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Examining the Prospects and Barriers to Institutionalising Information Literacy as a Credit-Bearing Course for First-Year Students at Lira University: A Mixed-Methods Convergent Study

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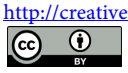

Abstract

This study investigated the Prospects and Barriers of Institutionalising Information Literacy as a Credit Course in First-Year Programmes at Lira University. The study was motivated by the perceived deficiency of information literacy (IL) skills among first-year students, which many respondents associated with difficulties in academic research, effective information use, and independent learning. A mixed-methods approach with a convergent research design was employed, targeting 190 students selected through proportionate stratified sampling and purposively selected Head of Departments (HoDs). Data were collected using questionnaires and interviews and analysed through descriptive statistics and thematic analysis. Findings revealed strong support for embedding IL into first-year programmes, as it was perceived to enhance students' research competence, information retrieval, ethical resource use, and overall academic confidence. Orientation sessions were rated as highly valuable entry points for IL training. However, several barriers hindered full integration, including inadequate institutional support, limited ICT infrastructure, low awareness of IL initiatives, insufficient staff capacity, and ineffective promotion of library services. Overreliance on online sources and heavy academic workloads further constrained student engagement in IL activities. The study concludes that integrating IL as a credit-bearing course would address key skill gaps and better prepare students for academic and lifelong learning. It recommends institutional commitment to IL awareness, infrastructure improvement, staff development, and formal inclusion of IL in the first-year curriculum to nurture independent, research-oriented, and critical thinkers.

Subject Areas

Information Literacy

Keywords

Prospects and Barriers of Institutionalising Information Literacy, Research Competencethematic Analysis

1. Introduction

The rapid advancement of information technologies in recent decades has substantially transformed the concept of Information Literacy (IL) [1]. IL began to gain prominence in the 1970s when librarians and educators recognised the growing need for individuals to manage information in an increasingly complex world [2]. [3] defines IL as the ability to effectively locate and use information for professional work or academic research. Today, IL encompasses a broad range of competencies, including ethical evaluation of information, effective resource utilisation, and information synthesis for decision-making and problem-solving [4].

The digital era has further elevated the significance of IL. The internet and modern technologies have revolutionised how information is generated, accessed, and shared, creating both opportunities and uncertainties for students and educators [3]. As the volume and diversity of information continue to expand, academic institutions increasingly recognise IL as a fundamental requirement for student success [2]. In 2016, the Association of College and Research Libraries emphasised the importance of embedding IL into academic curricula to better prepare students for academic success and lifelong learning. Consequently, many universities globally have adopted IL instruction particularly for first-year students [4].

Lira University in Uganda has joined other institutions in embracing IL to prepare students for the demands of an information-driven world. However, limited IL skills remain a significant challenge for many students, affecting their academic performance and ability to process information effectively in their first year [5]. This problem extends beyond Lira University, as research shows that many first-year students worldwide enter higher education with inadequate IL capabilities, particularly in source evaluation and academic information-searching skills critical for academic success [6].

Higher education stakeholders increasingly advocate for integrating IL into university curricula as a foundation for academic learning. Offering a credit-bearing IL course for first-year students at Lira University would equip learners with essential skills for academic achievement [7]. Evidence shows that embedding IL into the curriculum enhances students' academic outcomes, fosters critical thinking, encourages independent learning, and develops problem-solving abilities skills vital in today's digitally saturated environment [8]. [9] further demonstrate that learning is most effective when students actively engage in discovering and interpreting

information. Through IL instruction, students acquire analytical techniques that sharpen their reasoning, problem-solving, and reflective learning capacities. Education is particularly transformative in communities of practice, where learners and educators collaborate in knowledge exchange [10].

Although librarians have long facilitated IL programs [11] structured, credit-bearing IL courses characterised by systematic teaching, planning, and assessment remain rare [2]. In Uganda, many students transition from under-resourced secondary schools, limiting their academic readiness [11] [12]. As a result, they struggle with retrieving information, analysing assignment topics, applying critical thinking, and successfully advancing through academic programs, which often contribute to high attrition rates.

At Lira University, these issues are particularly evident. Based on the researcher's observations as a library staff member since 2019, supported by institutional reports, many students continue to lack adequate IL skills. This mirrors a broader challenge faced by universities across Uganda. Despite growing recognition of IL's importance in improving academic outcomes, its structured integration into the curriculum remains limited. The central problem, therefore, is that first-year students at Lira University enter higher education with insufficient IL competencies, yet IL is not consistently taught as a credit-bearing course. This study seeks to examine the prospects and barriers of instegrating IL into first-year academic programs at Lira University, to enhance students' learning outcomes and reduce academic underperformance. The study therefore intends to achieve the following objectives.

Objectives of the Study

1) Identify the prospects for integrating IL into first-year academic programmes at Lira University

2) Establish the barriers faced in integrating IL into first-year academic programmes at Lira University

3) Propose recommendations that might be adopted for integrating IL into the first-year academic programmes at Lira University

2. Literature Review

The Diffusion of Innovations Theory [13] guided this study, explaining how new ideas and practices are adopted within institutions. The theory was applied to examine the integration of Information Literacy (IL) as a credit course in first-year programmes at Lira University. Regarding the first objective, the theory highlights attributes such as relative advantage and compatibility, which informed the identification of prospects where IL could enhance student learning, academic performance, and lifelong information skills. For the second objective, the theory emphasises barriers to adoption, including complexity, limited resources, institutional resistance, and slow diffusion rates, which were central in identifying the challenges to IL integration. Finally, the theory outlines strategies to accelerate adoption, such

as engaging opinion leaders, piloting innovations, and using effective communication channels, which informed the recommendations for integrating IL into the curriculum. Using this theoretical framework allowed the study to systematically analyse prospects, barriers, and strategies for institutionalising IL in higher education. The literature review was guided by the study's objectives.

2.1. Prospects of Integrating Information Literacy into First-Year Academic Programmes

Integrating Information Literacy (IL) into first-year academic programmes provides multiple benefits for students. IL equips learners with essential skills to identify information needs, locate appropriate sources, and validate their credibility for effective academic and professional application [14] [15]. These competencies enhance analytical thinking and critical reasoning, enabling students to detect misinformation and biases in an era of widespread disinformation [16]. In addition, IL fosters lifelong learning by promoting adaptability and continuous knowledge acquisition in rapidly changing environments [14].

Academic libraries play a central role in this process by guiding students in ethical and efficient use of resources, preventing plagiarism, and supporting success in research-based assignments [17] [18]. Beyond academia, IL supports innovation and workplace readiness by strengthening decision-making, communication, and professional development [19] [20]. Thus, integrating IL into first-year programmes enhances both immediate academic performance and long-term career competencies.

2.2. Barriers of Integrating Information Literacy into First-Year Academic Programmes

Despite its benefits, the implementation of IL faces significant challenges. Many universities lack standardised curricula or coherent teaching methodologies, leading to fragmented instruction [19] [21]. A major limitation is the exclusion of librarians who are subject experts from curriculum planning and delivery, thereby weakening IL programme depth and quality [22]. Instructional quality is further compromised when IL is taught by staff without expertise in digital literacy and information evaluation [23].

Technological barriers also hinder IL development, limited access to digital infrastructure, unstable internet, and reliance on print resources reduce opportunities for students to practice digital research skills [24]. In addition, the absence of institutional policies and inadequate administrative support limit the sustainability of IL programmes [25]. A lack of student engagement where IL is often perceived as secondary further undermines programme effectiveness [26].

2.3. Recommendations for Successful Integration

To address these challenges, IL should be systematically embedded into first-year curricula through faculty-librarian collaborations, ensuring discipline-specific and

skills-based instruction [20] [27]. Universities should also invest in digital infrastructure, subsidized access to e-resources, and mobile-friendly platforms to bridge the digital divide [28]. Faculty training and development programmes are critical to equip instructors with effective IL teaching strategies and assessment frameworks. Interactive approaches—such as inquiry-based learning, project-based assignments, online tutorials, and virtual research simulations should be employed to engage students [20] [28]. Additionally, universities must prioritize academic integrity training through workshops on ethical research, proper citation, and plagiarism prevention, supported by AI-based tools for learning [27].

Overall, integrating IL into first-year programmes presents significant opportunities for enhancing students' academic and professional competencies, though persistent challenges limit its implementation. These include fragmented curricula, insufficient librarian involvement, inadequate technological infrastructure, and lack of institutional support. Addressing these barriers requires a comprehensive approach involving curriculum reform, investment in digital resources, faculty capacity building, and academic integrity initiatives. Successful integration depends on collaboration among librarians, faculty, and university policymakers to ensure that IL becomes a cornerstone of higher education in preparing students for success in academia and beyond.

3. Methodology

The study employed a mixed-methods approach with a convergent research design. Mixed methods approach involve the systematic collection, analysis, and integration of both quantitative and qualitative data to draw comprehensive conclusions [29]. The study employed a convergent design, where datasets are collected concurrently, analysed separately, and then merged to provide a unified interpretation of the research problem [30] [31]. The study population comprised final-year students and Heads of Departments (HoDs), the final-year students were selected through proportionate stratified sampling. The final year students were targeted because they could retrospectively reflect on first-year experiences, offering insights into information literacy (IL) gaps and curriculum needs. HoDs were purposively chosen for their roles in curriculum planning and academic decision-making. Quantitative data were collected using questionnaires and analysed descriptively with SPSS, while qualitative data were obtained through interviews and analysed thematically following [32] framework. During integration, qualitative findings were used to explain and contextualise quantitative patterns, enabling a comprehensive understanding of the prospects and barriers to institutionalising IL as a credit-bearing course at Lira University.

4. Findings of the Study

4.1. Response Rate

The study population's sample size was 190, and the researcher obtained a response rate of 165 (92%). This was satisfactory as [33] revealed that a higher response rate

leads to more valid and reliable research findings.

4.2. Gender of the Respondents

The study aimed to determine the gender composition of the respondents, recognising that understanding this aspect was crucial in minimising potential gender bias [34]. As presented in **Figure 1**, the findings revealed that male respondents constituted the majority accounting for 109 (66.1%) of the total participants, while female respondents were 56 (33.9%). This indicates a higher level of male participation in the study. The observed gender disparity may reflect the general enrolment trend at Lira University, where male students tend to outnumber their female counterparts. Nevertheless, both genders were sufficiently represented to ensure that the study captured diverse perspectives and avoided systematic gender bias in the interpretation of results.

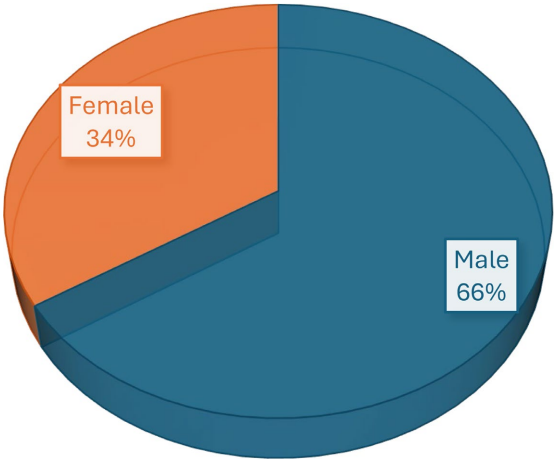

Figure 1. Gender of the respondents.

The finding that male students outnumber female participants confirms earlier research showing ongoing gender gaps in access to and use of digital and library resources in higher education. For example, [35] noted that male students in East African universities are generally more active in using digital platforms and library services than their female peers, often due to higher confidence and greater exposure to technology. Likewise, [36] reported that male students tend to dominate in technology-mediated learning environments, while female students encounter difficulties such as limited access to ICT tools and time constraints. These patterns indicate that gender remains a key factor shaping student engagement with library and information services, highlighting the importance of inclusive strategies that encourage equal participation across all genders.

4.3. Category of Students

As shown in **Figure 2**, the majority of respondents were final-year undergraduate students, accounting for 156 (94.5%) of the total participants followed by 4 (2.4%) postgraduate diploma students and 5 (3.0%) master's students. This distribution

highlights that most participants were nearing the completion of their academic programmes. The categorisation by educational level is significant because it provides insights into students' degree of exposure, progression, and competence in information literacy skills, which tend to develop and strengthen over the course of their academic journey [37].

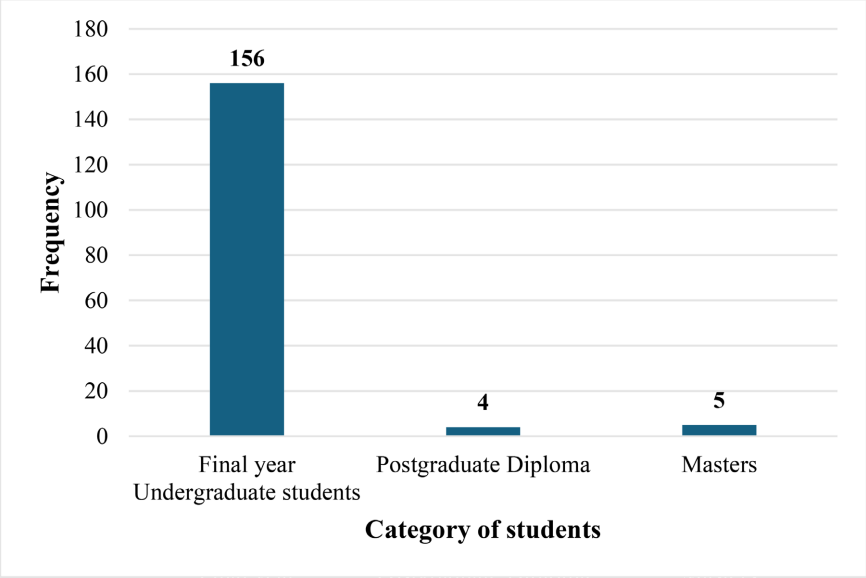

Figure 2. Category of students.

This finding corresponds with earlier studies that have shown a positive relationship between academic level and information literacy competence. According to [15], senior or final-year students often demonstrate greater proficiency in locating, evaluating, and applying information resources compared to their junior counterparts, largely due to cumulative academic exposure and increased engagement with research activities. Similarly, [36] emphasised that students at higher levels of study tend to exhibit stronger information-seeking behaviour and greater familiarity with library services as they advance through their programmes. Therefore, the predominance of final-year students in this study suggests a more informed and experienced respondent group capable of offering deeper insights into digital literacy and library engagement practices.

4.4. The Prospects of Integrating IL into First-Year Academic Programmes at Lira University

The study aimed to explore the possibilities of integrating Information Literacy (IL) into first-year academic programmes at Lira University (LU). The findings revealed that students had the opportunity to access available resources (electronic and physical resources), develop research skills and search strategies, learned how to maintain research integrity ethics through using the Turnitin plagiarism detector, and were able to save time searching for large sources of information because of information literacy training.

4.4.1. Helpfulness of Library Orientation Sessions among Lira University Students

This question sought to capture respondents' perspectives on the usefulness and significance of library orientation sessions. The results show that students' views on these sessions are highly beneficial. Of the 141 valid responses, 59 (41.8%) indicated that the session helped them understand available resources and how to access them. Another 55 (39%) selected "all of the above" reflecting that many students found the sessions valuable in multiple ways. Smaller groups highlighted specific benefits, including improved research skills (15 respondents, 10.6%), prevention of plagiarism (7 respondents, 5%), and saving time when locating credible resources (5 respondents, 3.5%). Overall, the findings suggest that library orientation plays an important role in enhancing students' academic abilities, particularly in resource discovery and research support.

The finding that orientation sessions are rated as extremely valuable by students highlights the strong demand and appreciation for structured guidance in accessing and evaluating information resources. Although these sessions are usually brief and introductory, their perceived value shows that students see the relevance of IL skills to their academic success. This positive response indicates that students are receptive to more formalised IL instruction. Therefore, the impact observed from short-term orientations offers strong evidence for institutionalising a comprehensive, mandatory credit-bearing IL course. By expanding from single sessions to a sustained, assessable programme, the university can ensure all students acquire essential research and information skills that support independent learning and lifelong academic engagement.

From the interview guide, Head of Departments agreed that the Information Literacy (IL) program should be made mandatory, citing its positive impacts on students' academic performance and research output. They observed that students who had completed the program were more familiar with available resources and had developed strong search strategies. One respondent emphasised: "With IL integrated into the first-year academic program, it will ensure that students are equipped with the right tools, resources, and approaches to handling complicated research topics." (Respondent 002).

These views are consistent with findings from earlier studies, such as [38] [39], which concluded that Information Literacy (IL) enhances academic performance by equipping undergraduate students with essential search skills and the ability to access electronic resources and databases effectively. This in turn enables students to save valuable time when seeking the information, they need.

Figure 3 presents responses on whether new students would benefit from learning how to find and evaluate academic information, with particular emphasis on the importance of information evaluation skills. The results show that an overwhelming majority of respondents 163 (99%) answered "Yes," while only 2 (1%) answered "No." This demonstrates strong consensus that such training would be highly beneficial for new students.

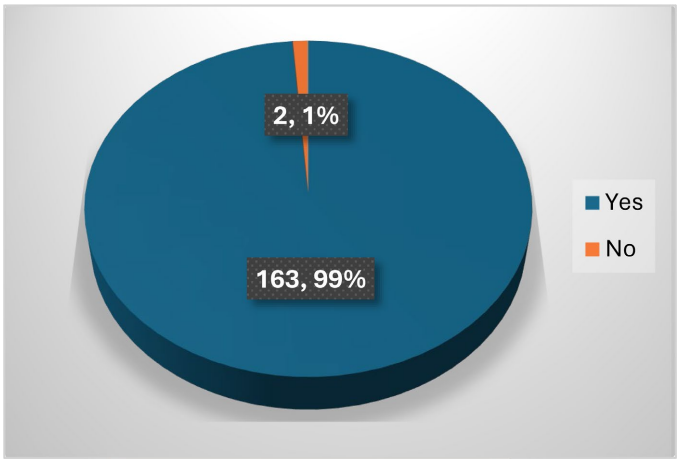

Figure 3. Perceived benefits of teaching new students how to find and evaluate academic information.

These findings are consistent with those of [15] [36] [40], who similarly reported strong student recognition of the value of Information Literacy training in enhancing their ability to locate and evaluate academic resources. Likewise, [10] observed that IL instruction significantly improves students' confidence and critical evaluation skills, reinforcing the widespread consensus that IL education is a vital component of academic success.

The respondents further elaborated on why they believe new students should acquire these skills, highlighting several key reasons as follows:

- As new students, many are unfamiliar with how to access information on the university website; such training would help them identify credible sources.
- Because it makes students creative and innovative.
- Because it saves time when one knows how to find necessary information.
- It can help them to find more relevant contents and information in relation to their field of studies.
- It helps them widen their knowledge and gather more information to back up their academic journey.
- It is a necessary skill one would need to utilize when it is early enough which would make academic navigation easier.
- It necessitates further study to concretize knowledge and obtain diverse explanations through using and evaluating academic information.
- It widens their reasoning ability and gives them the opportunities to solve current problems.
- It would help them to gather quick information access as well as reduce chances of plagiarism.
- The pedagogical methods used in the university only provide shallow knowledge, hence need to enrich the learning by finding more information individually.
- This can widen and broaden the understanding of students about the importance of research and use of available study tools and information.

4.4.2. Subjects or Courses that Could Incorporate Information Literacy

Respondents were asked to give their view on subjects or courses they think could incorporate lessons on how to use the library. The results show students proposed both broad and specialised fields, demonstrating the universal need for information literacy. Communication skills, computer applications, business administration, agriculture, chemistry, and health-related subjects including anatomy, physiology, and biomedical sciences are among the most often listed. Others suggested larger categories, such as all courses or all disciplines within faculties, emphasising the cross-cutting value of library skills. Law, sociology, biostatistics, and research methodologies were also recognized, demonstrating the importance of excellent information searching in both science and the humanities.

During interviews, Head of Departments were asked whether there were any academic programmes or courses in which they believe Information Literacy (IL) could be integrated. Their responses included suggestions such as integrating Information Literacy into all courses and making it part of the foundation curriculum, for example, within the communication skills course offered to all students.

4.5. Challenges Faced in Integrating IL into First-Year Academic Programmes at Lira University (LU)

To identify the challenges associated with integrating Information Literacy (IL) into course-bearing programmes at Lira University (LU), questionnaires were administered to participants. The findings indicate several major obstacles, including inadequate institutional support, limited ICT infrastructure, low awareness of IL initiatives among academic staff, and insufficient skills in utilising available information resources. A summary of these challenges is presented in Table 1.

Table 1. Challenges in integrating IL into first-year academic programmes at Lira University (LU).

Challenges	Frequency	Percent
Inadequate support of the Information Literacy Program	21	12.7
Lack of awareness and knowledge on how to use library resources	46	27.9
Complex library website and catalog systems	20	12.1
Limited ICT infrastructures	27	16.4
All of the above	51	30.9
Total	**165**	**100.0**

Further insights from interviews with Head of Departments indicated that poor infrastructure, limited collaboration between faculty and library staff, and gaps in skills and knowledge also hinder the successful integration of Information Literacy (IL) as a course-bearing component into first-year academic programmes. These findings are consistent with the work of [41] [42], who reported that many African universities face similar barriers, particularly the lack of ICT infrastructure, relevant

skills, and supportive policies when attempting to embed Information Literacy (IL) into their academic curricula.

Overall, the results show that Lira University's IL integration encounters a mix of technological, structural, and awareness-related obstacles. The findings highlight the necessity of a thorough plan that improves student training, streamlines access mechanisms, strengthens institutional support, and upgrades ICT infrastructure in order to successfully integrate information literacy into first-year programs.

Table 2. Barriers preventing students from attending library sessions or seeking assistance from librarians.

Barriers to Students' Engagement with Librarians and Library Training Sessions	Frequency	Percent
Over confidence in online tools	66	40
Tight class schedules	27	16.4
Lack of confidence to seek for help from librarians	11	6.7
Lack of promotion or ineffective communication by librarians	20	12.1
All of the above	41	24.8
Total	**165**	**100.0**

From Table 2, when respondents were asked what prevented them from attending library sessions or assistance from librarians, the findings revealed multiple barriers. The most cited reason was over confidence in online tools, reported by 66 respondents (40%), indicating a strong dependence on digital sources. Tight class schedules were mentioned by 27 respondents (16.4%), limiting time available for visiting the library. A smaller group, 11 respondents (6.7%), expressed a lack of confidence when approaching librarians, while 20 respondents (12.1%), felt that librarians did not adequately promote their services. Notably, 41 respondents (24.8%) identified all these factors combined as contributing to their lack of engagement.

Overall, the results suggest that low student participation in library services stems from both internal factors such as overconfidence and limited time, and external factors, including insufficient service promotion. Addressing these barriers could significantly improve student engagement and strengthen Information Literacy outcome.

These findings are consistent with earlier studies by [35] [36] [43], who similarly reported that students' overreliance on online tools, tight academic schedules, and limited promotion of library services hinder active engagement with library-led learning sessions. Likewise, [35] highlighted the role of library anxiety and confidence gaps, reinforcing the need for proactive librarian outreach and Information Literacy training.

During the interviews with Head of Departments, it revealed several key

challenges such as poor understanding of IL among academic staff, heavy first-year course loads, inadequate library facilities, lack of integration of IL into existing courses. These issues were elaborated as follows:

Inadequate Library Facilities. Participants highlighted inadequate infrastructure as a major barrier to IL integration. They noted that the university library had very few computers, and many of these were non-functional. One academic leader observed that the number of functional computers in the computer labs was far below the required level, while another emphasised that some available computers were obsolete and could not meet current technological demands.

Lack of Integration into Existing Academic Courses. It was also noted that IL is not currently embedded within existing academic courses, which limits students' access to IL resources. One participant pointed out that this omission effectively makes IL an optional skill area, despite its high relevance in the job market.

Overall, the findings suggest that for IL to be effectively integrated into first-year programmes at Lira University, there is a need for improved infrastructure and the incorporation of IL into the formal curriculum. These findings are consistent with studies by [44]-[46] who similarly identified inadequate infrastructure and lack of IL integration into academic curricula as key barriers to effective Information Literacy implementation in African universities. Likewise, [47] emphasized the need for staff capacity-building and policy support to ensure IL sustainability in higher education institutions.

5. Conclusion

Guided by [13] *Diffusion of Innovations Theory*, this study examined the opportunities and challenges of institutionalising Information Literacy (IL) as a credit-bearing course in first-year programmes at Lira University. The findings reveal IL's relative advantage in enhancing students' research competence, academic performance, and lifelong learning. However, barriers such as limited resources, weak policy frameworks, and low collaboration reflect the complexity and compatibility issues that hinder adoption. The study concludes that strong institutional commitment, effective collaboration between library and faculty, and supportive policies can transform these barriers into enablers of diffusion. Embedding IL in the curriculum will strengthen teaching, learning, and research while producing independent, critical, and information-literate graduates. Based on this conclusion, the study therefore recommends the following:

Recommendations for the Study

In light of the study findings, the following recommendations are proposed to support institutionalising Information Literacy (IL) as a Credit Course in First-Year Programmes at Lira University (LU).

Enhance Institutional Awareness and Advocacy

Strengthen communication on the value and impact of IL through workshops,

departmental meetings, and faculty sensitisation. Engaging opinion leaders such as Deans, Heads of Departments, and student representatives can accelerate diffusion by influencing positive attitudes towards IL integration across the university.

Integrate IL into the Curriculum on a Pilot Basis

Implement pilot IL courses within selected first-year programmes to test feasibility and demonstrate benefits. The evidence from these pilots will showcase the relative advantage of IL, reduce uncertainty, and promote broader acceptance.

Strengthen Library Faculty Collaboration

Foster joint planning, teaching, and evaluation between librarians and academic staff to ensure IL content aligns with disciplinary learning outcomes. This collaboration will enhance compatibility within existing curricular structures and build shared responsibility for student learning.

Invest in ICT Infrastructure and Staff Capacity

Enhance technological infrastructure and offer ongoing professional development opportunities for library and teaching staff. Addressing these structural and skill-related barriers will reduce complexity and facilitate smoother implementation of IL courses.

Develop Policy, Funding, and Evaluation Frameworks

Formulate a university-wide policy to embed IL formally as a compulsory credit-bearing course, supported by budget allocations and strategic partnerships. Establish a monitoring and evaluation mechanism to assess effectiveness, track learning outcomes, and inform ongoing improvement, ensuring sustainability and alignment with the confirmation stage of innovation adoption.

6. Limitations of the Study

The major limitation of this study is its context-specific nature, as it was conducted exclusively at Lira University. Therefore, the findings may not be fully generalisable to other institutions of higher learning with different academic environments, resources, and policy frameworks.

Conflicts of Interest

The authors declare no conflicts of interest.

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