RESEARCH ARTICLE

A literature review on the information literacy competency among scholars of co-education colleges and women's colleges

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Abstract
This literature review investigates information literacy competency (ILC) among scholars in coeducational and women's colleges, exploring the disparities, influencing factors, and educational impacts within these distinct academic settings. Information literacy, a critical skill for navigating the digital era, empowers students to evaluate, access, and utilize information effectively. This review synthesizes findings from diverse studies, comparing ILC levels between scholars in coeducational and women's colleges and considering variables such as academic discipline, institutional resources, and the pedagogical environment. Research indicates that while coeducational institutions provide a broader range of resources and peer interactions, women's colleges often emphasize collaborative and inclusive pedagogies that may enhance ILC. However, disparities in competency levels persist due to variations in information literacy training and institutional support structures. This review identifies key areas where ILC training could be improved, particularly through targeted interventions tailored to the needs of each educational setting. The findings underscore the need for comprehensive information literacy programs to equip scholars with essential competencies, ultimately fostering academic success and lifelong learning across diverse educational contexts.

Keywords: Information literacy competency, Information literacy standards and models, Co-education institutions, Research scholars.

Introduction

In today's information-driven society, the ability to navigate, evaluate, and effectively use information is a critical skill across all fields of study. This skill referred to as information literacy competency (ILC), is increasingly essential in academic environments as students face a wealth of digital information from varied and often complex sources. Information literacy is not merely about accessing information but about critically engaging with

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content, assessing its credibility, and applying it in ways that contribute meaningfully to academic, professional, and personal contexts. Recognized as a foundational skill for lifelong learning, ILC supports students' ability to participate in an informed and engaged manner within an information-rich environment, underscoring its importance in higher education, Singh, R., & Kumar, S. (2019).

In higher education, the concept of ILC encompasses a range of competencies, including information sourcing, critical analysis, ethical use of information, and integration of knowledge. For students in both coeducational and women's colleges, developing these competencies is crucial for academic achievement and future professional success. However, the context within which students acquire these skills can differ significantly based on institutional characteristics, pedagogical approaches, and the availability of resources. This literature review focuses on understanding the differences in ILC among scholars in coeducational colleges and women's colleges, examining the role of institutional support, instructional strategies, and cultural factors in shaping information literacy skills, Nisha, N. B., & Varghese, R. R. (2021).

Studies suggest that coeducational and women's colleges may offer different environments for cultivating ILC. Coeducational colleges, with their diverse student populations and often broader resource pools, may provide

a range of perspectives and collaborative opportunities, fostering a dynamic environment for information literacy development. In contrast, women's colleges, which are designed to prioritize women's educational experiences, often implement teaching methods and support systems that promote an inclusive and participatory learning environment. Research indicates that women's colleges may also prioritize competency-based learning and offer specialized programs aimed at building confidence and skills in information literacy, tailored to meet the specific needs of female scholars, Singh, D., & Joshi, M. K. (2019).

This review seeks to synthesize existing research on ILC in these two types of educational settings, aiming to identify trends, strengths, and potential gaps. By examining factors such as library resources, access to technology, instructional practices, and the impact of campus culture on information literacy, the review provides a comparative analysis of how these elements influence ILC among scholars in coeducational and women's colleges. Additionally, the review considers the impact of demographic and academic variables, including discipline, level of study, and socioeconomic background, on students' ILC levels.

Understanding the distinct needs and competencies of students in these academic settings is essential for developing targeted strategies to enhance ILC. Such insights are particularly valuable for educators, administrators, and policymakers seeking to foster equitable information literacy education that prepares all students for the demands of a knowledge-driven society. Through a comprehensive examination of literature across various disciplines and methodologies, this review aims to contribute to a nuanced understanding of how coeducational and women's colleges can strengthen their approaches to information literacy training, thereby equipping students with the skills necessary for academic success and informed citizenship, Singh, R., & Kumar, S. (2021), Encheva, M., Tammaro, A. M., & Kumanova, A. (2020).

Background Study On The Information Literacy: The Concept And Practice

Information literacy (IL) is a fundamental competency in the digital age, involving the skills to locate, evaluate, and effectively use information. As defined by the American Library Association (ALA), IL encompasses "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." This skill set has become vital for students, professionals, and citizens alike, empowering them to critically engage with the growing volume of information and media available in today's technology-driven society. IL is not only about technical skills but also about fostering critical thinking, ethical understanding, and lifelong learning abilities, Sample, A. (2020).

Conceptual Foundations of Information Literacy

The concept of IL originated within the field of library and information science but has since expanded to become a cross-disciplinary educational goal. The association of college and research libraries (ACRL) has identified IL as a core competency for higher education, highlighting its role in empowering students to effectively and ethically handle information across various contexts. Central to IL are five core components: determining the nature and extent of information needed, accessing the information efficiently, critically evaluating the information and its sources, incorporating the information into one's knowledge base, and using it ethically and legally, Flierl, M., & Maybee, C. (2020).

Information literacy involves a dynamic interplay of cognitive and metacognitive skills. Cognitive skills refer to the ability to analyze and synthesize information, while metacognitive skills encompass the awareness of one's learning processes, including self-evaluation and reflection. This combined approach helps individuals become independent thinkers capable of navigating complex information landscapes with confidence. The rise of misinformation, "fake news," and biased sources has only underscored the importance of IL, particularly in academic and professional settings where critical decision-making is crucial, Flierl, M., & Maybee, C. (2020).

Evolution of Information Literacy Practices

Historically, IL was largely confined to the academic library, with librarians as the primary facilitators. However, as technology has evolved, IL practices have moved beyond library instruction and have become integrated into various educational frameworks, including those for K-12, higher education, and lifelong learning. Many educational institutions now embed IL into their curricula across disciplines, recognizing that effective research skills and critical evaluation of sources are essential for success in any field, Li, Y., Chen, Y., & Wang, Q. (2021).

Educational frameworks for IL have also evolved to reflect digital advancements. Traditional IL models, such as Big6 Skills and the Seven Pillars of Information Literacy, have been adapted to address the unique challenges posed by digital media. These models emphasize that IL is a developmental skill that grows as students engage with information-rich tasks. Contemporary IL practices often involve multimedia, digital tools, and collaborative environments, where students practice evaluating diverse information types, from academic articles to social media posts and data sets, Li, Y., Chen, Y., & Wang, Q. (2021).

Information Literacy Competency in Higher Education

IL competency is particularly crucial in higher education, where students are expected to produce well-informed and

credible academic work. Universities have responded by introducing IL as a structured component of undergraduate and graduate curricula, often through dedicated courses, workshops, and collaborative projects with libraries. A strong foundation in IL helps students achieve academic success, as they can discern credible sources, cite information correctly, and integrate knowledge across disciplines, Pinto, M., García Marco, F. J., & Fernandez-Pascual, R. (2019).

The assessment of IL competency has also become an important aspect of higher education. Various assessment tools, such as the standardized assessment of information literacy skills (SAILS) and the information literacy test (ILT), are used to evaluate students' abilities and inform improvements in IL training. Furthermore, many higher education institutions have established IL standards aligned with the ACRL's *Framework for Information Literacy for Higher Education*, which outlines six concepts, including Authority is constructed and contextual, information creation as a process, and scholarship as conversation. These concepts guide students in understanding the evolving nature of information and the responsibilities involved in its use, Pinto, M., García Marco, F. J., & Fernandez-Pascual, R. (2019).

The Role of Information Literacy in the Digital Era

The digital era has transformed the way individuals interact with information. Digital literacy, media literacy, and data literacy have become critical components of IL, enabling students to handle not only text-based information but also multimedia, social media, and statistical data. These skills are essential in discerning credible sources, identifying biases, and understanding the ethical implications of information use. Information literacy now involves engaging with digital tools and resources that require specific competencies, such as understanding search algorithms, evaluating open-access materials, and navigating complex online research databases, Polizzi, G. (2020).

Emerging technologies like artificial intelligence (AI) and big data have further expanded the scope of IL, as students and professionals must interpret data-driven insights and apply them responsibly. As technology continues to evolve, IL practices must adapt to prepare individuals for the challenges of a global information society, Polizzi, G. (2020).

Background Study on the Information Literacy Standards and Models

Information literacy (IL) is recognized as a vital competency in academia, fostering the critical abilities necessary to locate, evaluate, and ethically use information. To support the development and assessment of IL, numerous standards and models have been developed over the years. These frameworks establish guidelines for educational institutions to systematically implement IL training, enhancing students' abilities to navigate the information-rich world. This background study explores prominent IL standards and models, examining their evolution, structure, and application within various educational contexts.

ACRL Standards and Framework for Information Literacy in Higher Education

The Association of College and Research Libraries (ACRL) has led the development of IL standards for higher education, providing widely adopted frameworks that have shaped IL education globally. Initially, ACRL's *Information Literacy Competency Standards for Higher Education* (2000) outlined five core standards, Wengler, S. T., & Wolff-Eisenberg, C. (2020):
- Determining the extent of information needed.
- Accessing information effectively and efficiently.
- Critically evaluating information and its sources.
- Incorporating information into one's knowledge base.
- Using information ethically and legally.

In response to the rapid evolution of digital information landscapes, the ACRL replaced the original standards with the *Framework for Information Literacy for Higher Education* in 2016. Unlike the prescriptive nature of the earlier standards, the new framework is based on six conceptual «frames» that emphasize IL as a flexible, iterative process rather than a set of fixed skills. The six frames are:

Authority is constructed and contextual
Recognizes the varying credibility of information based on context and the role of expertise.

Information creation as a process
Emphasizes that information is produced and disseminated through specific processes.

Information has value
Highlights the ethical and economic value of information and intellectual property.

Research as inquiry
Frames research as a dynamic and inquiry-based process.

Scholarship as a conversation
Understands scholarship as an ongoing, collaborative dialogue.

Searching as strategic exploration
Encourages students to develop search strategies and adapt based on need.

This framework encourages critical thinking and adaptability in students, aligning IL more closely with the needs of modern digital literacy. It also allows institutions to approach IL as a developmental journey, making it particularly suitable for interdisciplinary learning.

UNESCO's Information Literacy Standards

UNESCO has been a significant advocate for IL on a global scale, linking it to lifelong learning and sustainable development goals. UNESCO's media and information literacy (MIL) curriculum positions IL alongside media literacy, reflecting the growing importance of understanding

digital media. This curriculum is based on competencies such as accessing, evaluating, and applying information ethically while promoting media awareness and the critical consumption of digital content. UNESCO's model emphasizes IL as a tool for informed citizenship, empowering individuals to navigate complex media ecosystems and actively participate in civic and social life, Park, J. (2020).

UNESCO's MIL model has been particularly impactful in developing countries, where IL initiatives may focus on fostering critical thinking and building basic digital skills. This model addresses the global disparities in access to information and digital resources, promoting inclusive approaches to information literacy that support lifelong learning and digital inclusion.

SCONUL's Seven Pillars of Information Literacy

The Society of College, National and University Libraries (SCONUL) developed the *Seven Pillars of Information Literacy* model in 1999, which has since undergone revisions to align with evolving digital practices. SCONUL's model is widely used in the United Kingdom and emphasizes a holistic and developmental approach to IL. The seven pillars are Cox, A. M., & Benson-Marshall, M. (2021):

Identify

Recognizing information needs.

Scope

Understanding the scope and extent of the information needed.

Plan

Strategizing how to locate and acquire information.

Gather

Collecting relevant information.

Evaluate

Critically assessing the information gathered.

Manage

Organizing and managing the information effectively.

Present

Communicating and presenting the information ethically.

SCONUL's model also includes a «lens» component, which enables educators to tailor the pillars to specific academic or professional contexts. This model is particularly valued for its flexibility and adaptability, making it useful in disciplines with varying information needs, such as the sciences, humanities, and social sciences. Additionally, SCONUL's model is frequently applied in digital learning environments, allowing it to adapt easily to changes in how students engage with online resources.

Big6 Skills Model

The Big6 skills model developed by Mike Eisenberg and Bob Berkowitz, is a problem-solving framework designed for K-12 education but has also been adapted for higher education and professional contexts. The Big6 approach is practical, breaking down IL into six actionable steps, Iriani, T., & Wicaksono, G. (2021, May):

Task Definition

Identifying the information problem.

Information Seeking Strategies

Selecting sources and identifying strategies.

Location and Access

Locating and accessing information.

Use of Information

Engaging with information effectively.

Synthesis

Organizing and presenting the information.

Evaluation

Reviewing the process and the results.

The Big6 model is widely used for its simplicity and effectiveness in guiding students through each stage of IL. It is particularly valuable for structured problem-solving and project-based learning, where students benefit from a clear, sequential approach. Educators often integrate Big6 into curriculum activities and project assessments, helping students develop IL skills in a step-by-step manner.

Metaliteracy Framework

Metaliteracy is an extension of traditional IL, developed by Thomas Mackey and Trudi Jacobson, that integrates IL with digital literacy, media literacy, and social media competency. This model recognizes that the digital era requires students to go beyond traditional research skills to include content creation, collaborative information sharing, and critical evaluation of digital media. The Metaliteracy framework includes four goals, Atkinson, M. D. (2020):

Metacognitive

Reflecting on one's learning processes.

Cognitive

Understanding and applying knowledge.

Behavioral

Engaging ethically and responsibly with information.

Affective

Developing the attitudes and values that support effective information use.

Metaliteracy aims to develop students' ability to participate as both consumers and producers of information in digital spaces, preparing them for the demands of participatory culture. This model is especially relevant in an era where students frequently encounter user-generated content, collaborative platforms, and social media as sources of information.

Literature Review

The authors aimed to determine the level of knowledge in searching, evaluating, and information management competency and to find differences among research scholars in terms of their information literacy (IL) competency with regard to gender and academic designation. A survey method was conducted to collect the data from the research scholars pursuing their doctoral degrees at Manonmaniam Sundaranar University, Tamil Nadu, India. The results of this study revealed that the majority had used simple searches and were not using the Online Public Access Catalogue. They were not able to assess the information retrieved and the assistance from the library staff to locate the resources was found to be minimal. This study also highlighted some of the problems faced by the research scholars and provided some suggestions based on the findings. This study highlights the need to adopt a new IL framework and conduct user literacy training programmes for effective use of the resources, Senthur Selvi, K., & Ganesan, P. (2022).

The present work has as general goal: to identify the models of Information Literacy used more frequently in the research on Information Literacy in Brazil. As specific goals: a) present a panorama of the Brazilian research on information literacy; b) present the main trends in the production of theses and dissertations on Information Literacy in Brazil; c) to carry out a systematic review of Brazilian research in Masters and Doctoral degrees in Information Science between 2014-2018. This is an exploratory, qualitative approach that uses as a method of bibliographic research the systematic review of the results obtained in a survey carried out at the Digital Library of Theses and Dissertations (BDTD, in the Portuguese acronym) of the Brazilian Institute of Information in Science and Technology (IBICT, in the Portuguese acronym). It concludes by pointing to the fact that the Information Literacy models are considered essential for the development of research on the subject and serve as a theoretical and methodological basis for the critique, interpretation and application of concepts and methods on Information Literacy, Silva, C. R. S. D., Teixeira, T. M. C., & Pinto, V. B. (2024).

The authors offered a thorough summary of the theoretical underpinnings, teaching strategies, and evaluation techniques of ILC by synthesizing data from more than ten years of research. It looks at how ILC is incorporated into the curriculum, how teachers may support these competencies, and how it affects learning outcomes for students—especially with regard to their ability to think critically, solve problems, and conduct independent research, Kumar, A., & Bhatt, R. K. (2023).

The authors used a mixed-method strategy. As part of quantitative data collection, the population was the research level students (honors final year and masters level), and an estimated 225 respondents of NSTU were surveyed using a convenience sampling technique. Qualitative data was accumulated through interviews with faculty members of 2 institutes and 31 departments at NSTU (a representative from each department) and an interview with the university librarian. Quantitative data were analyzed using SPSS software and qualitative data using thematic codes as well as text, Alahi, F., & Yesmin, S. (2024).

The authors adopted a survey research design whereby a five-point Likert scale self-reporting questionnaire was administered to Year 12 and Year 13 secondary school students. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) software-descriptive statistics of calculating the mean and standard deviation, a correlation and linear regression analysis to deduce the strong predictors of information literacy, Reddy, P., Sharma, B., Chaudhary, K., Lolohea, O., & Tamath, R. (2022).

The authors proposed a structural model highlighting the research skills of undergraduate students. Due to the stages in their research project implementation, mentoring students becomes a crucial initiative in higher education institutions. Despite substantial progress in the literature linking mentoring and skills development, there is a lack of greater emphasis on research skills, especially for undergraduate students facing research work for the first time. Consequently, the direct relation between mentoring and research skills may not be straightforward. Thus, driven by social learning theory, the proposed model highlights the mediating effects of information literacy constructs and competency development on the relationship between mentoring and research skills. An empirical study of 539 participants via Partial Least Squares–Structural Equation Modeling supports six of the seven hypothesized paths, Cutillas, A., Benolirao, E., Camasura, J., Golbin Jr, R., Yamagishi, K., & Ocampo, L. (2023).

The authors examined how the concept of information literacy has been leveraged into the discourses of non-library and Information Science disciplinary landscapes. This is achieved through a qualitative mapping of five different fields and disciplines, including Higher Education, Management and Business, Public Health, Nursing and Psychology, to identify how information literacy terminology, definitions, theories and frameworks have traveled across scholarly and practice boundaries to become appropriated into other disciplinary landscapes. The aim of this collaborative work is to develop an indicative rather than an exhaustive understanding of what travels within information literacy research and practice and to strengthen the Library and Information Science narrative on the impact of information literacy activities, Hicks, A., McKinney, P., Inskip, C., Walton, G., & Lloyd, A. (2023).

The authors aimed to investigate the role of information literacy competencies regarding the impact of personality factors on knowledge-sharing behavior in information

services. A sequential mixed-methods approach was used as the research design. To construct the two less identified variables of knowledge sharing behavior and information literacy competencies in actual information services, the literature was searched and validated in a systematic review procedure. Two conceptual models including two initial questionnaires, were developed, which were then confirmed by a set of 10 related experts through semi-structured interviews. For gathering data related to the variable personality factors, the Five-Factor Inventory was used as a widely recognized measure, Keshavarz, H. (2022).

The authors surveyed 9909 teachers in 1286 primary and secondary schools and used a two-level hierarchical linear model to analyze the survey data. The analysis results indicated that both teacher characteristics and school context have a significant relationship with TCDSIL. Among school-related factors, school type, resources for instruction, and network bandwidth have positively significant relationships with TCDSIL. Moreover, teachers' perceived usefulness, information processing skills (the skills of information access, information usage, and information management), and information ethics could predict TCDSIL. This study provides implications regarding how to improve TCDSIL, including paying attention to the gap between primary school teachers and secondary school teachers, enriching the school's digital teaching resources, ensuring school network quality, enhancing teachers' perceived usefulness of ICT, information processing skills, and information ethics, Wu, D., Zhou, C., Li, Y., & Chen, M. (2022).

The authors diagnosed information literacy core competency (ILCC) levels of research scholars in Economics. The diagnosis is conducted on five parameters based on five ACRL standards: Need, access, evaluation, use, and use ethics of information. The empirical data was collected through the questionnaire method and analyzed. In the networked digital information landscape, researchers should possess a reasonably good level of ILCC for survival in research and academia. The diagnosis reveals that there were large numbers of incompetent researchers, Singh, R., & Kumar, S. (2022).

The authors assessed the information literacy competence of doctoral students in universities in Ogun State, Nigeria. The study used a survey research design. The population of the study was 1, 418 doctoral students from six universities in Ogun State already running doctoral programs out of nine licensed by the National Universities Commission (NUC). The Research Advisor's table was used to select a sample size of 306. A structured and validated questionnaire was used for data collection. Cronbach's alpha reliability coefficient for the construct was 0.92. The response rate was 92%. Data were analyzed using descriptive and inferential (simple and multiple regression) statistics, Adekunle, P. A., & Madukoma, E. (2022).

The authors employed a descriptive survey research design. 217 librarians from the university libraries of the 16 public universities in South-South, Nigeria, made up the study's population. The study employed total enumeration sampling methods. Data gathering involved the use of a questionnaire. Utilising frequency, percentage, and statistical mean, data were analyzed. The Pearson Product-Moment Correlation Coefficient (PPMCC) was used to test the hypothesis at the significance level of 0.05. The research discovered that university librarians possessed a high level of information literacy skills, including the capacity to confirm reputable authors and source credibility of any information source, the capacity to cite all consulted materials while using information materials for research purposes, and expertise in the creation of bibliographies and references from the materials retrieved. Publication output was highest for journal articles, while others, such as technical reports and textbooks, were low. Information literacy skills and research output among university librarians in South-South Nigeria are significantly correlated. The study consequently advised librarians to take advantage of any techniques that can raise their level of information literacy proficiency. The librarians should receive regular training in the modern methods of conducting research, Nkemdilim, I. P., & Ekoko, O. N. (2023).

The authors aimed to collect input for the definition of a conceptual framework of digital competence for information literacy to be developed in the context of doctoral programs in education. A systematic literature review methodology was adopted, and several steps were developed that included preliminary readings and initial mapping, which allowed to define of the search terms and expressions, the definition of inclusion and exclusion criteria, the research in databases and aggregators, the pre-selection of articles; and the selection of the corpus of analysis, which included seven articles published in scientific journals with peer review. The studies are mainly focused on information literacy. The two concepts are addressed simultaneously in only three articles. Digital competence is related to the mastery of digital tools, namely, to search for information in databases or to define alert strategies. We infer that this competence seems to be closer to more operative concepts, such as digital skills. Information literacy requires the effective use of information involving information search, selection, evaluation and communication, Mbandje, D. C., Loureiro, M. J., & Lucas, M. (2023).

The authors aimed to gauge the Information Literacy Skills (ILSs) of the University Library and Information Science Professionals (LISPs) of Pakistan and consider it as a forecaster of improved Research Support Services (RSSs). The purposive sampling method through a questionnaire was applied and administered (online and offline) to assemble data from LISPs of 219 universities in Pakistan. The questionnaire covered the eight factors of ILSs and four of RSSs, Ali, S., & Ahmed, S. (2022).

The authors aimed to verify the research scenario on literacy, both as a type of approach - digital literacy or information literacy - as well as the main knowledge areas in which the subject is studied. The literature reviewed showed that information literacy is discussed with great emphasis in the papers retrieved, mainly in the areas of Librarianship and Education, Silva, S. A. A. D., & Cardoso, A. M. P. (2023).

The authors assessed the information literacy (IL), attitude towards research and research competence of Library and Information Science (LIS) undergraduates in South-West Nigeria universities. The descriptive survey design was adopted for the study. A two-stage sampling technique was employed for the study to get a final sample of 401. A questionnaire and focus group discussion (FGD) were the instruments for the study. Out of 401 copies of the questionnaire, 392 were found usable, which constituted a 97% return rate. The data gathered were analyzed with the aid of the SPSS by the use of frequency, percentage and correlation. Thematic analysis was conducted on the qualitative data (FGD). The study found that the LIS undergraduates had poor IL, a mixed display of attitude towards research, and an acceptable level of research competence. Further, there was a significant relationship between IL and the research competence of LIS undergraduates. The study recommends training on the acquisition of IL skills at the earlier levels of the LIS degree to help with research motivation and comprehension, Makinde, O. B., Hamzat, S. A., & Koiki-Owoyele, A. (2023).

The authors discussed the specifics of digital literacy and digital competence of a big community of teachers in one of the regions of St. Petersburg. It contains the calculations of digital literacy indices and digital competency index of the teachers that were made using the range of diagnostic tools of the NAFI research center. It was found that today teachers are most advanced in content and assessment, while digital resource technology and management is the least developed field of pedagogical activity where digital technologies are applied. Two levels of digital transformation are introduced in the teaching and learning process—replacement and improvement, to ensure that the zone of traditional teaching is operative. For teachers to be able to transfer successfully to the zone of pedagogical engineering, programs have to be developed to provide psychological and pedagogical support as they improve their ICT competence, Zakharov, K., Komarova, A., Baranova, T., & Gulk, E. (2022).

The authors described a 12-month study investigating the feasibility of designing a cooperative learning project that provided opportunities to embed the concepts of information literacy and global communication into the university curriculum. Bridging two courses from different disciplines, the learning project under study was a platform for both postgraduate students and undergraduate students to exchange research ideas and share cultural information. Data included mainly course materials, student presentations, interviews, and a questionnaire survey. Analysis of the data shows that the learning project was innovative and effective in enhancing students' information literacy and global communicative competence. Moreover, a tendency was identified in the students' project presentations, i.e., the integration of the Chinese view of harmony and the international view of unity, Cheng, L. (2024).

The authors focused on information literacy education through a unique research lens, i.e., the Delphi process in developing countries. The primary aim of the study is to formulate an information literacy framework for higher education, Batool, S. H., Rehman, A. U., & Sulehri, I. (2022).

The authors addressed the growing social importance of data from an educational perspective through data literacy (DL), seeking to integrate it into the broader information literacy (Infolit) movement. For this purpose, a systematic review was carried out of the papers in the main collection of the Web of Science that contain both concepts (DL and Infolit) and that were indexed up until March 2023. External aspects, such as the growth of the research and the identity, nationality, professional scope, and productivity of the authors, were taken into account. In addition, internal aspects, such as context (theory, frameworks, definitions, models, and related disciplines), objectives, methodology, results, conclusions, and recommendations, were analyzed to obtain a detailed perspective of the scientific research process adopted. A synchronic and diachronic analysis of the corpus of selected articles is offered, focusing on the aforementioned aspects. The researchers' consensus on the urgency of addressing data training both generally and specifically in the different disciplines, languages, environments, and levels is evident, Pinto, M., Gómez-Camarero, C., García-Marco, F. J., & Caballero-Mariscal, D. (2023).

The authors that explored intercultural competence in telecollaborative projects mostly integrated their intercultural learning activities in a language learning context, and researchers neglected other learning contexts. In the present study, we aimed to address this gap by integrating intercultural learning and information literacy learning. The authors established a common learning space in which students from China and Indonesia learned together to build their information literacy and intercultural competence. A learning activity was designed in which the participants took an Informatics course to learn about VR Tour production. They created virtual tours of local cultural attractions, presented them to their foreign peers, and then discussed how tours of each other could be improved. The authors investigated whether our learning activity can facilitate information literacy about VR Tour production and intercultural competence development. Participants' perceptions of VR Tour production technology were also

explored. Mixed methods research approach was used to collect quantitative and qualitative data, Shadiev, R., Dang, C., Sintawati, W., Yi, S., & Huang, Y. M. (2023).

The authors explored the research trends and potential research issues in the top 100 most frequently cited articles on information literacy in higher education published from 2011 to 2020. In addition to a systematic review, this study employed bibliometric methods, including co-citation network analysis, to identify four main research streams in the field of information literacy in higher education: (a) the relationships among students' information literacy beliefs, competencies, attitudes and behavior; (b) teachers', librarians' and students' perspectives on information literacy; (c) the relationship between students' information literacy and epistemic beliefs; and (d) the web search behavior of digital natives. Accordingly, potential directions for future research and practitioner notes related to information literacy in higher education are proposed herein as a reference for researchers, teachers and policymakers, Chen, C. C., Wang, N. C., Tang, K. Y., & Tu, Y. F. (2022).

As the world experiments with multiplex approaches to achieve a free pandemic society, infodemic pillages the online and offline realms, which exacerbates the spectrum of media fragilities, especially for particular age groups. Misinformation and disinformation related to health, political, and social issues, among others, deter the thin line that demarcates official reports from fake news. As a response to the COVID-19 infodemic, a curriculum and competency framework for media and information literacy can help promote a critical understanding of communications content for people to become media literate citizens. Incorporating the framework in the political and educational spheres enables the people, especially the dominant media users, to reinforce reliable information through responsible content-sharing on media platforms, which is essential for public health safety, Toquero, C. M. D. (2023).

The authors aimed to address the research gap in Pakistani higher education by examining the information competency of undergraduate students at a premier university. A cross-sectional survey was conducted with 669 undergraduates, using descriptive and inferential statistics to draw inferences. The study found that students perceived their information competency to be slightly higher than average, with no significant difference based on gender or academic year. The subject domain significantly predicted students' information competency level, with engineering students expressing higher information competency levels than students from other disciplines. The social sciences group of students reported feeling less information competent compared to the other five groups. The study addresses the literature gap and provides crucial measures for academicians and library practitioners to create effective digital and information literacy programs for university students, Irfan, N., Rafiq, M., & Arif, M. (2024).

Research Problem Statement

The concept of information literacy competency (ILC) is increasingly recognized as a core skill set in higher education, equipping students with the ability to navigate, critically evaluate, and ethically use information in academic and professional contexts. While the importance of ILC is widely acknowledged, disparities in competency levels often exist across different types of institutions, such as coeducational and women's colleges. These variations may arise due to differences in institutional resources, pedagogical approaches, and learning environments that can influence how information literacy skills are developed and supported.

Coeducational colleges generally offer a more diverse environment with broader access to resources and peer interactions, which may foster a dynamic space for developing ILC. On the other hand, women's colleges often emphasize inclusive and collaborative learning environments that specifically address the educational needs of female scholars, potentially leading to unique advantages in certain aspects of ILC. However, little research has focused on understanding these differences in ILC levels between scholars from coeducational and women's colleges. Identifying any significant disparities or strengths in ILC among students in these two types of institutions is critical to informing educational strategies that promote equitable and effective information literacy education.

This study, therefore, seeks to examine and compare the levels of ILC among scholars of coeducational colleges and women's colleges. By identifying the factors that influence ILC in these distinct settings, this research aims to provide insights into how educational institutions can tailor IL programs to better serve diverse student needs and promote academic success.

Research Future Direction

The findings of this study on ILC among scholars of coeducational and women's colleges open multiple avenues for future research. First, while this study focuses on institutional types as a factor influencing ILC, further research could examine how specific institutional characteristics, such as class size, faculty-student ratio, and available resources, impact ILC development. Additionally, the role of digital literacy skills within ILC could be further explored, given the rising importance of digital tools in education. Future studies could assess how the integration of digital and information literacy programs influences competency development across different college settings.

Another potential direction involves examining the long-term effects of ILC education on academic and career

outcomes. Such research could investigate whether students from coeducational or women's colleges demonstrate different levels of information literacy application in real-world scenarios post-graduation. A longitudinal study tracking ILC progression and its application could yield insights into the sustained impact of institutional support on lifelong learning skills.

Furthermore, exploring the socio-cultural factors that influence ILC among students in diverse educational contexts could provide a nuanced understanding of how gender, background, and personal experiences interact with institutional characteristics to shape information literacy. Finally, future research could assess the effectiveness of specific instructional approaches—such as collaborative learning, peer mentorship, and experiential learning—in enhancing ILC in both coeducational and women's colleges, potentially uncovering best practices that can be adapted for diverse academic environments.

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