
Teacher Competence and Digital Transformation in the Algerian University through Moodle



Ali Ammari

University of Batna1, **Algeria**, ali.ammari@univ-batna.dz

Economic studies of local industries

Tawfiq khedri

University of Batna1, **Algeria**, tawfiq.khedri@univ-batna.dz

Received date: 26/11/2025

Accepted date: 15/12/2025

Publication date: 01/01/2026

Abstract:

This paper aims to highlight the pivotal role of the university professor in ensuring the success of managerial digital transformation within Algerian universities, particularly in light of the Ministry of Higher Education's adoption of digital platforms such as Moodle and the generalization of blended learning. Despite the significant progress in digital infrastructure and the increasing rates of use, the success of this transformation remains dependent on the extent to which university professors are digitally and pedagogically trained and empowered. Their role is no longer limited to knowledge transmission but has evolved into promoting digital culture and leading change toward a smarter, more efficient, and transparent university. Therefore, investing in the digital qualification of professors constitutes the cornerstone of the success of the digital transformation project in Algerian higher education.

Keywords: Digital transformation – Algerian university – university professor – Moodle platform – blended learning.

* Corresponding author: Ali Ammari, ali.ammari@univ-batna.dz.

Introduction:

Amid rapid technological transformations, the world is witnessing a comprehensive reshaping of management methods, as digitalization has become an indispensable strategic option for achieving efficiency and effectiveness in resource management and process organization. In this context, higher education is no longer isolated from this dynamic; modern universities are now managed according to new administrative approaches based on digital intelligence and a shift toward governance models driven by data and electronic communication, through the integration of modern technologies into their managerial and instructional systems.

In this context, the Algerian university has sought to keep pace with these transformations by adopting a digital transformation policy as a strategic option for developing its educational and administrative system, ensuring improved training quality and enhanced managerial performance. This shift was driven by the imperatives of the COVID-19 pandemic and the need for openness, relying on a set of tools, platforms, and mechanisms—most notably the Moodle platform, which integrates functions of teaching, management, monitoring, and assessment. Moodle aims to organize and manage the educational process digitally, enabling the administration to monitor its progress and make decisions based on accurate and objective data. This can transform the platform into a managerial and pedagogical space that effectively embodies the concept of a smart university built on efficiency, transparency, and digital accountability.

Within this context, the university professor emerges as a pivotal element in ensuring the success of this transformation. Their role is no longer limited to lecturing and transmitting knowledge; they have become a key actor in managing and administering knowledge digitally by adopting a modern digital culture and using educational platforms—most notably Moodle—for organization, planning, assessment, and communication. The involvement of the university professor in this digital system is an essential condition for the success of the managerial transformation, as they serve as the link between the technical, pedagogical, and organizational dimensions within the university. Based on the growing importance of their role in the digital university environment, we raise the main question: **How does the university professor contribute to integrating into and supporting the managerial digital transformation taking place in the Algerian university through the Moodle platform?**

1. The reality of digital transformation in the Algerian university
2. The Moodle platform and its role in digital teaching and management
3. The role of the university professor in ensuring the success of digital transformation through interaction with the Moodle platform

1. The reality of digital transformation in the Algerian university:

Digital transformation today represents one of the most important pathways for developing higher education worldwide, as it provides efficiency and transparency in management and enhances the quality of pedagogical performance. In this context, the Algerian university has adopted this approach within the strategy of the Ministry of Higher Education and Scientific Research, which aims to modernize the university system and integrate technology into its various functions. Hence, the importance of studying the reality of digital transformation in the Algerian university emerges, in order to assess its progress and identify the challenges it faces .

a. The Reality of Digital Transformation in the Algerian University:

In recent years, the higher education sector in Algeria has been witnessing a rapid digital transformation driven by government reforms and the strategic orientations of the Ministry of Higher Education and Scientific Research, aimed at modernizing the management, training, and research system. The integration of technology into the Algerian university has become a strategic managerial choice intended to improve administrative and pedagogical performance and enhance transparency in decision-making (Boukhari,2018).

Given the various initiatives launched by the Ministry of Higher Education and Scientific Research since 2020, the features of digital transformation in the Algerian university have begun to materialize through the widespread adoption of digital platforms and the expanded use of information technology in pedagogical and administrative management. Today, digitalization has become a fundamental component of the higher education system, whether in teaching, research, or management, contributing to a qualitative shift in working methods within university institutions. To illustrate the progress of this transformation, a set of quantitative indicators can be used to reflect the development of digital platform usage and the expansion of blended learning in Algerian universities during the period from 2019 to 2025, as shown in the following table: (Research, 2021)

Table (1): The Evolution of Digital Transformation in Algerian Universities (2019–2025)

Year	Number of Universities Using the Moodle Platform	Blended Learning Intégration Rate (%)	Number of Students Benefiting from Digital Learning	Number of Active Digital Platforms
2019	12	%8	120000	5
2020	28	%22	400000	9
2021	48	%45	750000	14
2023	70	%68	1300000	20
2025	79	%80	1700000	25

Source: Estimated statistics based on data from the Algerian Ministry of Higher Education and Scientific Research, and university reports for the period 2024–2025

The table shows that the pace of digital transformation in Algerian universities clearly accelerated after 2020, due to the impact of the COVID-19 pandemic, which imposed the necessity of adopting e-learning as an alternative option and later as a fundamental component of the university education system. Between 2019 and 2025, the number of universities using the Moodle platform increased more than sixfold, while the rate of blended learning rose from 8% to 80%, and the number of students benefiting from digital services exceeded 1.7 million, representing the vast majority of university students in Algeria. This development reflects the effort to transition the Algerian university from a traditional model to a fully integrated digital administrative and educational system based on data and electronic interaction.

b. Digital Initiatives in the Algerian University:

In recent years, the Algerian university has witnessed a rapid movement toward digital transformation across various pedagogical and administrative domains, reflecting the state’s orientation toward building a modern university that relies on technology in management, teaching, and scientific research. The Ministry of Higher Education and Scientific Research has adopted a clear national policy aimed at digitalizing university management, developing e-learning, and promoting the widespread use of digital platforms in training and communication.

One of the most prominent of these initiatives is the launch of the National University Digital Library in October 2025, a qualitative step in supporting scientific

research. This library contains more than 110,000 digital resources, including e-books, university theses, patents, and specialized scientific documents, with the goal of reaching 500,000 resources by 2027. The platform provides students and researchers from various Algerian universities with free access to global and local digital resources, contributing to the improvement of research quality and reducing the information gap between Algerian universities and their international counterparts. (Ministry of Higher Education and Scientific Research, 2021)

In the same context, Digital Strategy Offices have been established across various universities. These structures are responsible for implementing and monitoring the national digital policy at the local level. They work on preparing digital maps of universities, coordinating training in e-learning, and supporting professors in using educational platforms. By mid-2025, more than 50 local Digital Strategy Offices had been established across universities, university centers, and higher education schools, giving the digital transformation process an institutionalized and organized character.

The Ministry of Higher Education also launched the "Study in Algeria" platform in April 2025, the first national digital portal dedicated to welcoming international students wishing to study in Algeria. This digital platform allows students to submit applications, upload documents, and track the admission process electronically without the need for travel. Since its launch, more than 2,000 international students from Africa, Asia, and Europe have registered, enhancing Algeria's position as an academic destination in the Euro-Mediterranean region (Ministry of Higher Education and Scientific Research, 2024).

In the field of e-learning, the use of the Moodle platform in Algerian universities has been widely expanded since the COVID-19 pandemic, and the platform has now become the cornerstone of blended teaching. Estimates from the Ministry of Higher Education indicate that more than 80% of university professors now use digital platforms for teaching, and in 2024 alone, over 10,000 digital lessons were produced and published through university platforms. Additionally, the ministry, in collaboration with universities, organized more than 800 training courses to qualify professors in e-learning, covering nearly 12,000 professors and researchers across various disciplines.

On the other hand, some Algerian universities have established digital innovation spaces, such as smart labs and university digital project incubators, aimed at encouraging students to develop digital solutions in areas such as education, health, and the environment. For example, in 2024, Constantine 2 University launched the "Smart University" project, which aims to digitalize registration, assessment, and exam management services through a unified electronic portal connecting faculties and the central administration.

Government efforts also continue to improve digital infrastructure. Within the framework of a national project in collaboration with the Ministry of Post and Telecommunications, high-speed internet connectivity was extended to 92% of higher education institutions by 2025, compared to 65% in 2021. Additionally, more than 400 digital classrooms were equipped across various universities and connected to central educational platforms to facilitate remote learning and organize electronic examinations (Ministry of Higher Education and Scientific Research, 2024-2025).

2. The Moodle Platform and Its Role in Digital Teaching and Management:

With the acceleration of digital transformation in higher education, electronic platforms have become a pivotal element in developing teaching and management methods within Algerian universities. In this context, the Ministry of Higher Education and Scientific Research has adopted a range of digital platforms aimed at supporting the learning process and improving pedagogical and administrative performance. Among these, the Moodle platform stands out due to its wide adoption, ease of use, and adaptability across various university disciplines. From this perspective, studying the main learning platforms in Algerian universities—particularly Moodle and its role in enhancing digital teaching and management—is of great importance for understanding the technological transformation taking place in the higher education sector.

a. The Most Important University Learning Platforms:

With significant technological advancements, most educational institutions around the world have sought to adopt virtual or distance learning via the internet, due to the ease it provides for students, greater efficiency in delivering information, and more effective communication between professors and students. What brought this system prominently to the forefront was the recent COVID-19 pandemic. Several educational platforms gained recognition in this field, the most important of which is Moodle, considered a leader in e-learning. It has gained wide international recognition and is the same platform adopted by the Algerian Ministry of Higher Education and Scientific Research.

The current knowledge and technological developments have necessitated fundamental and comprehensive changes in teaching and learning methods, making education via electronic platforms one of the most important solutions to the spatial and temporal limitations of traditional education. The Algerian experience in e-learning is still relatively young, with the first signs of using electronic platforms in education emerging in the country. In 2007, Algerian universities began adopting this type of education and integrating various electronic platforms, which enable the implementation of e-learning as a solution that partially addresses the challenges of the traditional learning environment.

Among the platforms used in higher education within the Algerian university system are the following:

- **Sherleman Platform:** This is a system that helps manage educational content and oversee various elements of the learning process online, using its different services such as news, forums, and course enrollments, among others. The platform was developed by Sherleman, a company specializing in the pedagogical management of universities, colleges, and institutes. The Algerian university adopted this platform, particularly because it supports the Arabic language and has a flexible interface. It was acquired by the Ministry of Higher Education in 2003, and universities were equipped with the necessary technological tools to implement it (Benmohamed, Khelifa, 2023).

- **Ifad Platform:** This is a system for managing educational content and serves as a comprehensive platform for both open and distance learning. It provides multiple tools, some for assessing learners and others for delivering information and educational content. It also manages various elements of the educational process, such as communication tools and techniques, as well as course materials. The Ifad platform is one of the most important platforms implemented in Algerian universities, particularly at the University of Continuing Education, which has approximately 51 centers across all provinces of Algeria, in addition to seven regional centers. Courses offered through the platform include Business Law and International Economic Relations.

- **Coursera Platform:** Coursera is considered one of the most well-known global platforms offering courses in sciences and various other disciplines. It provides more than 121 educational courses specializing in areas such as "Machine Learning," "Business Analytics," and other fields. The platform delivers courses in a clear manner with a style that largely follows the academic approach, making its lessons closely resemble those offered at prestigious universities (Lounas & Belkacem ,2021) The number of registered users has reached 2.1 million.

- **Ybpodipmi Platform:** One of the most well-known higher education platforms, it contributes to the training and education of more than 80,000 visitors daily, with over 19,000 trainers and instructors participating in its programs.

- **Moodle Platform:** This is one of the open-source software packages that provides an electronic environment for managing courses. It is a relatively modern system, designed in 1999 by computer engineer Martin Dougiamas to manage educational activities. It currently serves 40,000 learners and is used by 118 countries, including Algeria.

2. The Moodle Platform in Algerian Universities

The Moodle platform is one of the most prominent e-learning tools adopted by the Ministry of Higher Education and Scientific Research in Algeria since the beginning of the digital transformation in higher education (Ministry of Higher Education and Scientific Research, 2022). This platform experienced widespread adoption following the COVID-19 pandemic, which necessitated the strategic use of distance learning to ensure the continuity of the educational process. Today, Moodle serves as the primary digital environment in most Algerian universities for managing electronic courses, organizing communication between professors and students, and evaluating pedagogical performance (Bouchikhi, 2021). The following table presents some estimated statistics on the use of the Moodle platform in several Algerian universities in recent years:

Table (2): The reality of using the 'Moodle' platform in selected Algerian universities during the period (2021–2024)

University	Year	Number of Digital Courses	Percentage of Professors Using the Platform	Student Satisfaction Rate
Mohamed Boudiaf University, M'sila	2021-2022	3572	78 %	81%
Kasdi Merbah University, Ouargla	2022	-	70%	65%
Setif 2 University	2023	980	60%	68%
Oran 1 University	2023	1200	55%	62%
Batna 1 University, Hadj Lakhdar	2023-2024	1500	72%	70%

Source: Estimated statistics based on official data from the Algerian Ministry of Higher Education and Scientific Research, and reports from the concerned universities regarding the use of the 'Moodle' platform for the period 2021–2024.

The table on the use of the Moodle platform in Algerian universities highlights a variation in adoption levels across different institutions, reflecting differences in engagement with the digital transformation of higher education. Mohamed Boudiaf University in M'sila has emerged as a pioneering model, with the number of published courses increasing from 525 in 2019–2020 to over 3,500 in 2021–2022. This growth is the result of widespread platform adoption and the provision of technical and pedagogical teams to support professors, despite the ongoing challenge of limited student engagement.

At Kasdi Merbah University in Ouargla, approximately 70% of professors used the platform, thanks to regular training sessions, with around 65% of students reporting relative satisfaction, despite technical obstacles such as weak internet connectivity and difficulties in following courses remotely.

At Setif 2 University, the platform usage rate reached 60% thanks to the integration of interactive tools such as forums and quizzes, which increased student satisfaction to 68%. However, usage remains focused more on theoretical aspects than practical ones. In western Algeria, Oran 1 University integrated over 1,200 digital courses, but active usage did not exceed 55% of professors and 62% of students due to weak technical maintenance and network congestion, despite efforts to adopt blended learning to overcome these shortcomings.

In eastern Algeria, Batna 1 University – Hadj Lakhdar is considered one of the most successful models, with over 1,500 digital courses in 2023–2024. The platform usage exceeded 72% among professors, and student satisfaction reached approximately 70%, thanks to continuous training programs and technical support, despite some challenges related to students' digital skills and limited coverage in certain areas.

Overall, these results highlight an upward trajectory toward establishing a culture of e-learning in Algerian universities. Pioneering experiences, such as those at M'sila and Batna 1, have demonstrated that investment in training and digital infrastructure yields tangible results. This makes the Moodle experience a key step in the digitalization of higher education and in supporting blended learning, in line with the national digital transformation strategy.

3- The Role of the University Professor in Ensuring the Success of Digital Transformation

The university professor is considered the backbone of higher education and the key factor in the success of any digital transformation within the university. The effectiveness of digital initiatives does not rely solely on infrastructure or technological tools but primarily on the professor's readiness to adopt technology and integrate it effectively into their pedagogical practices.

a- The reality of university professors' use of the Moodle platform in Algerian universities

With the official adoption of the Moodle platform as a national framework for managing e-learning since 2018, it has become essential to integrate university professors into a fully digital environment that enables them to prepare lessons, manage student interactions, and conduct assessments using modern digital methods. The COVID-19 pandemic further accelerated this transformation, as universities were prompted to adopt Moodle extensively to ensure the continuity of education. However, the reality of professors' use of the platform still shows significant disparities between institutions. While some universities have successfully built effective technical and pedagogical support systems, allowing professors to acquire advanced digital skills, other universities continue to face difficulties in training faculty and providing the necessary infrastructure (UNESCO, 2021). The following table presents approximate indicators reflecting the use of Moodle by university professors in several Algerian universities over recent years.

Table (3): Use of the 'Moodle' Platform by Professors in Selected Algerian Universities (2023–2024)

University	Academic Year	% of Professors Registered on the Platform	% of Professors Actually Using It	% Using Interaction Tools (Forums, Quizzes, etc.)	% Using the Platform for Assessment
University of M'sila	2023-2024	90%	78%	62%	55%
University of Batna 1	2023-2024	85%	72%	58%	50%
University of Sétif 2	2023-2024	75%	60%	47%	41%
University of Algiers 3	2023-2024	70%	56%	43%	39%
University of Oran 1	2023-2024	65%	55%	40%	36%
University of Ouargla	2023-2024	75%	68%	51%	44%

Source: Estimated statistics based on data from the Algerian Ministry of Higher Education and Scientific Research and university reports regarding the use of the 'Moodle' platform for the academic year 2023–2024.

The data above indicate that the level of professors' engagement with the Moodle platform ranges from formal use to active interactive use. In some leading universities, such as the University of M'sila and the University of Batna 1, the rate of actual use exceeded 70%, thanks to a stable digital environment and continuous technical support for professors. This support enabled them to fully exploit the platform in preparing digital course materials, organizing assessments, and utilizing discussion and online quiz tools. In contrast, at other universities, such as Oran 1 and Algiers 3, usage remains relatively limited, often restricted to uploading lectures as files without activating the interactive features offered by the platform. This situation is primarily due to weak technical support, network constraints, and the lack of institutional incentives for professors.

As for the University of Sétif 2, it has witnessed a notable increase in usage rates in recent years, particularly after organizing remote training workshops. These initiatives enabled an increasing number of professors to integrate short quizzes and interactive discussion activities into their digital courses, despite the persistence of some technical obstacles related to internet connectivity on campus. Similarly, the experience of the University of Ouargla in the south serves as another example of relative improvement, benefiting from virtual training and remote support. This raised the usage rate to approximately 68%, despite the limited technical resources available in the region.

These data indicate that Algerian university professors have begun to actively integrate into the digital learning environment; however, this integration is still in a transitional phase. While some professors are moving toward a fully pedagogical use of the platform—designing multimedia educational resources and facilitating virtual discussions—others continue to treat Moodle merely as a tool for storing documents. This situation highlights the need for a comprehensive institutional approach to developing professors' digital competencies.

From an analytical perspective, the use of Moodle by university professors in Algeria can be linked to three key factors. The first factor is training, as experiences have shown that universities providing regular training for professors recorded higher and more stable usage rates. The second factor concerns technical and pedagogical support, since its absence leads to weak continuity in platform use and a sense of technical isolation for professors while working on Moodle. The third factor is institutional motivation, where encouraging professors through professional incentives or positive evaluations in their academic career directly impacts their adoption of digital tools.

b- University professors' competence in pedagogically utilizing the Moodle platform

University professors' competence in pedagogically utilizing the Moodle platform is one of the key pillars for the success of digital transformation in Algerian higher education. Effective use of the platform goes beyond the technical dimension and extends to pedagogical aspects, enabling professors to employ Moodle as an interactive educational tool that supports active learning and enhances student autonomy (UNESCO, 2020). Pedagogical competence, in this context, refers to the professor's ability to integrate digital resources into teaching practices in a way that achieves learning objectives while considering the specificity of university courses and the characteristics of students.

In practice, field experiences in Algerian universities show that a considerable number of professors have acquired an acceptable level of competence in managing educational spaces through Moodle. This includes preparing digital content, designing learning activities such as quizzes, discussion forums, and assignments, and utilizing feedback and continuous assessment tools. However, these competencies vary from one professor to another, depending on the level of training and the availability of technical and pedagogical support within the university. While some professors stand out as creative users who employ the platform interactively, others remain at a partial or formal level of usage, limited to uploading lectures as PDFs without activating interactive tools.

Moreover, digital and pedagogical competence plays a complementary role in enabling professors to make optimal use of Moodle. Mere technical skills alone do not guarantee the quality of e-learning; professors must possess a deep understanding of how to design online learning activities according to modern pedagogical approaches, such as student-centered learning or project-based learning. Observations indicate that professors who have received training in digital pedagogy were able to build engaging educational spaces that foster student interaction and develop their research skills (Redecker, 2017).

It is also evident that competence in utilizing the platform is influenced by organizational and institutional factors, most notably the availability of continuous technical and pedagogical support and the existence of a clear university policy for integrating e-learning within the quality assurance system. Some Algerian universities have established support and digitization units responsible for monitoring professors and assisting them in preparing digital courses, which has gradually contributed to improving their competence. In contrast, other universities suffer from insufficient technical support, leaving professors to face technical difficulties that limit their pedagogical performance (Ali & Khelifi, 2022).

Furthermore, professors' educational beliefs represent a significant factor affecting their level of competence. Professors who recognize the pedagogical value of using Moodle and see it as a means to innovate their teaching methods and motivate students perform very differently from those who perceive it merely as an administrative obligation (Ben Ali, 2017) . A positive attitude toward e-learning enhances the development of self-competence and fosters a desire for experimentation and continuous improvement.

In light of the above, it can be concluded that university professors' competence in pedagogically utilizing Moodle is a complex process that intertwines technical skills, pedagogical knowledge, institutional support, and personal attitudes. To achieve sustainable competence, Algerian universities need to adopt a comprehensive training vision that integrates both technical and pedagogical dimensions and provides continuous professional development pathways, along with self-assessment mechanisms for professors' digital performance.

C- The Role of University Professors in Promoting a Culture of Digital Transformation

Digital transformation represents one of the most significant changes that Algerian universities have undergone in recent years. Developing digital competencies and fostering a technological culture within the academic environment has become an urgent necessity to ensure the quality of education and management. At the heart of this process stands the university professor, regarded as a key actor in building this new culture through their educational, training, and leadership roles within the institution. Today, the professor is no longer merely a transmitter of knowledge but has become a promoter of digital culture, a disseminator of technological knowledge among colleagues, and a partner in the cultural shift toward digital governance. From this perspective, the role of the university professor can be examined from three angles:

- University Professors as Catalysts for Digital Culture within the University: Through their daily practices, university professors contribute to shaping students' digital attitudes and behaviors. When professors use the Moodle platform effectively and organize interactive digital activities—such as forums, quizzes, and multimedia resources—they instill a spirit of digital initiative in students and develop their self-directed learning and research skills through technological tools. Professors also serve as digital role models within the classroom, as their commitment to using digital tools reflects the institution's seriousness in adopting digital transformation. Field reports from some Algerian universities (e.g., University of M'sila, 2023, and University of Batna 1, 2024) indicate that more than 65% of students who regularly engage with digital platforms attribute their motivation to the encouraging practices of their professors, highlighting that a

positive digital presence of professors is a decisive factor in promoting a culture of academic digitization (Université Mohamed Boudiaf de M'sila, 2023).

- Professors' Contribution to Colleagues' Training and the Dissemination of Institutional Digital Knowledge : The role of university professors is not limited to training students; it also extends to transferring digital skills to their colleagues within the institution through participation in training workshops or voluntary initiatives supporting digital transformation. In several Algerian universities (such as Constantine 2, Béjaïa, and Oran 1) (Ministère de l'Enseignement Supérieur et de la Rec, 2023), initiatives have emerged from professors trained in e-learning who organized internal sessions on course management via the Moodle platform and the design of digital content. Data from the Ministry of Higher Education in 2024 indicate that approximately 27% of e-learning training courses within Algerian universities were supervised by university professors from within the same institutions, reflecting an internal dynamic based on digital knowledge exchange. Through this role, university professors become essential actors in building "digital learning communities" within the university, contributing to the establishment of an institutional culture founded on collaboration and the sharing of digital practices.

- University Professors as Agents of Cultural Transformation toward Digital Governance: Digital transformation can only succeed by changing mindsets within the university, positioning university professors as key partners in the cultural shift accompanying digitization. By adopting electronic assessment methods, interacting transparently with students via digital platforms, and relying on digital data to monitor performance, professors promote values of transparency, accountability, and digital trust within the institution. They also contribute to the transition from a paper-based work culture to an automated, data-driven culture, a fundamental step toward achieving the smart university model (Digital Strategy Office, 2024). A study conducted by the Digital Strategy Office of the Ministry of Higher Education (2024) revealed that universities with high levels of professors' adoption of digital tools also recorded a 30% improvement in pedagogical management efficiency, confirming that the role of professors extends beyond teaching to strengthening comprehensive digital governance.

Conclusion

Digital administrative transformation in Algerian universities represents a strategic step toward the development of higher education systems, both pedagogically and administratively. The adoption of digital platforms by the Ministry of Higher Education, with Moodle at the forefront, has contributed to a qualitative shift in teaching and management practices. However, this transformation can only succeed with university professors who are competent both digitally and

pedagogically, capable of leveraging technology to enhance educational practices and achieve institutional efficiency. Field experience confirms that the real challenge lies in moving from formal digitization to actual digital transformation, which reshapes university culture and strengthens the quality of education and governance.

key Findings

- Digital transformation has become an irreversible strategic choice within Algerian universities. Digitization is no longer merely an experimental project; it has evolved into a national policy under the Ministry of Higher Education, with dedicated budgets and monitored through regular reports, making it a fundamental pillar in the modernization of Algerian universities.
- The Moodle platform has proven effective in developing blended learning and pedagogical management. Experiences from universities such as M'sila, Batna 1, and Sétif show that the platform provides an interactive environment that helps professors design courses, organize exams, and efficiently monitor students remotely.
- The findings indicate that professors' possession of digital skills (such as creating digital content and conducting electronic assessments) directly contributes to enhancing the quality of education and improving the university student experience.
- The adoption of digital systems has enabled improved monitoring of pedagogical and administrative processes, reduced errors, and reinforced transparency in management and decision-making.

. References and bibliography:

- Mohamed Boukhari, **Digital Transformation in Algerian Higher Education: Between Management Requirements and Quality Challenges**, Journal of Human and Social Sciences, University of Algiers 3, Issue (15).
- Ministry of Higher Education and Scientific Research, **National Strategy for Digital Transformation in the Higher Education and Scientific Research Sector**, Directorate General for Research and Technological Development, Algeria, 2021.
- Ministry of Higher Education and Scientific Research, **Launch of the National University Digital Library**, Algerian Press Agency (APS), Algeria.
- Ministry of Higher Education and Scientific Research, **Annual Report on Digital Transformation in Higher Education Institutions**, Directorate General for Digitalization and Information Systems, 2024–2025, Algeria
- Benmohamed, S. & Khelifa, A., **L’enseignement en ligne dans les universités algériennes : état des lieux et perspectives**, Éditions Université d’Alger 3.
- Mohamed Lounas & Samia Belkacem, **Educational Technology and Distance Learning in Higher Education Institutions**, Dar Al-Huda, Algeria, 2021.
- Ministry of Higher Education and Scientific Research, **Report on the Digital Transformation Strategy in the Higher Education and Scientific Research Sector in Algeria**, Digital Transformation Unit, Algeria, 2022.
- Bouchikhi, Abdelkrim, **Distance Learning in Algeria during the COVID-19 Pandemic: Reality and Challenges**, Journal of Educational Research, University of Constantine 2, Issue 15, 2021.
- UNESCO, **The impact of COVID-19 on Higher education: A global perspective**, Paris: UNESCO Publishing.2021
- UNESCO, **“Digital Competencies Framework for Higher Education Teachers”**, Paris, 2020.
- Redecker, C.. **European Framework for the Digital Competence of Educators (DigCompEdu)**. Publications Office of the European Union, Luxembourg .2017
- Ali & Khelifi, 2022, **“Digital Competency of University Teachers in Algeria”**, Journal of E-Learning Studies, Vol. 7, No. 2).

- Ben Ali, **Digital Competencies in Algerian Higher Education: Between Training and Practice**, Journal of Modern Educational Sciences, Issue 14.
- Université Mohamed Boudiaf de M'sila, **Rapport sur l'utilisation des plateformes d'apprentissage numériques à l'Université de M'sila 2023**, Service de l'Enseignement à Distance, 2023.
- Ministère de l'Enseignement Supérieur et de la Recherche Scientifique, **Rapport national sur la numérisation de l'enseignement supérieur en Algérie**, Alger, 2023.
- Digital Strategy Office, **Digital Transformation Indicators in Algerian Higher Education**, Ministry of Higher Education and Scientific Research, Algeria, 2024