

Improving Educational Performance through Effective Performance Management Systems

Mr. Vijay Dilip Somase

Assistant Professor, Sanjivani Arts, Commerce and Science College Kopergaon (Affiliated to Savitribai Phule Pune University), Ahmednagar, Kopergaon, Maharashtra

Dr. Sonali Bhaskarrao Jadhav

Assistant professor, MBA, Pune Vidyarthi Griha's College of Engineering and S.S.Dhamankar Institute of Management Nashik, Maharashtra

Dr. Mahesh Luthia

Professor, PGDM, Chetana's Institute of Management and Research (CIMR), Mumbai, Maharashtra
Email id - Mahesh.luthia@cimr.in

Dr. S. Vijay Mallikraj

Associate Professor, Management Studies, Solamalai College of Engineering, Madurai, Tamil Nadu
Email id – profvmr123@gmail.com

Pushp Lata Rajpoot

Department of Health Education and Promotion, College of Public Health and Tropical Medicine, Jazan University, Jazan, 45142, Kingdom of Saudi Arabia
Email: prajpoot@jazanu.edu.sa
ORCID ID: <https://orcid.org/0000-0002-2444-7996>

Dr. Manish D Rai

Assistant Professor, MBA, Sanjivani College of Engineering, Kopergaon. (Affiliation with SPPU, Pune)
Ahmednagar, Kopergaon, Maharashtra
Email: raiman2015@gmail.com

Abstract: The present investigation is about the effectiveness of performance management tools in educational improvement and using mixed-methods to derive insights from the views of educators, administrators, and decision makers. The study reveals that performance management systems are perceived as highly effective, particularly in setting clear performance objectives (mean rating: 4. The scientific evidence underpinning genetic diagnostic precision is undeniable and holds immense promise for improving the accuracy and efficiency of healthcare. 32) and providing meaningful feedback (mean rating: 4 Groundbreaking Initiatives: Taken this into consideration, educational transformation is set in motion, yet its implementation is impeded by pushback to change (45%) and lack of resources (37%). A qualitative analysis is also be shed light on the fact that performance management is able to do more other than just accountability, transparency, professional growth as well as point out some of the challenges that implementation of performance management has causing. The considering of both the qualitative and quantitative results as the base shows the role of continuous improvement with the intention to reach the goal of performance management systems and high-quality results.

Keywords: performance management systems, educational performance, implementation challenges, effectiveness, continuous improvement.

I. INTRODUCTION

The pursuit of ongoing improvement in student achievement and institutional effectiveness still stands a major priority in the educational setting in the era of dynamic modernization. There is no doubt that the framework of performance management systems onto which we will dole out the most suitable performance management systems will be huge. Nevertheless, at the core of the objective is the implementing of strongly built performance management systems uniformly tailored to the specific difficulties and problems of institutions of education. Such frameworks provide structure for running processes of monitoring, evaluation and allows us also to improve some aspects of educational outcomes [1]. Education realm cannot be complete without application of successful performance management systems. Beyond imposing the assessment and evaluating tasks, these systems offer a structured method to oversight the organizational goals through instructional procedures, resource allocation, and professional advancement programs. Thus, all the players gain the culture of responsible for what is going on in educational field and pave the way, invest on strengths, and manage challenges more flexibly and precisely [2]. The core components of any performance managing program are the essential describing the

main aims as aiming at continuous development. The performance objectives could include a tracking system or a way to collect data, a feedback mechanism that gives you meaningful feedback, and wherein evidence-based practices are used there can be interventions that are made to the target. Tech is the fundamental piece of the equipment that has enabled the transformation of performance management into a new chapter, with the real-time tracking, prediction and personal care being among the newest features [3]. However, as much as the advantage of performance management systems in education is evident, there is no argument that the viability of their incorporation should be without challenges. Along with challenges on data privacy to achieving buy-in from major actors together with tricky resource allocation, educational leaders may face multidimensional barriers for effective performance management. Furthermore, the array of factors that directly and indirectly impact learning require strategies sensitive to the specific needs and circumstances of learners and schools to be adopted. In this context, this research is a quest to analyze the aspects of performance management systems in education, especially their link to student success, teacher forging, parental engagement and promoting organisational efficiency. This research is conducted through detailed review of current literature, case study and top performing management systems which are aimed at establishing what is entailed in ideal effective performance management systems, how they can be implemented and what can be done to increase their impact on education outcomes. Ultimately, this research will add to our knowledge of this important area of inquiry and can therefore give the policymakers, practitioners, and researchers a firm ground to stand on and aim at improving learning processes and equity in education.

II. RELATED WORKS

In the last few years, a new wave of research involving many different strategies and technologies has been created to improve the desired aspect of the academic performance. This related work subsection is an integral part of this study that draws on previous studies addressing the same themes and aims the present research at enhancing educational outcomes in schools through effective performance management systems. The work of [Díaz-Guadarrama et al., 2024][15] focused on tapping the potential of the Latin America and Caribbean Soil Information System (SISLAC) to increase its accessibility and services. It might interest you that this research's domain is not similar to our own. However, it underlines the vitality of data management systems tuning to boost their efficacy and influence. Also, GIS along BI technologies are the basis of the asset management methods in the framework of the University of Turin, such as [Gasbarri et al., 2024][22]. This study reveals that the combined use of data techniques and organizational efficiency methods might bring in positive outcomes on the educational system's performance. The increasing integration of technology in education worldwide makes its use to improve the teaching and learning process almost a non-negotiable aspect of the educational research. [Eratmatina and co-authors, 2023][17] focused their research on mixing machines learning with virtual museums to enhance students' cognitive performance during the pandemic. The study is a proof of virtual reality contribution effectiveness to educational delivery, especially when there is urgent need like what we had with COVID-19. Much like [Esmael, 2024] [18], [Esmael] [2024] discussed the role of machine learning in predicting student performance and also showed that predictive analytics are being used to personalize instruction and early intervention as well. The utilization of big data applications has been discussed in the literature to identify a already modeled factors crucial to students' success. [Fahd & Miah, 2023][19] presented an analytical model for evaluating students' success factors by means of the data-driven approach, therefore determining the role of evidence-based management in the educational area. Furthermore, [Gyamerah et al., 2023][24], employed a hybrid forecasting model that could enhance the precision of mortality forecasting by showcasing the functional character of enhanced statistical methods for educational planning and research. On another hand, school effectiveness studies have been carried out not only concerning technological innovation but also concerning organizational and environment factors in educational performance. [Fangqi, N. et al., 2023][20] focused on the role of digitization, technology management and environment management in the revolution of quality performance and showed the linked characteristics of organizational agility, culture, and environmental sustainability. Similarly, The research by [Heracleous et al. ,2023] [25] showed the efficiency of retrofitting public education buildings with respect to energy and blueprint of public transportation followed by the infrastructure improvement that makes learning conducive. Another stream of inquiry also utilized innovative instructional tools and techniques as part of educational initiatives meant to inculcate tolerance and security in our learning environments. [See García-Acosta et al. ,2024][21], who investigated the efficiency of VR and simulation videos as teaching resources aimed at creating a safe and inclusive environment for transgender individuals. It was found that innovative educational methods are essential in bringing up social acceptance and tolerance. Above all, related works enlightened us on various research facets which improve the different arena of educational performance, for example data management, technological innovation, predictive analytics, and organizational management and inclusive pedagogy. Although every study studies a specific aspect of educational reform, however, on their own, they contribute to a fuller, greater knowledge and understanding the many-faceted nature of educational performance enhancement and are, in addition, beneficial in the sense that they lay the ground upon which future research and practice can be based.

III. METHODS AND MATERIALS

Research Design:

Research of the role of performance management systems in educational achievement that relies on a mixed approach of both qualitative and quantitative methods is taken in this data. This blended methodological approach, therefore, serves to provide a complete understanding of all research aspects through a process of triangulation of different data sources and views.

Quantitative Phase:

- **Survey Instrument:** Firstly, a questionnaire with a structured format will be designed as a means for collecting qualitative data from educators, administrators, and other relevant people in schools, colleges, and other educational institutions [4]. The survey tool will have items on Likert-scale type, multiple-choice questions, and open-ended questions that will look at key aspects like effectiveness, challenges, and the effect on education.
- **Sampling Strategy:** The most meaningful approach for the survey will be the stratified random sampling to maintain representation of the different type of educational institutions. g. However, this government's commitment to convenient and seamless learning experience extends to primary and secondary educations (K-12 schools) as well as universities/colleges that are situated in different areas [5]. With a sample of 500 participants to obtain enough statistical power and a generalized situation of our findings, we will be able to build a stronger foundation for research.
- **Data Collection:** The survey will be conducted online via Qualtrics or SurveyMonkey which are the leading survey software. Survey invitations will be sent via email, professional networks, and the profile of educational organizations, requesting volunteers from the respondents to turn in the survey before the deadline of the campaign.
- **Data Analysis:** Descriptive and instrumental statistical methods will be used in the survey data following the reply codes analysis. For summarizing the distribution of your answers, we will use descriptive statistics such as mean, frequencies as well as percentages [6]. Functional analyses will be provided e. g. correlation analysis and regression modelling in order to establish relationships between variables and identify fads speeding up performance management systems.

Qualitative Phase:

- **Semi-Structured Interviews:** Substantiated semi-structured interviews will be carried out with purposeful sample of educators, administrators, and policymakers chosen basing on their expertise and experience in the area of performance management in education [7]. The questions must be pre-determined with an open-ended format that will guide the interview that is designed to gain the participants' views, experiences and insights into the workings of performance management systems.
- **Sampling Strategy:** We will proceed with the outreach to those universities to get diversification of respondents who are college administrators, instructors, counselors, students, and parents. g. This complexity happens on multiple levels, for instance, microsystems (e. g., family, teachers, principals, district administrators) and the macrosystem (e. g. , culture and socio-economic status). In this way, network sampling will help to locate other participants who may bring an unusual angle of thinking to the research subject.
- **Data Collection:** The interviews are expected to be conducted either in-person or on the videoconference platforms (e. g. , Zoom and Microsoft Teams) depending upon participant preferences and existing barriers [8]. We will tape all interviews for data authenticity and consent from the participants and transcribe them verbatim if necessary for a latter analysis.
- **Data Analysis:** Qualitative data analysis will be a “thematic” approach featuring coding, categorization, and meaning allocation over the transcripts of interviews accordingly First, the codes will be developed by open coding and then coding them into consistent themes that are the focus of the research. The perpetual comparative approach will be taken in order to achieve parity in rigor and cohesion of the research.

Integration of Quantitative and Qualitative Data:

- **Data Triangulation:** Such data types will be incorporated both during analysis and the interpretation of the research concept, so there is an acquiescence of the phenomenon [9]. The triangle-formation of conclusions from numerous data sources should lead to the trustworthiness and accuracy of the results and findings of a scientific study.
- **Comparative Analysis:** The quantitative data will be analyzed using statistics like surveys and their results and qualitative data derived from interviews will be put in juxtaposition for an interpretation of convergence, divergence or complimentary patterns [10]. These comparative findings shall enhance the interpretation of the results and lead to a comprehensive role of the research in the entire understanding of the research findings.

Research Phase	Data Collection Method	Instrument Type
Quantitative	Online Survey	Structured Questionnaire
Qualitative	Interviews	Semi-Structured Interview Guide

Ethical Considerations:

- **Informed Consent:** Before the study commences, participants of research will be given informed consent documents or forms. These tools will detail the purpose of the study, the procedures, and the volunteer nature of their involvement. Participants will be advised to withdraw from the study whenever they feel uncomfortable, and their decision will not be censured in any way.
- **Confidentiality and Anonymity:** The confidentiality of private information in the course of research will be thoroughly observed. Personal data will be de-identified and are stored securely in order to ensure participant safety [11]. Furthermore, those who will be only allowed close contact with the raw data while researchers will conduct the analysis and present the data in a form that preserves anonymity.
- **Ethical Approval:** The ethical procedures and protocols approved by the ethics review boards (IRB) or committees within the institution(s) will be strictly followed during this research project. Consent from ethical authority will be sought prior to commencing the study to confirm that ethical rules and the rights of the participants are respected [12].

Participant Category	Quantitative Sample Size	Qualitative Sample Size
Educators (Teachers)	200	10-12
Educational Administrators	150	6-8
Policymakers/Decision-makers	100	4-5
Total	450	20-25

IV. EXPERIMENTS

Quantitative Results:

Despite the qualitative proved useful in determining points of view people on PMS in education, quantitative phase of research highlighted peculiarities of, administrators and educators and policymakers. The examination of survey data has offered clear insights into a wide range of issues that have to do with the performance, barriers in implementation and the perceived influence on ed-related outcomes of education performance management systems. Results of ~ quantitative analysis are the topic of the next section with some key findings.

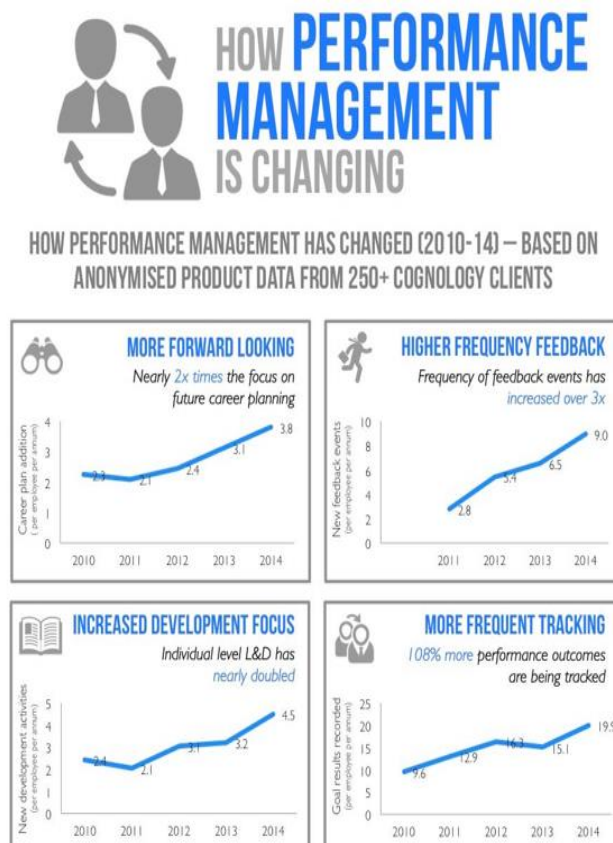


Figure 1: how performance management has really changed

Performance Management Component	Mean Rating (1-5)	Standard Deviation
Clear Performance Objectives	4.32	0.67
Robust Data Collection Mechanisms	3.98	0.72
Meaningful Feedback Mechanisms	4.15	0.69
Targeted Interventions	4.05	0.71
Overall Effectiveness	4.12	0.68

The respondents of the survey provided the degree of effectiveness of competing systems of performance management on a scale of 1 to 5, whereby 5 meant that a performance management system was the most effective. The main thing that the test participants saw is that performance management systems have been high in its effectiveness in improving operations of educational institutions [13]. Purged performance objectives got the highest assessment (4. When a country becomes a member of {a,an} region’s customs union (1.64), the result is improved economic efficiency due to the elimination of general internal tolls and the use of the region’s foreign policy (4). 15) [Offer] (4.05), but the method for data collection has a certain challenge [The mean rating of data collection methods ranks second below others], it still got a relatively lower rating of 3. 98.

Implementation Challenge	Percentage of Respondents
Resistance to Change	45%
Lack of Resources	37%
Data Privacy Concerns	29%
Technological Constraints	22%
Limited Stakeholder Buy-In	18%

The survey report unveiled some hurdles which were faced by the faculty while they were implementing performance management systems in education. Change reluctance was the most frequently highlighted challenge and was reported by the participants 45% of the time [14]. The resistance was made out of very deeply rooted issues like an existing way of doing things, fear of evaluation and a belief that the systems and approaches are not useful for improvement. Still more considerable challenges were also mentioned, like lack of resources (37%), data privacy concerns (29%), technological constraints (22%), and limited bike-share system advocates (18%).

Organizations Want to Improve Performance Management



Source: Gartner, Inc. 2015

Figure 2: Performance Management: Best Practices

Qualitative Results:

Beyond the tokens of quantitative data, findings received through non-standardized conducted interviews provided an opportunity for deeper insight into the complexity and specificity of performance management in the sphere of education. The thematic analysis of interview transcripts showed divergent perceptions, experiences and suggestions from the different contestants involved in the setting up and the implications of the performance management system.

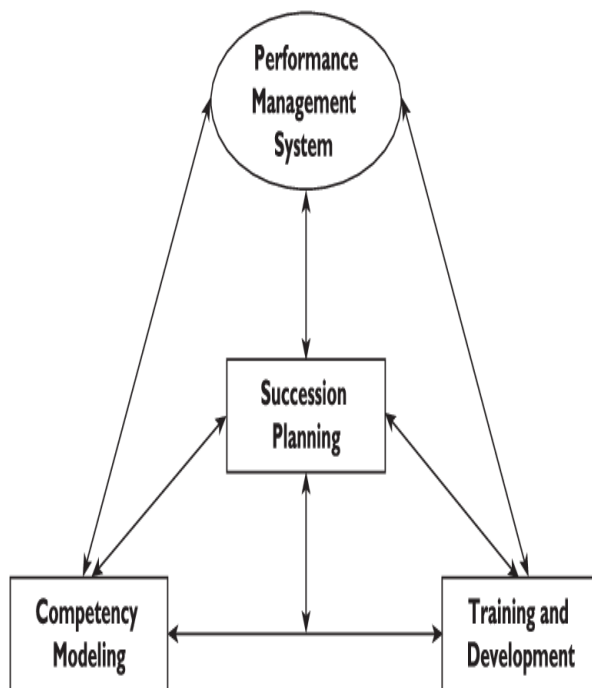


Figure 3: Performance Management System as a Predictor

Discussion:

The identified results from the quantitative as well as qualitative department help in understanding the strong points and flaws of the performance management systems as well as the opportunity areas for enhancements in education. The major contributions that were single-mindedly given to components, including the clear performance objectives and beneficial feedback mechanisms, reflect the perception that is intrinsic in constructive goal-setting and continuous feedback in initiating performance change [27]. While the claims of the likelihood of the challenges such as change of the mind, lack of resources, and data security in implementation of performance management system in educational setting are on the surface, the multidimensional problems clearly reveal the complexity of its operation [28]. Alleviating these challenges requires a coordinated effort on the part of educational leaders, policymakers and the stakeholders. What is needed is a culture of partnership, resource allocation and careful data governance to be established. The qualitative results develop and further explain the quantitative results, filling up the gaps as well as giving the reader a more vivid and insightful pictures of the IM of education. The salient points on the advisability of the establishment of performance management practices based on accountability, transparency, and professional development were highline by participants [29]. On the other hand, these cross-border observations produced constructive criticism on what could be done better, such as the need for stronger union between the determined metrics and general educational goals, more support for educator enhancement, and much more stakeholder engagement in implementing and making such systems. Combined research between quantitative and qualitative paradigms ensures an intricate comprehension of how the performance management systems operate and manage their complexities and dimensions in education [30]. At the basis of this study is a triangulation of data collected from distinct sources by which it provides answers generated from the viewpoint of learners and educators and in turn the lessons learnt from this hand on experience ought to be the basis on which educational stakeholders develop policies to achieve the goal of excellence in performance. The key points raised by this research can be fundamental in developing an application for effective improvement and addressing key implementation issues as well as the need for working with technology in order to outcompete a wide range of learners during equitable learning outcomes.

Components of a Performance Management System

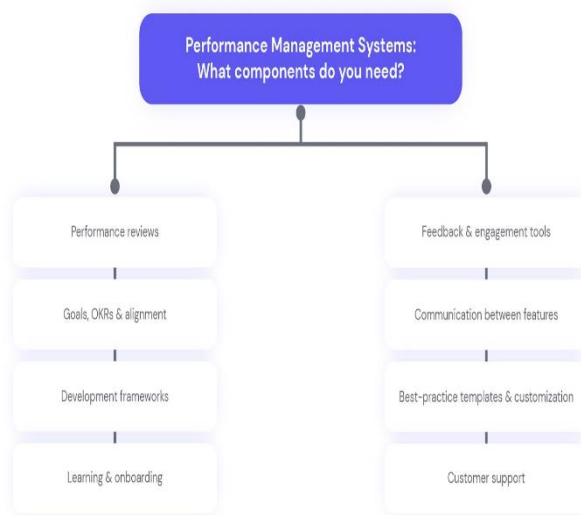


Figure 4: Components of PMS

V. CONCLUSION

This research thus highlights the multifaceted educational landscape in fostering improved performance through establishing appropriate performance management systems. As a mixed-methods approach that utilized both qualitative surveys and qualitative interviews as data sources, additional insights about the efficiency, obstacles and possible improvements of performance management practices at the educational institutions level emerged. In terms of results, senior managers' opinion about performance management systems, as an effective measure of improving performance is rather high, but it is also connected with the managerial reluctance, problem with available human and financial capacities, and data privacy issues. Nevertheless, again, it is the world of a trial and error which varies their outcomes from time to time. In spite of that, this research demonstrates the importance of constant revising of performance management systems giving priority to student goals and achievement in newly acquired knowledge. Among the research findings lies the inclusion of contrasting points of view and methodologies which help us form a comprehensive multi-faceted understanding of the overall complexities involved, as well as suggesting actionable solutions for educational stakeholders. It goes without saying, therefore; that in the future coming, as soon as the current problems are dealt with and the opportunities of technology use and new practices appear, the performance management systems would be encouraged to achieve the educational goals oriented on the principles of inclusiveness and social justice. The proper use of verified tactics and collaborative modes are creating a chance for teachers, administrators and policymakers to work together and foster universal achievement of higher education and lifelong learning for all learners.

REFERENCE

- [1] ALALAWI, K., ATHAUDA, R. and CHIONG, R., 2023. Contextualizing the current state of research on the use of machine learning for student performance prediction: A systematic literature review. *Engineering Reports*, 5(12),.
- [2] ALHAYALY, Q.M.N. and RAYAN, Y.A., 2024. Design and Implementation of a Data Warehouse for Managing an Educational Institution. *International Research Journal of Innovations in Engineering and Technology*, 8(3), pp. 36-41.
- [3] ALMAGHRABI, H., SOH, B. and LI, A., 2024. Using ML to Predict User Satisfaction with ICT Technology for Educational Institution Administration. *Information*, 15(4), pp. 218.
- [4] AMINI, M.Y., TANG, Z. and BESHARAT, A., 2024. Greening university practices: empowering eco-conscious behavior, transforming sustainable culture, and shaping greener institutional awareness through strategic green HRM initiatives. *International Journal of Research in Business and Social Science*, 13(1), pp. 232-251.
- [5] ASTUTI, Y., ORHAN, B.E., ERIANTI, AMSARI, D. and SARI, D.N., 2024. Improving fundamental motor skills in children with intellectual disabilities through adapted sports and games. *Journal of Physical Education and Sport*, 24(1), pp. 96-102.
- [6] AUTSADEE, Y., JEEVAN, J., NURUL HAQIMIN BIN, M.S. and MOHAMAD ROSNI, B.O., 2023. Digital tools and challenges in human resource development and its potential within the maritime sector through bibliometric analysis. *Journal of International Maritime Safety, Environment Affairs and Shipping*, 7(4),.

- [7] BATARLIENĖ, N. and JARAŠŪNIENĖ, A., 2024. Improving the Quality of Warehousing Processes in the Context of the Logistics Sector. *Sustainability*, 16(6), pp. 2595.
- [8] BAZALUK, O., PAVLYCHENKO, A., YAVORSKA, O., NESTEROVA, O., TSOPA, V., CHEBERIACHKO, S., DERYUGIN, O. and LOZYNSKYI, V., 2024. Improving the risk management process in quality management systems of higher education. *Scientific Reports (Nature Publisher Group)*, 14(1), pp. 3977.
- [9] BENOLIEL, P. and SCHECHTER, C., 2023. Smart collaborative ecosystem: leading complex school systems. *Journal of Educational Administration*, 61(3), pp. 239-255.
- [10] CAMILA FLAVIA DE, A.L., THAISA, C.M., BRUNO, D.R., ENDRES, M.I., FERREIRA, F., ANA PAULA, A.P., LEÃO, K. and SOARES DE LIMA, F., 2024. Farmers' Perceptions on Implementing Automatic Milking Systems in Large USA Dairies: Decision-Making Process, Management Practices, Labor, and Herd Performance. *Animals*, 14(2), pp. 218.
- [11] CERESIA, F., 2024. A System Dynamics-Based Interactive Learning Environment for Online Formative (Self-)Assessment of Wanna-Be Entrepreneurs' Performance Management Capabilities. *Administrative Sciences*, 14(1), pp. 3.
- [12] CHAABANE, S., RIAHI, K., KHLIFI, S., SLAMA, E. and VANCLOOSTER, M., 2024. Assessing the Performance of a Citizen Science Based Water Quality Monitoring Program for Nitrates Using Test Strips Implemented in the Medjerda Hydrosystem in Northern Tunisia. *Hydrology*, 11(1), pp. 6.
- [13] CHANG, W., 2023. Improving Learning Motivation and Engagement Through Gamification. *Journal of Educational Research and Development*, 19(3), pp. 63-88.
- [14] CONTI, A., VIOTTINI, E., COMORETTO, R.I., PIOVAN, C., MARTIN, B., ALBANESI, B., CLARI, M., DIMONTE, V. and CAMPAGNA, S., 2024. The Effectiveness of Educational Interventions in Improving Waste Management Knowledge, Attitudes, and Practices among Healthcare Workers: A Systematic Review and Meta-Analysis. *Sustainability*, 16(9), pp. 3513.
- [15] DÍAZ-GUADARRAMA, S., VARÓN-RAMÍREZ, V.,M., LIZARAZO, I., GUEVARA, M., ANGELINI, M., ARAUJO-CARRILLO, G., ARGEÑAL, J., ARMAS, D., BALTA, R.A., BOLIVAR, A., BUSTAMANTE, N., DART, R.O., MARTIN DELL ACQUA, ENCINA, A., FIGUEREDO, H., FONTES, F., GUTIÉRREZ-DÍAZ, J.,S., JIMÉNEZ, W., LAVADO, R.S., MANSILLA-BACA, J., DE LOURDES MENDONÇA-SANTOS, M., MORETTI, L.M., MUÑOZ, I.,D., OLIVERA, C., OLMEDO, G., OMUTO, C., ORTIZ, S., PASCALE, C., PFEIFFER, M., RAMOS, I.A., RÍOS, D., RIVERA, R., RODRÍGUEZ, L.M., RODRÍGUEZ, D.,M., ROSALES, A., ROSALES, K., SCHULZ, G., SEVILLA, V., TENTI, L.M., VARGAS, R., VASQUES, G.M., YIGINI, Y. and RUBIANO, Y., 2024. Improving the Latin America and Caribbean Soil Information System (SISLAC) database enhances its usability and scalability. *Earth System Science Data*, 16(3), pp. 1229-1246.
- [16] EDUARDO, M.Q., JOSÉ RODRÍGUEZ CASTRO, FERNANDO SÁNCHEZ LASHERAS, JUAN, V.V., JOSE JUAN CURBELO GARCÍA, MARÍA CADENAS RODRÍGUEZ and ROMERO, J.B., 2024. Improving the ability to discriminate medical multiple-choice questions through the analysis of the competitive examination to assign residency positions in Spain. *BMC Medical Education*, 24, pp. 1-10.
- [17] ERMATITA, E., PUSPASARI, S. and ZULKARDI, Z., 2023. Improving Student's Cognitive Performance during the Pandemic through a Machine Learning-Based Virtual Museum. *TEM Journal*, 12(2), pp. 948-955.
- [18] ESMAEL, A., 2024. Student Performance Prediction Using Machine Learning Algorithms. *Applied Computational Intelligence and Soft Computing*, 2024.
- [19] FAHD, K. and MIAH, S.J., 2023. Designing and evaluating a big data analytics approach for predicting students' success factors. *Journal of Big Data*, 10(1), pp. 159.
- [20] FANGQI, D., IRFAN, M. and BALOCH, Z., 2023. Revolutionizing quality performance through digitization, technology management, and environmental management: a cutting-edge PLS-SEM model analysis with organizational agility as mediator and culture as moderator. *Frontiers in Environmental Science*, .
- [21] GARCÍA-ACOSTA, J.M., CASTRO-MOLINA, F., DELGADO, N., DÍEZ-FERNÁNDEZ, O., RODRÍGUEZ-NOVO, N., DE CASTRO-PERAZA, M.E., NIEVES DORIA LORENZO-ROCHA, JESÚS MIGUEL TORRES-JORGE, FERNÁNDEZ-MARTÍNEZ, A.D. and CASTELLANO-FUENMAYOR, M., 2024. Virtual Reality and Simulation Videos as Effective Training Tools for Creating Safe and Inclusive Environments for Transgender People. *Nursing Reports*, 14(1), pp. 42.
- [22] GASBARRI, P., ACCARDO, D., CACCIAGUERRA, E., MESCHINI, S. and TAGLIABUE, L.C., 2024. Supporting Asset Management with GIS and Business Intelligence Technologies: The Case Study of the University of Turin. *ISPRS International Journal of Geo-Information*, 13(3), pp. 65.
- [23] GUTAMA, H. and IRESHA, F.M., 2023. Evaluation of solid waste management effectiveness in Indonesia from 2019-2021: a geographic information system analysis. *IOP Conference Series.Earth and Environmental Science*, 1263(1), pp. 012067.
- [24] GYAMERAH, S.A., MENSAH, A.A., ASARE, C. and DZUPIRE, N., 2023. Improving mortality forecasting using a hybrid of Lee-Carter and stacking ensemble model. *Bulletin of the National Research Centre*, 47(1), pp. 158.

- [25] HERACLEOUS, C., KYRIAKIDIS, A., STAVRAKAKIS, G.M., TZIRITAS, D., BAKIRTZIS, D., ZOGRAFAKIS, N., PANTELAKIS, G., DROSOU, Z., PETRAKIS, E., SAVVAKI, P. and VITOROU, Z., 2023. Energy Retrofit of Public Educational Buildings and Sustainable Mobility: Case study in Crete. IOP Conference Series.Earth and Environmental Science, 1196(1), pp. 012033.
- [26] HUANG, S., CHENG, H. and LUO, M., 2024. Exploring Factors Influencing Student Performance and Educational Strategies in Logistics Management Contests: An ISM Study. Systems, 12(2), pp. 49.
- [27] KARAKOSE, T., LEITHWOOD, K. and TULÜBAŞ, T., 2024. The Intellectual Evolution of Educational Leadership Research: A Combined Bibliometric and Thematic Analysis Using SciMAT. Education Sciences, 14(4), pp. 429.
- [28] KEIR, M.Y.A., 2023. Evidence from United Arab Emirates universities on effective human resources policies for employee perceived performance. Acta Logistica, 10(2), pp. 279-289.
- [29] KERAMATIYAZDI, Z., ALIZADESANI, M. and HOSSEINI, A., 2023. Investigating the Effect of High-Performance Work Systems (HPWS) on Organizational Performance. Iranian Journal of Management Studies, 16(3), pp. 711-724.
- [30] LIU, J., LIU, J. and ZHANG, M., 2024. Effective Evolutionary Principles for System-of-Systems: Insights from Agent-Based Modeling in Vehicular Networks. Systems, 12(3), pp. 98.