IJEMS | SCIENTIFIC ARTICLE

Developing Local EFL Teaching Platforms in Algerian Higher Education: A SWOT Analysis of the EL@N Erasmus+ CBHE Project at the University of Tlemcen

YOUCEF MESSAOUDI
University of Tlemcen, Algeria
youcef.messaoudi@univ-tlemcen.dz

The digital transformation of higher education has fundamentally reshaped the teaching and learning of foreign languages, especially since the COVID-19 pandemic. In Algeria, the EL@N Erasmus+ Capacity Building in Higher Education (CBHE) project was one of the central drivers of this transformation, aiming to strengthen universities' capacity for online and blended learning at the level of language centres. This paper analyses the feasibility of developing a local English as a Foreign Language (EFL) teaching platform at the University of Tlemcen through a SWOT (Strengths, Weaknesses, Opportunities, and Threats) framework. Nine EFL teachers and the director of the Language Centre (CEIL) were interviewed, and questionnaires were completed by twenty-five students. Rogers's (2003) Diffusion of Innovation model – specifically the attributes of compatibility, complexity, and observability – guided the interpretation of the findings. Results reveal strong institutional enthusiasm and alignment with national policy but persistent weaknesses in training and infrastructure. The final discussion highlights practical implications for Algerian universities seeking sustainable e-learning networks and locally responsive platforms.

Key Words: CBHE, Erasmus+, ICT, SWOT, TEFL

(cc) BY-SA © 2026 Youcef Messaoudi
https://doi.org/10.70908/2232-6022/19.55-76

LITERATURE REVIEW ON DIGITAL TRANSFORMATION IN HIGHER EDUCATION IN ALGERIA

Introduction

Digital transformation in higher education has reshaped academic culture and the relationships between teachers, learners, and institutions.

Kirkwood and Price (2014, 07) argue that educational technology represents 'a shift not merely in tools but in pedagogical culture,' drawing attention to the ways digitalisation influences both teaching practices and learning environments. Universities around the world have
[56] engaged in sustained efforts to integrate technology into curricula, promote digital literacy, and support flexible learning models.

Algeria has participated in these global currents through national strategies aimed at expanding access to digital infrastructure, promoting distance education, and modernising pedagogical approaches within the LMD (Licence–Master–Doctorat) system. The Ministry of Higher Education and Scientific Research has consistently highlighted the need for 'la formation à distance,' as part of broader reforms designed to strengthen university competitiveness, expand access in remote regions, and align national education with continental ambitions such as the African Union's Agenda 2063. While the policy commitment is evident, implementation has been uneven, and Algerian universities continue to face challenges related to infrastructure, digital readiness, and human capital development.

Understanding how digital transformation unfolds within the abovementioned context requires attention to international developments, national strategies, institutional capacity, teacher competencies, and student attitudes toward online and blended learning. The following sections synthesise global and local research to situate the EL@N CBHE project within this wider landscape.

Digital Transformation in Higher Education: Global Perspectives

The global turn toward educational technology is well documented. As Selwyn (2016, 2) notes, digitalisation has become 'a taken-for-granted feature of contemporary higher education,' influencing assessment, course delivery, and academic interaction. Learning Management Systems (LMSS) such as Moodle, Blackboard, and Canvas have become central platforms for course communication, materials distribution, and interactive learning activities. The widespread adoption of LMSS is linked not only to technological capacity but also to broader pedagogical movements, emphasising learner-centred instruction, collaborative knowledge building, and flexible learning pathways. This global expansion of blended learning, where face-to-face instruction is combined with online components, has been particularly influential.

Garrison and Vaughan (2008, 05) describe blended learning as 'the

organic integration of thoughtfully selected online and face-to-face experiences.' Their framework for blended learning emphasises cognitive presence, teaching presence, and social presence, providing a conceptual map for understanding how online environments support meaningful learning. Digitalisation also intersects with issues of equity and [57]
access. According to UNESCO (2022, 54), meaningful digital education requires 'contextualisation, not global uniformity.' This suggests that technological integration must respond to local sociocultural realities, linguistic diversity, and institutional constraints – a perspective particularly relevant in multilingual contexts such as Algeria.

Digitalisation in the Algerian University System

Algerian higher education has increasingly embraced digital tools, especially since the COVID-19 pandemic. Universities rapidly adopted LMS platforms, videoconferencing tools, and digital resources to sustain teaching continuity. However, several studies have documented structural constraints, including variability in connectivity, insufficient teacher training, and limited digital access for students from rural regions.

Openly accessible empirical studies on Algerian digitalisation remain limited. However, the general patterns align with findings from comparable contexts in the MENA region (Middle East and North Africa). For instance, regional studies collected through the Arab League Educational, Cultural and Scientific Organization (2020) report a combination of policy ambition and on-the-ground challenges, especially regarding teacher preparation and infrastructure. These patterns resonate with Algerian experiences, where policy documents advocate for pedagogical digitalisation; yet, institutional realities often slow implementation. Within this landscape, capacity-building initiatives, such as the EL@N CBHE project, play a crucial role by making digital transformation more feasible and sustainable.

The EL@N CBHE Project: Vision, Structure, and Impact

The EL@N CBHE project was launched in 2019 under the Erasmus+ scheme. It represents a major national effort to digitalise language education across Algerian universities. The project links six Algerian university language centres (CEILS) – Tlemcen, Biskra, Bejaia, Guelma, Ouargla, and Oran – with four European partner universities: the University of Santiago de Compostela (Spain), the University of Valenci-

ennes (France), Istanbul University (Turkey), and Sapienza University of Rome (Italy). The launch of this programme aimed to support multilingualism, enhance intercultural communication, and modernise pedagogical practices through the establishment of a national digital net-
[58] work of language centres. A significant outcome has been the creation of a Moodle-based e-learning platform designed to host English, Arabic, and French language resources. Project documentation, publicly available through the Erasmus+ website, highlights capacity-building as a central objective, stating that EL@N aims to strengthen human, technical, and institutional capacities to support sustainable digital learning environments. Training workshops, technical assistance, and collaborative content development have allowed Algerian CEILS to adopt more coherent digital strategies.

As a member of the project, the researcher can affirm that EL@N paved the way toward institutional readiness for online learning by linking Algerian universities with European expertise. The University of Tlemcen, as the coordinating institution, has been especially active in developing a functional Moodle platform, training staff, and producing digital materials that can be shared across the national network. EL@N thus represents both an infrastructural and a pedagogical shift, embedding digital competencies into language teaching, and fostering long-term collaborative practices between Algerian and European institutions.

Moodle and Open-Source Learning Environments in EFL Contexts

Moodle is one of the most widely used open-source LMSS worldwide. Dougiamas and Taylor (2003, 07), reflecting on the platform's design philosophy, remark that 'Moodle's philosophy rests on social constructionist pedagogy, in which learners build knowledge collaboratively.' This makes it particularly suitable for language education, where interaction, feedback, and authentic communication are essential.

In EFL instruction, Moodle supports a wide range of pedagogical activities, such as: quizzes, forums, workshops, glossaries, and integrated multimedia tasks. For instance, Garrison and Vaughan (2008, 67) emphasise that LMS-supported environments enable teachers to create 'structured opportunities for formative dialogue,' which is key to developing communicative competence. In general, international studies have shown that Moodle can enhance learner autonomy, support self-paced learning, and improve engagement when used effectively. How-

ever, effective implementation depends heavily on teacher expertise and the institutional support available.

In comparison to international counterparts, research on Moodle adoption in Algeria remains limited. Nonetheless, reports from Algerian universities indicate uneven use and persistent challenges related to digital literacy, connection quality, and pedagogical training. Comparable findings from the region suggest that LMS usage tends to be more of a cultural than a technological challenge. In this vein, for illustration, Gacem and Senouci (2020, 141) shed light on the fact that 'among the numerous challenges they [teachers] faced were adjusting to online learning, juggling job and personal commitments, and managing mental stress.' This situation raises important questions about teachers' digital literacy and readiness.

Teacher Digital Literacy in Higher Education

Teacher digital literacy is widely recognised as a prerequisite for meaningful technology integration. The concept refers to the knowledge, skills, and attitudes that enable educators to use digital tools effectively, pedagogically, and not least ethically. Notwithstanding the foregoing, Koehler and Mishra's (2009) TPACK framework – Technological Pedagogical Content Knowledge – remains one of the most influential conceptual tools for understanding teacher competence in technology-mediated environments. It highlights the need to integrate technology knowledge with pedagogical and subject-matter expertise.

At the European level, the DigCompEdu framework (Redecker 2017) outlines six areas of teacher digital competence, including digital resources, teaching and learning, assessment, and learner empowerment. Redecker (2017, 16) argues that 'digital competence is no longer optional for educators; it is central to their professionalism.' The question of teacher ICT training has particular importance in the Global South as well. A review by Tondeur et al. (2017, 542) notes that teacher beliefs, institutional culture, and access to training significantly shape technology adoption. They conclude that 'teacher training must move beyond technical skills to address pedagogical and reflective dimensions.' Similarly, regional studies demonstrate analogous patterns: insufficient training, irregular access, and a reliance on self-learning. As UNESCO (2022, 61) warns more broadly, digital transformations can fail when teachers are 'expected to innovate without adequate support.' In the same vein, EL@N's emphasis on capacity-building is therefore

aligned with global research indicating that teacher training is essential for successful LMS implementation.

EFL Learners' Attitudes Toward Online and Blended Learning

[60] Learners' attitudes significantly influence the success of technology-enhanced language learning. Positive attitudes can increase engagement, motivation, and willingness to use digital tools, whereas negative attitudes may lead to anxiety, resistance, or disengagement. Internationally, many studies highlight students' generally positive attitudes toward blended learning. For instance, Graham (2013, 15) notes that blended environments 'support learner autonomy while maintaining essential instructor guidance.' In fact, during and after the COVID-19 pandemic, EFL students across multiple countries reported valuing flexibility, accessibility, and opportunities for self-paced study. At the same time, however, learners often face challenges related to connectivity, self-regulation, and a lack of familiarity with digital tools. A study by Zhang and Chen (2023) shows that online learning success depends on technological readiness, time-management skills, and perceived usefulness of the digital environment, for both teachers and learners. In the MENA region, studies commonly observe that student attitudes toward online learning are shaped by both technological conditions and academic culture. For example, Anas (2020) found that Saudi EFL students appreciated online platforms but struggled with motivation and interaction. These findings mirror broader global patterns. In Algeria, too, anecdotal evidence from institutional reports and regional studies suggests that learners appreciate flexibility but are hindered by internet instability, lack of digital skills, and insufficient teacher support. Finally, it can be said that these factors are directly relevant to EL@N, whose platform seeks to provide more structured, accessible digital learning opportunities.

Learning-Oriented and Context-Responsive Digital Pedagogy

Conceptualised by Purpura (2016), Learning-Oriented Assessment (LOA) emphasises the integration of assessment into learning processes. LOA promotes feedback, learner autonomy, and engagement, which align naturally with digital and blended learning environments. According to Purpura (2016, 21), LOA 'places the learner at the centre of assessment practices and views assessment as a driver of learning rather than an end product.' Accordingly, Digital platforms allow teachers

to design tasks that are interactive, contextualised, and adaptable to learners' linguistic repertoires. This resonates with the broader constructivist perspective that knowledge is constructed through active engagement and meaningful interaction. In a similar vein, the Community of Inquiry (CoI) model developed by Garrison et al. (2000, 89) [61] offers another useful lens. The authors argue that educational experiences in online environments are shaped by 'the dynamic interplay of cognitive presence, social presence and teaching presence.' Moodle and similar platforms support these presences through collaborative forums, structured content, and teacher-guided activities.

Correspondingly, Algeria's multilingual and sociocultural diverse context makes context-responsive digital pedagogy particularly important. However, as UNESCO (2022) cautions, imported digital solutions may fail if they do not reflect local linguistic and curricular realities. This is why projects such as the EL@N platform are expected to offer opportunities to craft digital resources aligned with Algerian students' needs and the specific demands of EFL learning in the national context.

Rogers's Diffusion of Innovation Theory in Technology Adoption

Rogers's (2003) Diffusion of Innovation theory remains one of the most influential frameworks for understanding how new technologies spread within social systems. He argues that adoption depends on the perceived attributes of the innovation: relative advantage, compatibility, complexity, trialability, and observability. Rogers (2003, 15) explains that 'innovations that are perceived as less complex and more compatible with existing systems spread more rapidly.' These attributes directly affect whether teachers and students embrace digital platforms. Compatibility refers to how well an innovation aligns with existing practices and institutional goals, complexity to its perceived difficulty, and observability to the visibility of its benefits. These constructs are particularly relevant in higher education, where digital integration requires changes in beliefs, workflows, and pedagogical routines. Rogers's theory therefore provides an appropriate framework for examining the development of local digital learning platforms.

Integrating SWOT and Diffusion of Innovation in E-Learning Research

SWOT analysis is a strategic planning tool used to identify the internal Strengths and Weaknesses of a project or institution, as well as

the external Opportunities and Threats that shape its environment. It originated in business strategy but has been widely adopted in education, public policy, and innovation studies. Gürel and Tat (2017, 995) define SWOT as 'a simple yet powerful framework for analysing an organisation's internal and external environments.' They emphasise that SWOT helps decision-makers understand how internal capacities interact with external conditions.

[62]

In educational research, SWOT analysis supports curriculum development, institutional planning, and the evaluation of technological innovations. It is particularly useful in contexts where resources are limited and where institutions must balance local needs with broader policy objectives. Methodologically, SWOT is often combined with qualitative case studies, surveys, and interviews to gather rich data on participant perceptions. In the context of EL@N, a SWOT approach is intended to provide a structured lens for understanding the feasibility and sustainability of a local Moodle-based platform.

Combining a SWOT analysis with the Diffusion of Innovation framework provides a multifaceted perspective on technology adoption. On the one hand, SWOT identifies contextual conditions – strengths such as institutional support, weaknesses such as limited digital literacy, opportunities such as international collaboration, and threats such as infrastructural instability. On the other hand, Rogers's model explains how these contextual factors influence the adoption behaviour of individuals within the institution. For example, lack of training (weakness) increases perceived complexity, while alignment with curriculum goals (strength) improves compatibility. Visible benefits (observability) become opportunities for broader acceptance. Together, the two frameworks allow researchers to analyse both structural conditions and human perceptions involved in adopting the EL@N platform.

Summary and Identification of Gaps in the Literature

The literature indicates that digital transformation in higher education is shaped by technological infrastructure, teacher digital competence, learner attitudes, institutional vision, and sociocultural context. Global research provides extensive insights into digital pedagogy, LMS integration, and blended learning frameworks. Regional and North African studies offer valuable parallels regarding infrastructural constraints, digital literacy challenges, and the need for contextualised pedagogical models.

Existing local reports suggest uneven adoption of LMS technologies, insufficient teacher training, and mixed learner experiences, but the evidence base remains thin in comparison to international standards. The EL@N CBHE project represents a significant step toward addressing these gaps by providing both infrastructure and capacity-building efforts. Evaluating the project implementation through SWOT analysis and innovation diffusion theory offers a robust and context-responsive framework for understanding how digitalisation unfolds in Algerian language education.

This literature review highlights the broader global trends while identifying specific national gaps that justify the present study. It emphasises the need for continued research on teacher digital literacy, learner readiness, and institution-wide digital strategy to ensure that technological innovation becomes a sustainable and equitable component of Algerian higher education.

METHODOLOGY

Research Design

The present investigation was built on a qualitative case-study design grounded in SWOT analysis to examine the feasibility of developing a local Moodle-based learning platform within the framework of the EL@N CBHE project. Qualitative case studies are widely recognised for their capacity to generate holistic, context-rich understandings of educational innovations by investigating phenomena within their real institutional settings (Yin 2018; Stake 1995): a crucial feature for analysing digital transformation processes in higher education. The University of Tlemcen was selected as the focal case due to its dual role as the coordinator institution of the project and the host institution responsible for installing the project's platform. These facts made the University of Tlemcen an information-rich setting for exploring institutional readiness, organisational dynamics, and implementation challenges.

In line with research on digitalisation and pedagogical change in Algerian universities, the researcher emphasised that such initiatives must be analysed through frameworks attentive to local governance, technical capacity, and cultural attitudes towards innovation. It is to this end that the study employed SWOT analysis, which is widely recognised as a strategic tool frequently used to assess strengths, weaknesses, opportunities, and threats in educational-technology projects

(Gürel and Tat 2017; Helms and Nixon 2010). This analytical lens allowed the researcher to map internal assets such as existing e-learning expertise and institutional commitment – alongside constraints including technical staffing, infrastructure stability, and policy limitations – while also identifying external enablers (such as European Union funding mechanisms) and external risks related to sustainability and governance change. Data informing the SWOT matrix is drawn from institutional documents, project reports, interview insights from platform coordinators and technical staff, and observations of early platform development stages, enabling triangulation and ensuring analytic depth (Miles et al. 2020). In the current study, the researcher relied mainly on two research tools: interviews with the EL@N English course designers, and a questionnaire addressed to a group of EFL students. By integrating these complementary elements, the established methodological approach provided a comprehensive evaluation of the feasibility of establishing a robust, local Moodle-based platform within the Algerian higher-education context, while also contributing to broader discussions on digital transformation and innovation management in emerging university systems.

Participants

As far as the sample population is concerned, this study relied on a purposeful selection of participants directly involved in or affected by the digital course-design activities implemented within the EL@N project. This approach ensured that the data reflected the perspectives of stakeholders situated at different levels of pedagogical and administrative responsibility, in line with established recommendations for purposeful sampling in qualitative research (Patton 2015). The respondent group consisted of nine EFL teachers engaged in the development and adaptation of digital EL@N courses, whose professional involvement provided rich insights into the pedagogical, technical, and institutional dimensions of integrating a Moodle-based platform into local teaching practices: a viewpoint consistent with research highlighting the centrality of teachers' opinions and attitudes in technology-enhanced learning adoption (Kirkwood and Price 2014).

To complement these practitioner perspectives – following Stake's (1995) argument that administrative actors constitute crucial informants in case-oriented educational research – the director of the Tlemcen University Language Centre (CEIL) was included as a key admin-

istrative informant expected to offer a managerial viewpoint on institutional capacity, resource allocation, and strategic alignment with the broader objectives of the EL@N initiative. In addition, twenty-five EFL students enrolled in Tlemcen University's CEIL were surveyed, as their expectations, needs and preferences, and levels of digital readiness represent essential indicators for assessing the feasibility and user acceptance of the proposed educational innovation, an aspect widely emphasised in investigations on learners' perceptions in digital learning environments (Garrison and Vaughan 2008). [65]

As discussed earlier, data collection followed a mixed-method strategy within the qualitative orientation of the study: the teachers and the administrative director participated in individual semi-structured interviews, which offer flexible and in-depth exploration of participants' perceptions (Merriam and Tisdell 2016), while the target students completed a structured questionnaire designed to gather extensive feedback on their digital learning practices, attitudes towards online platforms, and perceived challenges. This combination of qualitative interviewing and structured student data enhanced a form of methodological triangulation that strengthens interpretive validity and captures the multi-layered nature of digital transformation in higher education settings (Miles et al. 2020).

Instruments and Procedures

To cross-check data, as mentioned above, two research instruments were employed to ensure research triangulation:

1 Semi-structured interviews with EFL teachers (course designers) and the language centre director explored perceptions of e-learning readiness, institutional support, and expected pedagogical outcomes. In this study, interviews served as a crucial qualitative source for understanding participants' interpretations of institutional practices and their lived experiences with digital learning. Each interview lasted approximately 20 minutes and was audio-recorded with the participants'consent.

2 Student structured questionnaires included mainly closed-ended items, covering access to technology, familiarity with Moodle, digital literacy, and attitudes toward online courses. These structured items offered qualitative (and at times quantifiable) patterns, making the questionnaire suitable for triangulation with

the interview data on issues such as institutional support, technological constraints, and learner readiness.

Using interviews alongside questionnaires strengthened the process of methodological triangulation, which refers to collecting data from more than one tool to study the same phenomenon. In established qualitative research design, triangulation enhances the reliability and confirmability of findings by allowing the researcher to compare, converge, or reconcile insights generated through different tools. When interview accounts are examined together with questionnaire results, areas of overlap help validate emerging themes, whereas divergences allow deeper analytical reflection and the identification of contextual complexities. This convergence across sources reduces potential bias associated with relying on a single instrument and strengthens the robustness of the interpretations drawn from the field (Messaoudi 2017).

Data Analysis

Data were analysed thematically following Braun and Clarke's (2006) six-phase framework. Codes were generated inductively from the transcribed interview scripts and the students' questionnaire responses, allowing the analysis to remain closely grounded in the participants' actual accounts. These initial codes were then organised within the four SWOT dimensions in order to capture emerging strengths, weaknesses, opportunities, and threats related to the initiative. In a subsequent step, each category was interpreted through Rogers's (2003) attributes of compatibility, complexity, and observability, which provided a further analytical framework for understanding how different aspects of the digital course-design process aligned with, challenged, or facilitated adoption. This combined analytical procedure offered a structured overview of the data while still preserving the exploratory nature of inductive coding, and it helped reveal both internal institutional dynamics and broader contextual influences shaping teachers' and students' perceptions. Findings are presented below under the following headings.

FINDINGS AND DISCUSSION

The thematic analysis yielded results that align closely with Rogers's (2003) model and the SWOT categories. Teachers and students described the EL@N platform's potential and constraints in relation to their daily practices and institutional context.

TABLE 1 SWOT Dimension 1: Strengths

Strengths	Rogers's Attribute
Moodle is an easy tool to use for both teachers and students especially because it is accessible through smartphones, which are commonly used devices among students.	Complexity
Moodle is a cost-effective learning tool. The university, after the EL@N project, is committed to providing the e-learning market with the most competitive prices knowing that these prices would be unified nationwide (bearing in mind that studying in the CEILS is payable).	Compatibility
Both educators and students are favourable towards and motivated by e-learning. There is a high level of consensus among all university stakeholders that electronic forms of teaching and learning are useful and would be fruitful if implemented.	Compatibility
The existence of technical support, as the university employs technical staff who can be in charge of the technical facet of e-learning, is another asset.	Complexity
E-learning reaches a wide range of users: students from different disciplines, teachers, full-time workers, and learners from remote areas.	Observability
E-learning is rich in terms of levels, target audience, types of learners, and specific purposes. For example, each student can personalise their course in terms of language, specialty, skill, content, MOOCS, SPOCS ...	Observability
The possibility of pre-service/in-service teacher training is a strength as well. For instance, projects such as EL@N provide a great opportunity to train staff on the use of electronic platforms. In addition, qualified teachers can disseminate their knowledge and skills to colleagues in other language centres.	Complexity

[67]

Strengths: Compatibility and Motivation

Participants highlighted several strengths linked to Moodle's compatibility with their existing teaching habits and institutional objectives. The system's flexibility and its ability to operate on smartphones were considered major advantages in an environment where mobile devices are the primary means of digital access. Teachers valued Moodle's asynchronous features, which enable students to 'revisit content as often as needed and learn at their own rhythm' (Garrison and Vaughan 2008, 31). Another strength lies in the university's technical infrastructure and policy support following the EL@N project. Erasmus+ projects, in general, have served as catalysts for e-learning in North Africa by linking pedagogical reform with capacity building. The exis-

TABLE 2 SWOT Dimension 2: Weaknesses

Weaknesses	Rogers's Attribute
Moodle requires specialised training for all teachers, and as a matter of fact, e-learning is a new revolution being promoted by the Ministry, and the teaching staff is still not fully qualified for this type of instruction.	Complexity
Problems with internet access inside the university campus, as the quality of the internet connection is consistently criticised by both teachers and students, remain a hurdle.	Compatibility
Students are not familiar with, nor trained in, the use of Moodle as they have spent all their studies following the traditional mode of instruction.	Complexity

tence of trained IT staff was perceived as a safeguard against potential breakdowns. Both teachers and students expressed high motivation to experiment with online instruction, regarding it as a mark of modern pedagogy rather than an emergency measure introduced during the pandemic. The strengths are set forth in table 1.

Weaknesses: Complexity and Infrastructure

Despite the prevailing enthusiasm, several weaknesses were reported, mostly connected to complexity in Rogers's sense – the perceived difficulty of use and the effort required to learn new technologies. Teachers stated that they needed specialised training to design interactive tasks and manage the platform efficiently. Students similarly noted that they 'felt lost at first when navigating Moodle courses,' and that the system demanded more digital literacy than they possessed. Internet instability within the university was a recurring complaint to the extent that connectivity is considered the Achilles' heel of Algerian e-learning.

A second weakness concerns cultural readiness. Many learners, having been educated through lecture-based methods, associated online instruction with informality or self-study rather than teacher-guided learning. This perception limits engagement, slows adoption, and at times generates resistance: a fact that reinforces Rogers's observation that 'innovations inconsistent with existing social norms face resistance' (2003, 23). Table 2 provides more detailed illustrations.

Opportunities: Observability and Growth

As shown in table 3, opportunities identified by participants mainly relate to Moodle's observability – its capacity to make progress and benefits visible. According to the study respondents, the EL@N platform

TABLE 3 SWOT Dimension 3: Opportunities

Opportunities	Rogers's Attribute
Students' easy accessibility to the content of Moodle is a main opportunity.	Observability
E-learning tends to increase the number of users (including new and previously hard-to-reach audiences, and consequently this will raise the university income.	Compatibility
The possibility of obtaining external funding for the purposes of staff training and equipping language centres, in addition to the possibility for language centres to self-finance such goals …	Observability
Algerian universities and language centres could gain greater visibility among external audiences (both national and international by implementing e-learning platforms.	Observability
Moodle is a suitable platform to excel in terms of curriculum quality, since the use of electronic techniques will enrich the content of instruction.	Observability
Promotional opportunities: the existence of e-learning opportunities is expected to enhance the visibility of the Algerian centres and universities. The administration can also direct students to the e-learning offers, such as those applying for mobility programmes or staff members seeking language-level placement …	Observability

can increase the visibility of Algerian universities nationally and internationally, especially if courses are shared through open access or regional collaborations. It also provides possibilities for external funding for training and equipment.

Another prospective opportunity lies in the potential for blended learning models that combine in-person and online sessions. Coman et al. (2020) demonstrated that such hybridity enhances learner autonomy and motivation when institutional support exists. Teachers in this study saw Moodle as a space to upload authentic materials – videos, quizzes, and discussion forums – that foster communicative competence and self-assessment. Finally, participants emphasised that Moodle could contribute to curricular enrichment and sustainability. In view of the above, universities could generate significant revenue by offering online language certification or continuing-education modules to external audiences. Table 3 provides more detailed illustrations.

Threats: Policy and Perception

External threats mainly concern policy instability, technological change, and societal attitudes. Educational reforms in Algeria are sometimes interrupted by administrative turnover; thus, the continuity of e-

TABLE 4 SWOT Dimension 4: Threats

Threats	Rogers's Attribute
Technological evolution progresses at a rapid and often unpredictable pace, creating a sense of uncertainty that many threaten the adoption of e-platforms.	Complexity
The quality of internet connectivity on Algerian campuses can be another threat to the successful implementation of Moodle.	Compatibility
The success of the project can be threatened if continuous support (technical and training-related) is not maintained.	Complexity
The lack of marketing for e-learning provision, as it is a relatively new phenomenon in Algeria, means that students still place greater trust in traditional methods of teaching.	Observability
The lack of scholarly recognition for e-learning, as diplomas and degrees gained through face-to-face courses are seen as more valuable and better recognised than distance-learning qualifications.	Observability
Policy change in educational institutions may influence the success of e-learning projects.	Compatibility

learning policies is uncertain, as one of the respondents claimed: 'without long-term policy assuring, digital initiatives risk remaining insufficient isolated experiments.'

As shown in table 4, a persistent perception gap also threatens the adoption of e-learning platforms: online credentials are often viewed as less prestigious than traditional ones. Unless universities ensure the recognition of online courses, teachers and learners may regard them as secondary. Furthermore, the fast evolution of software can outpace institutional budgets, producing obsolescence and discouragement among staff.

PEDAGOGICAL IMPLICATIONS AND RECOMMENDATIONS

Professional Development and Digital Literacy

The findings reaffirm that teacher professional development is central to successful digital transformation in EFL higher education. In line with Garrison and Vaughan's (2008) blended-learning model and Laurillard's (2012) conversational framework for digital pedagogy, sustained professional development should go beyond short workshops to include iterative and practice-oriented learning cycles. This aligns with Tondeur et al. (2017), who emphasise that technology integration

improves when training is embedded in authentic tasks and linked to teachers' classroom realities.

Teacher-education programmes should therefore integrate dedicated modules on e-course design, digital pedagogy, data-informed teaching, online assessment, and AI-assisted language learning. Digital competence must evolve from a basic literacy to a core professional attribute for university instructors. Moreover, UNESCO (2023) highlights the need to support teachers not only technically but also pedagogically, ensuring that they understand how digital tools reshape learning processes, student engagement, and assessment practices. To ensure sustainability, universities may adopt a distributed model of expertise (Messaoudi 2017). Creating peer-mentoring networks and communities of practice – where experienced digital practitioners coach novices – echoes Wenger's (1998) theory of situated professional learning. Institutions could also establish micro-credentialling systems to certify teachers' digital competencies, as recommended by the European Commission (2020), thereby motivating staff and ensuring institutional recognition of professional development efforts.

Infrastructure and Technical Support

Reliable technological infrastructure remains a foundational requirement for any digital teaching initiative. The results of this study confirm the concerns raised by Bates (2019), who argues that technical instability inhibits long-term adoption and erodes teachers' and students' trust in online platforms. All the respondents included in the study insist that stable connectivity, secure servers, and updated hardware must be considered recurrent investments rather than one-off acquisitions. University–telecom partnerships may therefore constitute a strategic approach to guaranteeing bandwidth, cybersecurity support, and regular maintenance. This is consistent with the World Bank (2021), which recommends public–private collaboration for sustainable digital ecosystems in developing higher-education systems. Establishing faculty-level e-learning units and technical helpdesks can also ensure rapid intervention, reduce interruptions, and document best practices. As Hodges et al. (2020) note, pedagogical innovation cannot flourish without responsive technical support structures that accompany instructors throughout the design–delivery cycle. Furthermore, universities should adopt transparent digital governance policies specifying data protection standards, platform interoperability,

and user responsibilities. Such measures, highlighted by EDUCAUSE (2022), are essential for institutional resilience and user confidence in digital systems.

[72] *Policy and Institutional Recognition*

At the policy level, the study stresses the need for a coherent national strategy to legitimise online and blended learning within Algerian higher education. Formal recognition of credits earned online is consistent with UNESCO's (2022) guidelines encouraging governments to integrate digital badges, open-education practices, and online credentials into national qualification frameworks.

Institutional recognition also plays a motivational role. Instructors are more likely to adopt digital platforms when universities reward online course development through workload calculation, promotion criteria, and quality assurance mechanisms. For students, clear policies on credit equivalence, assessment standards, and digital attendance can enhance credibility and help reduce societal scepticism toward e-learning. This is particularly relevant in contexts where face-to-face instruction remains culturally dominant. Therefore, a national roadmap for digital education – aligned with the Ministry of Higher Education's reform agenda – would strengthen platform sustainability, promote innovation, and encourage universities to share resources, infrastructure, and expertise across institutions.

Curriculum Localisation and Multilingual Access

The development of multilingual interfaces (Arabic/English/French) is crucial for enhancing accessibility and aligning digital education with Algeria's multilingual context. Linguistic localisation strengthens learner identification and participation and is supported by research in educational technology showing that localisation enhances usability, reduces cognitive load, and increases system acceptance.

For EFL contexts, content localisation should include culturally relevant examples, local academic genres, and discipline-specific tasks that reflect Algerian professional and cultural realities. As Al-Samarraie et al. (2018) observe, culturally responsive digital content significantly improves student satisfaction and learning persistence. Moreover, integrating materials that reflect learners' sociolinguistic environment, local case studies, and region-specific reading materials – may strengthen learner motivation and identity investment (Norton 2013). Further-

more, the development of multilingual glossaries, translation support tools, and scaffolded language prompts can further support students with lower levels of English proficiency. In addition, adopting Universal Design for Learning (http://udlguidelines.cast.org) ensures that content is accessible to students with diverse learning needs, linguistic repertoires, and digital literacies.

Research and Continuous Evaluation

A strong implication of this study is the need for ongoing evaluation of digital platforms like EL@N. Longitudinal studies are essential for understanding how students' engagement, performance, and digital habits evolve over time. This echoes Rogers's (2003, 27) view of innovation diffusion as 'a continuing process, not a single event' and aligns with Ellis's (2008) call for sustained analysis of learning analytics in technology-enhanced language learning. Mixed-methods approaches – combining quantitative analytics, user-tracking data, and qualitative insights from interviews and reflective journals – can help identify strengths, weaknesses, and emerging needs. According to Hockly (2018), such systematic evaluation is crucial for refining digital pedagogy and ensuring that EFL platforms remain pedagogically grounded rather than technologically driven. In addition, collaborative research between universities, particularly across Erasmus+ project partners, can also generate comparative insights into best practices and scalability. Establishing research–practice partnerships can facilitate iterative improvements to platform design, inform local teacher training programmes, and contribute to the wider literature on digital TEFL in Algeria and the MENA region.

CONCLUSION

The current study demonstrates that the successful adoption of the EL@N platform at the University of Tlemcen, and other partner Algerian universities, depends on a combination of pedagogical, infrastructural, and policy-oriented factors. While institutional motivation and alignment with national tertiary reforms are evident, persistent challenges in teacher training, infrastructure, and policy clarity require sustained attention. Opportunities for international visibility, funding, and pedagogical innovation coexist with risks related to social perceptions, curriculum readiness, and inadequate digital literacy. Overall, the research supports the view that technology adoption in Al-

gerian higher education is not merely a technical upgrade but a cultural and organisational transformation. By investing in professional development, infrastructure, localisation, and evidence-based policymaking, universities can transform locally developed Moodle-based platforms into strategic drivers of pedagogical modernisation. The implications extend beyond English-language teaching, offering a roadmap for broader digital transformation in Algerian higher education.

REFERENCES

Arab League Educational, Cultural and Scientific Organization. 2020. *Arab Digital Education Strategy: Vision and Implementation Framework*. Arab League Educational, Cultural and Scientific Organization.

Al-Samarraie, H., B. K. Teng, A. I. Alzahrani, and N. Alalwan. 2018. 'E-learning Continuance Satisfaction in Higher Education: A Unified Perspective from Instructors and Students.' *Studies in Higher Education* 43 (11): 2003–19.

Anas, A. 2020. 'Perceptions of Saudi Students to Blended Learning Environments at the University of Bisha, Saudi Arabia.' *Arab World English Journal (AWEJ)* (Special Issue on CALL 6): 261–77.

Bates, A. W. (2019). *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning.* 2nd ed. Tony Bates.

Braun, V., and V. Clarke. 2006. 'Using Thematic Analysis in Psychology.' *Qualitative Research in Psychology* 3 (2): 77–101.

Coman, C., L. G. Tîru, L. Meseșan-Schmitz, C. Stanciu, and M. C. Bularca. 2020. 'Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective.' *Sustainability* 12:10367.

Dougiamas, M., and P. C. Taylor. 2003. 'Moodle: Using Learning Communities to Create an Open Source Course Management System.' In *Proceedings of EdMedia 2003 World Conference on Educational Multimedia, Hypermedia and Telecommunications.* AACE.

EDUCAUSE. 2022. *Cybersecurity and Privacy in Higher Education IT.* EDUCAUSE.

Ellis, R. 2008. *The Study of Second Language Acquisition.* 2nd ed. Oxford Applied Linguistics. Oxford University Press.

European Commission. 2020. *Digital Education Action Plan 2021–2027: Resetting Education and Training for the Digital Age.* Publications Office of the European Union.

Gacem, M., and M. Senouci. 2024. 'Towards a Successful Implementation of Online Learning in Algerian Higher Education: Readiness and Satisfaction as Key Tenets.' *ATRAS Journal* 5 (2): 137–54.

Garrison, D. R., and N. D. Vaughan. 2008. *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. Jossey-Bass.

Garrison, D. R., T. Anderson, and W. Archer. 2000. 'Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education.' *The Internet and Higher Education* 2 (2–3): 87–105.

Graham, C. R. 2013. 'Emerging Practice and Research in Blended Learning.' In *Handbook of Distance Education*, edited by M. G. Moore. 3rd ed. Routledge.

Gürel, E., and M. Tat. 2017. 'SWOT Analysis: A Theoretical Review.' *The Journal of International Social Research* 10 (51): 994–1006.

Helms, M. M., and J. Nixon. 2010. 'Exploring SWOT Analysis: Where Are We Now?' *Journal of Strategy and Management* 3: 215–51.

Hockly, N. 2018. 'Blended Learning.' *ELT Journal* 72 (1): 97–101.

Hodges, C., S. Moore, B. Lockee, T. Trust, and A. Bond. 2020. 'The Difference between Emergency Remote Teaching and Online Learning.' *EDUCAUSE Review,* 27 march. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning.

Kirkwood, A., and L. Price. 2014. 'Technology-enhanced Learning and Teaching in Higher Education.' *Learning, Media and Technology* 39 (1): 6–36.

Koehler, M. J., and P. Mishra. 2009. 'What Is Technological Pedagogical Content Knowledge (TPACK)?' *Contemporary Issues in Technology and Teacher Education* 9 (1): 60–70.

Laurillard, D. 2012. *Teaching as a Design Science: Building Pedagogical Patterns for Learning and Technology*. Routledge.

Merriam, S. B., and E. J. Tisdell. 2016. *Qualitative Research: A Guide to Design and Implementation*. 4th ed. Jossey-Bass.

Messaoudi, Y. 2017. 'An Evaluation of Higher-Education-Based Pre-Service Training and School-Based Initial Preparation of EFL Teachers.' PhD diss., University of Tlemcen.

Miles, M. B., M. A. Huberman, and J. Saldaña. 2020. *Qualitative Data Analysis*. 4th ed. Sage.

Norton, B. 2013. *Identity and Language Learning: Extending the Conversation*. 2nd ed. Multilingual Matters.

Patton, M. Q. 2015. *Qualitative Research and Evaluation Methods*. 4th ed. Sage.

Purpura, J. E. 2016. 'Learning-oriented Assessment in Second Language Education.' In *Handbook of Second Language Assessment*, edited by D. Tsagari and J. Banerjee. De Gruyter.

Redecker, C. 2017. *European Framework for the Digital Competence of Educators: DigCompEdu*. Publications Office of the European Union.

Rogers, E. M. 2003. *Diffusion of Innovations*. 5th ed. The Free Press.
Selwyn, N. 2017. *Education and Technology: Key Issues and Debates*. 2nd ed. Bloomsbury Academic.
Stake, R. E. 1995. *The Art of Case Study Research*. Sage.
Tondeur, J., J. van Braak, P. A. Ertmer, and A. Ottenbreit-Leftwich. 2017. 'Understanding the Relationship between Teachers' Pedagogical Beliefs and Technology Use in Education: A Systematic Review of Qualitative Evidence.' *Educational Technology Research and Development* 65: 555–75.
UNESCO. 2022. *Guidelines on the Recognition of Online and Blended Learning*. UNESCO.
UNESCO. 2023. *Supporting Teachers in Digital Transformation*. UNESCO.
Wenger, E. 1998. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge University Press.
World Bank. 2021. *Digital Transformation of Higher Education in Developing Countries*. World Bank.
Yin, R. K. 2018. *Case Study Research and Applications: Design and Methods*. 6th ed. Sage.
Zhang, Y., and X. Chen. 2023. 'Students' Perceptions of Online Learning in the Post-COVID Era: A Focused Case from the Universities of Applied Sciences in China.' *Sustainability* 15 (2): 946.