

Assessing Digital Information Literacy in Second Year Master's Students: A Case Study at the University Mouloud Mammeri, Tizi-Ouzou

تقويم كفاءة الطلاب في الثقافة المعلوماتية الرقمية:
دراسة حالة لطلاب السنة الثانية ماجستير بجامعة مولود معمري، تيزي وزو

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Abstract

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With the new information landscape and the new technologies that have transformed the way we learn and communicate new skills and competencies are required from students and researchers to complete their academic projects. The present study aims to identify the research processes of graduate students as they complete their final-year M2 dissertations in the Department of English at Mouloud MAMMERI University. More particularly, it aims at evaluating graduates' ability to determine access, evaluate, and use information ethically and legally. To guide our research, we advance the following research questions: How do M2 students search for information online and offline, including their use of various search strategies and resources? How do M2 students search for and utilize information, including their use of various search strategies and resources? We hypothesize that second year master's students use a combination of online search engines, academic databases, and offline resources like libraries and textbooks. Moreover, they effectively use information from diverse resources to support their research. The present research relies on the ACRL (Association of College, National, and University Libraries) model of information literacy skills to achieve these goals. Data was collected through a questionnaire administered to 52 graduate students in the Department of English, at Mouloud MAMMERI university. The findings of the present research corroborate previous studies (Brabazon, 2016; Davis, 2013) and reveal that Master's students face many challenges when filtering and using online and offline sources for their academic research. More specifically, students lack techniques and strategies to find academic references and have insufficient knowledge about which citations to include in their dissertations. Accordingly, the study has pedagogical implications in that it points to the need to enhance graduates' information literacy skills by means of more innovative teaching tools and methods.

Introduction

The ever-changing information landscape, driven by new technologies, demands new skills and competencies for learning and communication. In a world of proliferation

of information, "the sheer abundance of information will not in itself create a more informed citizenry without a complementary cluster of abilities necessary to use information literacy" (Information Literacy Competency

Standards for Higher Education, 2000:02). Integrating information literacy into the curriculum is crucial for faculty and senior managers to prepare students for the challenges of 21st-century life.”

Basic information search skills are fundamental for any academic project. The Internet's plethora of information has made it a real burden to distinguish what is true and relevant from what is not. The new digital landscape means that new skills and literacies are required for the academic communities of the Internet to navigate the information overflow. The ability of students, teachers, and researchers to evaluate, compare, and select information from different sources is a valuable skill that deserves much attention.

As of February 11, 2021, with over 26 million users (Datareporta.com, 2021), Algeria boasts a high internet penetration rate (59.6% of the population). The most popular websites among Algerians are Google.com, YouTube.com, and Ouedkniss.com. While such data can provide valuable insight into Algerian Internet usage trends, little is known about graduate and graduate students' online behavior. While internet usage is widespread in Algeria, research on the information literacy practices of graduate students, particularly in relation to academic projects, remains limited. Students depend heavily on information and communication technologies to meet their academic obligations, which require from them to look for and evaluate an important number of online and offline texts and materials in various formats. Accordingly, their ability to search and evaluate both the Web and print sources needs to be determined.

The aim of the present research is twofold:

- To evaluate second-year master's students' information search strategies.

- To evaluate second-year master's students' information use

To guide our research, we advance the following research questions and hypotheses:

- How do second-year master's students search for information online and offline, including their use of various search strategies and resources?

- How do second-year master's students search for utilize information, including their use of various search strategies and resources?

Second year-master's students use a combination of online search engines, academic databases, and offline resources like libraries and textbooks.

Second year-master's students effectively use information from diverse resources to support their research.

To assess students' information literacy skills, the Information Literacy Competency Standards for Higher Education framework, developed by the Association of College and Research Libraries (henceforth, ACRL), form the theoretical foundation of this study.

Several studies have been conducted on undergraduate and graduate students' information literacy skills. For instance, Nikolopoulou and Gialamas (2011) investigated the information search practices of 250 undergraduate students from two university departments in Greece by means of a questionnaire. The results revealed that students' search behavior was limited and needed to be stretched beyond the Web search engine to include other information retrieval systems. Other research tools, such as surveys, search journals, search sessions, observation, and students' papers and interviews, were used by Kim and Todd (2021) to evaluate biology students' information search behavior. The study revealed that language proficiency can influence the informational and knowledge experience of students and their online searches. Nyarigoti (2020) made use of an information literacy test to evaluate the ability of undergraduate students at United States International University Africa (USIU-Africa) to effectively locate, filter, and use online and printed information. The researchers concluded that students tended to rely more on Google search engines and less on their library and its sources.

1–Theoretical Background

1–1–Information Literacy and Digital Literacy

Broadly speaking, information literacy can be defined as the ability to critically evaluate, filter, and ethically use information (Hockly, 2012; Nyarigoti, 2020). The term information literacy has also been related to the term information technology skills; the latter refers to the ability to use electronic devices, computers, software, applications, databases, and the like, to accomplish various academic, professional, and personal tasks (Information Literacy Competency Standards for Higher Education, 2000). When the two concepts of information literacy and information technology are interrelated, they do not always mean the same thing. An information-literate person may need a variety of technological tools to search and manage information but is not ultimately dependent on them; other sources of information can be used, such as libraries, community resources, and the media. Stated differently, digital literacy refers to the ability to use electronic devices, while information literacy means the ability to manage online and offline information.

The new generation of students and researchers have been

immersed in technology all their lives and are, thus, referred to as “digital natives”(Bennett, Maton, & Kervin, 2008). They are known to be successfully engaged with digital technology in their out-of-school daily lives (Alvermann, 2008). However, it is also the case that many students struggle to use digital technologies for academic purposes and are more likely to engage in Internet research in a “consumerist and minimalist approach”(Dwyer,2016). This lack of digital information literacy questions the concept of digital natives itself. In other words, students who are fluent in the use of a variety of technological tools are not by default proficient at using these skills in their academic tasks. Many researchers assert that the notion of digital natives has been subjected to little critical scrutiny and lacks theoretically informed research (Dwyer, 2016). An important body of research starts to underscore the complexity of young people’s computer skills and information literacy. For instance, having access to a variety of technological tools doesn’t guarantee their skillful use. Though a large portion of students are adept at using technology for various purposes, they are not necessarily good at gathering, selecting, managing, and using information needed for their academic tasks. Such a debate raises questions as to what digital natives can actually do and their critical thinking abilities when using information sources. Lorenzo and Dziuban go as far as to say that “students aren’t as net savvy as we might have assumed” (2006: 02) and their digital skills do not always lead to successful academic task accomplishment. Bundy affirms that “the sheer abundance of information and technology will not in itself create more informed citizens without a complementary understanding and capacity to use information effectively”(2004:14 as cited in Koltay, Spiranec and Karvalics, 2016: 5).

1–2–Information Literacy Assessment

Though the literature that looks at the literacy development assessment which remains scarce, some frameworks have been proposed that provide a list of competencies and assessment tools to measure students’ competencies. Both the Society of College, National, and University Libraries (SCONUL) as proposed by Bent & Stubbings (2011) and the Association of College and Research Libraries (2000) (ACRL) are organizations that outline the information and digital literacy skills that academics need to have to successfully pursue their academic endeavors and become life-long learners. According to ACRL(2000), an information literate person must be able to:

- determine the information needed.

- locate and access information.

- evaluate the usefulness, relevance, and credibility of information.

- Interpret and use information.

- understand and use information ethically and legally.

Method and Material

To provide a comprehensive evaluation of Algerian graduates’ information literacy of Mouloud MAMMERI university in the Department of English, an information literacy test was used to identify students’ previous experiences sifting, sorting, evaluating, and using online and offline sources of information. The digital information skills framework as delineated by ACRL (2000) was used as guide lines to design and formulate the questions of the questionnaire.

The participants are 52 former master students from the Department of English at Mouloud Mammeri University, who submitted their Master dissertation between 2019 and 2021 in the specialisations “Didactic of foreign languages”, “Language and communication”, “Comparative Literature”, “Literature and Civilization”, and “Literature and Interdisciplinary Approaches”. While 52 students present a decent number, the results of the study cannot be generalized to the broader Algerian graduate population. It is important to underscore the fact that geographic location, socioeconomic status, and academic performance are variables that may potentially affect the results of the present study. The digital information literacy questionnaire was designed using Google forms and was emailed to each student. The Survey comprises 16 multiple choice questions and 10 open-ended questions. For the multiple-choice questions, the percentage of each response option in the survey is calculated by dividing the number of respondents who selected that specific option by the total number of respondents to the question, and then multiplying the result by 100. The responses to the open-ended questions were grouped into similar categories. These categories are presented in order of frequency, starting with the most common responses to the least common.

2–Results

The results of the questionnaire are presented in the form of tables and graphs. They are organized into five sections; each aimed at providing data about one aspect of information skills as delineated by ACRL (2000).

Section One: Knowing how to determine the information needed

The first section of the questionnaire aims at identifying

students' ability to determine the information needed to write their master's dissertation.

Table1: Students' choice of the topic of research

Options	Number	Percentage
You did	38	74.5%
Your supervisor did	10	19.6%
Other	3	6%

The majority of students (74.5%) claimed to have selected their topic of research and only 19.6% have not relied on their supervisor. The remaining students confirm having selected their research theme with their pairs.

Table2: Students pre-research phase

Options	Number	Percentage
Yes	35	76.1%
No	11	23.9%

76.1% of students confirmed that they did look for information in relation to their theme of research before deciding what topic to choose. An important percentage of students (23.9%) did not look for information online before determining what to pick.

If so, where and how did you search for information?

When it comes to the sources that students used to find information in relation to their topic of research, fourteen students out of thirty-three say they used Google as a search engine. Seven students provided a more general answer and mentioned the Internet as their main source. Only three students have admitted to having used their university and local libraries, and three other students said they asked for help from their teachers and supervisors.

How long did it take you to find a topic of research?

When asked about how long it took them to find a topic of research, most respondents' answers ranged between two weeks and two months. Only two students claimed it took them six months, and two other students confirmed it took them one week to find their research theme.

Table3: Students' difficulty to find a theme of research

Options	Number	Percentage
Yes	38	74.5%
No	11	25.5%

The results of the table reveal that most students (74.5%) found it challenging to find the right theme of research, and only 25.5% claimed it was not hard.

If so, mention some of the difficulties that you have faced. Thirty-six students have answered this question. The results of this open-ended question confirm that the vast majority (20 students out of thirty-six) argue that the major challenge that they have encountered throughout the process of their research was making sure that their

research was original and that it had not been previously investigated by former master students. Twelve students asserted that the lack of online sources, such as e-books and scientific articles, was the major impediment. Other students have mentioned obstacles related to the practical side of their research, such as data-gathering, corpus-related issues, and the impact that the pandemic has left on various educational institutions.

Section Two: Knowing how to access information

Section two of the questionnaire aims at evaluating students' ability to access the needed information to complete their master's research.

What kind of sources did you use to gather information about your topic of research? More than one option is possible.

51 responses

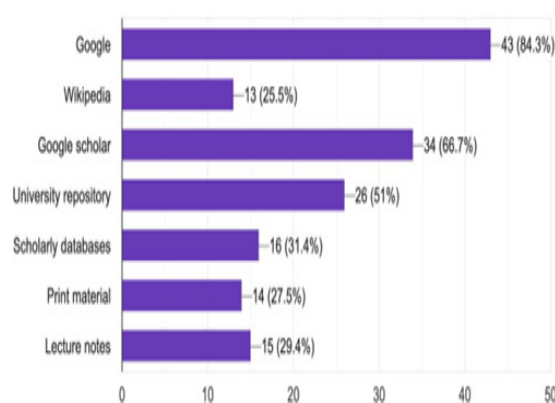


Figure1: The sources used by students to gather information

Figure 1 shows that most students resorted to Google as their default choice (84.3%), followed by Google scholar (66.7%) and university repository (51%). Some students picked Wikipedia (25.5%), scholarly databases (31.4%), print material (27.5%), and lecture notes (29.4%) as sources they have used for their research.

To find information online

51 responses

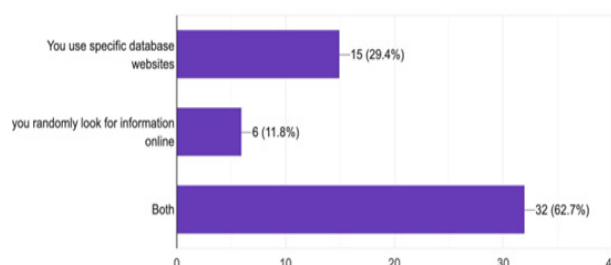


Figure2: Methods used to find information online

The graph shows that 62.7% of the students both relied on specific database websites and randomly looked for information online. Only 11.8% of the participants claimed to have randomly looked for information online and not used any specific websites.

Table4: Students' use of search engines other than Google

Options	Number	Percentage
Yes	18	36.7%
No	31	63.3%

The table reveals that the majority of students did not use other search engines other than Google. The rest of the students claimed to have resorted to the search engines. If your answer is yes, mention which other search engines you have used.

Surprisingly, out of the 36.7% of students who claimed to have used other search engines other than Google, none mentioned any specific ones, except for one student who mentioned the web search engine Bing. Three have confirmed having used YouTube, and seven have mentioned books.

Options	Number	Percentage
Yes	20	40%
No	30	60%

Table5: Students' access to information

It is clear from the data that most students (60%) have not always found what they were looking for online. On the other hand, 40% of the students confirm that they always find the information that they need online.

Table6: The reason behind students' failure to find information

Options	Number	Percentage
Your lack of information searching skills	7	15.2%
Unavailability of the source	25	54.3%
Both	13	28.3%
Payable websites	1	2.2%

The table clearly shows that most students (54.3%) believe the unavailability of sources online is the main reason why they have difficulties finding information online. Only a handful of students (15.2%) have admitted that their lack of information-searching skills is the source of the problem. 28.3% of students thought that both their lack of information skills and the unavailability of online sources were the main challenges that they faced.

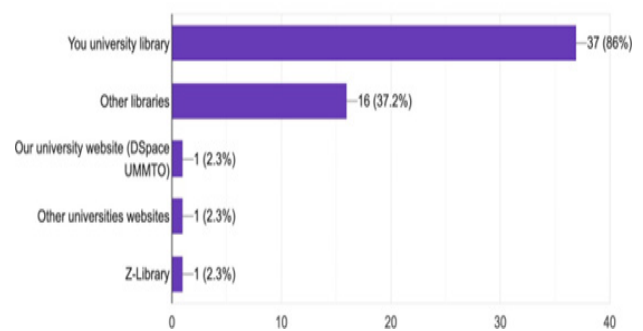
Table7: Students' use of university or local libraries

Options	Number	Percentage
Yes	43	87.8%
No	6	12.2%

The table shows that the overwhelming majority of students (87.8%) used their university library to find information in relation to their research theme. Only 12.2% of graduates reported not using their university or local library.

If yes, have you used:

43 responses

**Figure3:** Libraries used by students

The bar chart above shows that 86% of the participants have relied on their university library to find information about their research theme. A tiny minority of students (2.3%) have claimed to have used other university websites.

Table8: Students' use of other sources

Options	Number	Percentage
Yes	14	27.5%
No	37	72.5%

Table 8 indicates that 72.5% of students used other sources other than the ones found in university libraries and online.

If so, mention them

Out of the 27.5% of students who have claimed to have used other resources, four respondents confirmed having contacted individuals, such as their teachers and researchers from other universities, professionals, and individuals from forum websites. Two students claimed they have used magazines and journal articles.

Section three: Knowing how to evaluate information

Section three of the questionnaire aims at gathering data about students' ability to evaluate the reliability and credibility of the information that they found online.

What do you think are the characteristics of a reliable source of information?

Out of 52 respondents, 43 answered this question. When looking at the data, it can be seen that the overwhelming majority of students (33 students) believe that authority is a primary indicator that a source is reliable. They confirmed that the name of the author and his or her affiliation must be mentioned in the book or article. 23 students stated that the date of publication must be made clear in the online source, with currency as the most cited characteristic by students. 13 students confirmed that references must be added at the end of any online source as a confirmation of its reliability and objectivity. Of those, 10 students were more likely to pay attention to the academic style used

in an online source, such as grammar and punctuation, to decide whether the source is reliable or not. Only 7 students claimed to pay attention to the URL of a website as a determinant factor of its reliability. Two respondents believe that only books can be considered as reliable sources of information.

List three websites that you consider reliable for academic research.

The table below shows the sources mentioned by the students; they are ranked from the most cited to the least cited ones.

Table9: Online sources mention by students

The Source	Frequency
Google scholars	19
Jstor	16
Researgate	9
(URL(edu,gov,org	8
Academia	5
Britanica	5
Bookzz	5
YouTube	2
Scopus	2
Google	2
UMMTO	2
Sparknotes	1
Wikipedia	1
Google books	1
Scholarly	1
World wide science	1
Ciar	1
Edubird.com	1
Grade saver	1
Openedition	1
Shmoop	1
Eric garden	1
BBC	1
Ebooks	1

As table 9 indicates, the vast majority of students cited Google scholar, Jstor, and researchGate as the most reliable online platforms. Eight students did not mention specific websites, but rather referred to any URL that ends with edu, gov, or org as being reliable. Academia, Britanica, and Bookzz were cited five times each. As for YouTube, Scopus, Google, and UMMTO, they were cited by two students each. Other websites were mentioned only once, and this includes: Sparknotes, Wikipedia, Googlebooks, Scholarly, Worldwide science, Ciar, Edubird, Gradesaver, Openedition, Shmoop, Ericgarden, BBC, and Ebooks.

Section Four: Knowing how to use information

Section four gives primary importance to students' ability to effectively use and reference the information that they gather.

The following is a journal citation in a bibliography: Burgstahler, Albert W.; Nordin, Ivan C. Stereospecific angularalkylation. A new application of the Claisen rearrangement. J. Am. Chem. Soc. 1961, 83 (1): 198-206. Please match each component part of this citation with its correct name.

Table10: Students' referencing skills

	N° volume	First page of the article	N° issue	Article title
198	6	28	5	0
Stereospecific Angular Alkylation	0	2	1	33
1	18	6	15	1
83	18	1	19	2

Table10 shows that the respondents have provided different answers to each part of the source. Of those, 29 of them were able to correctly identify the page of the article, and 33 of the students were able to locate the title of the source. However, only 18 out of 52 students picked the correct answer for the volume number of the journal, and only 19 respondents pinpointed the issue number of the journal.

Table11: Students' identification of a reliable source

Options	Number	Percentage
Webb,C.D.(1992).A theoretical basis for Pig Latin semiotics. NewHaven,CT:Bayside	4	9.1%
Chomsky, N.,Halle,M., &Harris,Z.(1960). Toward a generative model of Pig Latin syntax.	17	38.6%
289-Pigology: Current issues in Pig Latin research,26 (2),247		
Walker,A.(n.d.).Playlists[YouTubechannel].YouTube.RetrievedOctober8, 2019,from https://www.youtube.com/user/DjWalkzz/playlists	4	9.1%
All of the above	19	43.2%

Students were asked to identify which sources could be used as references in a dissertation. The table clearly shows that students did not provide a uniform answer to the question. 43.2% chose the 'All of the above' option, and 38.6% chose the second option. Both options 1 and 3 were selected by 9.1% of the students each.

Table12: YouTube as a reliable source of information

Options	Number	Percentage
Yes	21	42.9%
No	28	57.1%

Interestingly, the graph indicates that most students (57.1%) do not consider YouTube a reliable source of information, and 42.9% believe it can be a credible source.

Section Five: Understanding ethical and legal information use

The last section of the questionnaire has its primary objective to assess students' ethical and legal use of information.

Table13: Students' knowledge of intellectual property rights

Options	Number	Percentage
Author	17	36.2%
Publisher	11	23.4%
University	1	2.1%
Principal investigator only	3	6.4%
I don't know	15	31.9%

As demonstrated in table 13, Students selected different answers to the question 'For a published journal article, who is more likely to be the owner(s) of the intellectual property?' Both the options 'author' and 'I don't know' have the highest percentages, being 36.2% and 31.9%, respectively. A small minority of students selected 'publisher', and only a handful of students chose "principal investigator only" and "university" as their answers.

Read the three cases and decide whether they are forms of plagiarism or not.

Table13: Students' ability to identify different forms of plagiarism

The three suggestions	Plagiarism	Not-plagiarism
You find a really good journal article about the psychology of adolescent girls with .1 eating disorders. You use some of the ideas, but don't quote directly. Since nearly every book and article you looked at referred to this article, you don't cite it, because it is .common knowledge	39	7
The proverb "The early bird catches the worm" seems particularly a propos to the .2 subject of your paper, so you decide to quote it. You go to the library and find a book of .proverbs so that you can provide a citation	9	37
You find some interesting information on 'methodology' on the web. You don't cite it, .3 .because material on the web is considered common knowledge	35	12

Table 13 clearly shows that the majority of students were able to identify cases of plagiarism, with 39 students and 35

students confirming that cases 1 and 2 are two forms of plagiarism. Furthermore, 37 students have not considered the second case to be a form of plagiarism.

3-Discussion

The results of this study were presented and interpreted in five parts. M2 Students' abilities to: determine information, access information, evaluate information, use information, and ethically and legally use information were analyzed. The first hypothesis that states that M2 students use a combination of online search engines, academic databases, and offline resources like libraries and textbooks is partially confirmed. As for the hypothesis that posits that M2 students effectively use information from diverse resources to support their research, it is disconfirmed.

The results of the first question indicate that most students selected their topic of research. A substantial number of students did not choose their theme of research but rather relied on their supervisor to do so. These subjects can be rated as medium- to- low epistemological believers as they relied on an authority (supervisor in this case) to pick their topic of research and even do the information search for them (Whitmire, 2003). When asked if they had trouble finding the information they needed during their pre-research phase, the overwhelming majority of students mentioned they could not find enough information on their research topic. Additionally, when asked what solution they resorted to solve this issue, no student seemed to mention a new technique or strategy. Instead, most students mentioned very vague solutions, such as reading books. This goes in line with Slone's idea that non proficient internet users are more likely to give up on a search when it becomes difficult (2002, as cited in Howard & Massanari, 2007).

As regards students' ability to access information needed, most students use the default search engine, Google. Even the students, who claimed to use other search engines, when asked to give examples, did in fact refer to websites, such as YouTube and books. Only one student mentioned using Bing. This clearly shows that most students do not understand the difference between a search engine and a website. According to Malik and Mahmood (2009), students tend to follow "the law of least effort" (2009: 8). The findings are in line with earlier research, which also shows that Google remains students' default search engine

(Dalglish and Hall, 2000; Johnson, Griffiths, and Hartley, 2001). When asked about the websites that they used to gather information online, some referred to unreliable resources such as Wikipedia, University repositories, and lecture notes, which are considered tertiary sources. Students' reference to Wikipedia as a reliable resource is a clear indicator that they trust search engines as neutral in presenting the results. Despite the fact that Wikipedia pages lack authority and are not academic articles that have undergone a thorough review process to be finally published in a scientific journal, they are still used by some M2 students. The reason may be that they are easier to access and usually appear in the top ten search results of Google.

When asked to mention the reason why they think they cannot always have access to the information that they need, the vast majority of students do not refer to their lack of information-searching skills, but rather believe that the unavailability of the source online is the main reason. Only one student referred to the inaccessibility of payment services in the country as one more reason why payable documents cannot be purchased. Such findings are indicative of students' unawareness of their lack of information access skills. The real reason behind the unavailability of information maybe that most graduate students tend to try one of two key word combinations in the search box, briefly examine the first entry page of the search engine results, and hastily conclude that the piece of information is not available online. Nicholas et al. (2009) term this behavior 'satisficing,' a combination of 'satisfying' and 'sufficing' that allows users to cope with overwhelming amounts of information (Nicholas, Huntington, Jamali, Rowlands, and Fieldhouse (2009: 109). Nicholas et al. (2009) refer to such web users as "Bouncers", as they tend to superficially visit webpages without taking the time to examine the sources deeply. The study results reveal that only a small number of graduates show an interest in the use of other university and public libraries. The overwhelming majority of students only used their university library. Likewise, only a small number of students claim to have taken the time to contact academics who are specialized in their field of research online and in person.

The third part of the questionnaire aims at identifying students' ability to evaluate the content of the sources

that they find online and offline. When asked about the characteristics that make a source reliable, most students mentioned two criteria, namely authority and currency. The findings are in line with earlier research, which also showed that students' ability to identify authentic and reliable information online is somehow inadequate (Brabazon, 2016). Of 43 respondents, only 10 students claimed to pay attention to the academic style used in an online source, such as grammar and punctuation, and only 7 students claimed to pay attention to the URL of a website to determine the reliability of a source of information. Only 13 admitted looking at the cited information used by the author of the source.

As far as students' competence in the effective use of different sources is concerned, many did not know which source could be cited in the reference list. Moreover, the majority of students truly believe that all YouTube videos are not reliable sources of information. The results are in line with the findings of previous research. Many studies conclude that non-native English-speaking academics are more likely to face serious difficulties in dealing with citations (Davis, 2013) and references (Al-Khasawneh, 2010; Al-Zubaidi, 2012). More often than not, students were perplexed about what to cite, who to cite, how to cite, and when not to cite (Polio & Shi, 2012).

The last part of the questionnaire deals with students' ability to use different sources ethically and legally. The results of the first question indicate that most students are not informed enough about intellectual property and the rights of academic publishers. On the other hand, most students succeeded in detecting plagiarism in the examples provided. This nullifies the general public notion regarding students' ability to identify plagiarism. It is important to

note that master's students have attended previous courses in research methodology, ethics, and deontology in their master studies, and have been given instructions on how to use resources gathered ethically and legally. They have been made aware of the consequences of resorting to plagiarism and not crediting the sources. This may explain such positive results.

Conclusion

The research aimed at covering the information inquiry and information use processes of graduate students and to gain an understanding of their search behaviors and preferences. In particular, it drew attention to the need to examine students' ability to determine, access, evaluate, and use information for their academic pursuits. The study has the potential to help teachers, students, and researchers to understand EFL students' information search processes and information use processes, which can help develop more appropriate interventions to guide graduates through their academic research and enable them to succeed in their academic endeavors. Future research should include the exploration of the relationship between students' proficiency and their information-seeking behavior. Moreover, further research needs to be conducted through the analyses of master dissertations to determine students' effective use and referencing of the information gathered. The recommendation from this study is to provide more guidance and support for students to improve their information-seeking and information-use skills through master's degree programs. This research is limited to the use of a questionnaire for data collection. Further research could build on this study by evaluating students' actual use of academic sources in their dissertations, such as citing, referencing, paraphrasing, and patchwriting.

references

1. Al-Khasawneh, F.M.S., & Maher, S. (2010). Writing for academic purposes: Problems faced by Arab postgraduate students of the college of business, UUM. *ESPWorld*, 9(2), 123-.
2. Alvermann, D. E. (2008). Why bother theorizing adolescents' online literacies for classroom practice and research? *Journal of Adolescent & Adult Literacy*, 52(1), 819-.
3. Al-Zubaidi, K.O. (2012). The academic writing of Arab postgraduate students: Discussing the main language issues. *Procedia-Social and Behavioral Sciences*, 66, 4652-.
4. American Library Association. (2000). *Information literacy competency standards for higher education*, Chicago, IL: Association of College and Research Libraries.
5. Bennett, S., Maton, K., & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British journal of educational technology*, 39(5), 775786-.

6. Bent, M., & Stubbings, R. (2011). The SCONUL seven pillars of information literacy: Core model.
7. Brabazon, T. (2016). *The University of Google: Education in the (post)information age*. Aldershot, Hampshire, England: Ashgate.
8. Dalgleish, A., & Hall, R. (2000). Uses and perceptions of the World Wide Web in an information-seeking environment. *Journal of Librarianship and Information Science*, 32(3), 104116-.
9. Davis, M. (2013). The development of source use by international postgraduate students. *Journal of English for Academic Purposes*, 12(2), 125135-.
10. Dwyer, B. (2016). Engaging all students in internet research and inquiry. *The Reading Teacher*, 69(4), 383389-.
11. datareporta.com
12. Hockly, N. (2012). Digital literacies. *ELT Journal*, 66(1), 108112-.
13. Howard, P. N., & Massanari, A. (2007). Learning to search and searching to learn: Income, education, and experience online. *Journal of Computer-Mediated Communication*, 12(3), 846865-.
14. Johnson, F. C., Griffiths, J. R., & Hartley, R. J. (2001). *DEVISE a framework for the evaluation of Internet search engines*. CERLIM (Centre for Research in Library and Information Management).
15. Kim, S. U., & Todd, R. J. (2021, March). The information search process of English Language Learner (ELL) students in a Guided Inquiry Project: an in-depth case study of two Korean high school students in the United States. In *IASL Annual Conference Proceedings*.
16. Koltay, T., Spiranec, S., & Karvalics, L. Z. (2016). *Research 2.0 and the future of information literacy*. Amsterdam: Chandos Publishing.
17. Lorenzo, G., & Dziuban, C. (2006). *Ensuring the net generation is net savvy* (Vol. 2, pp.1-19). Boulder, CO: Educause. <http://www.educause.edu/ir/library/pdf/ELI3006.pdf>
18. Malik, A., & Mahmood, K. (2009). Web search behavior of university students: A case study at University of the Punjab. *Webology*, 6(2), 114-.
19. Nicholas, D., Huntington, P., Jamali, H. R., Rowlands, I., & Fieldhouse, M. (2009).
20. Student digital information-seeking behaviour in context. *Journal of Documentation*.
21. Nikolopoulou, K., & Gialamas, V. (2011). Undergraduate students' information search practices. *Themes in Science and Technology Education*, 4(1), 21-32.
22. Nyarigoti, N. (2020). An Assessment of Information Literacy Skills of Undergraduate Students at the United States International University-Africa. *Journal of Language, Technology & Entrepreneurship in Africa*, 11(1), 1-13.
23. Polio, C., & Shi, L. (2012). Perceptions and beliefs about textual appropriation and source use in second language writing. *Journal of Second Language Writing*, 21(2), 95-101.
24. Whitmire, E. (2003). Epistemological beliefs and the information-seeking behavior of undergraduates. *Library & Information Science Research*, 25(2), 127-142.

تقويم كفاءة الطلاب في الثقافة المعلوماتية الرقمية: دراسة حالة لطلاب السنة الثانية ماجستير بجامعة مولود معمري، تيزي وزو

ملخص

الكلمات المفتاحية

بحث أكاديمي
مهارات محو الأمية المعلوماتية
موارد على الإنترنت
خريجون

مع مشهد المعلومات الجديد والتقنيات الجديدة التي غيرت طريقة التعلم والتواصل؛ مهارات وكفاءات جديدة مطلوبة من الطلاب والباحثين لإكمال مشاريعهم الأكاديمية. تهدف الدراسة الحالية إلى تحديد عمليات البحث لطلاب الدراسات العليا أثناء إكمالهم لأطروحاتهم في السنة النهائية. وبشكل أكثر تحديدًا، تهدف إلى تقييم قدرة الخريجين على تحديد المعلومات والوصول إليها وتقييمها واستخدامها بشكل أخلاقي وقانوني. يعتمد البحث الحالي على نموذج ACRL (رابطة مكتبات الكليات والوطنية والجامعية) لمهارات المعرفة المعلوماتية لتحقيق هذه الأهداف. تم جمع البيانات من خلال استبيان تم إجراؤه على 52 طالب دراسات عليا. تكشف النتائج أن طلاب الماجستير يواجهون العديد من التحديات عند تصفية واستخدام المصادر عبر الإنترنت وغير المتصلة بأبحاثهم الأكاديمية. وبشكل أكثر تحديدًا، يفتقر الطلاب إلى التقنيات والاستراتيجيات للعثور على مراجع أكاديمية ولديهم معرفة غير كافية حول الاستشهادات التي يجب تضمينها في أطروحاتهم. وبناءً على ذلك، فإن الدراسة لها آثار تربوية من حيث أنها تشير إلى الحاجة إلى تعزيز مهارات معرفة القراءة والكتابة المعلوماتية للخريجين.

**Évaluation des compétences informationnelles numériques chez les étudiants de master 2:
Étude de cas à l'Université Mouloud Mammeri (Tizi-Ouzou)**

Résumé

Avec les nouvelles technologies qui ont transformé notre façon d'apprendre et de communiquer, les étudiants et les chercheurs doivent acquérir de nouvelles aptitudes et compétences pour mener à bien leurs projets universitaires. La présente étude vise à identifier les processus de recherche adoptés par des étudiants de Deuxième cycle afin d'élaborer leurs thèses de fin d'étude. Plus particulièrement, la recherche vise à évaluer la capacité des étudiants de premier cycle de déterminer, d'accéder, d'évaluer et d'utiliser l'information de manière efficace et éthique. Pour atteindre ces objectifs, la recherche actuelle s'appuie sur le modèle ACRL (Association of College, National, and University Libraries) des compétences en technologies de l'information. Les données ont été recueillies au moyen d'un questionnaire administré à 52 étudiants de premier cycle. Les résultats révèlent que les étudiants font face à de nombreux défis lorsqu'ils filtrent et utilisent des sources en ligne et hors ligne pour leurs recherches universitaires. Plus précisément, les étudiants manquent de techniques et des stratégies pour trouver des références académiques et ne savent pas quelles citations inclure dans leurs dissertations. Par conséquent, l'étude a des répercussions pédagogiques qui soulignent la nécessité d'améliorer les compétences en technologies de l'information des étudiants de premier cycle.

Mots clés

recherche universitaire
compétences en technologie
de l'information
ressources en ligne
étudiants de deuxième cycle



Competing interests

The author(s) declare no competing interests

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إن هذا الترخيص يسمح بإعادة استخدام المواد البحثية المفتوحة الوصول إلى الحد الأقصى. وبالتالي، فإن المعنيين بالاستفادة أحرار في نسخ ونقل وتوزيع وتكييف (إعادة خلط) المساهمات المنشورة في هذه المجلة، وهذا حتى لأغراض تجارية؛ بشرط أن يتم نسب المساهمات المستخدمة من طرفهم إلى مؤلفي هذه المساهمات، وهذا وفقًا لطريقة من الطرق المعترف بها في كتابة المراجع.

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