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EXPLORING THE SEARCHING SKILL SET: INFORMATION LITERACY CHALLENGES AMONG MOROCCAN ENGLISH DEPARTMENT STUDENTS

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Abstract:
In today's digital age, searching for credible and relevant information is a core aspect of academic success. This study explores the searching skill set as one component of information literacy amongst undergraduate, graduate, and doctoral students in the Moroccan English departments. By using data collected through the Standardized Assessment of Information Literacy Skills, the known acronym of which is SAILS test, the research investigates the performance of students in order to pinpoint weaknesses and highlight potential instructional gaps. The findings indicate that while students demonstrate basic familiarity with online search tools, many struggle with advanced search strategies, such as refining queries, using subject-specific databases, and evaluating search results. These weaknesses suggest a disconnection between students' digital behaviors and the academic search competencies required at the university level. The study underscores the need for integrating structured information literacy instruction into English studies curricula, with a particular emphasis on search strategy development. By identifying specific areas of weakness, this research aims to inform curriculum designers and policymakers seeking to align higher education practices with the demands of digital scholarship. Ultimately, improving students' search skills is essential not only for academic achievement but also for enabling lifelong learning and informed digital citizenship.

Keywords: information literacy, searching skills, higher education, Moroccan universities, English departments, curriculum development

1. Introduction

In today's digital era, the ability to search accurately and critically, and academically for information is essential for students' academic success. That ability (part of broader

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information literacy) involves selecting appropriate search terms, refining strategies, and evaluating results (Yevelson-Shorsher & Bronstein, 2018; Saunders, 2012).

In higher education, such competencies often develop through experiential endeavors, yet without structured instruction, they may remain underdeveloped, particularly in humanities disciplines such as English (Bury, 2011). In the Moroccan context, research illustrates a broader challenge: while university students embrace Information and Communication Technologies (ICT), barriers such as limited infrastructure, lack of training, and weak integration in curricula constrain effective digital learning (El Hazzat et al., 2024; Maaroufi et al., 2025). Studies on academic skills in the Moroccan context also report that students exhibit low proficiency in digital academic writing, referencing, and research behaviors (Benali & Laouni, 2022; Mrah, 2024).

This study specifically investigates the development of searching skills — an indispensable element of information literacy amongst students in Moroccan English departments across undergraduate, graduate and doctoral students. Using the SAILS assessment tool, this research analyses the performance of students on search-related tasks, identifies patterns of improvement, and pinpoints where instructional gaps may exist. The objective is to provide data for curriculum developers and university policymakers seeking to integrate targeted information literacy training into English studies in particular or other disciplines in general.

Therefore, this study seeks to answer the following research question:

- What trends of strengths and weaknesses emerge in the Searching skill set of the Moroccan English department students, and how do these trends vary across the three academic levels?

2. Literature Review

Research consistently shows that searching—the ability to define keywords, refine queries, and assess results—is often underdeveloped among university students unless explicitly taught and scaffolded (Gross & Latham, 2012; Saunders, 2012). In particular, Saunders (2012) highlighted that faculty often view information literacy as an expected outcome rather than a teachable skill, and Yevelson-Shorsher and Bronstein (2018) revealed that both students and librarians report gaps in students' search strategy fluency.

Internationally, growing concern has also surrounded the influence of digital overload on academic search behavior. Students frequently rely on intuitive or informal search tools, such as general web search, and struggle to transfer those practices to scholarly environments (Head & Eisenberg, 2010). Effective instruction in search strategy and evaluation is, therefore, critical to transition beyond basic querying toward advanced academic research.

In the Moroccan context, while direct studies on information literacy in English departments are scarce, related research in digital literacy, ICT use, and academic skills underscores broader challenges. For example, Mrah (2024) found a positive correlation between Moroccan students' digital literacy and their information-seeking behavior, though many defaulted to superficial search patterns tied to the principle of least effort. Benali and Laouni (2022) reported that Moroccan students often lack familiarity with information organization tools (such as citation managers), confronting challenges in reference management and academic integrity.

Studies on institutional readiness, for example, further reveal structural gaps: Kettani (2022) noticed that many Moroccan teachers acknowledge the importance of digital literacy but, unfortunately, lack targeted training and infrastructure to integrate it pedagogically. On the same path, El Mamsaoui and Harrizi (2024) reported that although social media is widely used by Moroccan university students for informal learning, its role is does not have a structured academic context.

More on the institutional realm, El Hassani (2015) described an information literacy program launched at Al Akhawayn University, where the library actively collaborated with faculty to embed information literacy skills, including searching, within coursework and instruction, which offers a model of practice that remains solitary and exceptional in the Moroccan higher education.

Together, international and Moroccan studies point to a wider pattern: while students rely heavily on digital tools, they often lack skillful search strategies and academic-oriented search behaviors. The limited instructional frameworks in local universities further contribute to these weaknesses. This underscores the need for empirical investigation into how Moroccan English department students perform in specific search tasks, and whether competencies improve with academic progression.

3. Material and Methods

3.1 Research Design

This study adopted a quantitative, descriptive, and comparative research design to investigate the performance of Moroccan English department students in the Searching skill set of information literacy. The research is part of a larger doctoral research looking into information literacy skills in the digital age to identify strengths, weaknesses, and instructional gaps that can serve as informative data for curriculum designers and policymakers' decisions in higher education.

3.2 Participants

The participants were 225 students enrolled in English departments from multiple Moroccan universities, representing different academic levels:

- Undergraduate students (n = 78),
- Master's students (n = 45),
- Doctoral students (n = 102),

Purposive sampling was used to ensure representation from various institutions and academic stages. All participants had prior exposure to research-based coursework in English studies.

3.3 Instrument

Data was collected using the Standardized Assessment of Information Literacy Skills (SAILS) test, a validated instrument widely used in higher education settings (Kent State University Libraries, 2020). The searching skill set includes tasks such as formulating search strategies, selecting appropriate search tools, refining search queries, and evaluating search results, etc..

Each item is scored as follows: (1 = correct, 0 = incorrect). This allows for statistical comparisons across academic levels. The SAILS test has demonstrated strong reliability (KR-20 > 0.80 in previous studies).

3.4 Data Collection Procedure

Data collection was carried out online using the SAILS platform. The test was administered in standardized conditions. The students completed it individually in a timed manner. Participation was voluntary, and an informed consent case had to be ticked before starting the test.

3.5 Data Analysis

The data was analysed using SPSS. Descriptive statistics, with a concentration on the Mean, were calculated to present performance trends for each item in the Searching skill set.

Also, inferential statistics were used to include one-way ANOVA and examine differences between academic levels, followed by post-hoc multiple comparisons (Tukey HSD) to identify where significant differences occurred. Given the nature of this study, statistical significance was set at $p < .05$.

4. Results

4.1 Searching Skill Set

This section presents the results for the nine SAILS test items related to the searching skill set. The data are organized by academic level (undergraduate, master's, doctoral) and show descriptive statistics, ANOVA results, and post-hoc multiple comparisons where relevant. Means represent the proportion of correct answers (0–1), and statistical significance was set at $p < .05$.

Item 17: Searching for Books on a Specific Author

Table 1: Descriptive Statistics for Item 17

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.23	0.42	0.048	0	1
Master's	45	0.27	0.45	0.067	0	1
Doctoral	102	0.36	0.48	0.048	0	1
Total	**225**	**0.30**	**0.46**	**0.031**	**0**	**1**

Table 2: ANOVA for Item 17

Source	SS	df	MS	F	Sig.
Between Groups	0.824	2	0.412	1.979	.141
Within Groups	46.225	222	0.208		
Total	**47.049**	**224**			

No significant differences were observed between academic levels.

Item 18: Searching with Synonyms

Table 3: Descriptive Statistics for Item 18

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.29	0.46	0.052	0	1
Master's	45	0.36	0.49	0.073	0	1
Doctoral	102	0.51	0.50	0.050	0	1
Total	**225**	**0.41**	**0.49**	**0.033**	**0**	**1**

Table 4: ANOVA for Item 18

Source	SS	df	MS	F	Sig.
Between Groups	2.141	2	1.071	4.560	.011*
Within Groups	51.890	221	0.235		
Total	**54.031**	**223**			

Table 5: Post-hoc Comparisons (Tukey HSD)

Comparison	Mean Diff	Sig.
UG – Master's	-0.069	.732
UG – Doctoral	-0.215*	.010
Master's – Doctoral	-0.146	.218

A significant difference was found between undergraduates and doctoral students (p = .010).

Item 19: Selecting the Best Resource for Sociological Terminology

Table 6: Descriptive Statistics for Item 19

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.37	0.49	0.055	0	1
Master's	45	0.40	0.50	0.074	0	1
Doctoral	102	0.49	0.50	0.050	0	1
Total	**225**	**0.43**	**0.50**	**0.033**	**0**	**1**

Table 7: ANOVA for Item 19

Source	SS	df	MS	F	Sig.
Between Groups	0.674	2	0.337	1.373	.256
Within Groups	54.508	222	0.246		
Total	**55.182**	**224**			

No significant differences were observed.

Item 20: Evaluating Search Results for a Research Paper

Table 8: Descriptive Statistics for Item 20

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.72	0.45	0.051	0	1
Master's	45	0.78	0.42	0.063	0	1
Doctoral	102	0.68	0.47	0.047	0	1
Total	**225**	**0.71**	**0.45**	**0.030**	**0**	**1**

Table 9: ANOVA for Item 20

Source	SS	df	MS	F	Sig.
Between Groups	0.326	2	0.163	0.789	.456
Within Groups	45.896	222	0.207		
Total	**46.222**	**224**			

No significant differences were observed.

Item 21: Selecting Search Terms for a Research Question

Table 10: Descriptive Statistics for Item 21

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.49	0.50	0.057	0	1
Master's	45	0.62	0.49	0.073	0	1
Doctoral	102	0.67	0.47	0.047	0	1
Total	**225**	**0.60**	**0.49**	**0.033**	**0**	**1**

Table 11: ANOVA for Item 21

Source	SS	df	MS	F	Sig.
Between Groups	1.464	2	0.732	3.082	.048*
Within Groups	52.732	222	0.238		
Total	**54.196**	**224**			

Table 12: Post-hoc Comparisons (Tukey HSD)

Comparison	Mean Diff	Sig.
UG – Master's	-0.135	.302
UG – Doctoral	-0.179*	.040
Master's – Doctoral	-0.044	.867

A significant difference was found between undergraduates and doctoral students (p = .040).

Item 22: Identifying Synonyms and Related Terms for "College Students"

Table 13: Descriptive Statistics for Item 22

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.53	0.50	0.057	0	1
Master's	45	0.58	0.49	0.074	0	1
Doctoral	102	0.66	0.47	0.047	0	1
Total	**225**	**0.60**	**0.49**	**0.033**	**0**	**1**

Table 14: ANOVA for Item 22

Source	SS	df	MS	F	Sig.
Between Groups	0.779	2	0.389	1.618	.201
Within Groups	53.417	222	0.241		
Total	**54.196**	**224**			

No significant differences were observed.

Item 23: Evaluating the Effectiveness of Keyword Searching

Table 15: Descriptive Statistics for Item 23

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.21	0.40	0.046	0	1
Master's	45	0.31	0.46	0.070	0	1
Doctoral	102	0.56	0.49	0.049	0	1
Total	225	0.39	0.48	0.033	0	1

Table 16: ANOVA for Item 23

Source	SS	df	MS	F	Sig.
Between Groups	5.851	2	2.925	13.669	.000**
Within Groups	47.509	222	0.214		
Total	**53.360**	**224**			

Table 17: Post-hoc Comparisons (Tukey HSD)

Comparison	Mean Diff	Sig.
UG – Master's	-0.106	.440
UG – Doctoral	-0.354*	.000**
Master's – Doctoral	-0.248*	.009**

Significant differences were found between undergraduates and doctoral students (p = .000) and between master's and doctoral students (p = .009).

Item 24: Refining Search Strategies for Relevant Research

Table 18: Descriptive Statistics for Item 24

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.05	0.22	0.025	0	1
Master's	45	0.13	0.34	0.051	0	1
Doctoral	102	0.39	0.49	0.049	0	1
Total	**225**	**0.22**	**0.41**	**0.028**	**0**	**1**

Table 19: ANOVA for Item 24

Source	SS	df	MS	F	Sig.
Between Groups	5.580	2	2.790	18.596	.000**
Within Groups	33.309	222	0.150		
Total	**38.889**	**224**			

Table 20: Post-hoc Comparisons (Tukey HSD)

Comparison	Mean Diff	Sig.
UG – Master's	-0.082	.496
UG – Doctoral	-0.341*	.000**
Master's – Doctoral	-0.259*	.001**

Significant differences were found between undergraduates and doctoral students (p = .000) and between master's and doctoral students (p = .001).

Item 25: Selecting Search Terms for Research Questions

Table 21: Descriptive Statistics for Item 25

Academic Level	N	Mean	SD	Std. Error	Min	Max
Undergraduate	78	0.51	0.50	0.057	0	1
Master's	45	0.44	0.50	0.075	0	1
Doctoral	102	0.62	0.48	0.048	0	1
Total	**225**	**0.55**	**0.49**	**0.033**	**0**	**1**

Table 22: ANOVA for Item 25

Source	SS	df	MS	F	Sig.
Between Groups	1.073	2	0.537	2.179	.116
Within Groups	54.687	222	0.246		
Total	**55.760**	**224**			

No significant differences were observed.

4.2 Summary of Findings for the Searching Skill Set

Across the nine searching-related items, doctoral students consistently achieved higher mean scores than master's and undergraduate students, with significant differences observed particularly in more advanced searching tasks such as **searching with synonyms** (Item 18), **selecting search terms** (Item 21), **evaluating keyword search effectiveness** (Item 23), and **refining search strategies** (Item 24). Several basic search tasks, such as **searching for a specific author** (Item 17) and **selecting search terms for research questions** (Item 25), did not yield statistically significant differences between groups. Overall, results suggest gradual skill improvement with academic progression, but notable gaps remain in advanced search strategy application, especially among undergraduates.

5. Discussion

The results show a clear upward trajectory in the students' searching skills as they develop throughout the academic levels. Still, the improvement is not general across all the detailed subskills. Doctoral students generally outperformed the undergraduate and master's students, especially on more complex tasks that require strategic thinking and familiarity with advanced search techniques. For instance, items such as searching with synonyms (Item 18), refining search strategies (Item 24), and evaluating keyword effectiveness (Item 23) showed statistically significant differences, suggesting that these subskills may be more reinforced through continued academic research experience, which can also mean through auto-training that comes with experience. That being said, if training is correlated with Information Literacy criteria, students' abilities may improve better.

However, despite this trend, some searching tasks remained challenging across all levels. For instance, performance on searching for books on a specific author (Item 17) and selecting the best resource for sociological terminology (Item 19) was relatively low overall, indicating that even at advanced levels, students may lack confidence or training in applying basic catalogue or database search logic effectively.

The most pronounced instructional gap appears in the area of refining search strategies (Item 24), where undergraduates showed almost no proficiency (M = .05), and doctoral students, while better, still did not exceed a mean of .39. This points to a significant curricular omission. Searching is often looked at as being a given digital skill within students who are assumed to be good enough digitally, yet the data show that it develops gradually and may stop at a certain very basic level without clear, structured instruction.

These findings stress the need for a gradual integration of information literacy instruction, beginning at the undergraduate level and continuing with increasing complexity through the postgraduate level. Curriculum designers and policymakers in Moroccan higher education may consider embedding targeted modules or scaffolded learning outcomes that clearly focus on search strategy development. Doing so could repair the performance gap and better equip students with complex navigation research skills.

6. Conclusion

This study was an attempt to explore how the searching skill set develops throughout the academic levels in Moroccan English departments. Results revealed signs of improvement as students move up the ladder of academia from undergraduate to doctoral studies, particularly in more complex tasks like refining the search strategies and evaluating keyword effectiveness. However, the findings also show weaknesses, especially in basic search-related competencies.

What stands out most is that even at the doctoral level, some core search skills remain underdeveloped. This suggests that the academic progression alone may not necessarily be sufficient to build up strong information literacy skills. Instead, these skills may need to be clearly taught and reinforced throughout students' academic journeys, including stand-alone courses in Information Literacy throughout the curriculum.

For curriculum designers, educators, and policy makers, these results offer an opportunity. By integrating information literacy instruction into courses, perhaps, from the early years of university study, institutions can better prepare students to conduct more quality research and decrease anomie in research within English departments in particular and the Moroccan academia in general. Information Literacy driven searching skills would not only improve academic practices and productions but also help students become more critical thinkers and healthy learners in today's ever-burgeoning information world.

In brief, the study offers a clear message: if we want students to succeed in the digital age, we must stop assuming they already know how to search and start teaching them how to do it well using frameworks that taxonomize Information Literacy skills comprehensively.

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Conflict of Interest Statement
The author declares no conflict of interest. The research was conducted independently, and no financial or personal relationships influenced the outcomes or interpretations of this study.

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References

Benali, M., & Laouni, N.-E. (in press). Exploring digital academic writing skills: The case of Moroccan university students. *I-TEC (Innovation, Technologies, Education et Communication)*. https://hal.science/hal-03614185

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), 45–59. 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., & Eisenberg, M. (2010). Truth be told: How college students evaluate and use information in the digital age. *Project Information Literacy Research Report.* https://doi.org/10.2139/ssrn.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

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 Educative (RMERE), 8*(8). https://revues.imist.ma/index.php/RMERE/article/view/33624