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Research Article

Utilization of Learning Resource Management System in Kindergarten: Basis for a Training Program

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Abstract
One factor contributing to teachers' limited use of the learning resources in the LRMDS framework is the absence of continuous professional development and assistance in applying the LRMDS framework. Hence, this study focuses on developing an effective program that will enhance the competency of kindergarten teachers in using the LRMDS framework. This study employed a descriptive-quantitative research design wherein the data gathered revealed that a majority of the respondents were 31 years old and above, female, college graduates, mostly in the position of teacher III, and have been working as educators for 6-10 years. It was also revealed that in terms of utilization level, the LRMDS framework was used to a moderate extent, and it was also used as technical support. Moreover, the LRMDS framework is effective in supporting early childhood education by promoting student engagement and reducing the time needed to prepare teaching materials. The challenges experienced in using the LRMDS were the lack of administrative support and limited parental support. It was also found that there is no significant difference between the responses of kindergarten teachers on their perception of the LRMDS framework about age, position, highest educational attainment, and length of service. There is a significant difference between the responses of kindergarten teachers on their perception of the LRMDS framework regarding sex. Hence, this study recommends the use of the training program for enhancing kindergarten teacher competency in using learning resources, which is the output of the study.
Keywords: LRMDS Framework, Kindergarten Teachers, Early Childhood Education, Teacher Competency.

Introduction

Learning resources can be traced back to the overall educational development framework, wherein tools, materials, and technologies are utilized in the instruction and learning process (Paredes-Baan, 2021). The traditional chalkboards and printed textbooks through to modern digital platforms reveal that the central roleplayed by learning resources has enhanced the outcome of education (Haleem *et al.,* 2022). The development of the learner's fundamental skills is greatly influenced by the efficient administration and use of these resources in the classroom.

Subsequently, learning resource management systems (LRMS) have been developed as essential components of modern education, streamlining the organization, delivery, and optimization of learning materials (Bradley, 2021). Their application differs across countries, addressing unique educational requirements and leveraging technological advancements (National Center for Education Statistics, 2022). For instance, the Hawaii Department of Education (2019) employs a curriculum management system (CMS) that sets forth clear procedures and guidelines for standards-based teaching and learning. This system supports educators in accessing and utilizing approved learning resources, significantly enhancing learners' learning development through significant improvements in their cognitive, affective, and psychosocial domains.

Similarly, the University of the Witwatersrand in South Africa implemented a learning management system to improve the quality of teaching and learning, offering a model for organizations looking to implement comparable systems. This has demonstrated significant gains in learners' motivation and learning performance, as well as an increase in teachers' professional development and effectiveness as teachers

(Gamede *et al.,* 2021). Meanwhile, in the Philippines, the Department of Education Learning Resource Portal (LR Portal) is one of the best examples of the use of LRMDS in the Philippines. It is a centralized site where teachers, students, and administrators can view a vast collection of digital and print instructional materials, including lesson plans, e-books, and multimedia resources. The portal is aligned with the K–12 curriculum to ensure that the content is consistent with the national learning standards (Potane *et al.,* 2022). There is an assumption that through learning resource management systems, access along with enhanced efficiency is still complemented further by the achievement of standardized education in diverse settings (Rafiq and Hashim, 2019). By effective use of the system, there is a solid foundation for achieving quality learning, therefore making it an optimum foundation for lifelong learning and development.

The researcher believed that continuous study and research are warranted to further improve LRMS and be more responsive to emerging educational trends, technological developments, and evolving needs of learners and teachers. International Sustainable Development Goals (SDGs) urge the improvement of these systems, especially Goal 4 of the World Health Organization (2022), trying to guarantee that everyone has access to high-quality, inclusive education and opportunities for lifelong learning. By determination and innovation, LRMS can become a useful tool for the establishment of an innovative and sustainable worldwide education system.

Teaching knowledge in the early years of education, especially in kindergarten, is an important factor in laying the groundwork for a child's education and social life (National Research Council, 2019). Children at this age learn fundamental ideas, interpersonal skills, and a love for learning, all of which contribute to their total academic success later in life (Ferreira *et al.,* 2021). The importance of well-constructed learning materials cannot be overemphasized, as this makes an interactive and caring learning environment possible. These range from tangible items such as books and manipulatives to computer programs, and they encourage exploration, imagination, and interactive learning, all of which are the cornerstones of early childhood education (Eden *et al.,* 2024). With the growing need for systematic and accessible learning materials, the Philippine Department of Education (DepEd) launched the learning resource management and development system (LRMDS) framework. As explained by Tan Nery and Dulay (2024), the LRMDS framework was designed to ensure a systematic approach to developing, managing, and disseminating learning resources aligned with curriculum standards and made available to all educators. Its alignment with learning materials ensures that kindergarten teachers are offered diverse tools not only appropriate for young pupils but also in accordance with national education goals (Almasa, 2020). With the inclusion of the LRMDS framework within kindergarten settings, educators can more effectively utilize resources that enhance the learning process, support multiple learning styles, and provide a holistic approach to early childhood education (Tankersley, 2023).

There are a number of gaps in the local application of the learning resource management and development system (LRMDS), especially in kindergarten settings, given the clear relevance of learning resources to early childhood education. One key gap is the low usage level of existing learning resources by teachers. Though the LRMDS system has a variety of materials that are aligned with curriculum standards, the majority of kindergarten teachers cannot implement all these resources in their teaching practices. This is generally because they are not familiar with the system features and how to access and use the resources appropriately.

Significantly, the Lipa City Division Office reports that some teachers, documented through the results-based performance management system (RPMS), have complained of not having received the proper training to utilize the LRMDS platform. Without proper training, the facilities available have been underutilized or misused. Furthermore, even when materials are available, teachers may lack the resources or time to tailor them to specific students, especially where there are diverse learning styles and levels of development in a class. In other instances, instructors employ conventional resources such as paper textbooks and whiteboards since they are more familiar with them, or they are readily available. Lastly, the lack of ongoing professional development and guidance in applying the LRMDS framework is a contributing reason why teachers have low utilization of these tools. Therefore, although there are valuable resources to be accessed via the LRMDS, the potential of such tools is not maximized, and their potential to enhance learner learning and advancement is limited.

The researcher believes that an excellent program to improve kindergarten teachers' competence in the use of the learning resource management and development system (LRMDS) is most important. This would mean that teachers are properly oriented, supported, and enabled to maximize the use of available learning

resources, which would mean improved learner performance and a more vibrant and stimulating learning process for young learners.

Review of Literature

Utilization of Learning Resources Based on Profiling

Teacher profiling is imperative to inefficient learning resource management. By identifying teachers' strengths, weaknesses, and preferences, institutions can provide professional development in such a manner that they are taught skills they require to implement and utilize resources (Albion *et al.,* 2015). Profiling, as conceived by Rice (2019), can be utilized to identify which teachers would require additional support or training in each subject matter, i.e., technology integration or differentiated instruction. In addition, the knowledge of what teachers need and want enables institutions to identify and provide resources that are simple to use, accessible, and pertinent to teachers, which facilitates adoption and effective implementation in the classroom (Rupere and Jakovljevic, 2021). Vázquez-Cano *et al.,* (2023) concur that age significantly contributes to the determination of the preference and uptake of learning materials among teachers. Younger teachers, being more at ease with technology, are able to adapt digital materials easily, while older teachers prefer being comfortable with tried and tested traditional ways. This agrees with the understanding that ease levels with technology generally correlate with age. At the same time, senior teachers would have learned some teaching methods and procedures that they are accustomed to. The advent of new technologies can potentially disturb routines, resulting in resistance or reluctance to adopt them (Tariq *et al.,* 2019).

Cultural and social stereotypes may also dictate the perception of male, and female educators have about what their role is and should be. Such stereotypes may unconsciously affect the type of resources utilized. Male instructors, for instance, might embrace technology-driven tools more than women, while others might prefer student-focused or collaborative styles of teaching (Tabassum and Nayak, 2021). Alieto *et al.,* (2024) recognize potential gender differences in technology perception and utilization in educational settings. The current study suggests that there could be influences from societal and cultural aspects in terms of how male and female educators perceive and implement technology and possibly the preference for alternative learning resources. Lawrence *et al.,* (2019) point out the impact of teacher roles on the use of resources. The two research studies imply that educators in various roles (e.g., classroom teachers, subject experts, school leaders) have different responsibilities, access to resources, and powers to make decisions, which determine their resource selection and strategy to implement them. In support, Al-Fraihat *et al.,* (2020) discussed that instructional roles played by teachers like classroom teachers, subject experts, and special education teachers could greatly determine their choice of resources. Such teachers with professional roles may need diverse resources in order to play their roles appropriately.

Kulshrestha and Kant (2013) recognize the close relationship between teacher education and the effective application of technology. Higher education tends to produce better-prepared instructors with enhanced pedagogical skills and a deeper understanding of the effective use of technology in the classroom, according to the research. To elaborate further about Mayantao and Santiago (2024), more experienced teachers will probably have had greater exposure to and experience with technology, making them more at ease and competent when it comes to incorporating it into their lessons. Munna and Kalam (2021) acknowledge that teachers' attitudes about and usage of learning tools are greatly influenced by their teaching experience. This author argues that although seasoned educators may have important pedagogical skills, they may also be less open to new technology and more resistant to change than their more recent counterparts. Additionally, Umali (2024) noted that seasoned educators may be hesitant to change due to their ingrained teaching habits and favored approaches. These deeply embedded routines may be disrupted by the introduction of new technology, which may cause resistance or hesitancy in adopting them.

Learning Resources Alignment to Educational Implemented Framework

As stated by Meng (2023), learning resources must align with the adopted educational framework to increase teaching effectiveness and student accomplishment. Educators and learners have a clear way to go when these learning tools completely meet the standards, competencies, and learning objectives established by the curriculum. When learning experiences are meaningful and cohesive and aid in the development of desirable information, abilities, and attitudes, they are said to be aligned (Alonzo *et al.,* 2023).

However, Alsaleh (2020) explained that misalignment between resources and the framework may have negative implications. For example, if the textbooks cover something different from the standardized test assessments, students might get confused or frustrated. Students are unable to think at a higher level when

resources fail to adequately address skills like critical thinking and problem-solving, which are highly emphasized in the framework.

Several strategies can be used to enhance alignment. Ajani (2023) suggested that the active involvement of teachers in the selection, review, and development of learning resources is important. Teachers possess valuable insights into student needs and classroom realities and are, therefore, ideal partners for ensuring resource appropriateness. The second phase is to provide instructors with thorough professional growth on the pedagogical framework and appropriate usage of aligned resources. Peer-to-peer learning, online courses, and workshops could all be used for this (Philipsen *et al.,* 2019).

Challenges in Utilization of Learning Resources

Several problems impede the effective use of learning materials in schools. Problems arising from teachers are very clear, as identified in research conducted by Celik (2023) on technological pedagogical content knowledge (TPACK). They believe that for technology integration to be successful, teachers must have an in-depth knowledge of how technology may be used to improve student's learning in specific fields of study. However, TPACK is not possessed by most teachers, who are unable to successfully incorporate technology and other varied resources within their teaching. The argument is further supported by evidence from Hennessy *et al.,* (2022), indicating that teachers do resist technological advancements because of insufficient training and support. The study shows how important professional development is for teachers in resolving these kinds of problems. Çam and Koç (2024) stress the necessity for quality professional development that assists in developing teachers' pedagogical content knowledge, technology expertise, and confidence in using technology to get things done. Such training must go beyond the fundamentals and provide educators the chance to try new things, work together, and evaluate their methods.

Implementation Issues

Successful use of learning resources demands systematic planning and evaluation. Research conducted by Culduz (2024) stresses the role of school transformation processes and that of leadership in building an effective climate for change and innovation. Unclear guidelines and policies, in case they exist, governing the choice, acquisition, and distribution of resources can translate to inefficiencies and confusion. Celeste and Osias (2024) underscore the instrumental role played by infrastructure in aiding technology integration. Poor infrastructure, including unstable internet connectivity, inadequate technology infrastructure, and inadequately equipped libraries, can severely restrict access to and use of resources. This can pose serious barriers to both teachers and students. In addition, research by Haile and Mekonnen (2024) highlights the need for collaboration and communication among stakeholders. Lack of coordination and cooperation between teachers, administrators, curriculum developers, and other stakeholders can adversely affect effective implementation and use of resources. Implementing effectively entails a coordinated effort where all the stakeholders are involved in decision-making.

Resource Constraints

Resource constraints and financial and material resource limitations are major roadblocks to the efficient use of resources. Studies by Ondong (2024) demonstrate how important it is to allocate resources and have enough money to support high-quality education. Purchasing essential resources like technology, textbooks, and other educational materials is sometimes hampered by financial limitations. This may result in instructors and students having limited access to educational materials. Access inequalities, particularly among disadvantaged groups, magnify learning inequalities and hinder student learning. This is also supported by Afzal et al.'s (2023) study that describes the digital divide and the need to give everyone equal access to technology and other resources. Gouëdard *et al.,* (2020) research also highlights the necessity of providing teachers with access to relevant and updated materials. Old resources, e.g., ancient textbooks or outdated software, might not provide the latest knowledge, skills, and technologies and hence might be less adequate in educating students for the 21st century. Low numbers of available resources, e.g., the unavailableness of textbooks or computers, can also restrict students' access and participation in learning activities.

Results and Discussion

Respondents Profile in Terms of Age, Sex, Position, Highest Educational Attainment and Length of Service

Table 1 presents the distribution of the respondent's profile in terms of age. The data in the table shows the age distribution of the study's selected respondents of which were categorized into age ranges which represents age populations among the respondents.

Table 1. Distribution of the respondent's profile in terms of age.

Age	Frequency	Percent
21-25 years old	15	21
26-30 years old	20	29
31 years old and above	35	50
Total	**70**	**100.0**

The respondents were divided into three (3) age groups, as can be seen in the above table. Given that this category received a frequency of 35, or 50.0% of the participants, most respondents among these three are between the ages of 31 and over. As a result, the age group of 21–25 years old makes up the minority of respondents, with a frequency of 15, or 21%. Based on the data collected from the respondents, the majority of respondents were middle-aged, which is defined as those who are 31 years of age or older. Given that most responders were within this age range, it indicates that they have an extensive amount of teaching experience, which gives them a wide range of scenarios to compare while utilizing the LRMDS according to their preferences and teaching experiences. Furthermore, considering their wide range of experience, the respondents will be able to make more informed and reflective decisions when using the LRMDS.

This was in parallel with Vasquez-Caño *et al.,* (2023), in which, in his study, it was agreed that instructors' preferences and uptake of learning tools are strongly influenced by their age. Younger educators, who are typically more tech-savvy, adopt digital tools with ease, but older educators could have a greater preference for tried-and-true, conventional approaches. This study's findings support this concept, considering most of the respondents in this age bracket may be more selective in integrating the LRMDS in the classroom based on their teaching strategies and professional experience.

Table 2. Distribution of the respondent's profile in terms of sex.

Sex	Frequency	Percent
Female	43	61
Male	27	39
Total	**70**	**100.0**

Table 2 shows the distribution of the respondent's profile in terms of sex. The frequency distribution of both male and female respondents was categorized in the table below. As seen in Table 2, given that the examined frequency was 43, or 61% of the population, the majority of teacher respondents were female. However, just twenty-seven (27) of the study's responders were male, making up 39% of the total. Based on data gathered from respondents, teachers were predominantly female, with only a small proportion of respondents being male. This suggests that the participant replies will primarily reflect the viewpoints of female teachers regarding the use of LRMDS. Hence, the viewpoints or reflections being discussed in this study may only be presented based on the preferences of female educators.

Educator profiling is crucial to the efficient use of learning resources. By understanding teachers' preferences, capabilities, and limitations, institutions can tailor professional development to equip them with the knowledge and abilities they need to effectively deploy and use a range of resources (Albion *et al.,* 2015). Societal and cultural preconceptions influence the way both male and female educators view their roles and responsibilities. These prejudices may influence choices of resources. According to some research, for instance, male educators are more inclined to use technology-based resources, whereas female educators could choose more collaborative or student-centered methods (Tabassum and Nayak, 2021).

Table 3. Distribution of the respondent's profile in terms of position.

Position	Frequency	Percent
Teacher I	22	31
Teacher II	21	30
Teacher III	27	39
Total	**70**	**100.0**

The distribution of the responder profile by position is seen in Table 3. As can be seen from the table, the positions of the seventy (70) instructors who were selected to participate in the study were represented by three (3) groups. Given that this group had the greatest frequency of 27 or 39% of the respondents, the data indicates that most respondents were in the position of teacher III. On the other hand, because teacher II had

the lowest frequency of 21 or 30%, the minority held this stance. In connection with this, the data indicates that the majority of the teachers were highly skilled in their field and possibly employed for a considerable amount of time, thus suggesting that the teachers have earned valuable experience that would help in their assessment of the use of LRMDS. Aside from this, since the teachers have acquired an extensive number of skills and experience, these experiences will enable them to contribute to the evaluation of the LRMDS and its use within the classroom. Noting that the teachers were majorly influenced by their years of practical application, professional development, and exposure to diverse instructional challenges.

In connection with this, Lawrence *et al.,* (2019) draw attention to how teacher positions affect how resources are used. According to both research, teachers in various roles-such as subject matter experts, classroom teachers, and school administrators-have distinct duties, access to resources, and decision-making authority, all of which inexorably influence the resources they choose and the ways in which they use them. Considering that most of the respondents have high positions in their educational institutions, they have a higher level of autonomy in contributing to the educational institution's plans and decision-making process. Thus, they can influence the integration and use of the LRMDS in the classroom.

Table 4. Distribution of the respondent's profile in terms of highest educational attainment.

Highest educational attainment	**Frequency**	**Percent**
College graduate	24	34
Masteral graduate	23	33
With MA units	23	33
Total	**70**	**100.0**

Table 4 presents the distribution of the respondents' profiles in terms of highest educational attainment. The highest educational attainment of the respondents was categorized as a college graduate, master graduate, and with MA units, which are presented above in the table. According to the table's data, college graduates made up the majority of the respondents. Considering the frequency of 24 or 34%. Whereas, both masteral graduate and with MA units obtained the same frequency of 23 which represented 33% of the respondents. In connection to this, according to the table's data, the majority of responders hold a bachelor's degree. At the same time, many were pursuing master's degrees in order to advance their professional abilities. This shows that the respondents give importance to professional development to learn new skills and improvements incorporated in the education sector. In addition to this, the incidence in which teachers are actively pursuing graduate-level qualifications denotes that the teachers value the need to deepen their content knowledge and be updated with innovations in teaching pedagogies and instructions that require the use of technology to catch up on today's demand of incorporating technology into learning.

Effective use of technology and teacher education are strongly correlated, according to Kulshrestha and Kant (2013). As to the survey, teachers who hold postgraduate degrees tend to be more prepared, possess greater pedagogical competency, and understand how to effectively integrate technology into their lesson plans. Additionally, as stated by Mayantao and Tantiado (2024), higher-educated educators could be more accustomed to using technology, which might increase their comfort level and confidence when integrating it into their class plans.

The distribution of the responder profile by duration of service is displayed in Table 5. Additionally, a range was created to classify the instructor responders' years of service. Years ranged from one to two years, three to five years, six to ten years, and eleven years and up.

Table 5. Distribution of the respondent's profile in terms of length of service.

Length of service	**Frequency**	**Percent**
1-2 years	12	17
3-5 years	15	21
6-10 years	25	36
11 years and above	18	26
Total	**70**	**100.0**

Since this group received a frequency of 25, or 26% of all responses, the statistics indicated that most respondents had been teachers for between six and ten years, as the table illustrates. In addition, the minority of respondents had been instructors for one to two years, which is reflected in the frequency of 12, or 17%. In connection with this, the data indicates that the teachers have been employed by their respective

educational institutions for a considerable amount of time. As such, this data coincides with the teacher's age and position since it was revealed that the chosen respondents have been teaching for a long period. Hence, these respondents have gathered sufficient work-related experience that will aid them in providing their perspective on the use of LRMDS.

Considering the experiences they've obtained over time will help in critically evaluating the implementation of the LRMDS based on their first-hand experience. Munna and Kalam (2021) acknowledge that teachers' attitudes about and usage of learning tools are greatly influenced by their teaching experience. This author argues that although seasoned educators may have important pedagogical skills, they may also be less open to new technology and more resistant to change than their more recent counterparts. Additionally, Umali (2024) noted that seasoned educators may be hesitant to change due to their ingrained teaching habits and favored approaches. These ingrained habits may be upset by the introduction of new technology, which may cause resistance or hesitancy to embrace them.

Extent of Utilization of LRMDS Framework in Terms of Utilization Level and Resource Type

Table 6. Extent of utilization of kindergarten teachers of learning resources aligned with the LRMDS framework in terms of utilization level.

As a kindergarten teacher, I ...	**Mean**	**SD**	**VI**
1) Use printed materials such as textbooks and worksheets aligned with the LRMDS framework to support structured content delivery and curriculum objectives.	2.70	1.13	Moderately utilized
2) Integrate digital resources like e-books and educational websites from the LRMDS framework to provide interactive and updated content.	2.54	1.05	Moderately utilized
3) Incorporate multimedia materials such as videos and interactive games aligned with the LRMDS framework to enhance student engagement and learning.	2.64	1.20	Moderately utilized
4) Utilize audio-based resources like podcasts and audiobooks from the LRMDS framework to improve listening skills and auditory learning.	2.54	1.06	Moderately utilized
5) Rely on interactive digital tools such as educational apps and software aligned with the LRMDS framework to support gamified and hands-on learning experiences.	2.63	1.02	Moderately utilized
6) Use visual aids, including charts, posters, and infographics from the LRMDS framework, to make abstract concepts more tangible for young learners.	2.83	1.04	Moderately utilized
7) Regularly use online learning platforms and resources from the LRMDS framework to encourage self-paced learning and provide access to a variety of content.	2.44	1.15	Slightly utilized
8) Adapt print-based learning materials from the LRMDS framework to meet the diverse needs of students, ensuring inclusivity and addressing various learning styles.	2.67	1.15	Moderately utilized
9) Frequently use technology like projectors and smartboards to present multimedia content, when available, in line with the LRMDS framework to make lessons more interactive.	2.47	1.15	Slightly utilized
10) Use hands-on learning resources aligned with the LRMDS framework to facilitate experiential learning and allow students to engage directly with educational materials.	2.63	1.02	Moderately utilized
Overall mean	**2.61**	**0.43**	**Moderately utilized**
Legend: 3.51–4.00 = Highly utilized; 2.51–3.50 = Moderately utilized; 1.51–2.50 = Slightly utilized; 1.00–1.51 = Least utilized; VI: Verbal interpretation			

In terms of utilization level, Table 6 shows how much the kindergarten teachers used the learning resources that are in line with the LRMDS framework. The overall mean score was 2.61, indicating that the kindergarten teachers moderately used the learning resources. The use of visual aids, such as charts, posters, and infographics from the LRMDS framework, to help young learners understand abstract concepts was specifically the most frequently used learning resource by kindergarten teachers among the following indicators shown in the table. This has the highest calculated mean of 2.83, indicating that kindergarten

teachers use these learning resources moderately. On the other hand, employing online learning platforms and resources from the LRMDS framework to encourage self-study and provide users with access to a variety of materials on a regular basis had the lowest calculated mean (2.44), which was evaluated as moderately utilized by the respondents.

According to the table's data, kindergarten teachers most frequently used the LRMDS framework to effectively deliver their lectures to their students using educational tools like charts, posters, and infographics. This is advantageous because kindergarteners prefer visual aids, which help capture their attention while they are learning. Aside from this, the use of self-paced learning was least implemented since kindergarten students are best taught through hands-on learning, wherein teachers should closely monitor their learning progress.

Using instructional resources effectively is a crucial part of student learning. It has been discovered, nevertheless, that teachers use a wide range of resources. Depending on teachers' attitudes, beliefs, and level of technical skill, resource usage varies greatly (Li *et al.,* 2019). Instructors are more likely to incorporate a specific resource type into their lessons if they believe in its worth (Aina and Abdulwasiu, 2023). Thus, developing a good attitude toward their work and improving their classroom technological skills might help them maximize the LRMDS.

The extent to which kindergarten instructors employ resources that are in line with the LRMDS framework is shown in Table 7. The degree to which kindergarten instructors employed learning materials in terms of resource type was also evaluated using nine (9) indicators. The respondents used the learning materials in terms of resource type moderately, according to the overall mean of 2.61 that was calculated from the replies. Since this had the highest computed mean of 2.93 and was verbally interpreted as moderately utilized, the study participants' most common response was to seek adequate technical support for the use of LRMDS-aligned resources, ensuring effective utilization of digital and multimedia tools in the classroom.

Table 7. Extent of utilization of kindergarten teachers of learning resources aligned with the LRMDS framework in terms of resource type.

As a kindergarten teacher, I …	**Mean**	**SD**	**VI**
1) Ensure access to sufficient LRMDS-aligned learning resources for teaching needs, supporting effective planning and instruction.	2.53	1.00	Moderately utilized
2) Integrate LRMDS-aligned resources into lesson plans and daily classroom activities to ensure their role in achieving learning objectives.	2.63	1.07	Moderately utilized
3) Seek adequate technical support for the use of LRMDS-aligned resources, ensuring effective utilization of digital and multimedia tools in the classroom.	2.93	1.03	Moderately utilized
4) Participate in training programs focused on the effective use of LRMDS resources to enhance teaching practices and technology integration.	2.56	1.14	Moderately utilized
5) Use LRMDS-aligned resources to actively engage students, encouraging participation and fostering critical thinking.	2.51	1.18	Moderately utilized
6) Employ LRMDS resources to manage classroom activities and maintain a productive learning environment.	2.39	1.05	Slightly utilized
7) Align LRMDS resources with the kindergarten curriculum to ensure that materials meet learning standards and enhance instructional delivery.	2.67	1.06	Moderately utilized
8) Apply LRMDS-aligned resources to differentiate instruction for diverse learners, providing personalized learning experiences.	2.66	1.08	Moderately utilized
9) Use LRMDS resources to assess student progress and adjust teaching strategies as needed to support continuous improvement.	2.63	1.04	Moderately utilized
Overall mean	**2.61**	**0.43**	**Moderately utilized**
Legend: 3.51–4.00 = Highly utilized; 2.51–3.50 = Moderately utilized; 1.51–2.50 = Slightly utilized; 1.00–1.51 = Least utilized; VI: Verbal interpretation			

Using LRMDS resources to oversee classroom activities and preserve a positive learning environment, on the other hand, was the least often done task since it received the lowest calculated mean of 2.39 and was orally characterized as being only marginally employed. The data from the table indicates that in terms of resource type, kindergarten teachers commonly prefer seeking technical support to guide them in the use of LRMDS-aligned resources. This is to ensure that the LRMDS was incorporated and maximized to its full use in the classroom. Aside from this, kindergarten teachers should also focus on understanding the potential use of LRMDS resources to manage classroom activities since this may help efficiently deliver lessons among kindergarten students.

The selection of educational materials has a big influence on the learning process. Although traditional textbooks are still useful, there are more and more interesting opportunities to engage and motivate students thanks to the growing availability of digital tools, including interactive simulations, online learning platforms, and multimedia presentations (Yadav, 2024). Additionally, teachers' competency with creative teaching tools and their ability to use these resources is intimately tied to their ability to integrate technology into the classroom. Hence, there is a clear need to expand their understanding of the use of these tools.

Kindergarten Teachers' Perception of the Effectiveness of the LRMDS Framework in Supporting Early Childhood Education Goals in Terms of Effectiveness Rating and Impact Assessment

Table 8 shows the perception of the effectiveness of the LRMDS framework in supporting early childhood education goals in terms of effectiveness rating. Ten (10) indicators were used to evaluate the perception of the kindergarten teachers, which revealed an overall mean of 2.57 and was verbally interpreted as agree, which indicates that the kindergarten teachers mostly agree that the LRMDS framework is effective in supporting early childhood education goals. Based on the data shown in the table, the respondents mostly agreed that the LRMDS-aligned resources enhanced student engagement during classroom activities since this gained the highest computed mean of 2.71. Most respondents disagree that the materials developed under the LRMDS framework are aligned with the early childhood education curriculum since this obtained a computed mean of 2.40.

Table 8. Perception on the effectiveness of the LRMDS framework in supporting early childhood education goals in terms of effectiveness rating.

As a kindergarten teacher, I ...	**Mean**	**SD**	**VI**
1) The LRMDS framework provides age-appropriate content tailored to the developmental needs of kindergarten students.	2.44	1.11	Disagree
2) The materials developed under the LRMDS framework are aligned with the early childhood education curriculum.	2.40	1.11	Disagree
3) LRMDS-aligned resources enhance student engagement during classroom activities.	2.71	1.07	Agree
4) The design and format of the LRMDS materials make them easy to use for young learners.	2.63	1.17	Agree
5) The framework supports variety of learning styles of learners, including visual, auditory, and kinesthetic.	2.54	1.10	Agree
6) The LRMDS materials easy to implement and effective for interactive and hands-on activities.	2.66	1.12	Agree
7) The framework includes clear step-by-step instructions for utilizing resources effectively in the kindergarten classroom.	2.57	1.07	Agree
8) LRMDS-aligned materials improve daily lesson planning and classroom activities.	2.56	1.11	Agree
9) The resources provided by the LRMDS framework meet the expected learning outcomes for early childhood education.	2.54	1.13	Agree
10) The LRMDS-aligned resources effective in promoting foundational skills like literacy, numeracy, and social interaction.	2.63	1.17	Agree
Overall mean	**2.57**	**0.49**	**Agree**
Legend: 3.51–4.00 = Strongly agree; 2.51–3.50 = Agree; 1.51–2.50 = Disagree; 1.00–1.51 = Strongly disagree; VI: Verbal interpretation			

Based on the collected data, the LRMDS framework was found to be effective in supporting the educational goals of early childhood education, especially in the area of student engagement. Specifically, the LRMDS framework was helpful in capturing the kindergarten students' attention. Furthermore, the findings imply

that the LRMDS fully meets the curriculum's developmental requirements, content standards, and learning objectives for early childhood education. However, it is important to remember that the LRMDS framework and the early childhood education curriculum should be in sync to ensure that the learners are given the correct lessons. To guarantee that the lessons included in the LRMDS are consistent with their curriculum, curriculum authors must adopt a more cooperative approach.

According to international research, it's vital to match materials with a range of learning requirements and styles, encourage active learning, and develop critical thinking abilities (Al Shloul *et al.,* 2024). Further evidence that engaging, interactive, and readily accessible materials should employ a variety of modalities, such as text, graphics, sound, and video (Sutrisno *et al.,* 2023).

Table 9 highlights the perception on the effectiveness of the LRMDS framework in supporting early childhood education goals in terms of impact assessment. A total of ten (10) indicators were used to evaluate the responses of the kindergarten teachers, which revealed an overall mean of 2.62, which shows that the kindergarten teachers agree that the LRMDS framework was effective in terms of impact assessment.

Table 9. Perception on the effectiveness of the LRMDS framework in supporting early childhood education goals in terms of impact assessment.

As a kindergarten teacher, I ...	**Mean**	**SD**	**VI**
1) Using LRMDS-aligned resources has improved the overall quality of teaching in the kindergarten classroom.	2.60	1.10	Agree
2) The LRMDS framework supports achieving kindergarten students' developmental milestones effectively.	2.63	1.14	Agree
3) Students show increased enthusiasm and participation when using LRMDS-aligned resources.	2.53	1.15	Agree
4) LRMDS materials positively influence students' readiness for advanced topics in the succeeding grade levels.	2.49	1.15	Disagree
5) The framework contributes to a more structured and organized teaching approach for kindergarten teachers.	2.74	1.05	Agree
6) There is an improved learning retention among students when using LRMDS-based activities and materials.	2.60	1.15	Agree
7) The use of LRMDS resources encourages collaboration and interaction among students.	2.56	1.10	Agree
8) The framework helps teachers address the diverse learning needs of students, including those with learning difficulties.	2.57	1.10	Agree
9) LRMDS-aligned resources have significantly reduced the time required for teachers to prepare supplementary teaching materials.	2.79	1.13	Agree
10) The LRMDS framework fosters a supportive learning environment that aligns with early childhood education goals.	2.69	1.15	Agree
Overall mean	**2.62**	**0.51**	**Agree**
Legend: 3.51–4.00 = Strongly agree; 2.51–3.50 = Agree; 1.51–2.50 = Disagree; 1.00–1.51 = Strongly disagree; VI: Verbal interpretation			

According to the table's statistics, the respondents most commonly agreed-with the highest computed mean of 2.79-that LRMDS-aligned resources have significantly reduced the amount of time instructors need to produce extra teaching materials. Respondents were less persuaded that LRMDS materials had a positive effect on students' readiness for more complicated courses in the following grade levels, as seen by the lowest computed mean of 2.49. This data indicates that the impact of the LRMDS framework was positive in terms of preparing supplementary teaching materials for teachers. This means that the LRMDS framework was beneficial in teaching, particularly among kindergarten teachers. The efficacy presented using the LRMDS is helpful in improving classroom delivery and facilitating more personalized student interactions. However, it was less beneficial among students primarily to use this framework as a means of being ready for advanced topics in learning.

To inform decision-making and raise the standard of education globally, it is critical to evaluate how learning resources influence students' learning, asserts (Yambi, 2020). This includes methodically assessing how much the use of some of these tools improves student performance, motivation, and engagement, develops critical thinking and problem-solving skills, and increases equality and the availability of high-quality education for all students. To achieve evidence of resource effect, global best practices emphasize the

employment of a range of data collection methods, including focus groups, teacher observation, student questionnaires, and assessments (Youssef *et al.,* 2024).

Challenges in Utilizing Learning Resources Aligned with the LRMDS Framework in Terms of Implementation Issues and Resource Constraints

Table 10 lists the implementation-related difficulties in using learning materials that are in line with the LRMDS framework. The kindergarten teachers' comments were assessed using ten (10) indicators in total. The results showed an overall mean of 2.60, indicating that the respondents agreed with the difficulties indicated by the indicators. According to the data in the table, respondents frequently encountered inadequate administrative support-such as training or resolving logistical issues-when addressing the implementation of LRMDS resources, as evidenced by the highest computed mean of 2.84. However, because it had the lowest calculated mean of 2.34, respondents were less likely to report a lack of alignment between the specific curricular demands of kindergarten students and the LRMDS materials that were accessible.

Table 10. Challenges in utilizing learning resources aligned with the LRMDS framework in terms of implementation issues.

As a kindergarten teacher, I ...	**Mean**	**SD**	**VI**
1) Observed limited access to appropriate and curriculum-relevant LRMDS learning resources for kindergarten education.	2.69	1.04	Agree
2) Have inadequate training and professional development on effectively using LRMDS resources in teaching practices.	2.67	1.06	Agree
3) Have insufficient time allocated for teachers to explore, adapt, or prepare LRMDS-aligned materials for classroom use.	2.67	0.96	Agree
4) Encounter frequent technical difficulties (e.g., login issues, slow downloads) in accessing or utilizing digital learning resources within the LRMDS platform.	2.57	1.10	Agree
5) Experience lack of alignment between the available LRMDS resources and the specific curriculum needs of kindergarten students.	2.34	0.98	Disagree
6) Have difficulty in combining LRMDS resources with traditional teaching methods and classroom activities due to limited compatibility or time constraints.	2.51	1.05	Agree
7) Encounter limited awareness among kindergarten teachers about the availability and benefits of LRMDS-aligned resources.	2.49	0.97	Disagree
8) Have inequitable distribution of LRMDS resources across schools, leading to disparities in access among teachers.	2.46	1.05	Disagree
9) Experience insufficient administrative support, such as providing training or resolving logistical issues, in addressing the implementation of LRMDS resources.	2.84	1.00	Agree
10) Have poor internet connectivity or absence of necessary tools (e.g., computers, tablets) hindering access to digital learning materials within the LRMDS framework.	2.79	1.05	Agree
Overall mean	**2.60**	**0.36**	Agree
Legend: 3.51–4.00 = Strongly agree; 2.51–3.50 = Agree; 1.51–2.50 = Disagree; 1.00–1.51 = Strongly disagree; VI: Verbal interpretation			

Given the data in the table, the respondents most frequently encountered two implementation-related challenges: inadequate training and overcoming logistical concerns. This gives rise to the minimization of the full implementation of the benefits of the LRMDS in teaching, considering that there is a lack of administrative support among the educational institutions of the respondents. Hence, this may lead to inconsistent or superficial utilization of the available tools for teaching, such as the LRMDS. This challenge should be addressed by the educational institution, primarily focusing on administrative support to ensure that the LRMDS framework is maximized in the institution and that it is beneficial among kindergarten teachers.

Research by Haile and Mekonnen (2024) highlights how crucial stakeholder cooperation and communication are. Effective implementation and use of resources can be hampered by a lack of coordination and collaboration between educators, administrators, curriculum developers, and other stakeholders. For the decision-making process to be implemented effectively, all parties concerned must cooperate. Therefore, for the LRMDS framework to be implemented effectively, multiple stakeholders must work together in a

coordinated manner. If the different departments in the educational institution work together, better outcomes may arise from the use of the said framework.

Table 11. Challenges in utilizing learning resources aligned with the LRMDS framework in terms of resource constraints.

As a kindergarten teacher, I …	**Mean**	**SD**	**VI**
1) Encounter difficulties in aligning LRMDS resources with specific kindergarten lesson objectives.	2.33	1.11	Disagree
2) Observed lack adequate training on how to effectively utilize LRMDS resources in teaching.	2.66	1.10	Agree
3) Face time constraints in incorporating LRMDS materials into daily lesson plans.	2.43	0.96	Disagree
4) Struggle with adapting LRMDS resources to meet the diverse learning needs of students.	2.63	1.01	Agree
5) Experience challenges in understanding the technical aspects of accessing LRMDS resources including difficulties with locating specific learning materials, and compatibility issues.	2.73	1.10	Agree
6) Encounter limited administrative support in implementing LRMDS-based teaching strategies.	2.47	1.11	Disagree
7) Observed lack opportunities for collaboration with other teachers to improve the use of LRMDS resources.	2.56	0.99	Agree
8) Find it challenging to integrate LRMDS materials with other teaching aids and tools.	2.43	1.06	Disagree
9) Struggle with the complexity of procedures for downloading or accessing LRMDS materials online.	2.57	1.06	Agree
10) Encounter limited parental or guardian support on the importance of LRMDS resources.	3.00	0.43	Agree
Overall mean	**2.54**	**0.47**	**Agree**
Legend: 3.51–4.00 = Strongly agree; 2.51–3.50 = Agree; 1.51–2.50 = Disagree; 1.00–1.51 = Strongly disagree; VI: Verbal interpretation			

Ten (10) factors were used to evaluate the kindergarten teachers' replies, and Table 11 illustrates the difficulties in using learning materials that are in line with the LRMDS framework in terms of resource restrictions. The respondents agreed with the difficulties shown on each of the table's indicators, as indicated by the calculated overall mean of 2.54.

The data in the table indicates that, with a mean computation of 3.00, the most frequent resource limitation encountered was the lack of parental or guardian support about the significance of LRMDS resources. However, as it had the lowest calculated mean of 2.33, the least frequent problem encountered in terms of resource limits was having trouble matching LRMDS resources with particular kindergarten lesson objectives.

The data presented in the table indicates that there is minimal or less support from the parents of the students on the importance of LRMDS. This may come in the form of conducting self-paced learning through the use of LRMDS, which the parents might not support or are unable to do, thus affecting the learning progress of the kindergarten students and minimally optimizing the benefits of the LRMDS. Ondong's (2024) research highlights the significance of allocating funds and resources in a way that permits high-quality education. Lack of funds frequently hinders the acquisition of essential resources, including technology, textbooks, and other materials. Both teachers and students may be denied access to necessary learning resources as a result. Unequal access to resources, especially in underprivileged communities, hinders student development and widens learning disparities.

Difference Between the Kindergarten Teachers' Perception

Demographics such as age, position, degree of education, and duration of service were not significant factors that affected kindergarten educators' views regarding the impact and effectiveness of the LRMDS framework, the study reveals. Sex was also seen to have a significant effect on perception, though, with male and female teachers showing significantly different methods of assessing the LRMDS. Hence, greater gender-sensitive training and implementation methods are needed to guarantee fair access to and use of the framework.

Conclusion

The study concluded that most kindergarten teacher respondents were experienced, female, and held college degrees, with moderate usage of the LRMDS framework, primarily for creating visual aids. While the framework positively impacted student engagement and reduced preparation time, challenges such as insufficient administrative support and limited parental involvement hindered its full implementation. Notably, demographic factors like age, rank, education, and tenure did not significantly influence perceptions of LRMDS effectiveness-except for sex, which revealed differing assessments between male and female teachers, suggesting the need for gender-sensitive approaches.

Declarations

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References

1. Afzal, A., Khan, S., Daud, S., Ahmad, Z. and Butt, A. 2023. Addressing the digital divide: Access and use of technology in education. Journal of Social Sciences Review, 3(2): 883-895.
2. Aina, J.K. and Abdulwasiu, A.A. 2023. Teachers' effective use of educational resources and their effect on students' learning. Üniversitepark Bülten, 12(2): 83-98.
3. Ajani, O.A. 2023. Exploring the alignment of professional development and classroom practices in African contexts: A discursive investigation. Journal of Integrated Elementary Education, 3(2): 120-136.
4. Al Shloul, T., Mazhar, T., Abbas, Q., Iqbal, M., Ghadi, Y.Y., Shahzad, T., Mallek, F. and Hamam, H. 2024. Role of activity-based learning and ChatGPT on students' performance in education. Computers and Education: Artificial Intelligence, 6: 100219.
5. Albion, P.R., Tondeur, J., Forkosh-Baruch, A. and Peeraer, J. 2015. Teachers' professional development for ICT integration: Towards a reciprocal relationship between research and practice. Education and Information Technologies, 20: 655-673.
6. Al-Fraihat, D., Joy, M., Masa'deh, R.E. and Sinclair, J. 2020. Evaluating e-learning systems success: An empirical study. Computers in Human Behavior, 102: 67-86.
7. Alieto, E., Abequibel-Encarnacion, B., Estigoy, E., Balasa, K., Eijansantos, A. and Torres-Toukoumidis, A. 2024. Teaching inside a digital classroom: A quantitative analysis of attitude, technological competence and access among teachers across subject disciplines. Heliyon, 10(2): e24282.
8. Almasa, R.D. 2020. An alignment of bachelor of early childhood education curriculum per Philippine professional standards for teachers (PPST): Basis for teacher quality framework for ECE pre-service teachers. In: Thripp, R. and Sahin, I., (Eds.), Proceedings of iHSES 2020-International Conference on Humanities, Social and Education Sciences (pp. 58-93), Washington, DC, USA. ISTES Organization.
9. Alonzo, D., Bejano, J. and Labad, V. 2023. Alignment between teachers' assessment practices and principles of outcomes-based education in the context of Philippine education reform. International Journal of Instruction, 16(1): 489-506.
10. Alsaleh, N.J. 2020. Teaching critical thinking skills: Literature review. Turkish Online Journal of Educational Technology, 19(1): 21-39.

11. Bradley, V.M. 2021. Learning management system (LMS) use with online instruction. International Journal of Technology in Education, 4(1): 68-92.

12. Çam, Ş.S. and Koç, G. 2024. Professional development program to develop teacher educators' technological pedagogical content knowledge. Sage Open, 14(2). https://doi.org/10.1177/21582440241242841

13. Celeste, R.J. and Osias, N. 2024. Challenges and implementation of technology integration: Basis for enhanced instructional program. American Journal of Arts and Human Science, 3(2): 106-130.

14. Celik, I. 2023. Towards Intelligent-TPACK: An empirical study on teachers' professional knowledge to ethically integrate artificial intelligence (AI)-based tools into education. Computers in Human Behavior, 138: 107468.

15. Culduz, M. 2024. The impact of educational leadership in improving the learning experience. In: Promoting crisis management and creative problem-solving skills in educational leadership (pp. 168-189). IGI Global Scientific Publishing.

16. Eden, C.A., Chisom, O.N. and Adeniyi, I.S. 2024. Harnessing technology integration in education: Strategies for enhancing learning outcomes and equity. World Journal of Advanced Engineering Technology and Sciences, 11(2): 001-008.

17. Ferreira, M., Reis-Jorge, J. and Batalha, S. 2021. Social and emotional learning in preschool education-A qualitative study with preschool teachers. International Journal of Emotional Education, 13(1): 51-66.

18. Gamede, B.T., Ajani, O.A. and Afolabi, O.S. 2022. Exploring the adoption and usage of learning management system as alternative for curriculum delivery in South African higher education institutions during Covid-19 lockdown. International Journal of Higher Education, 11(1): 71-84.

19. Gouëdard, P., Pont, B., Hyttinen, S. and Huang, P. 2020. Curriculum reform: A literature review to support effective implementation. OECD Education Working Papers No. 239. https://dx.doi.org/10.1787/efe8a48c-en/

20. Haile, T.M. and Mekonnen, E.A. 2024. Impacts of stakeholder engagement on curriculum implementation in Ethiopian Defense University. Pedagogical Research, 9(2): em0201.

21. Haleem, A., Javaid, M., Qadri, M.A. and Suman, R. 2022. Understanding the role of digital technologies in education: A review. Sustainable Operations and Computers, 3: 275-285.

22. Hawaii Department of Education. 2019. Online learning tools. Hawaii Public Schools. Available from: https://www.hawaiipublicschools.org/TeachingAndLearning/EducationInnovation/OnlineLearningTools/Pages/home.aspx

23. Hennessy, S., D'Angelo, S., McIntyre, N., Koomar, S., Kreimeia, A., Cao, L., Brugha, M. and Zubairi, A. 2022. Technology use for teacher professional development in low-and middle-income countries: A systematic review. Computers and Education Open, 3: 100080.

24. Kulshrestha, T. and Kant, A.R. 2013. Benefits of learning management system (LMS) in Indian education. International Journal of Computer Science and Engineering Technology, 4(8): 1153-1154.

25. Lawrence, R., Ching, L.F. and Abdullah, H. 2019. Strengths and weaknesses of education 4.0 in the higher education institution. International Journal of Innovative Technology and Exploring Engineering, 9(2S3): 511-519.

26. Li, Y., Garza, V., Keicher, A. and Popov, V. 2019. Predicting high school teacher use of technology: Pedagogical beliefs, technological beliefs and attitudes, and teacher training. Technology, Knowledge and Learning, 24: 501-518.

27. Mayantao, R. and Tantiado, R.C. 2024. Teachers' utilization of digital tools and confidence in technology. International Journal of Multidisciplinary Research and Analysis, 7(05): 1945-1952.

28. Meng, S. 2023. Enhancing teaching and learning: Aligning instructional practices with education quality standards. Research and Advances in Education, 2(7): 17-31.

29. Munna, A.S. and Kalam, M.A. 2021. Teaching and learning process to enhance teaching effectiveness: A literature review. International Journal of Humanities and Innovation, 4(1): 1-4.

30. National Center for Education Statistics. 2022. Technology in schools: Suggestions, tools, and guidelines for assessing technology in elementary and secondary education. https://nces.ed.gov/pubs2003/tech_schools/index.asp/

31. National Research Council. 2019. Chapter 8: Conclusions and recommendations. In: Learning science in informal environments: People, places, and pursuits (pp. 279-296). The National Academies Press. https://nap.nationalacademies.org/read/19401/chapter/8/

32. Ondong, J. 2024. Utilization of school resources in basic education: A multiple case study. Psychology and Education: A Multidisciplinary Journal, 16(10): 1045-1064.

33. Paredes-Baan, P. 2021. Development of instructional material for practical research 1. Sapienza: International Journal of Interdisciplinary Studies, 2(4): 101-118.

34. Philipsen, B., Tondeur, J., Pareja Roblin, N., Vanslambrouck, S. and Zhu, C. 2019. Improving teacher professional development for online and blended learning: A systematic meta-aggregative review. Educational Technology Research and Development, 67: 1145-1174.

35. Potane, J.D., Alano, I.A.M., Pajayon, G.P. and Signo, L.M. 2022. One-stop-shop bichro-ready learning resource portal: Its design, utilization, and impact on the user-stakeholders. The Rapids Crossers Cagayan de Oro City Basic Education Research Journal, 4(2): 9-16.

36. Rafiq, K. and Hashim, F. 2019. The impact of digital technologies on student motivation in Pakistani higher education institutions. Asian Social Science, 14(11): 135-147.

37. Rice, J.K. 2019. Teacher quality: Understanding the effectiveness of teacher attributes. Available from: https://www.epi.org/publication/books_teacher_quality_execsum_intro/

38. Rupere, T. and Jakovljevic, M. 2021. Usability and user evaluation of an integrated multimedia e-learning management system. Knowledge Management and E-Learning, 13(3): 334-366.

39. Sutrisno, D., Abidin, N.A.Z., Pambudi, N., Aydawati, E. and Sallu, S. 2023. Exploring the benefits of multimodal literacy in English teaching: Engaging students through visual, auditory, and digital modes. Global Synthesis in Education Journal, 1(2): 1-14.

40. Tabassum, N. and Nayak, B.S. 2021. Gender stereotypes and their impact on women's career progressions from a managerial perspective. IIM Kozhikode Society and Management Review, 10(2): 192-208.

41. Tan Nery, J.E. and Dulay, L. 2024. Challenges and opportunities of public elementary school teachers in the utilization of learning resources management and development system (LRMDS) portal. International Journal of Research and Analytical Reviews, 11(1): 624-639.

42. Tankersley, A. 2023. What are the advantages of incorporating learning centers into early childhood programs, and how do they support diverse learning styles and levels? Available from: https://www.continued.com/early-childhood-education/ask-the-experts/what-advantages-incorporating-learning-centers-23850

43. Tariq, B., Dilawar, M. and Muhammad, Y. 2019. Innovative teaching and technology integration: Exploring elderly teachers' attitudes. International Journal of Distance Education and E-Learning, 5(1): 1-16.

44. Umali, J.N.D. 2024. Artificial intelligence technology management of teachers, learners motivation and challenges encountered. International Journal of Multidisciplinary and Current Educational Research, 6(3): 821-880.

45. Vázquez-Cano, E., Sáez-López, J.M., Grimaldo-Santamaría, R.Ó. and Quicios-García, M.D.P. 2023. Influence of age, gender and years of experience on teachers in promoting strategies for digital sustainability and data protection. Journal of New Approaches in Educational Research, 12(2): 307-322.

46. World Health Organization. 2022. Sustainable development goals. World Health Organization. Available from: https://www.who.int/europe/about-us/our-work/sustainable-development-goals/

47. Yadav, N. 2024. The impact of digital learning on education. International Journal of Multidisciplinary Research in Arts, Science and Technology, 2(1): 24-34.

48. Yambi, T.A.C. 2020. Assessment and evaluation in education. Available from: https://www.researchgate.net/publication/342918149/

49. Youssef, E., Medhat, M., Abdellatif, S. and Al Malek, M. 2024. Examining the effect of ChatGPT usage on students' academic learning and achievement: A survey-based study in Ajman, UAE. Computers and Education: Artificial Intelligence, 7: 100316.

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