



How LMS Shapes Inclusive Education

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ABSTRACT

Learning Management Systems (LMS) augment and boost teaching and learning through online classroom environments. They also incorporate and encompass inclusive education (Bradley 2021). Using LMS allows educators to facilitate discussions, design online activities, set learning expectations, provide options for students, and render assistance in problem-solving. Students become more engaged and enthusiastic in learning and because they are motivated, intelligence and cognition are optimized. However, it is the responsibility of educators to manage these systems effectively and competently to accentuate cognition. On the other hand, inclusive education instructs students in the same environment and affirms diversity, equity and equality. An inclusive environment ensures that all students feel comfortable, safe, and motivated to do their best. It is a fact that the use of LMS is rapidly changing teaching and learning. Dalton (2017) resolutely affirmed that the availability of technology in education facilitates inclusion. United Nations (2017) also affirmed that technology has the potential to support inclusive education. Thus, LMS can encourage authentic inclusive environments that embrace all students, especially those who are disabled. Salas-Pilco et al. (2022) noted that the positive effects of technology depend solely on how it is applied in teaching. They also emphasized that because these new technologies offer more equal opportunities for learning they can embrace inclusive education. Salas-Pilco et al. (2022) acknowledged that while there is no concrete formula for creating inclusive classrooms, educational institutions are free to use their approach to genuinely create inclusion.

KEYWORDS: Learning Management Systems, Inclusive Education, Inclusion, Diversity, Equity, Equality, Technology, Classroom, Environment

INTRODUCTION

It is explicit that the use of LMS is becoming more prominent in education. Lomellini, et. al. (2023) believed that over the last two decades, enrollment in online learning continued to proliferate. They further claimed that many students with disabilities are also pursuing courses online. Due to this constant use of technology, Fuentes et al. (2021) opined there is an urgent need for educational institutions to cater to the needs of all students; including those with disabilities. It ought to be noted that inclusion is paramount, and students must feel special within their learning environment (Corbett et. al 2021). Fuentes et al. (2021) proposed that inclusive syllabi frequently enhance and deepen intercultural interactions and promote the sharing of diverse experiences and perspectives. These essential components ensure that all students feel accepted and appreciated within the learning environment (Germano and Nicholls, 2020). It is instructional to mention that published research indubitably indicated that there is a paucity of information on this topic. At the time this study was conducted, a secondary search was also inconclusive. With the support of literature, this paper accentuated how LMS moulds inclusion. It presented

a general overview of the significance of LMS and inclusive education and explored how LMS can bolster inclusive learning environments.

LMS Accentuates Teaching and Learning

Kasim and Khalid (2016) opined that the Learning Management System (LMS) is a platform that offers several integrated tools that facilitate teaching and learning. Some of them are Moodle, Sakai, Blackboard, Brightspace and D2L. Because these platforms are ingenious and accessible, educators can make full use of them (Fearnley and Amora 2020). In addition, LMS offers many tools such as online group chats, discussion threads, video conferencing, lecture materials, learning modules, grading and course evaluations, and these can be customized to suit specific instructional needs (Fearnley and Amora 2020). Some of the benefits provided by an LMS include organized course content, enhanced student engagement, improved autonomy among learners, convenient submission of requirements, and immediate feedback.

Yawisah et al. (2022) explained that a Learning Management System (LMS) is software particularly engineered to facilitate teaching and learning and there are different options in each



module. This variety affirms learning and brings liveliness to the classrooms. Bradley (2021) opined that Learning Management Systems (LMS) are burgeoning because they constantly stimulate intelligence, incite the mind, and reinforce the learning process. LMS integrates assistive technological tools to support diverse learning needs through Universal Design for Learning (UDL) and pedagogical approaches and includes videos, courses, workshops, and documents. Through coding capabilities, it renders numerous opportunities for adaptive learning which can be tailored to different learning styles and preferences. Through adaptive learning, these various experiences can be customized to meet the needs and abilities of all learners and thus enhance inclusion, (Bradley 2021). LMS augments E-learning because it provides instructional materials and educators can conduct classes using these resources, (Raza et al. 2021). Kakasevski et al. (2008) affirmed that LMS brings a high degree of dynamism to the classroom but insisted that regular and consistent evaluation is required. It is cost-effective because its learning is centralized, and it allows institutions to save all the contents of E-learning in a single place. Hence, continuous updates and improvements could be made to the course content. This reduces the risk of losing important data and optimizes the system. Because LMS is resourceful, educators can design the contents of their E-learning and make it more applicable to their students. In addition, educators can closely monitor and evaluate the progress of students and further render assistance where required.

LMS Enables Personalized Learning

Bradley (2021) believed that because LMS is student-focused it permits educators to customize their learning paths for each student based on their needs, interests, and learning styles. It helps them study at their own pace and according to their preferences, (Bradley 2021). Moreover, the use of LMS enhances and supports teaching and learning and allows educators to concentrate on formulating and designing purposeful pedagogical activities. According to Kilag et al. (2023), LMS facilitates interactions, through discussion fora, group projects, and collaborative activities and creates a sense of camaraderie.

Fearnley and Amora (2020) believed that E-Learning is a process that combines self-motivation, communication, efficiency, and technology. One of the first innovations in practicing the concept of E-learning is implementing a Learning Management System (LMS) to place courses online so students' progress is trackable and discussions in a real-time manner are possible. However, LMS has some drawbacks particularly in presenting and selecting learning materials or resources. On LMS, students are given only learning materials or learning resources that have been structured by the facilitators Fearnley and Amora (2020). On the other hand, the idea of a Personal Learning Environment (PLE) arises. PLE represents a different perspective on how students decide where they are going to learn, because

they act as subjects and owners of their learning process, not as objects. PLE enables students to collaborate through services or learning resources outside their predefined online classroom page. This research proposes the idea of embedding the concept of PLE into LMS. The objective is to provide an online learning environment that combines structured learning that is identical to the LMS with the flexibility and personalization that PLE offers.

LMS Supports Diverse Learning

LMS facilitates asynchronous learning tasks and provides flexible learning opportunities by giving learners the autonomy to engage with learning content that aligns with their strengths and complete learning tasks at their own pace. It builds the strength of students and provides the foundation for self-regulated learning as learners are better able to monitor their progress towards achieving desired learning outcomes. Thus, students take ownership of their learning. LMS can be used to evaluate learning patterns and detect students who are at risk so they can receive the necessary care and attention that they deserve. In this way, information can be gathered promptly and consequently foster personalized interventions in teaching and learning. Kilag et al. (2023) believed that the integration of LMS in education has reinforced blended learning. They further added that LMS forms an indispensable component in teaching and learning principally because it manages and delivers content in both online and blended environments. Moreover, the various platforms offer a centralized hub for course materials, assessments, communication tools, and analytics which enables educators to create, organize, and monitor courses effectively. This consolidation reinforces learning and optimizes intelligence (Prifti 2022).

Moreover, LMS platforms often include communication and collaboration tools such as discussion forums, chat rooms, and video conferencing, which facilitate interaction among students and instructors, even in online or hybrid settings (Kilag, et al., 2022). This interaction is essential for building a sense of community and engagement in blended learning environments. Assessment and feedback are enhanced through LMS platforms. Instructors can create and administer quizzes, exams, and assignments digitally, and students can receive prompt feedback on their performance, (Habib et al., 2021). Daniel (2015) believed that LMS provides valuable insights into student performance and engagement. Through the analysis of student data, educators can refine instructional strategies and optimize teaching and learning.

LMS Fosters Inclusion

Over the years, many national and international organizations regarded inclusion only in medical terms. It was not surprising to note that a medical model was influential in describing inclusive education. Consequently, many students were obliged to admit their disability before enrolment for classes. Ketterlin-Geller and Johnstone (2006) further indicated that this process of registration was extremely

convoluted and regularly incorporated extra time on various tests. Very often these tests were conducted at different locations with alternative formats of instructional materials, and/or the use of assistive technology. This complex approach caused dissonance, stigmatized students with disabilities and unfortunately worked contrary to inclusive education. (Cook et al., 2009; Harris et al., 2019; and Sarrett 2017), further indicated that this level of confusion caused students to seriously consider themselves as inferior. Thus, Harris et al. (2019) claimed that many of them were reluctant and reticent to disclose their disability. According to the literature (Izzo et al., 2008, McAndrew et al., 2012, Roberts et al., 2011, Schelly et al., 2011), educational institutions had to constantly struggle to understand and meet their needs. However, within recent times, some educational institutions have begun to appreciate and conceptualize disability and inclusion differently. Hence, they have moved to value accessibility proactively rather than retroactively (Lomellini and Lowenthal, 2022, Seale, 2020). While this movement is progressive and should be encouraged, there is still extensive debate about the best method of approach to integrate students with disabilities (Linder et al., 2015, Singleton et al., 2019). This scenario mustered some online learning leaders to support these students so that inclusion with the use of technology could be possible (Burgstahler, 2022, Westine et al., 2019). According to Burgstahler (2022) and Gladhart (2010), this is a daunting task and must include all those involved in education and technology.

A review of the literature (Gladhart, 2010, Izzo et al., 2008, Linder et al., 2015, Xie and Rice, 2021), strongly suggested that ample resources and proper training can promote and expedite awareness of instructional designers and skills through technology. (Black et al., 2015), Burgstahler (2022) and Satterfield et al., 2015) also acclaimed that policies and procedures can identify clear responsibilities and establish support structures. LMS has the potential to enhance education and incorporate disabled students. Burgstahler (2022) and Seale (2020) cautioned that reducing barriers for disabled students in online learning means that leaders must agree and uphold this venture. Studies conducted by Westine et al. (2019) and Bartz (2020) revealed that inclusive online learning examined the perceptions of faculty. Singleton et al. (2019) and Xie et al. (2021) also noted that research towards the perspectives of instructional designers was also exercised. However, very few studies addressed the perceptions of online learning leaders (Garrett et al. 2021). It is important to bear in mind that leaders are uniquely situated between instructional designers so that disabled students can benefit from online learning.

Lomellini et al. (2023) claimed that online education among students with disabilities has escalated over the years. Roberts et al. (2011) and Satterfield et al. (2015) also believed that this proliferation is evident. Bartz (2020), and Kent (2016) opined that the flexibility of learning online is unquestionably beneficial to students with disabilities. However, Kent (2016) and Nieminen and Pesonen (2020)

stated that online learning presents barriers. Some documents are not properly designed for compatibility with assistive technologies, and this can grossly hamper those students who rely on assistive technology or even have learning attention or focus disabilities (Bartz, 2020, Fitchen et al., 2009). Some of these barriers still exist and hamper teaching and learning (Anderson, 2020, Burgstahler, 2022). However, Burgstahler (2015) believed that when lessons and activities are specifically designed for disabled students the academic goals are achieved. Oyelere et al. (2020) asserted that inclusion incorporates learning environments specifically designed to incorporate diversity, equity, and equality. Payà (2020) noted that the curriculum achieves genuine inclusion when it recognizes the need for diverse pedagogical in teaching and learning and focuses on optimizing learning opportunities. A well-designed curriculum should commence from what is already known and possess clear and measurable learning objectives. Thus, in an inclusive learning environment, the curriculum must be adapted for inclusion and use of technology. The curriculum needs to be non-linear and student-centered. It must also recognize that students are certainly not interchangeable and unable to learn at the same pace (Payà (2020). Student-centered learning allows for diversity and inclusion since it encompasses personalized learning, autonomy, competency, and life-long learning. The curriculum should also include recommendations for assessment for learning assessment by way of games and other technology-related activities. Said assessments should allow students to demonstrate their understanding in a variety of ways and inspire a growth mindset.

Technology and Inclusive Environment

Lomellini et al. (2023) that the use of LMS systems can indisputably sustain and facilitate inclusive environments. They also stated that because it is flexible, it can also address the needs of diverse learners. Bartz (2020) affirmed that this depth of flexibility of online learning can assist some disabled students in alleviating some of their struggles. Some of these will consist of poor acoustics for students with hearing disabilities or long distances between buildings for students with mobility issues. Although online teaching can be challenging, it is fundamental for students with disabilities. Bose and Heymann (2020) stated that the United Nations Children's Fund and the Convention on the Rights of Persons with Disabilities have been lobbying for the reform of the education system worldwide towards inclusive education. They also mentioned that inclusive education is mandatory. Furthermore, it requires that children with disabilities attend the same classes as children without disabilities. To this end, Foster (2020) added that proper inclusion must bring together the learning styles, contrasting disabilities, various cultural backgrounds, ethnic origins, and the level of ability of each student. Inclusive education also promotes a positive climate, a sense of belonging, includes embracing diversity, thereby valuing and supporting full participation of all learners.

According to Puga (2022) ICT is essential in making learning effective in as much as the new generation uses technology almost always nowadays and when utilized in education, it allows students to actively participate in learning. Francis et al. (2021) conjectured that inclusive education provides equal opportunities for all students. Marion (2020) asserted that merely using online learning allows students to expanded access to education. Hence, it is explicit that technology can be used to support and enable inclusive environments as it provides multiple means of presenting, representing information, expressing knowledge, engaging in learning, to and including assessment when fused with the Universal Design for Learning (UDL) framework in mind. The Universal Design for Learning is a curriculum used to support the development of curricula, the likes of which consider learner diversity and support inclusion. Universal Design for Learning (UDL) is based on universal design for all learners or users, regardless of disability, age, gender, size, culture, and other factors. Research has shown that UDL and technology as used face to face and the virtual classroom are all effective approaches that can improve academics for all learners, including those with special needs. The technology used in the online inclusive classroom also motivates learners and reinforces their satisfaction with it. It is important to note that, in using technology to support inclusion virtually, its success will depend on appropriate pedagogical strategies practiced by educators.

The use of Universal Design for Learning (UDL) is fundamental and can integrate technologies as well as foster inclusion. Ismailov and Chiu (2022) concurred that UDL is a curriculum framework that predicates diversity and inclusion and UDL addresses the needs of every learner despite their disability, age, gender, size, culture, and diverse characteristics. According to King-Sears et al. (2023), learning should be presented in diverse ways and students allowed to express their understanding as deemed appropriate. They further added that educators ought to constantly engage students to make learning worthwhile. Harris et al. (2020) stated that UDL is a pedagogical approach towards inclusive teaching and learning for all students.

Carsten et al. (2021) believed that the use of technology is strategic in education because it proves to be interesting and enhances learning, especially among those students with disabilities. Some modern technologies that are beneficial and enhance the teaching and learning process are the Flipped Classroom as well as Microsoft PowerPoint with videos and pictures as a multimedia approach to embrace inclusion. A Flipped classroom is structured around the idea that a lecture or direct instruction is not for the ideal use of class times. Instead, students encounter information before a session thereby freeing class time activities that would otherwise involve higher thinking. Research conducted by Abiño et al. (2019) demonstrated that PowerPoint is a great technological tool that can make lessons fun and interactive and of course, promote learning. Taking advantage of the use of videos and pictures is also a great tool to enhance students'

learning. Guan et al. (2018) affirmed that when all these tools are combined, they are then called the multimedia approach to teaching and learning, enhance the teaching and learning process, students comprehend and subsequently cognition is evident.

The ADDIE learning model is also another effective learning tool. ADDIE stands for Analyze, Design, Develop, Implement and Evaluate. Kurt (2018) believed that many educators, training developers, and instructional designers find this model very useful since the various stages are well defined and they facilitate the implementation of effective learning or training tools. The first stage in the ADDIE model is analysis. Nurdyansyah et al. (2022) strongly proposed that before designing an online course, educators must first analyze the current situation. This stage is vital because educators can capture the disparate characteristics and idiosyncrasies of students. This component also includes the actual abilities possessed by students and student learning styles. Nurdyansyah et al. (2022) recommended that when designing lessons and learning activities, educators should take into consideration the learning objectives, content, and, finally, the knowledge and skills of students. Based on these needs and assessments, they can employ some of the following technologies: PowerPoint presentations, pictures, and videos from YouTube to enhance the teaching and learning process.

Educators can also make good use of videos on the Learning Management System (LMS) for example the Moodle Platform incorporating the Flipped Classroom strategy. This method engages students who may have doubts or difficulty with a particular concept. To resolve these issues, they can go to their LMS and access a YouTube video and respond. These different responses often generate discussion in the online inclusive class and allow the lessons to become interactive and interesting. PowerPoint presentation can also be used to execute lessons with the help of embedded videos and pictures and in so doing, will include all students. Thus, this multimedia approach unequivocally fosters an inclusive environment which caters to diverse learning needs.

Kurt (2018) insisted that evaluation of lessons form an integral component since educators need to know if cognition is evident. Evaluation is also necessary as it allows educators to discern if the objectives were indeed effective. They can also reflect on the technological tools used to determine if they were appropriate and efficient in the execution of lessons to cater to diverse learners in the virtual space. Reflection is seeing that it can assess the strengths and weaknesses of the lesson and determine the next plan of action. Educators can implement technology to differentiate and individualize instruction for students; especially those with disabilities. Some modern technological tools that have proven effective in catering to these students are Screencast-O-Matic, Padlet, Storybird, Kahoot, Vocaroo, Quick Response codes, Plickers, Bookshare, Newsela and Bubbl.us to name a few. Mahoney and Carol (2017) believed that these modern

technological tools guide students with disabilities in quite a few areas of learning difficulty. They further stated that Vocaroo and Quick Response codes provide reading alternatives, interactivity, and engaging options. Plickers and Kahoot are assessment tools. Screencast-O-Matic offers digital videos of the lesson for students to review at later times while Bookshare and Newsela are online level reading options. Padlet helps students create and collaborate in demonstrating their knowledge in an alternative manner. Bubbl.us is an online mapping tool that assists students with cognitive disabilities. The software takes notes, organizes information and structures writing for plans, papers, and reports. Using these technological tools to accommodate and differentiate instructional lessons provides students with 21st-century skills as well as addresses the process, product, and pace of differentiation.

Corbett, Dumareq, and Tommasini (2021) affirmed that a proper inclusive environment is vital since it ensures that students feel welcomed and valued as members of the school community. Fuentes et al. (2021) postulated that an inclusive syllabus also encourages intercultural interactions and supports the sharing of diverse experiences and perspectives. Germano and Nicholls (2020) believed that these components are essential for all students to feel welcomed and valued as members of the school community. Mind-mapping technological tools such as MindMeister, Bubbl.us, and Mindomocan assist in fostering culturally responsive instructions by developing intercultural competence through inquiry-based projects. This will then allow students to reflect on the cultural patterns influencing their assumptions and preconceptions, compare them with others, and adapt emphatically to new ways of thinking and accomplishing goals (Moore, Brantmeir, and Brocheild, 2017). According to Fuentes et al. (2021), this directs educators to include socio-cultural factors in inquiry-based learning, promote intercultural interactions in collaborative learning activities, and open doors for students to exhibit self-efficacy and self-regulation. Besides that, these mind-mapping technological tools may serve students to brainstorm complex social justice issues and build on their prior knowledge through the sharing of perspectives.

Technology and the Syllabus

Moore, Brantmeir, and Brocheild (2017) believed that to meet the diverse needs of students and to overcome the inconvenient barriers to accessibility, an inclusive syllabus should be designed with screen-reader capabilities and a myriad of display formats. Apart from that, an inclusive syllabus should reiterate the exigence of office hours where greater support and guidance can be provided by educators (Fuentes et al., 2021). This is necessary to create a welcoming school environment in which students can interact, dialogue, ask relevant questions and gain mentorship from faculty members outside of regular class sessions. Chambers (2020) noted that technology is a strategic element of inclusive education and suggested that

the use of assistive technology (AT) can stimulate students with disabilities. McNicholl et al. (2021) defined AT as tools designed to improve the overall wellbeing of persons. In one study, McNicholl et al. (2021) found that AT bolstered academic engagement and participation. Students who use ATs in this study were better able to achieve academic tasks easily. This in turn allowed them to willingly partake in course material, thereby improving their learning and performance. Assistive technologies such as Calendly can be employed to overcome the time-consuming back-and-forth email challenges of scheduling office hour meetings. Moreover, the convenience of using Calendly expeditiously initiating a meeting with a faculty member could encourage those students who may be introverted, shy or more likely to avoid interacting with a faculty member to take advantage of the opportunities of mentoring. In so doing, this will contribute to their future professional endeavours in a positive manner. Each student can choose to meet with faculty members via videoconferencing, teleconferencing, face-to-face or any other preferred medium. Whether the office of the teachers is located on the ground floor or on the 10th floor that is only accessible via a staircase, all students are provided with a gamut of options for guidance and mentorship from their professor outside of regular class sessions.

Corbett et al. (2021) stated that over the last decade, there has been a growing trend in fostering inclusive education. This has reshaped the traditional student placement approach whereby separate classes were held for students with special needs or learning disabilities. Gregory (2018) affirmed that over the years, this same traditional placement of students only promoted exclusion, superiority, and harboured the formation of stereotypes. Gregory (2018) also postulated that inclusion of students with disabilities goes beyond physical involvement in educational settings towards ensuring that teaching methods and assessment practices provide infinite pathways to success. This may be achieved by cultivating a Universal Design for Learning (UDL) approach with the aim of accommodating a broader range of learning abilities and preferences. Kelly (2014) recommended the following technologies for encouraging UDL in inclusive syllabus: Assorted options of representation, Text-to-Speech Software, Talking Calculator, Audio Books, Visual Dictionaries, Mind-mapping software, Multiple options of action and expression, Speech-to-Text Software, Video Animation, Podcast, Multiple options of engagement, Wikis, Blogs, Shared Google Docs, Calendly and, last but not least, Self-paced Interactive and Quizzes.

Educators should make a concerted effort to identify appropriate technologies that would facilitate the components of an inclusive classroom. They must remember that an inclusive classroom ought to ensure that all students experience a sense of belonging. Hence an inclusive classroom appreciates and supports each member of the class. Another important component of inclusive education is determining the expectations of students and teachers. Educators can develop a GoogleDoc and spur students to

establish the rules and guidelines of the activity that they wish to comply with. Ismailov and Chiu (2022) accepted that it is important to guarantee that diversity is maintained in the delivery of the syllabus and designed to meet the needs of all students. Hooijer et al. (2021) noted that educators ought to be involved in regular and consistent reflection; both being prerequisites to challenging educators to reconsider and re-think their attitude towards improving an inclusive environment. Educators are within their right to schedule lessons in such a way that they can be accessed asynchronously. They can record the synchronous sessions and provide interactive learning resources for students. All goals and objectives would be clearly outlined, and students would be able to access the learning materials in their own time. Educators can also make learning materials available offline in the form of e-books, digital audiobooks, and digital braille books. This is critical since lack of connectivity and poor internet service could act as a problem.

The “Ideal” Inclusive Environment

United Nations. (2017) asserted that inclusive education is a combination of values, ideas, and practices that aims to provide all students with a more effective and meaningful education. They further indicated that through inclusion students can have equal education opportunities. United Nations. (2017) firmly advocated that inclusion values and appreciates the unique contributions of all children. Inclusion allows various groups to coexist and grow together for the benefit and good of all. Students from many groups, including those with special needs and disabilities, females, pupils at risk, and members of ethnic minorities all constitute inclusive education. According to Dalton (2017), intercultural sensitivity, intercultural competence, and intercultural awareness are essential for effective inclusion. When one considers inclusive education, the following ought to be evident: All students, notably those with disabilities, must be included in the curriculum. Some disabilities will include hearing impairments, physical disabilities, mental retardation, and learning disabilities; even the gifted and talented.

In addition, Mag et al. (2017) strongly advised that inclusion must also tie in children of diverse races, cultures, and ethnic and cultural backgrounds. Therefore, an inclusive environment should be both welcoming and protect children from danger and strive to educate them. Teachers must do their best to make sure students receive quality education. Consequently, the regular curriculum should be reformed to accommodate all students. Mag et al. (2017) suggested that adequate opportunities ought to be provided so that all students maximize their potential. Inclusive education integrates the following: acceptance, accessibility, and assessment reform. It also means that students must enjoy a deep sense of belonging where respect for all is important. To accomplish these components of inclusion, educational institutions are obligated to accept and embrace changes to meet the needs of all students. This means that educators

ought to have an in-depth knowledge of students and be willing to adapt to the teaching and learning process if required to do so.

Nurdyansyah et al. (2022) indicated that numerous barriers prohibit educators from successfully using modern technology in the classroom. Some educators are not competent in using technology while others lack proper teaching strategies to an acceptable degree. They further believed that some digital materials such as those designed for assistive technologies may be neither compatible nor accessible. Bartz (2020) and Fitchen et al. (2009) stated that there are times when content is not organized when presented and this can hamper teaching and learning. This, in turn, can arrest academic progress for students who rely on assistive technology or have focus disabilities and learning attention.

There is also a great need to eliminate barriers to learning since some schools are still unwilling to accommodate students with special needs. Many educators are also unaware of students with disabilities and may not have the most suitable attitude to address their needs. Some educators are not properly trained to address issues with disabilities. Very often classes are overcrowded, and students cannot secure the attention they deserve. Ergo, the entire teaching and learning process is gravely restricted, and the curriculum fails to be student-centered. A great number of educational institutions meet with inadequate infrastructure thereby closing students off to the relevant tools needed to cater to their learning needs. Lack of resources for inclusion poses a major problem as well, along with parental and community involvement. Likewise, poor collaboration and lack of support among peers, parents, teachers, schools, stakeholders, and even the Ministry of Education are repeatedly at the forefront. Makwana (2022) stated that branding refers to the classification of children based on their disability and does not foster inclusion. This issue must be addressed immediately on account of it being a matter of grave concern. Children with special needs dislike being stigmatized because they feel rejected.

Challenges with LMS

(Dube et al. 2022; Tsakeni, 2021) mentioned that although the use of technology is diverse and facilitates online teaching, there are limitations. Some educators and students may not be knowledgeable about technology and the use of LMS, and this can limit its effectiveness. (Wang et al. 2012) opined that there is a need to periodically equip educators with the necessary skills and knowledge to dominate and perfect the use of LMS (Pramesworo et al. 2023). In addition, some educators may not even have functioning computers, and this poses a grave problem to properly integrate technology in the curriculum. If educators and students want to embrace LMS, the traditional teaching and learning methods need to be addressed and if there is resistance to change, it could significantly hinder progress. In some rural areas, limited access to technology can hinder the implementation of LMS. In addition, it is expensive to implement LMS.

METHODOLOGY

Using current sources, methodical review, and meta-analysis apposite and germane information was obtained from September 2023 to January 2024. Some of the courses included PubMed, ERIC, IEEE Xplore, Scopus and Web of Science. A rigorous, structured, and personal screening of selected journals was also conducted. To properly maintain the aim and objective of this research and simultaneously find current and suitable literature, the following terms and words were used: learning management system, Moodle, blended learning, curriculum design, asynchronous, and synchronous. To further ensure a comprehensive search, synonyms and alternative terms were considered. Articles were included only if they focused on LMS and discussed strategies, best practices, or methodologies that contribute to teaching and learning and were published in peer-reviewed journals. Thus, this non-empirical research involved a careful and thorough investigation of appropriate research techniques such as text criticism, critical examination of biographical studies, and narrative analysis.

LIMITATIONS

While this study contributed to the understanding of how LMS shapes learning, there were limitations. The methods highlighted personal observations, integrative literature, reflection on current events, and the authority and experience of authors but it was not grounded on observation and experimentation. Since the arguments offered were not supported by empirical data, they are susceptible to criticism. This research may have excluded relevant studies because it was not possible to capture all the information available in online databases. This research did not include fieldwork and the actual experiences and opinions of those who use LMS. Further studies could incorporate both non-empirical and empirical methods which could embrace both the field of science and the research outcome being analyzed.

CONCLUSION

It is without doubt that LMS harnesses and fosters inclusion and Gregory (2018) and Kelly (2014) rightly affirmed this position. This non-empirical research can certainly impel and incite educators to be acutely cognizant of the great significance of using LMS. Regardless of the ability of students, all will be provided opportunities to exercise their autonomy in expressing their knowledge and monitoring their learning progress. The teaching and learning process will be enhanced and cognition will be optimized. Supplementary aids and services (SaS) lend opportunities for all students to be actively engaged in learning. It must be remembered that creating inclusion is much more than a physical space or designated classroom. It is more than being empathetic and demonstrating sympathy. It is more than expressing a desire to be committed. It means getting seriously and wholeheartedly involved in the lives of students. An inclusive environment encompasses diversity, equity, and equality in the classroom and is student-centered. This paper

also highlighted that LSM systems are potent avenues to underscore education and incorporate inclusion.

Recommendations

Based on the foregoing the following recommendations are offered:

1. Education should invest more in LMS systems.
2. Conduct regular and systematic needs assessment.
3. Pay attention to the experiences of educators and students.

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