

Information Literacy Skills among University Students in Bangladesh: A SCONUL-Based Analysis

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Abstract

Information literacy is a crucial skill in higher education, yet empirical evidence from public universities in Bangladesh remains scarce. This study applies the SCONUL Seven Pillars framework to assess the information literacy skills of 268 public university students in Bangladesh. A quantitative survey was conducted to examine overall proficiency levels and variations by gender, faculty, academic year, and exposure to information literacy training. The findings indicate stronger abilities in identifying information needs, while competencies related to managing and organizing information remain relatively weaker. Information literacy training emerged as the most influential factor, with trained students possessing significantly better skills. No significant differences were observed across academic years, suggesting that academic progression alone does not ensure skill development. Disciplinary variations highlight the role of curricular and learning environments in shaping competencies. The study findings emphasize the importance of structured training and curriculum integration in strengthening students' information literacy skills.

Keywords: *Information Literacy, SCONUL Model, University Students, Information Literacy Training, Bangladesh*

INTRODUCTION

The 'information age' has emerged as a result of rapid technological growth of the twentieth century. This has evolved into the 'knowledge age' in recent decades, where using information effectively is more important than access to it. According to Eisenberg (2008), information literacy skills, a fundamental part of contemporary education, indicate a set of skills and knowledge for finding, evaluating, using necessary information and filtering unreliable information. In our current and increasingly intricate societal landscape, a plethora of information alternatives exists, surrounding diverse media such as print, electronic, sound, image, spatial, visual, multimedia, and numeric formats. However, information literacy skills are not only required for academic endeavour but also as a vital component in nurturing the holistic progress of students as lifelong learners (Rafique & Khan, 2017).

Along with various impacts of information literacy skills across different stages of life, examining its impact on learning phase or student life is crucial. Information literacy skills have a significant impact on the academic development and research capacities of students (Amegashie & Ankamah, 2020). Students who efficiently synthesize information have stronger academic knowledge and motivations to achieve higher academic success (Flierl et al., 2018). Besides academic knowledge, writing skills and results of students are improved through this skill (Shao & Purpur, 2016). This skill boosts students' capacity to use library and online resources for academic and research purposes (Odede & Zawedde, 2018; Ukachi, 2015). Given the critical role of students in doing research that leads to

social growth and innovation, information literacy abilities serve as fundamental skills for knowledge generation and fruitful decision-making (Tasquier et al., 2022).

While several studies have explored information literacy skills of students in other regions around the world, limited attention has been given to its state in Bangladesh. Earlier studies conducted over a decade ago (Hossain Shoeb, 2011; Islam & Tsuji, 2010) examined university students' information literacy skills in Bangladesh, when the context of digital resources and academic mechanism was different. In recent years, researchers have examined these skills from diverse contemporary perspectives which have produced some literacy outcomes in Bangladesh (Akter & Ahmed, 2024; Hossain et al., 2023; Hossain, 2021). However, systematic assessments of public university students' information literacy skills within institutional context and disciplines remain scarce.

Moreover, current empirical studies mostly examine overall literacy skill levels while overlooking institutional experiences like information literacy training, seminars, workshops etc. and disciplinary context such as literacy course in curriculum which impacted students' proficiency on information literacy dimensions. This gap is particularly significant in public universities in developing countries as they have limited resources and opportunities for developing students' learning capacities.

In response, this study measures the information literacy skills of students at a public university, Begum Rokeya University, Rangpur, within the framework of SCONUL Seven Pillars. It seeks to provide evidence-based insights by examining different demographic characteristics, gender, faculty, year of study, and information literacy training, which can inform institutional strategies and policy interventions for strengthening academic and research capacities of students.

CONCEPTUAL FRAMEWORK

Different frameworks have been assessed for evaluating the information literacy skills of students. Some of the frameworks are: the Perceptions of Information Literacy Skills (PILS) framework (Doyle et al., 2019), Society of College, National and University Libraries (SCONUL) seven pillars model of information literacy (Ellis et al., 2017), the Association of College and Research Libraries (ACRL) framework of information literacy (Davis & Petrowski, 2017), the Association of American Colleges & Universities (AACU) framework for information literacy (Goldman et al., 2020), the California Emerging Technology Fund (CETF) framework for information literacy (Sparks et al., 2016), and the Australian and New Zealand Institute for Information Literacy (ANZIL) model (Doskatsch, 2002).

Among all these frameworks, the SCONUL Seven Pillars Model has carefully been chosen for the context of Bangladesh. Some authors used this model in information literacy research in the context of South Asian countries (Gowri & Padma, 2018; Thakur et al., 2021). It provides a comprehensive, skills-based structure suitable for quantitative assessment in higher education. The SCONUL model offers a clear set of skills closely associated with students' learning practices and measurable survey indicators while other models highlight affective, discipline-specific and institutional dimensions.

Followed by the SCONUL Seven Pillars Model, this study has considered both institutional and individual factors influencing information literacy. Information literacy refers to students' ability to effectively access, evaluate, manage, and present information for academic and research purposes, according to the context of developing countries' higher education. Each of the seven pillars of the SCONUL model is operationalized in Table 1 for this study using particular questionnaire items aimed at assessing the skills of students in recognizing information needs, finding and obtaining information, assessing sources, handling information ethically, and effectively communicating knowledge. These pillars stand for the essential components of students' information literacy skills, which are closely related to the objectives of the study.

Table 1 SCONUL model indicators

Indicator	Description
Identify	Explores and articulates the need for information. Students recognize when information is required and define the nature and extent of the information need.
Scope	Assesses current knowledge and identifies gaps. Students understand the range of available information and determine what is missing in their existing understanding.
Plan	Develops methods for finding data and information. This entails choosing the right keywords, search engines, and information-gathering techniques.
Gather	Uses a range of resources and tools to find and access the necessary information. Students effectively and morally retrieve information.
Evaluate	Evaluate methodology and data from numerous sources. Information's dependability, accuracy, relevance, and credibility are evaluated.
Manage	Organizes data ethically and professionally. This entails organizing, classifying, and referencing data compatible with academic standards.
Present	Successfully integrates and conveys information. By presenting research findings or producing new information in an academic setting, students put their newly acquired knowledge to use.

This conceptual framework also incorporates key institutional factors, for instance, institutional training, disciplinary context, impacts on students' information literacy skills. This skill variation is also measured by individual characteristics of gender and year of study. These characteristics shape students' academic and research practices with the help of exploring information resources and learning opportunities.

METHODS

This study employed a descriptive quantitative design to assess the information literacy skills of students of Begum Rokeya University, Rangpur. This approach was used to measure the overall information literacy skills of students and differences among different demographic groups based on statistical analysis.

The population of this study consisted of the students enrolled in Begum Rokeya University, Rangpur. A total of 268 students were selected to ensure representation across various demographic groups presented in Table 2. The sample size is considered adequate for quantitative research (Creswell, 2014).

Table 2 Descriptive statistics of respondent profiles

	Variables	Frequency	Percentage
Gender	Male	186	69.4
	Female	82	30.6
Faculty	Arts	38	14.2
	Social Science	75	28.0
	Business Studies	80	29.9
	Science	31	11.6
	Engineering and Technology	21	7.8
	Life and Earth Science	23	8.6
Year of Study	1st Year	44	16.4
	2nd Year	89	33.2
	3rd Year	73	27.2
	4th Year	5	1.9
	Masters	57	21.3
Literacy Training	Yes	106	39.6
	No	162	60.4

The proportionate stratified random sampling method was used. The total student population was stratified by faculty and the number of respondents selected from each faculty was determined proportionately based on the relative size of that faculty within the overall student population. Within each faculty stratum, students were selected randomly. This approach ensured that all faculties were represented in the sample according to their actual population proportions. Each respondent was approached individually and informed about the purpose of the study, and only those who provided consent were included in the survey. A group of trained data enumerators collected data for this study.

Primary and secondary sources were used to gather data. Primary data were gathered through a self-administered structured questionnaire. The questionnaire was developed to assess information literacy skills across diverse domains like information needs, source evaluation, and ethical information usage. Relevant literature such as books, journal articles, international reports, and papers about information literacy were reviewed for gathering secondary data.

The questionnaire was developed based on the Seven Pillars of SCONUL Information Literacy framework. The questionnaire had mainly two sections. The first section contained demographic information with four items, and second one was a main section comprising 28 closed-ended Likert scale items associated with the seven pillars (Identify, Scope, Plan, Gather, Evaluate, Manage, and Present). The internal consistency of the questionnaire was assessed using Cronbach's alpha. The overall reliability of the instrument was found to be acceptable ($\alpha = 0.91$), indicating good internal consistency. The main themes for designing these items were to measure students' information literacy skills and related behaviours. The closed-ended Likert scale questions helped to provide structured response options, which ensured consistency and improved the suitability of the data for quantitative analysis.

A structured checklist was used for the secondary data collection by the researcher to systematically review books, journal articles, policy documents, and reports related to the study area. It ensured comprehensive coverage of main themes, conceptual frameworks, measurement styles, and findings related to information literacy.

The primary quantitative data collected through the survey was analyzed by the Statistical Package for the Social Sciences (SPSS) software. The differences and patterns in students' information literacy skills across relevant groups were examined through descriptive statistics, independent samples t tests and one-way ANOVA. At the significance level of one-way ANOVA, post hoc analysis was conducted. Moreover, secondary data from the reviewed literature was thematically ordered to detect recurring issues, trends, and theoretical understandings related to information literacy among the students. Presentation and interpretation of the findings were clearer and more organized with the use of tables, charts, and narrative summaries.

Ethical approval for this study was obtained from the relevant university ethics committee. The study assured respondents to keep their identity anonymous and confidential and the collected data were used solely for academic and research purposes.

RESULT AND DISCUSSION

Result

This chapter mainly focuses on the findings of the study grounded on the responses of the respondents. Following the objectives of the study, data were analyzed using descriptive statistics, independent samples t tests, and one-way ANOVA.

Overview of overall literacy skills

Information literacy skills of respondents were examined through the seven pillars of SCONUL framework. Table 3 indicates that among the seven pillars, students scored highest in Identify and lowest in Manage, signifying stronger skills in identifying information needs.

After assessing overall literacy skills of students, the study examined whether information literacy skills differed by gender.

Table 3 Descriptive statistics of seven pillars of information literacy

Indicator	Mean	SD
Identify	16.0672	1.95912
Scope	14.4664	2.64554
Plan	13.9478	2.62177
Gather	13.5485	2.93268
Evaluate	14.3284	2.65853
Manage	12.8806	2.83384
Present	13.6381	2.82173

Note. Higher scores indicate stronger literacy skills.

Information literacy skills by gender

Independent samples t tests were applied to analyze gender differences as shown in Table 4. Although mean differences were found, they were not statistically significant. The effect sizes (Cohen's d) were all small ($d < .20$), showing minimal gender effects.

Table 4 Independent samples t tests result for gender differences across indicators

Indicator	Gender	Mean	SD	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
Identify	Male	16.1613	2.13233	1.358	.176	0.17
	Female	15.8537	1.48342			
Scope	Male	14.3871	2.85329	-.829	.408	-0.10
	Female	14.6463	2.10450			
Plan	Male	13.8495	2.78197	-.924	.356	-0.13
	Female	14.1707	2.21557			
Gather	Male	13.4839	2.95411	-.543	.588	-0.07
	Female	13.6951	2.89610			
Evaluate	Male	14.4032	2.68203	.694	.489	0.09
	Female	14.1585	2.61274			
Manage	Male	12.8925	2.83973	.103	.918	0.01
	Female	12.8537	2.83767			
Present	Male	13.5645	2.86047	-.642	.521	-0.09
	Female	13.8049	2.74172			

Note. *t* = independent samples t tests value; *p* = significance level (significant at $< .05$); Cohen's *d* = effect size.

After analyzing gender-based variations in information literacy skills, this study next examined whether having literacy trainings contributed to differences in students' scores across the seven pillars.

Differences in information literacy skills by literacy training status

Table 5 shows that students having information literacy training scored significantly ($p < .05$) higher across all seven pillars than those without training, with effect sizes ranging from moderate to large ($d = .36$ to $.75$).

Differences in information literacy skills across faculties were explored with the help of conducting a one-way ANOVA.

Table 5 Independent samples t tests results for literacy training

Indicator	Training	Mean	SD	t	p	Cohen's d
Identify	Yes	16.4906	1.88349	2.901	.004	.36
	No	15.7901	1.96375			
Scope	Yes	14.9717	2.62391	2.555	.011	.32
	No	14.1358	2.61507			
Plan	Yes	14.5660	2.37855	3.176	.002	.40
	No	13.5432	2.70058			
Gather	Yes	14.5660	2.80142	4.779	< .001	.60
	No	12.8827	2.83147			
Evaluate	Yes	15.3113	2.09017	5.436	< .001	.66
	No	13.6852	2.79634			
Manage	Yes	13.9340	2.64132	5.152	< .001	.65
	No	12.1914	2.74944			
Present	Yes	14.8208	2.27532	6.184	< .001	.75
	No	12.8642	2.88174			

Note. t = independent samples t tests value; p = significance level (significant at < .05); Cohen's d = effect size.

Differences in information literacy skills across faculties

Table 6 presents the differences in information literacy skills across faculties. Significant variances were found for Identify, Scope, and Plan, where other four pillars showed no significant difference (Table 6). Although statistically significant, the effect size for the Identify pillar was small ($\eta^2 = .044$), suggesting minimal practical variation across faculties. In contrast, the Scope and Plan pillars showed medium effect sizes ($\eta^2 = .074$ and $.066$), indicating more meaningful disciplinary differences in these skills. As ANOVA was significant, the post hoc (Tukey HSD) analysis was conducted which identified specific group differences across faculties for each information literacy indicator.

Table 6 One-way ANOVA for faculty and SCONUL indicators

Indicator		SS	df	MS	F	p	η^2
Identify	Between Groups	44.566	5	8.913	2.382	.039	0.044
	Within Groups	980.225	262	3.741			
	Total	1024.791	267				
Scope	Between Groups	138.088	5	27.618	4.181	.001	0.074
	Within Groups	1730.610	262	6.605			
	Total	1868.698	267				
Plan	Between Groups	121.195	5	24.239	3.705	.003	0.066
	Within Groups	1714.074	262	6.542			
	Total	1835.269	267				
Gather	Between Groups	90.985	5	18.197	2.162	.059	0.040
	Within Groups	2205.385	262	8.417			
	Total	2296.369	267				
Evaluate	Between Groups	37.483	5	7.497	1.062	.382	0.020
	Within Groups	1849.621	262	7.060			
	Total	1887.104	267				
Manage	Between Groups	53.171	5	10.634	1.332	.251	0.025
	Within Groups	2091.008	262	7.981			
	Total	2144.179	267				
Present	Between Groups	64.231	5	12.846	1.633	.152	0.030
	Within Groups	2061.660	262	7.869			
	Total	2125.892	267				

Note. SS = sum of squares; df = degrees of freedom; MS = mean square; F = F-ratio; p = significance level; η^2 = eta squared.

Table 7 presents that students from Arts scored significantly higher on the Identify indicator compared to students from Social Science. In contrast, Social Science students scored significantly higher than Arts students on the Scope indicator. Business Studies students possess better skills than Arts students on the Scope indicator.

Table 7 Significant Tukey HSD post hoc comparisons across faculties for all indicators

Dependent Variable	Comparison	Mean Difference	SE	p	95% CI
Identify	Arts - Social Science	1.19*	0.39	.027	0.08 to 2.30
Scope	Social Science - Arts	1.66*	0.51	.017	3.13 to 0.19
	Business Studies - Arts	2.03*	0.51	.001	3.48 to 0.57
Plan	Business Studies - Science	1.67*	0.54	.027	0.12 to 3.22
Gather	Business Studies - Engineering & Technology	2.28*	0.71	.019	0.24 to 4.32
Evaluate	No significant comparisons	-	-	-	-
Manage	No significant comparisons	-	-	-	-

Note. Only statistically significant post hoc comparisons (Tukey HSD) are presented. Non-significant differences are omitted for conciseness. $p < .05$. SE = Standard Error; CI = Confidence Interval.

Additionally, Business Studies students scored significantly higher than Science students on the Plan indicator. They also outperformed Engineering & Technology students on the Gather indicator. No other pairwise comparisons were statistically significant across the remaining indicators.

Finally, disparities in information literacy skills were analyzed by year of study to see if they develop throughout the years.

Differences in information literacy skills by year of study

A one-way ANOVA was conducted to assess differences by year of study. However, ANOVA results showed no statistically significant differences in any of the seven pillars based on year of education as shown in Table 8. Effect sizes were negligible, suggesting that information literacy skills remain relatively stable across stages of academic progression.

Table 8 One-way Anova for year of education and SCONUL indicators

Indicator		SS	df	MS	F	p	η^2
Identify	Between Groups	19.570	4	4.892	1.280	.278	0.019
	Within Groups	1005.221	263	3.822			
	Total	1024.791	267				
Scope	Between Groups	31.246	4	7.812	1.118	.348	0.017
	Within Groups	1837.451	263	6.987			
	Total	1868.698	267				
Plan	Between Groups	45.980	4	11.495	1.690	.153	0.025
	Within Groups	1789.289	263	6.803			
	Total	1835.269	267				
Gather	Between Groups	50.828	4	12.707	1.488	.206	0.022
	Within Groups	2245.542	263	8.538			
	Total	2296.369	267				
Evaluate	Between Groups	25.670	4	6.417	.907	.461	0.014
	Within Groups	1861.435	263	7.078			
	Total	1887.104	267				
Manage	Between Groups	27.043	4	6.761	.840	.501	0.013
	Within Groups	2117.136	263	8.050			
	Total	2144.179	267				
Present	Between Groups	43.544	4	10.886	1.375	.243	0.021
	Within Groups	2082.348	263	7.918			

continued

	Total	2125.892	267				
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Note. SS = sum of squares; df = degrees of freedom; MS = mean square; F = F-ratio; p = significance level; η^2 = eta squared.

Discussion

This study examines information literacy skills of students through the structure of SCONUL Seven Pillar Model with the consideration of institutional and individual factors' influence. The findings show that students have stronger competencies in identifying information needs, sources, relevance, while managing and organizing information skills are relatively weaker. This pattern indicates that students are aware of their knowledge gap and demonstrate a positive attitude toward fulfilling those gaps with suitable information. In addition, they face difficulties in applying information systematically, presentably and ethically in academic or research contexts.

Along with previous research, this study finds prominent performance in the Identify pillar with clear recognition of information need but room for improvement in advanced information practices (Černý & Potančok, 2023; Rafique & Khan, 2017). For example, searching skill of students are adversely affected by students' limited knowledge about search strategies using suitable keywords, within time limits and from specific sources (Haider & Habiba, 2025). This reflects students' competency level of navigating digital information environment where students can easily encounter information. Yet, they have obtained limited formal guidelines on effective information management and evaluation. The comparatively lower scores in the Manage pillar highlight significant gap in referencing, organizing and analyzing data, ethical information use, which have also been reported in earlier studies (Dodo & Saidu, 2024; Verma & Shukla, 2021).

The findings demonstrate that information literacy training has a strong and consistent impact across all seven pillars. Students who received training performed significantly better than those without training. This emphasizes the central role of institutional exposure in developing the competency of students' information literacy. Previous findings support this study as they also provide evidence on the improvement of students' ability to access, evaluate, and use information effectively by structured training programs (Makinde et al., 2025; Zhao et al., 2023). Training functions as a key institutional factor within the conceptual framework, which works as a catalyst for strengthening students' engagement and competencies not only in information-related tasks but also multiple dimensions.

This study also examines differences among disciplines specifically in the Identify, Scope, and Plan pillars. Social Science and Business Studies students perform comparatively better in some dimensions than Arts, Science and Engineering background students. Across faculties these variations are significant as their coursework specially related to research, assessment methods, and curriculum are dissimilar. Disciplines which have better scope to practice information literacy skills by disciplinary learning environments, report writing and continuous assessment resulting students' higher proficiency level. This finding emphasizes information literacy as a curricular responsibility similar with other studies (Amegashie & Ankamah, 2020; Islam & Tsuji, 2010; Okpala et al., 2017).

On the contrary, gender and year of study did not show significant difference across any of the pillars. This outcome suggests that information literacy skills improvement does not occur automatically with academic promotion unless there are institutional supports to achieve meaningful improvement. The result strongly highlights institutional interventions such as seminars, workshops, tutorials etc. rather than the assumption that higher education leads to information literacy improvement naturally (Prisca, 2023).

From a broader perspective, the findings suggest information literacy should not be understood merely as an individual academic skill but institutional components like training opportunities and disciplinary environments should also be considered. In developing countries higher education sector, particularly in public universities, limited access to subscription-based resources, software tools, and structured training programs may constrain students' ability to fully develop these skills. Addressing these gaps requires coordinated efforts from university authorities, libraries, and academic departments.

CONCLUSION

Information literacy encompasses a broad range of competencies related to knowledge creation, from identifying information needs to managing and presenting information in academic and research contexts. This study provides a comprehensive assessment of students' information literacy skills in a university setting. The study followed the SCONUL Seven Pillars Model and found strong competencies in identifying information and weak competencies in managing them, while performance across other pillars remained moderate. Information literacy training significantly contributed to all pillars and significant disciplinary variations across several pillars highlight the importance of institutional support in shaping students' information literacy competencies. In contrast, the absence of significant variances across years of study advocates that development through academic stages without structured instructional support is insufficient to ensure skill growth. Providing training opportunities, access to resources, and other institutional supports is most important for fostering public universities' learning outcome in developing countries.

Based on the study findings, some recommendations for strengthening students' competencies should include introducing structured information literacy training or compulsory course into university curricula, increasing academic departments and library collaboration, organizing regular seminars and workshops. Such initiatives may contribute positively to students' performance both academic and research, and ensure ethical information practices among students.

The study has certain limitations. Primarily, it assesses self-reported information literacy skills of students and does not examine mediating factors like critical thinking, motivation, or limited digital infrastructure which may impact these skills. Further research is needed to explore these underlying factors in depth. Along with students, information literacy skills of faculty members' and librarians' assessment in both public and private universities, would deliver a more comprehensive understanding of institutional environment for information literacy development in Bangladesh.

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DATA AVAILABILITY STATEMENT

Data will be made available on request.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DECLARATION OF GENERATIVE AI

During the preparation of this work, the authors used ChatGPT solely in order to improve the readability of the text. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

REFERENCES

- Akter, T., & Ahmed, S. Z. (2024). University students' information literacy skills and impact of training in Bangladesh. *IFLA Journal*, 50(3), 620–632. <https://doi.org/10.1177/03400352241266181>
- Amegashie, P. K., & Ankamah, S. (2020). Information literacy among students of the University of Ghana Business School and Ghana Institute of Management and Public Administration Business School. *Library Philosophy and Practice (e-journal)*. <http://ugspace.ug.edu.gh:8080/handle/123456789/40340>
- Černý, J., & Potančok, M. (2023). Information literacy in international masters students: A competitive and business intelligence course perspective. *Cogent Education*, 10(1), 2161701. <https://doi.org/10.1080/2331186X.2022.2161701>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Davis, M. E., & Petrowski, M. J. (2017). Association of College and Research Libraries (ACRL). In *Encyclopedia of Library and Information Sciences* (4th ed.). CRC Press.
- Dodo, M., & Saidu, A. (2024). Ethical issues in information society: Examining copyright and plagiarism concerns from librarians' perspective. *Library and Information Perspectives and Research*, 6(2), 191–201. <https://doi.org/10.47524/lipr.v6i2.192>
- Doskatsch, I. (2002). Australian and New Zealand Institute for Information Literacy (ANZIIL): New body to champion information literacy. *Australian Academic & Research Libraries*, 33(2), 113–116. <https://doi.org/10.1080/00048623.2002.10755187>
- Doyle, M., Foster, B., & Yukhymenko-Lescroart, M. A. (2019). Initial development of the Perception of Information Literacy Scale (PILS). *Communications in Information Literacy*, 13(2), 205–227. <https://doi.org/10.15760/comminfolit.2019.13.2.5>
- Eisenberg, M. (2008). Information literacy: Essential skills for the information age. *DESIDOC Journal of Library & Information Technology*, 28, 39–47. <https://doi.org/10.14429/djlit.28.2.166>
- Ellis, C., Johnson, F., & Rowley, J. (2017). Promoting information literacy: Perspectives from UK universities. *Library Hi Tech*, 35(1), 53–70. <https://doi.org/10.1108/LHT-10-2016-0118>
- Flierl, M., Bonem, E., Maybee, C., & Fundator, R. (2018). Information literacy supporting student motivation and performance: Course-level analyses. *Library & Information Science Research*, 40(1), 30–37. <https://doi.org/10.1016/j.lisr.2018.03.001>
- Goldman, C., Heskett, K., & Turnbow, D. (2020). Information literacy combined rubric: Mapping the ACRL framework to the AAC&U VALUE Rubric (Final Report of the Information Literacy Rubric Task Force). *UC San Diego: Library*. <https://escholarship.org/uc/item/3d44c80m>
- Gowri, P., & Padma, P. (2018). SCONUL seven pillars model to test the information literacy skills of engineering students: A case study. *Library Philosophy and Practice (e-Journal)*. <https://scholarworks.sjsu.edu/libphilprac/1996/>
- Haider, N., & Habiba, U. (2025). From query to knowledge: Evaluating university students' online searching proficiency and its connection to critical thinking and research skills. *European Journal of Education*, 60(3), e70144. <https://doi.org/10.1111/ejed.70144>
- Hossain, B., Fatima, M. J., Muzykant, V. L., Hoesin, C. F. I. S., & Nahiduzzaman, M. (2023). An overview of digital media literacy in Digital Bangladesh. *Jurnal Cita Hukum*, 11(2), 267–288. <https://doi.org/10.15408/jch.v11i2.34755>
- Hossain Shueb, Z. (2011). Information literacy competency of freshman business students of a private university in Bangladesh. *Library Review*, 60(9), 762–772. <https://doi.org/10.1108/00242531111176781>

- Hossain, Z. (2021). Copyright literacy of library and information science professionals in Bangladesh. *IFLA Journal*, 47(1), 78–90. <https://doi.org/10.1177/0340035220904067>
- Islam, M. A., & Tsuji, K. (2010). Assessing information literacy competency of Information Science and Library Management graduate students of Dhaka University. *IFLA Journal*, 36(4), 300–316. <https://doi.org/10.1177/0340035210388243>
- Makinde, O. B., Hamzat, S. A., & Koiki-Owoyele, A. (2025). Assessment of information literacy, attitude towards research and research competence of library and information science undergraduates in Nigerian universities. *Information Development*, 41(2), 417–432. <https://doi.org/10.1177/02666669231168406>
- Odede, I., & Zawedde, N. (2018). Information literacy skills in using electronic information resources. *Library Philosophy and Practice (e-Journal)*. <https://scholarworks.sjsu.edu/libphilprac/1947>
- Okpala, H. N., Benneh, E. A., Sefu, A., & Kalule, E. (2017). Advancing the information literacy skills of postgraduate students in University of Nigeria. *Journal of Applied Information Science and Technology*, 10(2). <https://digitalcommons.unl.edu/libphilprac/4059>
- Prisca, N. E. (2023). Relationship between information literacy skills and use of library resources by postgraduate library and information science students in Anambra State, Nigeria. *International Journal of Scientific and Management Research*, 06(07), 31–39. <https://doi.org/10.37502/IJSMR.2023.6703>
- Rafique, G., & Khan, H. (2017). Information literacy skills of management sciences' students. *Pakistan Journal of Information Management and Libraries*, 19. <https://doi.org/10.47657/2017191014>
- Shao, X., & Purpur, G. (2016). Effects of information literacy skills on student writing and course performance. *The Journal of Academic Librarianship*, 42(6), 670–678. <https://doi.org/10.1016/j.acalib.2016.08.006>
- Sparks, J. R., Katz, I. R., & Beile, P. M. (2016). Assessing digital information literacy in higher education: A review of existing frameworks and assessments with recommendations for next-generation assessment. *ETS Research Report Series*, 2016(2), 1–33. <https://doi.org/10.1002/ets2.12118>
- Tasquier, G., Knain, E., & Jornet, A. (2022). Scientific literacies for change making: Equipping the young to tackle current societal challenges. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.689329>
- Thakur, R., Gupta, S., Shukla, R., & Sharma, D. (2021). The SCONUL seven pillars of information literacy: Core model to test the skills of LIS students, University of Jammu, India. *Library Philosophy and Practice*. <https://digitalcommons.unl.edu/libphilprac/5851>
- Ukachi, N. B. (2015). Information literacy of students as a correlate of their use of electronic resources in university libraries in Nigeria. *The Electronic Library*, 33(3), 486–501. <https://doi.org/10.1108/EL-05-2013-0085>
- Verma, M. K., & Shukla, R. (2021). Information literacy skills among the masters students of social sciences departments of Mizoram University and Tezpur University A comparative study. *DESIDOC Journal of Library & Information Technology*, 41(5), 374–384. <https://doi.org/10.14429/djlit.41.5.16399>
- Zhao, S., Luo, R., Sabina, C., & Pillon, K. (2023). The effect of information literacy training on graduate students' ability to use library resources. *College & Research Libraries*, 84(1), 7. <https://doi.org/10.5860/crl.84.1.7>