

Retrieving Sources in the Digital Age: Information Literacy Skills among Moroccan English Department Students

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Abstract

This study examines the development of source retrieval skills among students in the English department at Moroccan universities. It draws on data from the Standardized Assessment of Information Literacy Skills (SAILS) test. This research aims to identify the performance trends of students and instructional gaps related to the skill of retrieving sources. The population is undergraduate, master's, and doctoral students. Descriptive and ANOVA analyses revealed variation among the groups. The doctoral students outperformed the others but still demonstrated moderate proficiency in general. The weaknesses across all levels highlight primarily the limited integration of information literacy skills into English studies curricula. Therefore, the findings indicate that there is a tendency for retrieving source skills to improve with academic progression; however, they are often acquired through faculty's informal practices rather than through structured instruction. This means that these gains are only marginal and unsystematic. The findings also emphasize the need for targeted and specific pedagogical interventions and closer collaboration between faculty and librarians to maximise the students' research competencies. As it shows on Moroccan policy documents, this study also situates these challenges within the country's efforts to enhance digital and academic literacy in higher education.

1. INTRODUCTION

The ability to retrieve information that is both relevant and credible in today's digital landscape is a central component of Information Literacy skills. Today's overabundance of digital resources has transformed the way students conduct their research and sift through information, all of which is accessible directly in front of their computers. This makes retrieval skills of paramount importance for successful academia and lifelong learning (Head & Eisenberg, 2010; Gross & Latham, 2012). Additionally, despite the increasing availability of online databases and digital libraries, students still face challenges or are unaware of how to access these resources. Many students in higher education continue to struggle with locating, accessing, and evaluating appropriate sources (Bury, 2011; Yevelson-Shorsher & Bronstein, 2018).

In the Moroccan context, the challenges are compounded by the limited access to academic databases, uneven digital infrastructure, and a curriculum that does not consistently integrate information literacy instruction (El Hassani, 2015; Zohor, 2022). By impression, El Hassani maintains that students can have access to databases, but they are unaware of the fact that the university can give them access, which means that it is a question of 'uninformation'. Research and policy documents in Moroccan higher education clearly highlight the importance of ICT integration and digital literacy training; however, students still report difficulties with retrieving

and organizing sources for academic purposes (Benali & Laouni, 2022; El Mamsaoui & Harrizi, 2024). This issue is also relevant to English department students, who are expected to engage with a wide repository of scholarly materials in both local and international contexts.

In brief, this study aims to investigate how Moroccan English department students perform in tasks that require them to retrieve sources. The analysis utilizes findings gleaned from the Standardized Assessment of Information Literacy Skills (SAILS test. The objective is to identify strengths and weaknesses across the academic levels, including undergraduate, graduate, and doctoral students, with a particular focus on highlighting gaps that can inform curriculum design and pedagogical interventions. Therefore, this study aims to address the following research question: How do Moroccan English department students at various academic levels perform in information retrieval tasks, and what insights *does this reveal about instructional gaps in information literacy education?*

2. LITERATURE REVIEW

2.1. Information Literacy and Retrieval Skills

As defined, Information Literacy encompasses the skills of identifying, locating, evaluating, and effectively using information for academic and/or personal purposes (ACRL, 2000). Within this framework, the skill set of retrieving sources holds an important position. It includes knowing how to access information efficiently, whether in library catalogs, online databases, or digital repositories (Lombard, 2012; Saunders, 2012). Studies consistently show that students struggle with retrieval-related tasks, especially when required to go beyond simple keyword searches and apply advanced strategies such as using call numbers, filtering search results, or accessing full-text databases (Gross & Latham, 2012).

2.2. International Evidence on Retrieval Skills

International research underscores the uneven development of retrieval skills across academic levels. While doctoral students often demonstrate greater proficiency, many undergraduates lack the foundational abilities to use catalogs or databases effectively (Head & Eisenberg, 2010; Yevelson-Shorsher & Bronstein, 2018). Bury (2011) noted that even faculty members express concern about students' limited capacity to access relevant sources, which undermines their research capabilities. This suggests that retrieval skills are not always systematically reinforced in higher education.

2.3. The Moroccan Context: ICT, Study Skills, and Information Literacy

In the Moroccan higher education context, studies have identified notable challenges in students' engagement with information retrieval tasks, despite increasing exposure to digital technologies. Benali and Laouni (2022) observed that while students demonstrate familiarity with online research platforms, inconsistency remains when it comes to locating, selecting, and evaluating academic sources. This indicates limited training in systematic retrieval strategies. Similarly, El Hassani (2015) highlighted that IL initiatives, such as those at Al Akhawayn University, often focus on general awareness rather than the practical skills needed to navigate digital repositories or library databases more efficiently. More recent research by Zohor (2022) and El Mamsaoui and Harrizi (2024) highlights that both teachers and students in Moroccan universities rely on broad search engines and social media, rather than specialized academic

databases, indicating a gap in retrieval-oriented instruction. Collectively, these findings underscore the need to integrate literature, as Moroccan research on information literacy remains relatively general in scope. It often addresses digital literacy or research more broadly. The lack of retrieval-specific studies underscores the limited development of this research area nationally and highlights the importance of the present study in beginning to fill this empirical gap.

2.4. Research Gap and Contribution

While international literature has extensively documented students' struggles with retrieving sources, few studies have explored this issue in the Moroccan context. This study addresses that gap by focusing on Moroccan English department students across three academic levels: undergraduate, master's, and doctoral. By examining their performance on retrieval tasks, the study not only provides empirical evidence on their skill levels but also identifies instructional gaps that can inform curriculum designers, educators, and policymakers in Moroccan higher education.

3. METHODOLOGY

3.1. Research Design

This study employed a quantitative exploratory design to assess the information literacy skills of Moroccan university students, with a specific focus on the skill of retrieving sources. The design planned to compare patterns of performance across three academic levels: undergraduate, master's, and doctoral students within English departments across different Moroccan universities. The study is framed within an applied linguistics and educational research paradigm, utilizing statistical analysis, including ANOVA and descriptive statistics, to compare students' scores and identify instructional gaps that can inform curriculum designers and pedagogical policymakers. By centering on retrieval skills, the study highlights a critical component of information literacy that bridges searching and evaluating sources, reflecting students' readiness for independent inquiry.

3.2. Participants

The participants in this study are 225 students from various English departments at multiple Moroccan universities. The sample is composed of 78 undergraduate students, 45 master's students, and 102 doctoral students. The objective behind diversifying the sample is to ensure that the data represents a wide range of academic experiences and exposure. This stratification allows for meaningful comparisons between different academic levels and helps illuminate the progression of information literacy skills as students advance through their studies.

3.3. Instrument

Data was collected using the Standardized Assessment of Information Literacy Skills test, also known as SAILS. The latter is a validated and widely recognized test that was developed to measure students' competencies in key areas of IL. The focus of this article was on the retrieving sources skill set, which, as mentioned before, includes tasks related to locating, accessing, and obtaining information resources from a variety of platforms, such as catalogs in libraries, databases, and online repositories. Each item was selected from a bank of questions designed to assess a specific aspect of source retrieval, and responses were scored

dichotomously (correct/incorrect), allowing for a precise quantitative comparison across academic levels.

3.4.Procedure

For flexibility reasons, the SAILS test was administered online to widen the scale of participation among students across different Moroccan universities. The test begins with a briefing about the study's purpose, procedures, and confidentiality measures for the students before they start. The test is timed to ensure the integrity of the data, and the data was collected over several weeks to accommodate the different academic schedules and ensure a degree of representation.

3.5.Data Analysis

The collected data were analyzed using SPSS. Descriptive statistics were calculated to determine mean scores and standard deviations for each academic level. To examine whether differences between groups were statistically significant, one-way Analysis of Variance (ANOVA) tests were performed for each retrieval-related item. Where significant differences were found, post-hoc comparisons using Tukey's HSD test identified specific group differences. This approach provided a clear view of how retrieval skills evolve as students progress academically.

3.6.Ethical Considerations

As academia dictates, ethical principles were observed throughout the study. Participation was completely voluntary, and all students were informed of their right to withdraw at any stage, resulting in many dropouts who did not complete the test. Confidentiality and anonymity were guaranteed, and all data were used solely for research purposes. Institutional consent was obtained from the participating universities, and the research was conducted in accordance with the ethical standards for educational research. The data were stored securely and made available only to the principal researcher.

4. FINDINGS

4.1.Retrieving Sources Skill Set items

This section presents the results of the items measuring students' ability to retrieve sources effectively. The analysis is based on four SAILS items, with descriptive statistics, ANOVA tests, and post-hoc comparisons where relevant.

Item 1: Immediate Availability of Article According to Database Record.

This item assesses students' ability to interpret database records to determine the immediate availability of an article. The options presented are "No," "Record does not indicate availability," and "Yes," with the correct response being "Yes." This evaluation is categorized under the **Retrieving Sources** skill set, coded in SPSS as **1 (correct)** and **0 (incorrect)**. Understanding how to interpret database records is crucial for students, as it enables them to efficiently access and utilize scholarly articles for their research, enhancing their overall research capabilities. Below is the descriptive statistics table.

Table 1: Descriptives of item 1

Descriptives								
Item 1								
	Number	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Undergraduate Students	78	.42	.497	.056	.31	.54	0	1
Master Students	45	.60	.495	.074	.45	.75	0	1
Doctoral Students	102	.70	.462	.046	.61	.79	0	1
Total	225	.58	.494	.033	.52	.65	0	1

Table 1 presents the descriptive statistics for Item 1, which pertains to the "Retrieving Sources" skill set. The mean scores indicate that Doctoral Students achieved the highest mean ($M = 0.70$), followed by Master Students ($M = 0.60$) and Undergraduate Students ($M = 0.42$). This suggests a pattern of increasing performance from Undergraduate to Master's to Doctoral Students. However, it's important to note that the differences in means are relatively substantial. This variation may indicate that the performance differences are noteworthy, particularly the jump from Undergraduate to Master's Students. Further analysis, using ANOVA, can provide more insight into the statistical significance of these differences.

Table 2: ANOVA of item 1

ANOVA					
Item 1					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.312	2	1.656	7.150	.001
Within Groups	51.417	222	.232		
Total	54.729	224			

Table 2 examines the findings of the ANOVA analysis concerning Item 1." The outcomes of this analysis reveal a noteworthy discovery. There exists a significant variance among the three academic groups, namely Undergraduate, Master's, and Doctoral Students, as denoted by the remarkably low p-value of less than .001. This outcome strongly suggests that the performance discrepancies observed among these student groups are not mere

coincidences. Rather, they signify substantial differences in their abilities. To analyse even deeper, conducting subsequent post hoc tests or comparisons would be valuable. The statistical significance underscored in this analysis solidifies the observation that there are indeed discernible variations in performance levels across the diverse student categories.

Table 3 Multiple Comparisons of Item 1

. Multiple Comparisons						
Item1						
Academic level	Academic level	Mean Difference	Std. Error	ig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Undergraduate Students	Master Students	-.177	.090	.124	-.39	.04
	Doctoral Students	-.273*	.072	.001	-.44	-.10
Master Students	Undergraduate Students	.177	.090	.124	-.04	.39
	Doctoral Students	-.096	.086	.505	-.30	.11
Doctoral Students	Undergraduate Students	.273*	.072	.001	.10	.44
	Master Students	.096	.086	.505	-.11	.30

Table 3 examines the Multiple Comparisons analysis for Item 1. This analysis offers valuable insights into the variations in mean scores across different academic levels. The differences in mean scores between Undergraduate, Master's, and Doctoral Students are of particular interest. The mean difference values, accompanied by their corresponding confidence intervals, provide insight into the extent of these variations. While Doctoral Students exhibit higher mean scores compared to both Undergraduate and Master's Students, it's essential to interpret this finding within the context of the importance of the skill set and the actual magnitude of the differences.

Regarding the overall performance, the results could be characterized as moderately differentiated. While Doctoral Students show a statistically significant advantage, the relatively close mean scores across all academic levels suggest that, despite the observed differences, students in general perform reasonably well in this particular Item. This suggests that students are acquiring and demonstrating this skill across various academic levels, although some differences are discernible.

Item. 2. Obtaining Unavailable Sources through Interlibrary Loan.

Item 2 assesses students' understanding of how to obtain resources that are not available online or in their library collection. The options are **"Complete a purchase request form at the library," "Consult with staff at the circulation desk," "Submit an interlibrary loan request,"** and **"Write the publisher requesting a copy,"** with the correct response being **"Submit an interlibrary loan request."** This question falls under the **Retrieving Sources** skill set and is coded in SPSS as 1 (correct) and 0 (incorrect). Recognizing interlibrary loan as

the optimal method for accessing unavailable resources is a vital skill, as it allows students to broaden their access to academic materials, ensuring comprehensive research. Below is the descriptive statistics table.

Table 4 Descriptives of item 2

Descriptives								
Item 2								
	Number	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Undergraduate Students	78	.24	.432	.049	.15	.34	0	1
Master's Students	45	.27	.447	.067	.13	.40	0	1
Doctoral Students	102	.26	.443	.044	.18	.35	0	1
Total	225	.26	.438	.029	.20	.32	0	1

Table 4, which presents descriptive statistics for Item 2 related to the "Citing Sources" skill, the mean scores indicate that Doctoral Students, strangely, have the lowest mean ($M = 0.26$), followed closely by Master's Students ($M = 0.27$) and Undergraduate Students ($M = 0.24$). The mean scores also suggest that students' performance is relatively similar across academic levels. The differences are not significant, indicating a moderate and consistent performance in citing sources among Undergraduate, Master's, and Doctoral Students.

Table 5 ANOVA of item 2

ANOVA					
Item 2					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.024	2	.012	.062	.940
Within Groups	43.025	222	.194		
Total	43.049	224			

The ANOVA results for Item 2, concerning the "Citing Sources" skill, reveal that the differences in mean scores among different academic levels are not statistically significant (F

= 0.062, $p > 0.05$). This suggests a consistent performance in citing sources across Undergraduate, Master, and Doctoral Students.

Item 3. *Item: Obtaining Full Text via PDF Link.*

Item 35 assesses students' ability to identify the most effective method for retrieving a full-text article from a database, a core skill within the **Retrieving Sources** skill set. The options provided are **"Click on 'Citation' to obtain the full text," "Click on 'PDF Full Text' link," "Click on the journal title (the 'source' link) to obtain the full text," "Request this item through interlibrary loan," and "Search your library catalog for the journal title and, if it is available, obtain it in print at your library,"** with the correct answer being **"Click on 'PDF Full Text' link."** In SPSS, the item is coded as 1 (correct) and 0 (incorrect). Understanding how to efficiently retrieve full-text articles directly from a database enables students to access necessary resources quickly and supports effective academic research.

Table 6 Descriptives of item 3

Descriptives								
Item 3	Number	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Undergraduate Students	78	.73	.446	.051	.63	.83	0	1
Master Students	45	.78	.420	.063	.65	.90	0	1
Doctoral Students	102	.78	.413	.041	.70	.87	0	1
Total	225	.76	.425	.028	.71	.82	0	1

For Item 3, the mean scores indicate that all three academic levels performed consistently. Undergraduate Students achieved a mean of 0.73, Master Students scored 0.78, and Doctoral Students also scored 0.78. These results reflect a balanced performance across the academic levels, which is further supported by the narrow confidence intervals and relatively low standard deviations.

Table 7: ANOVA of item 3

ANOVA					
Item 3	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.137	2	.068	.376	.687
Within Groups	40.379	222	.182		
Total	40.516	224			

The ANOVA results for Item 3, focused on the "Synthesizing Information" skill, show no significant difference in mean scores among the academic levels ($F = 0.376$, $p = .687$). This suggests that the performance across these levels is relatively similar.

Item 4: *Library Book Arrangement by Topic.*

Item 36 assesses students' understanding of the primary method by which books are organized in a library, an important concept in the **Retrieving Sources** skill set. The options provided are "What size they are," "What topics they cover," "When the library cataloged them," and "When they were purchased by the library," with the correct answer being "What topics they cover." In SPSS, this item is coded as 1 (correct) and 0 (incorrect). Knowing that library collections are arranged by topic helps students navigate library resources effectively, enabling them to locate materials by subject area with greater ease. Below is the descriptive statistics table.

Table 8 Descriptives of item 4

Descriptives								
item 4	Number	Mean	Std. Deviation	td. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Undergraduate Students	78	.69	.465	.053	.59	.80	0	1
Master Students	45	.76	.435	.065	.62	.89	0	1
Doctoral Students	102	.79	.406	.040	.71	.87	0	1
Total	225	.75	.433	.029	.69	.81	0	1

Table 8 presents the descriptive statistics for Item 4. The following mean scores are observed: Doctoral Students have the highest mean ($M = 0.79$), followed by Master Students ($M = 0.76$) and Undergraduate Students ($M = 0.69$). These mean scores indicate a generally good performance across all academic levels in evaluating sources. The confidence intervals suggest that the means are within a reasonable range, reflecting consistent performance.

Table 9: ANOVA of item 4

ANOVA					
Item 4					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.459	2	.230	1.225	.296
Within Groups	41.603	222	.187		
Total	42.062	224			

Table 9 presents the results of the ANOVA for Item 4, which pertains to the "retrieving Sources" skill set. The analysis reveals a between-groups sum of squares of 0.459 and a corresponding mean square of 0.230. The computed F-value is 1.225, and the associated significance level (Sig.) is 0.296. This suggests that there is no statistically significant difference in the mean scores across the academic levels for this item.

4.2. Summary

Overall, the results show that Moroccan English department students struggle with several aspects of retrieving sources, particularly in tasks related to using library catalogs and call numbers. Doctoral students demonstrated stronger performance in database and online full-text retrieval compared to undergraduates, but the gaps are not consistently large, suggesting that retrieval skills are not systematically reinforced as students progress academically.

5. DISCUSSION

The findings from the retrieval skill set offer meaningful insights into the state of information literacy among Moroccan English department students. While doctoral students consistently outperformed undergraduates and master's students in most retrieval-related items, the overall mean scores reveal that even advanced learners exhibit notable gaps in efficiently locating and accessing academic sources. This pattern mirrors the developmental nature of information literacy, where mastery of retrieval processes requires repeated exposure to structured academic research practices (Gross & Latham, 2012).

The results suggest that Moroccan students' retrieval challenges are closely linked to instructional practices and infrastructural limitations. Undergraduate students, for instance, demonstrated lower proficiency in identifying and utilizing library catalog systems and online databases, which may be attributed to limited library orientation programs and uneven access to digital academic resources across universities (El Hassani, 2015). In contrast, doctoral students' higher performance likely reflects accumulated research experience rather than formal instruction in retrieval strategies. This gap invited the need for a systematic and structured integration of information literacy components, particularly in the instruction, into university curricula.

Similar patterns have been observed internationally. Students often demonstrate confidence in general web searching but struggle with structured academic retrieval tools (Head & Eisenberg, 2010). Interestingly, recent research in the Moroccan context has highlighted an uneven digital preparedness among both faculty and students (Benali & Laouni, in press; Zohor, 2022). These findings emphasize that retrieving sources' competence depends not only on technical know-how but also on pedagogical scaffolding. What would come very handy is the explicit teaching of navigation in databases, keyword refinement, and critical source selection.

An additional factor that appears to influence retrieval proficiency is linguistic mediation. Since many Moroccan students conduct their research in English, while library systems and databases often default to French or Arabic metadata, linguistic mismatches can create additional barriers to retrieval efficiency. This complexity necessitates multilingual search literacy initiatives that enable students to access a broader range of academic sources.

These findings align with more general discourses and research on digital education in developing contexts. In these contexts, the infrastructural limitations, language diversity, and curricular gaps often constrain the full realization of students' information literacy potential (El Mamsaoui & Harrizi, 2024). Therefore, what appears to be necessary is the coordination of institutional efforts that integrate digital competence and academic literacy into broader higher education reforms.

To summarize, the findings on the retrieval sources skill set highlight a critical intersection between pedagogy, technology, and linguistic accessibility in Moroccan higher education. Empowering students with retrieval literacy is not simply a matter of teaching database commands; rather, it is about nurturing strategic, reflective learners who are capable of engaging critically within today's information landscape.

6. CONCLUSION

This study examined how Moroccan university students in English departments performed in the skill set of retrieving sources. The findings demonstrate that although students generally develop stronger retrieval skills as they climb academically, gaps remain across all levels. For example, doctoral students performed better overall; however, their results still manifest some lack of systematic instruction in searching for, locating, and accessing reliable academic sources and scholarly materials.

These trends suggest that retrieval skills are often learned informally through experience rather than through explicit and to-the-point teaching. In many English departments, students are expected to know how to find sources for research papers; yet, few are ever taught how to use databases, refine search strategies, or evaluate the retrieved materials. This highlights the need for programs that intentionally integrate information literacy into coursework, rather than treating it as a peripheral or assumed competence.

Improving retrieval literacy requires a collective effort. Faculty members, librarians, and curriculum designers all play a role in building a more coherent approach to research training. Structured workshops, embedded library sessions, and assignments that gradually develop research independence could help bridge the current gap. In doing so, students would not only learn how to access information but also how to think critically about its origins and how it should be utilized.

At a broader level, these findings speak to the national conversation about digital transformation in Moroccan higher education. As universities modernize their teaching and research practices, strengthening students' ability to retrieve and manage information effectively will be essential for improving academic quality and research productivity. Developing these competencies early on will better equip graduates to adapt to a rapidly changing information landscape and to participate actively in the global knowledge economy.

Ultimately, retrieval skills are not just technical abilities — they are foundational elements of academic inquiry and lifelong learning. When students learn how to seek, filter, and engage

with information effectively, they become more confident, independent, and reflective learners. Investing in these skills is therefore an investment in the future of Moroccan higher education itself.

REFERENCES

- Association of College & Research Libraries (ACRL). (2000). *Information literacy competency standards for higher education*. American Library Association.
- Benali, M., & Laouni, N.-E. (2022). Exploring digital academic writing skills: The case of Moroccan university students. *I-TEC (Innovation, Technologies, Education et Communication)*. In press.
- Bury, S. (2011). Faculty attitudes, perceptions and experiences of information literacy: A study across multiple disciplines at York University, Canada. *Journal of Information Literacy*, 5(1), 45–60. <https://doi.org/10.11645/5.1.1513>
- El Hassani, A. (2015). The role of information literacy in higher education: An initiative at Al Akhawayn University in Morocco. *Nordic Journal of Information Literacy in Higher Education*, 7(1), 32–37. <https://doi.org/10.15845/noril.v7i1.229>
- El Mamsaoui, D., & Harrizi, M. (2024). Social media as a learning tool in Moroccan higher education from students' perspectives. *The Journal of Quality in Education*, 14(24), 177–193. <https://doi.org/10.37870/joqie.v14i24.451>
- Gross, M., & Latham, D. (2012). What's skill got to do with it? Information literacy skills and self-views of ability among first-year college students. *Journal of the American Society for Information Science and Technology*, 63(3), 579–591. <https://doi.org/10.1002/asi.21681>
- Head, A. J., & Eisenberg, M. B. (2010). *Truth be told: How college students evaluate and use information in the digital age*. Project Information Literacy Progress Report. <https://ssrn.com/abstract=2281485>
- Lombard, E. (2012). The role of the academic library in college choice. *The Journal of Academic Librarianship*, 38(4), 237–241. <https://doi.org/10.1016/j.acalib.2012.04.001>
- Saunders, L. (2012). Faculty perspectives on information literacy as a student learning outcome. *The Journal of Academic Librarianship*, 38(4), 226–236. <https://doi.org/10.1016/j.acalib.2012.06.001>
- Yevelson-Shorsher, A., & Bronstein, J. (2018). Three perspectives on information literacy in academia: Talking to librarians, faculty, and students. *College & Research Libraries*, 79(4), 535–553. <https://doi.org/10.5860/crl.79.4.535>
- Zohor, K. (2022). Digital literacy from the perspective of Moroccan teachers: State of practices and main challenges. *Revue Marocaine de l'Évaluation et de la Recherche Éducative(RMERE)*, 8(8).* <https://revues.imist.ma/index.php/RMERE/article/view/33624>