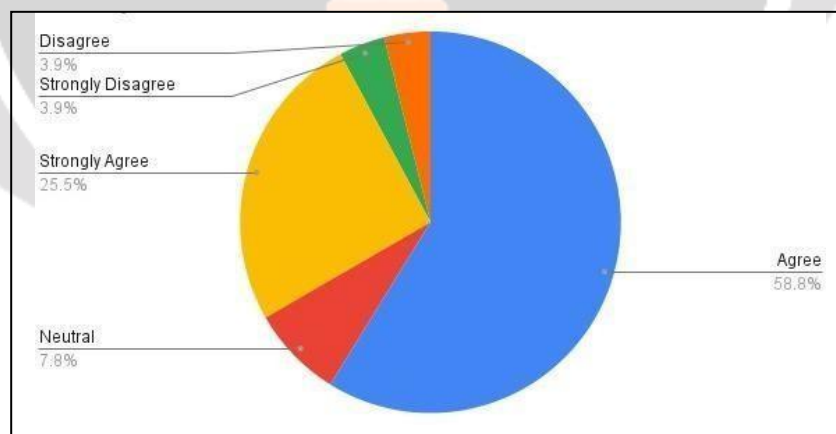

Figure 1.6 Privacy and security

As shown in the result, Figure 1.6, it shows perceptions around the respect of students' privacy and data security by Learning Management Systems. A huge majority of 84.3% are in a positive frame of mind, with 25.5% strongly agreeing and 58.8% agreeing that LMS respects privacy and maintains data security. About 7.8% are neutral about this aspect, which indicates that there is a section with no strong opinion. Dissatisfaction is relatively low, with 3.9% disagreeing and another 3.9% strongly disagreeing. These

results imply that although most B.Ed. students believe that LMS upholds students' privacy and security of data, addressing the dissatisfaction of the minority could go further in ensuring confidence in these systems.

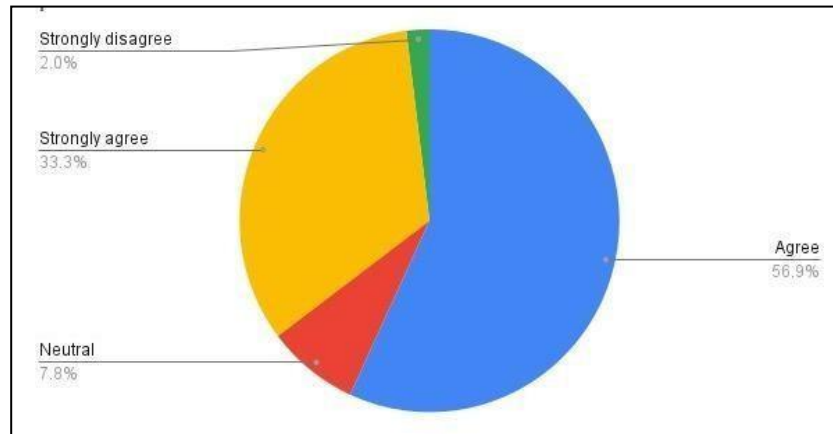### 7. The LMS provides timely feedback on student performance

Figure 1.7 Timely feedback on student performance

Figure 1.7: Perceptions of the provision of timely feedback on student performance through LMS. A vast majority, 90.2% of the respondents, perceive the feedback from LMS as timely, with 33.3% strongly agreeing and 56.9% agreeing with LMS in the area of timely feedback. About 7.8% of the respondents were neutral on this matter, indicating that this group had no strong feelings. Dissatisfaction was low, with only 2.0% strongly disagreeing. The results suggest that an overwhelming majority of B.Ed students believe LMS is timely in providing student feedback, which enhances results. Ongoing attention to feedback mechanisms could further optimize educational experiences.

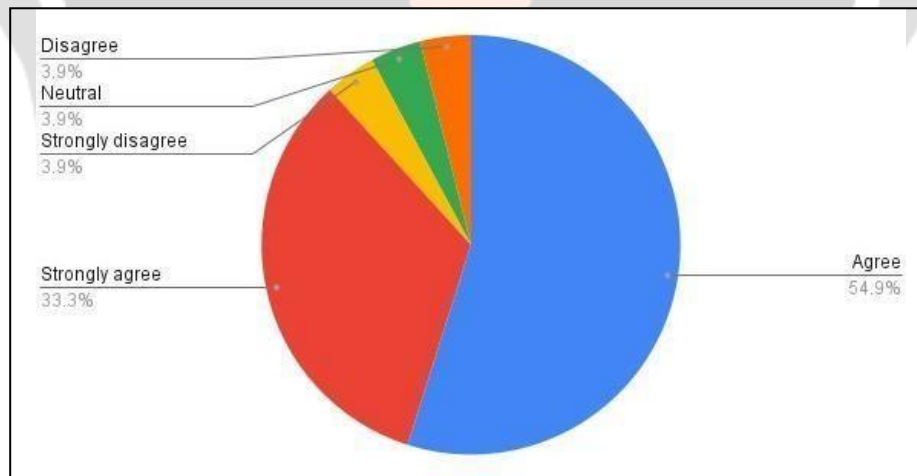### 8. The LMS enhances teacher – student interaction outside of class

Figure 1.8 Teacher – student interaction outside of class

Figure 1.8: B.Ed students' perceptions on the improvement of out-of-class interaction between teacher and student by LMS. Most of them hold positive views; 58.8% of the respondents think that LMS works well in such interactions. 54.9% agree, and 3.9% strongly agree with the fact that LMS does help in interactions.

About 3.9% are neutral on this aspect, showing that there exists a section which has no strong opinion. However, dissatisfaction is also found in the form of 3.9% disagreement and 3.9% strongly disagreeing.

These results show that while many B.Ed students think that LMS helps to create teacher-student interaction even outside the class, addressing some of the issues would help these platforms to be utilized even better to meet meaningful engagement beyond the traditional classroom.

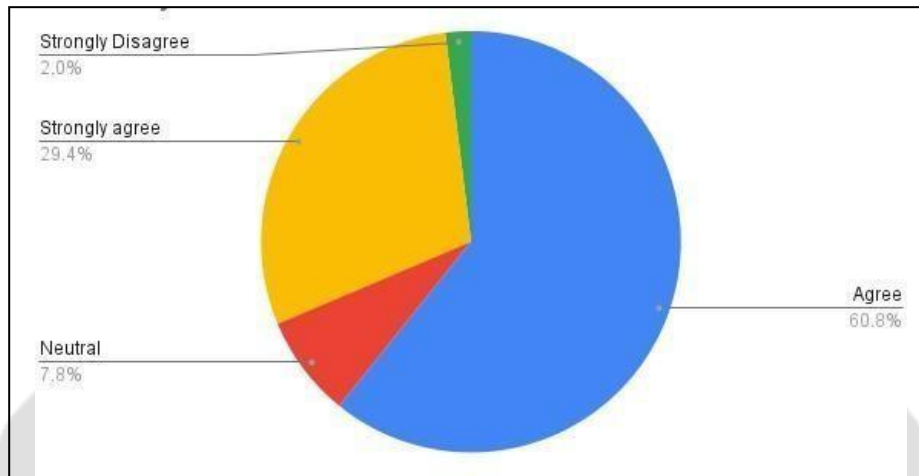9. **The LMS requires minimal training to use effectively**

Figure 1.9 Minimal training to use effectively

Figure 1.9: perceptions of the ease of learning to use LMS effectively: A large majority, comprising 90.2% of respondents, show positive perceptions; 29.4% of them strongly agree, while 60.8% agree that LMS need little training to use it effectively. About 7.8% fall in the middle, without really harboring any strong views. Dissatisfaction is almost negligible, with only 2.0% who strongly disagree. From these results, the general impression is that the majority of B.Ed students think that LMS can be used with minimal training required from its users. Smooth adoption and use are thus expected from the population. Continued focus on user experience will probably reduce the load on training procedures and further optimize user satisfaction.

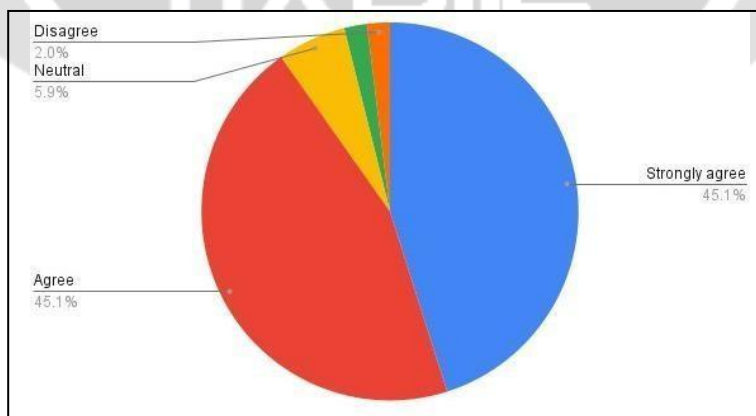10. **I will use LMS near future in my Teaching**

Figure 1.10 Use of LMS in future

Figure 1.10: Intention of B.Ed. teachers to use Learning Management Systems for teaching in the near future. As shown, the response is balanced, with 45.1% agreeing to use LMS, matched by an equal percentage strongly disagreeing. About 5.9% are neutral, meaning they are not sure or have no strong feeling. The number of dissatisfied teachers is small, as only 2.0% disagree. It would mean that a divided stance is held among B.Ed. teachers about the adoption of LMS in teaching. A little bit of handholding and help in the implementation might be important to get wider acceptance and usage of LMS among the teaching fraternity.

Conclusion:

The graph presents the distribution of perceptions for the 50 B.Ed students on the use of LMS.,The differences could be because of individual use of technology, teaching strategies, or institutional support for LMS incorporation. The overall analysis showed that the students agree with the use of LMS, but further investigation into factors that create varying degrees of acceptance should be used to help strategies with which to improve the implementation of LMS within an educational setting.

This research on the perception of students towards the usage of Learning Management Systems (LMS) has brought about glaring insights regarding the challenges and disagreements in their implementations. This research forms an important milestone in understanding the issues faced by B.Ed students, who are very crucial stakeholders in shaping the future of education. Amidst the background of the pandemic that brought about remote learning as the new normal, the platforms—such as Google Classroom, Moodle, and others—gained importance in facilitating distance education. Nonetheless, the findings from this research underline the nuanced complexities that exist in the integration of LMS within the educational landscape, particularly from the perspective of B.Ed educators. The identification of areas of disagreement and highlighting concerns provides a pathway for targeted interventions aimed at enhancing the efficacy and usability of LMS for students. This is with the recognition that these educators are pivotal in not only imparting knowledge but also in molding the future generation of teachers. Against this backdrop, the improvement of LMS functionality and the need to allay apprehension cannot be overemphasized. Consequently, this research not only contributes to the existing discourse on technology integration in education but also underlines the indispensable role of LMS in today's educational paradigm. In simple terms, the findings of this study are a catalyst for creating a better learning environment, one which ensures the students are able to engage and move within the fast-evolving education landscape.

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