



## RESEARCH ARTICLE

## Assessment of Learning Through Digital Platforms In Language Classes In Moroccan Universities: Towards A New Innovative Pedagogical Practice — Case Study Of Moulay Ismail University, Meknes (Morocco)

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## ARTICLE INFO

## ABSTRACT

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Teaching practices, particularly in assessment, have continuously evolved with the integration of digital technologies. Despite the modest efforts of Moroccan universities, digital assessment only reached its full potential during the initial period of confinement imposed by COVID-19. The focus has since shifted from solely "distance assessment" to a broader concept of "digital assessment," which facilitates the evaluation of both face-to-face and remote learning modalities. At the beginning of the 2023-2024 academic year, the Ministry of Higher Education, Scientific Research, and Innovation implemented the Rosetta Stone platform to enhance learners' language skill development. A new practice has thus been incorporated into teachers' professional routines, requiring them to monitor and assess the learning outcomes achieved through this platform. Therefore, it is important to examine the impact of digital assessment on teachers' practices in higher education, as well as to investigate the associated benefits and challenges. Data were primarily collected through a questionnaire administered to language instructors. Preliminary findings indicate that digital assessment has the potential to significantly transform the role of educators, allowing them to devolve routine tasks, such as providing correction and feedback, to technological tools. This transition could enable educators to focus on more innovative and effective teaching practices, ultimately enhancing the quality of education within higher education institutions.

## INTRODUCTION

The advent of digital technology has provided fertile ground for the modernization of the education system. Assessment, as an integral part of this system, has also benefited from digital technologies, which have made the process more efficient, digitized, and easy to operate. However, the extensive use of this new method emerged during the COVID-19 pandemic, which forced educational institutions to adopt digital platforms — particularly *Moodle*— to ensure continuity in teaching and facilitate the process of teaching and learning assessments. Consequently, assessment practices have become significantly more effective, thanks to automated correction and instant feedback enabled by digital technology. At the start of the 2023-2024 academic year, the Ministry of Higher Education, Scientific Research and Innovation introduced a new platform called *Rosetta Stone*, designed for language learning. This platform promotes an autonomous learning approach under the guidance of teachers. These innovations prompt a re-evaluation of university teachers' missions, roles, and teaching practices, with particular emphasis on the assessment methods employed through these platforms. In this context, our research question aims to analyze the experiences of digital teaching and assessment practices through digital platforms and to understand the impact of this new mission on teaching practices in Moroccan universities.

Our hypotheses are as follows:

- University teachers utilize digital tools and alternate between various modes of in-person, online, and blended learning in order to promote flexible and adaptive experiences.
- Its design, automated correction, and results management enabled by digital tools encourage teachers to conduct assessments online throughout the educational process.
- Assessing students' learning, acquired on the *Rosetta Stone* platform, represents a new task in addition to teaching responsibilities; however, it can be carried out easily with digital tools.

## LITERATURE REVIEW

According to Durand and Chouinard (2012), evaluative practices evolve alongside advancements in teaching approaches and are readjusted according to pedagogical objectives. However, regardless of the method or goal, evaluative tests are carried out on paper in a face-to-face mode. The learners, sitting in their learning environment, interacted directly with the physical material (the paper tests) or with the teachers' questions during the oral tests.

In response to the demands of a rapidly changing society, which exceeds the capacity of a traditional education system (Guihot, 1995), education decision-makers have chosen to explore digital technology. Poteaux (2013) confirms that digital technology contributes to improving the quality of teaching and learning practices, thanks to ease of access to information and modification of the knowledge acquisition process. This revolution has challenged higher education, prompting it to support and modernize pedagogical practices by integrating digital technology throughout the teaching and learning process. To this end, digital platforms are beginning to emerge in the university context as tools for mediating between people and knowledge (Poteaux, 2013) and hosting many learning devices that stimulate knowledge acquisition (Zeroil et al., 2023).

Britain and Liber (1999) state that with the creation of digital teaching platforms, tasks have become more operational and results more effective. These platforms offer teachers many functions to optimize the educational process. They enable them to conceive and transmit lessons, communicate and interact with learners, monitor their progress individually or in groups, and assess the skills and knowledge they have acquired.

### Digitalization and the Assessment of Learning

Assessment of learning is a determining factor in the education system. It helps guide teaching methods and regulate learning strategies (Leroux et al., 2019). Indeed, assessment is a process that consists of collecting information, analyzing and interpreting them in order to make decisions (Leroux, 2018) concerning success, guidance, or regulation. In other words, the teacher is required to draw up a report based on the data obtained to adjust their teaching strategies and program regulatory activities (Zeroil et al., 2023). With the integration of digital technology, these practices become even more accessible and efficient.

### Assessment using Digital Technology: What Uses and What Benefits?

In the context of the "program approach" proposed by Leroux et al. (2019, p. 89) as a reference framework, digital assessment can be carried out synchronously or asynchronously and in three teaching modes: blended, online, or enriched face-to-face. Puentedura (2013) (cited in Leroux et al., 2019) identifies four levels of digital integration in assessment practices. Indeed, depending on the assessment objectives,

teachers may propose substitution or augmentation exercises aimed at improving skills, such as multiple-choice questions (MCQs); or suggest tasks aimed at modifying and redefining learning processes.

The research conducted by Leroux (2018) points out that "summative/certificate" assessment takes place within a very specific spatiotemporal framework and requires the implementation of a "heightened" surveillance system, contrasting with formative assessment practices, which serve as a feedback and regulation tool. Leroux et al. (2019) synthesize the different digital tools used by teachers in the context of formative assessment in the following table (p.102):

**Table 1. Tools and Instruments Used in Formative Assessment**

<i>Feedback/ Regulation</i>	<i>Methods/ Instruments</i>	<i>ICT tools</i>
<b>Automated correction</b>	<ul style="list-style-type: none"> <li>• Different types of questions (MCQs, short answers, etc.)</li> <li>• Crosswords</li> </ul>	<ul style="list-style-type: none"> <li>• Socrative, Moodle</li> </ul>
<b>Feedback</b>	<ul style="list-style-type: none"> <li>• Written, audio, video, images</li> <li>• Evaluation grids</li> </ul>	<ul style="list-style-type: none"> <li>• PDF, Word, YouTube, Screencast-0-Matic, mobile applications (e.g. audio recorder), MP3 files, GoPro</li> </ul>
<b>Self-assessment and self-regulation</b>	<ul style="list-style-type: none"> <li>• Annotation of audio and/or video files by the student</li> <li>• Serious games in a learning area</li> </ul>	<ul style="list-style-type: none"> <li>• VideoAnt, YouTube, Moodle</li> <li>• Prima</li> </ul>
<b>Mutual or peer assessment and co-evolution</b>	<ul style="list-style-type: none"> <li>• Group projects, diversified complex tasks: written production, oral presentation, case studies, etc.</li> <li>• Assessment grids</li> </ul>	<ul style="list-style-type: none"> <li>• Vidy, Moodle. Google, Skype</li> </ul>

As a result, the integration of digital platforms offers teachers many options for creating various assessment activities and different question types (Desmet, 2006). The "Test" module, included in any educational platform, can be used to create online quizzes and exams in the form of MCQs, cloze texts, interactive exercises, video files with questions, synthesis activities, and so on. This gives teachers greater flexibility in assessing learning. In addition to design, this option allows automated correction, with the possibility of integrating instant feedback. Moreover, teachers can use the platforms to create adaptive assessments (Sodoké et al., 2007). This means that the questions are adapted and oriented according to the previous answer, and therefore according to each learner's profile.

### **Challenges of Digital Platform Assessment**

Plagiarism and cheating are major problems in digital assessment. The main concern of teachers is to ensure the credibility of results while avoiding all forms of fraud and dishonesty, especially in the absence of direct interaction between the assessed and the assessor (Brija & Marfouq, 2022). Despite the introduction of several solutions for online monitoring, Brija and Marfouq note that teachers prefer to assess their students face-to-face, particularly for summative assessments.

### **Digital Platforms and Assessment at Moroccan Universities**

During the COVID-19 pandemic, Morocco used digital platforms to guarantee educational continuity and, above all, to assess distance-learning outcomes. In fact, according to interviews conducted by the

newspaper *Le Matin* with ministers Saïd Amzazi in 2020 and Abdellatif Miraoui in 2021, distance learning remained the only method available for assessing learning and ensuring educational continuity during this critical period. Several digital environments, such as Moodle and Classroom, were adopted for distance assessment (Baggar & Rizk, 2023).

At the start of the 2023-2024 academic year, the Ministry of Education decided to introduce a new language-learning platform called *Rosetta Stone*. This platform offers courses and interactive exercises adapted to the levels of the Common European Framework of Reference for Languages. Although the platform is based on self-learning, it requires the support of teachers, who are expected to monitor learning and assess progress (Iseksioui, 2021).

## **MATERIALS AND METHODS**

Our research is an exploratory study of the reality of teaching practices, in particular, assessments conducted through digital technology. It aims to study assessment activities through digital platforms and to identify the difficulties encountered by university teachers implementing this form of assessment. Data were collected using an online questionnaire designed with Google Forms. The link to this questionnaire was shared, using the snowball sampling method, with teachers in the University Work Methodology (UWM) module in the various departments of Moulay Ismail University.

Before sharing our questionnaire online, a pre-survey was carried out with approximately ten teachers, aimed at refining the questions, verifying the variables studied, and assessing their relevance.

Our sample therefore consisted of 28 male and 26 female teachers, teaching French (49%) and English (51%). The respondents covered all age categories, with a predominance of the age groups [31-40] and [41-50], each representing 31,7% of respondents. However, the majority of participants (53,7%) had less than 5 years of experience.

## **RESULTS**

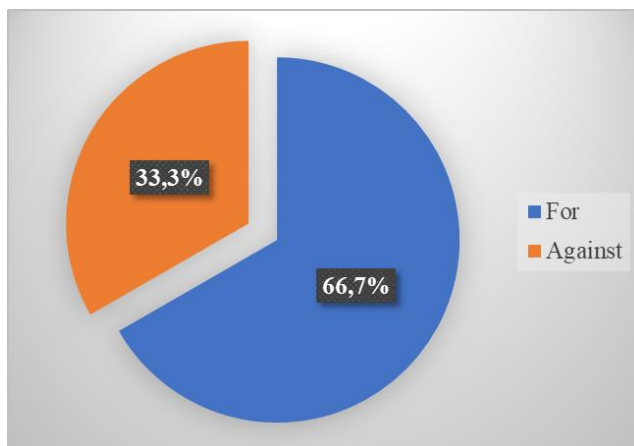
### **The Experience of Digital Teaching at Moroccan Universities**

The transition from traditional face-to-face teaching to digital teaching began with the COVID-19 pandemic, which aimed to maintain educational continuity. Since then, Moroccan universities have encouraged the use of digital teaching to facilitate learning, address the problem of overcrowded classrooms, liberate learners from constraints of space and time, and prepare them to manage situations similar to that of COVID-19. Bouazizi and Mounir (2022) explain how *Moodle* platform is one of the digital environments widely used in the university context to promote this new mode of teaching and strengthen pedagogical action.

### **Digital Teaching: Current Positions and Practices**

To ascertain teachers' engagement with this new strategy, we felt it was important to begin with two essential and complementary questions that would help us examine the relationship between mental representations and the teaching practices implemented.

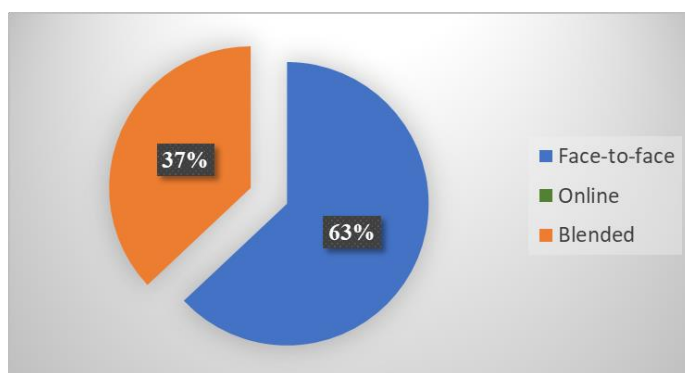
**Figure 1. For or Against Digital Teaching**



It is noteworthy, from this figure, that the majority of university teachers (66,7%) are in favor of digital teaching. However, 33,3% remain resistant and prefer to use traditional tools and methods without any digital intervention. Meanwhile, the ongoing demands from the Ministry of Higher Education are encouraging the use of digital technology as a means of modernizing teaching and learning practices.

The responses to the second question regarding the adoption of digital teaching, illuminate the teaching methods adopted by university teachers.

**Figure 2. Teaching Methods Adopted at Moroccan Universities**

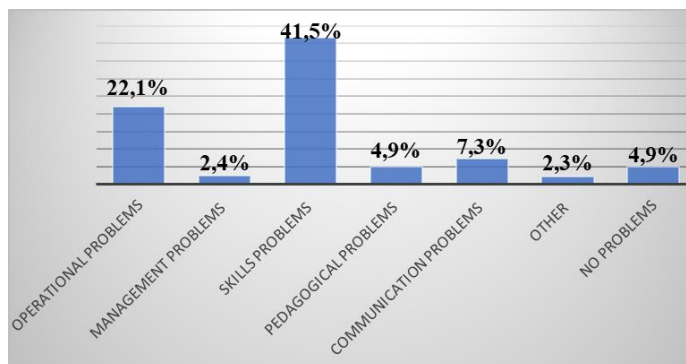


According to this figure, only 37% of teachers favor this new strategy and employ a blended mode. Conversely, 63% continue to prefer traditional methods and give their courses exclusively in face-to-face mode, with no respondents opting for the online mode.

**Digital Skills**

To understand the reasons that prevented teachers from adopting digital teaching, particularly in blended or distance modes, it is essential to examine the challenges they faced when integrating digital technology into their teaching and assessment practices. The responses collected are presented below:

**Figure 3. Problems Encountered in Digital Teaching**

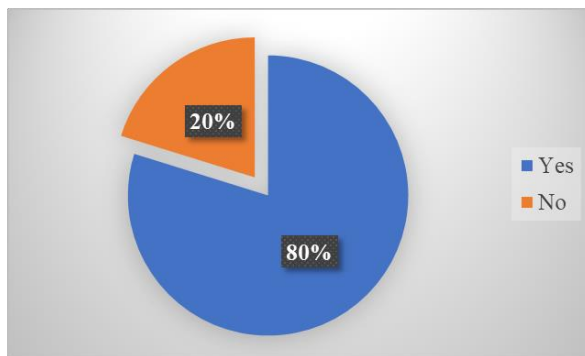


From this figure, only 4,9% of respondents report no issues when integrating digital technology into their teaching practices. For the others, maintaining the in-person mode is primarily due to a lack of skills in the use of digital tools (41,5%) and operational problems during the implementation of these options (22,1%). However, technical problems related to the lack of tools and technical breakdowns were concerns for 14,6% of respondents.

Additionally, it is important to mention that there are other less frequent problems that can hinder the adoption of digital teaching, namely pedagogical problems (4,9%), communication problems (7,3%), and management problems (2,4%).

**Training in the Use of Digital Technology**

**Figure 4. Participation in Training Courses on the Use of Digital Technology**



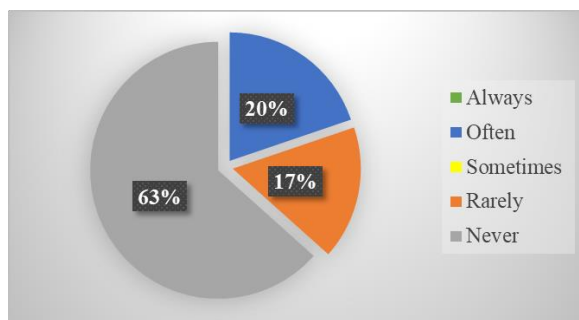
This lack of digital and operational skills can be explained by the limited availability of training in the use of digital technology. This is clearly illustrated in Figure 4. Over 79% of teachers have never received training in the use of digital technology, particularly online teaching platforms.

**Assessment in the Digital Age**

**Evaluation Practices: Uses and Challenges**

As previously mentioned, our study focuses on the assessment of learning in the language classroom through digital means. Figure 5 shows the rate of digital technology usage in assessment practices:

**Figure 5. Assessment of Learning Using Digital Technology**



According to this figure, only 19,8% of teachers often use digital assessment, while 16,8% rarely use it. Meanwhile, 63,4% have never used this assessment method, demonstrating the predominance of paper-based assessment in face-to-face mode. This means that less than 40% of respondents may take advantage of automated correction and other functionalities offered by digital technology to create online tests and exams.

**Figure 6. Challenges to Digital Assessment**

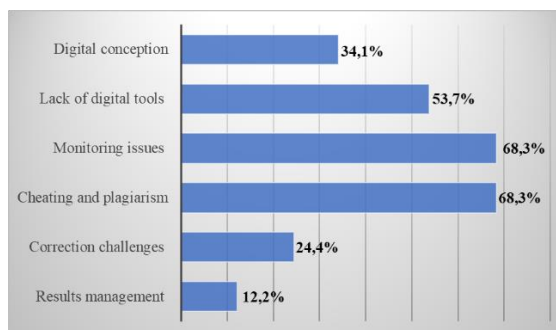


Figure 6 illustrates several challenges that can hinder digital assessment and, consequently, lead to the choice of paper-based assessments with teacher or supervisor presence.

As shown in the figure above, cheating, plagiarism, and monitoring issues (68,3%) are the primary concerns among respondents. Additionally, the lack of digital tools (53,7%), insufficient skills, needed to create digital assessments (34,1%), correction challenges (24,4%) and results management (12,2%) all contribute to teachers’ reluctance to adopt digital assessments.

**Types of Assessment**

Despite the low rate of digital assessment usage, additional research was undertaken to better understand its application. The focus of this inquiry was on the various types of assessments conducted through digital platforms. These assessments can be classified as diagnostic assessments, conducted at the beginning of each training period to evaluate learners’ prior knowledge; formative assessments, which accompany the educational action and inform both the teacher and the learner about the actual state of learning in relation to the educational objectives; or summative assessments, administered at the end of the period as an assessment of what has been learned. All the respondents who use digital assessment voted 100% for formative assessment and 23,6% for diagnostic assessment. This clearly confirms that teachers are hesitant to use digital technology to validate acquired knowledge and prefer to use this tool for supplementary assessment, where the mark is not as decisive as in summative assessment.

**Assessment via Digital Platforms**

The integration of digital platforms into teaching and learning systems has provided teachers with a range of options for the conception, transmission, interaction, and assessment of learning. In Morocco, two platforms have been established and extended to all universities with the aim of unifying teaching activities in the language classroom: *Moodle* and *Rosetta Stone*. In the following sections, we will analyze the assessment practices carried out through these two digital platforms.

### Moodle and Assessment Practices.

The *Moodle* platform is a teaching and learning digital tool that made a significant contribution to distance learning in the university context during the COVID-19 pandemic (Bouazizi & Mounir, 2022). Subsequently, it has become a support system for pedagogical activities, promoting digital teaching in both blended and enhanced in-person modes.

**Figure 7. Rate of Moodle Platform Usage**

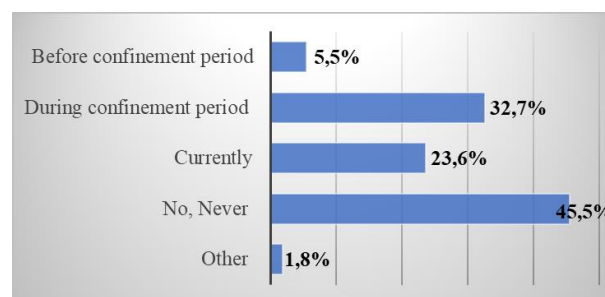


Figure 7 shows that 45,5% of respondents have never used this platform for assessment practices, while only 23,6% currently use it. In comparison, 32,7% used it during the period of confinement, and 5,5% had used it prior to the pandemic.

**Figure 8. Use of the Moodle Platform**

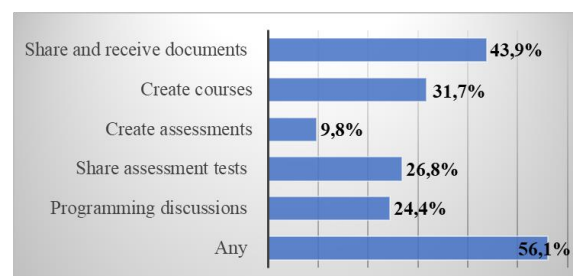


Figure 8 illustrates the various ways university language teachers utilize the options integrated into the *Moodle* platform. Notably, only 43,9% of teachers use the *Moodle* platform, which was introduced as a digital teaching tool. Moreover, the difference between the 63% of teachers who use in-person teaching methods (see Figure 2) and the 56,1% who no longer use the *Moodle* platform (Figure 8) suggests that certain elements of digital teaching practices are still present within in-person teaching, beyond platform use alone.

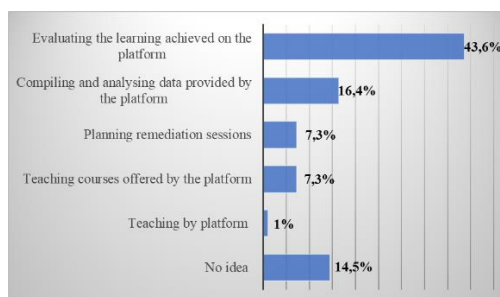
Regarding the use of the *Moodle* platform, as clearly shown in Figure 8, the document-sharing option (43,9%) and the assessment-test option (26,8%) are the most frequently used by respondents. However, only 9,8% of respondents engaged with the possibility of conceiving online assessments. From this observation, it can be concluded that the *Moodle* platform is primarily perceived as a simple mediation tool, used mainly to share and receive documents. Thus, the concept of digital teaching largely concerns document sharing, while digital assessment is reduced to merely digitizing assessment activities.



### Assessment of Learning Acquired on Rosetta Stone.

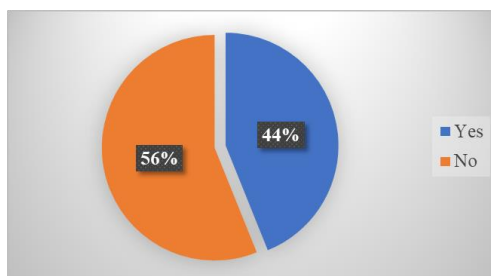
The integration of the *Rosetta Stone* as a self-directed learning platform adds a new dimension to teachers' activities, giving them an additional task of monitoring and support. Monitoring follows-up assessment. University teachers, particularly language teachers, are called upon to monitor the progress of their learners and to recommend correction activities before carrying out assessments. In this analysis, the assessment phase is of particular interest. Thus, we chose to survey teachers about their planned role on this platform. The obtained answers are illustrated in the figure below:

**Figure 9. Teachers' Role in the Rosetta Stone Platform**



According to this figure, over 85% of teachers are aware of their involvement in the new strategy. However, only 43,6% of them were interested in the assessment task. This result was later confirmed in answer to the question about the assessment of learning via the *Rosetta Stone* platform (Figure 10).

**Figure 10. Assessment of Learning Achieved Through Rosetta Stone**



According to the answers shown in Figure 10, 56,1% of respondents do not evaluate the learning achieved on the *Rosetta Stone* platform, while only 43,9% are committed to this new approach.

**Figure 11. Facility of the Assessment Task Using Digital Technology**



According to Figure 11, 65,4% of respondents confirmed that assessing learning acquired on *Rosetta Stone* is time-consuming. This activity is complex, requiring monitoring, analyzing reports to identify key

assessment elements, creating tests based on these results, and handling correction and regulation. Although 59,7% of teachers indicate that the task is easy, digital assessment seems to consume significant time and effort, as noted by 67,4% of respondents. This may explain why 56,1% of respondents (Figure 10) prefer not to assess learning on *Rosetta Stone*.

## 1. DISCUSSION

This research aims to monitor the state of integration of digital technology in the assessment process. Based on a quantitative study, the results reveal a certain reluctance among university teachers to use digital technology in their teaching practices. Indeed, these teachers demonstrate low adoption of digital teaching and limit themselves mainly to sharing and receiving tools, rarely using effective communication methods with their learners. A research conducted by Mounia Bouhafs (2021) highlighted a similar problem concerning teachers who face difficulties integrating digital technology into their teaching practices because this requires a major investment of time and effort. The recurrence of this problem, three years later, prompts the government to take a more in-depth analysis and look for the underlying causes of this persistent situation. The results of our research add to those of previous studies (Bouhafs, 2021; Brija & Marfouq, 2022) and confirm a lack of digital and operational skills among university teachers, due to the scarcity of training offered in this field. This lack of digital skills hinders the optimal implementation of digital technology in teaching practices and slows down the modernization of learning.

As far as digital assessment is concerned, it seems that some teachers are reluctant to use *Moodle* and *Rosetta Stone*. They prefer to stay in their traditional comfort zone, often citing the complexity of the task. For them, the digital conception of assessments is perceived as a time-consuming activity that requires a commitment in terms of tools, time, and effort. Indeed, Elmendili and Saaidi (2020) point out that the lack of support in designing teaching scenarios, including assessment, can cause teachers to be apprehensive about digital tools, leading them not to integrate them into all stages of the educational process, particularly assessment. This clearly explains the low usage rate of the assessment options available on the web and the platforms adopted. Moreover, according to Brija and Marfouq (2022), portfolios and discussions on forums and videoconferencing sessions are commonly used methods for online assessment as part of formative assessment. The teachers interviewed also confirmed that the use of mainly concerned diagnostic and formative assessment practices. On the other hand, it is not used at all for summative assessments.

Regarding the new mission assigned to university teachers, the situation seems more critical and vulnerable. Although the aim of integrating the *Rosetta Stone* platform is to encourage self-learning, the learning achieved through this platform requires monitoring and support from the teacher. Teachers must schedule formative and summative assessments to evaluate the quality of learning. However, we found that most teachers are not committed to this new initiative, citing the same reasons previously mentioned. This finding calls for immediate and serious action, from those in charge, to provide assistance and prepare tutors for the use of digital technology.

## 2. CONCLUSION

In an effort to modernize education systems in line with the expectations of the 21st century, our contribution highlights the reality of digital assessment in the Moroccan university context. Installing digital tools and instruments is not enough to meet such requirements. Many difficulties seem to be hampering the digitization of teaching practices and slowing down the adoption of the *Moodle* and *Rosetta Stone* platforms, set up as part of digital teaching. In addition, assessment activities using digital technology are often marginalized and encounter problems relating to tools, ethics, and, above all, skills. As the overwhelming majority of teachers questioned, during our investigation, confirm, the lack of digital skills, due to the scarcity of dedicated training, makes it impossible to keep up with the digitization of the teaching process. In other words, the same teachers interviewed expressed a reluctance to use digital technology and

preferred to retain traditional methods for assessing learning. As a result, the modernization of the Moroccan education system and the implementation of strategies for the *platformization* of teaching and assessment practices rely essentially on digital skills, highly needed to train teachers, in order to make efficient use of digital tools.

**CONFLICT OF INTEREST.** The authors declare that there is no conflict of interest.

## AUTORSHIP CONTRIBUTION

**Conceptualization:** Mounir BOURRAY- Nihal AJDI

**Research:** Mounir BOURRAY - Nihal AJDI

**Methodology:** Mounir BOURRAY - Nihal AJDI

**Data analysis:** Mounir BOURRAY - Nihal AJDI

**Writing:** Mounir BOURRAY - Nihal AJDI - Badia SNAIBI

**Writing-revision and editing:** Mounir BOURRAY- Nihal AJDI - Badia SNAIBI

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