

# AWARENESS AND UNDERSTANDING OF LIBRARY STANDARDS AMONG LIS STUDENTS

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**Abstract:** Library standards play a vital role in ensuring quality, consistency, interoperability, and efficiency in library and information services. Library and Information Science (LIS) students must possess adequate awareness and understanding of national and international standards to meet evolving professional demands. This study examines the level of awareness, exposure, and perceptions of LIS students regarding library standards and bodies that set standards. A quantitative survey method was employed using a structured questionnaire distributed online to LIS students from different Indian universities, including central, state, and open universities. A total of 52 valid responses were analysed using descriptive statistics and thematic analysis for open-ended responses. The results showed that most LIS students understand the significance of library standards for professional practice, interoperability, and high-quality service delivery. Although students are well-versed in popular bibliographic and metadata standards like Dublin Core, ISO 2709/Z39.50, ISBD, and MARC 21, their knowledge of national standards (BIS) and conceptual or architectural standards is still lacking. There were few chances for internships, workshops, or practical training, while classroom lectures were found to be the main form of exposure. In order to improve standards awareness, students strongly preferred experiential learning approaches. They also cited several major obstacles, including insufficient training opportunities, poor syllabus covering, lack of practical exposure, and limited faculty knowledge. The study draws the conclusion that while LIS students have a favourable attitude towards library standards, their practical comprehension is inconsistent and mostly theoretical. To promote standards literacy and better prepare LIS students for modern library practice, it is crucial to extend hands-on training, strengthen curricular integration, and improve professional development activities.

**Keywords :** Library Standards, Quality, Awareness, LIS Education.

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## 1.0 Introduction

The organisation, administration, and provision of library services are governed by formalised norms and best practices known as library standards. They guarantee that libraries run effectively, morally, and in accordance with user demands. They include bibliographic, metadata, competency, quality assurance, and legal frameworks (Wiggins, 1988). Maintaining high service quality, achieving interoperability, and adhering to professional and legal requirements all depend on staff awareness of these standards. Since current LIS students will eventually work in libraries, it is important to understand how they view quality and standards. The significance of standards knowledge has grown as libraries adapt to digital transformation and shifting user expectations, influencing both strategic development and operational efficacy.

By creating a framework that incorporates several aspects impacting these traits, general standards pertaining to quality and safety-related concerns play a critical role in guaranteeing product quality and safety. They play a fundamental role in the economy by enabling technically feasible levels of product quality, safety, and competitiveness through intricate standardisation procedures. In order to maximise product quality economically, this entails the methodical coordination of elements including source materials, production technology, and testing techniques (Kazantseva et al., 2020). In the food industry, standards like Hazard Analysis and Critical Control Points and Good Manufacturing Practices are important in identifying and mitigating risks associated with foodborne illnesses, thereby enhancing consumer confidence and ensuring product quality. The International Organization for Standardization (ISO) further promotes consistency and accountability across industries, addressing challenges posed by globalization and technological advancements

(Kumar et al., 2024). Standardization and certification also protect consumers and the environment from substandard products and services, fostering fair competition and supporting the development of high-quality goods. Moreover, the evolving landscape of standardization, influenced by global changes and digitalization, underscores the importance of adapting standards to maintain competitiveness and ensure safety in both domestic and international markets (Górny, 2018). Overall, standards are indispensable in safeguarding product quality and safety, supporting consumer rights, and enhancing market competitiveness.

## 2.0 Review of Literature

Smith et al. (2023) examined master's-level Library and Information Science (LIS) programmes accredited by the American Library Association (ALA), where such accreditation is often a condition of employment. Their study identified a significant gap between the standards-related skills required in technical services and the level of preparation provided by LIS programmes. Although graduates valued the theoretical foundation of their coursework, many reported entering the profession with limited practical understanding of core library standards, including cataloguing rules, metadata schemas, acquisitions standards, and administrative or workflow guidelines. Only a limited set of competencies, particularly cataloguing and metadata, were rated as being taught even "moderately well," indicating that awareness and application of standards are not sufficiently embedded within current LIS curricula. Naik (2021) focused on digital standards, emphasizing the critical role of information standards and specifications in enhancing end-user services within library and information environments. With particular attention to network-based library automation processes, the study highlighted the importance of ICT-based standards in bibliographic data, metadata, networking, and digital libraries. These international standards support library professionals in managing and disseminating quality information services efficiently. However, the study did not address the full range of available technical and performance standards. From a broader perspective, Kazantseva et al. (2020) described standards as fundamental infrastructural elements of the economy. They argued that product quality, safety, and competitiveness are ensured through complex standardization processes. Standards define achievable levels of quality and safety by regulating object composition, production, monitoring, materials, technologies, equipment, measurement tools, and testing methods, thereby directly influencing overall quality outcomes.

Similarly, Bakhtiar (2012) assessed the benefits of standards implementation in Indonesian manufacturing industries and found that standards contribute significantly to economic growth, productivity enhancement, and organizational culture. Beyond technical compliance, standards facilitate cultural transformation by promoting consistency, quality, and innovation. The study also highlighted a lack of clear methodologies for measuring the economic value generated by standards, underscoring the importance of ISO-based evaluation frameworks. Choe (2011) discussed the growing importance of standards in a globalized society, particularly in the context of rapid advancements in information and communication technology. The study noted that countries such as Korea have actively promoted standardization policies to enhance national competitiveness. By reducing costs, preventing redundant investments, and encouraging innovation, standards were found to positively influence productivity and economic growth. Blind and Jungmittag (2008) further emphasized the role of codified technological knowledge, including patents and technical standards, in driving economic growth. Their sector-level analysis revealed that standards play a particularly critical role in less R&D-intensive industries by facilitating efficiency and technology diffusion, while patents are more influential in R&D-intensive sectors. This complementarity highlights the broad productivity-enhancing role of standards. Mathews (2006) examined industry standards collections in the libraries of 51 leading engineering colleges in the United States. The study found that while librarians recognized the importance of standards for engineering education and considered their collections generally adequate, challenges such as high costs and limited user awareness persisted. Usage was primarily concentrated among faculty and graduate students, and insufficient guidance on library websites further restricted access. The study concluded that proactive efforts by librarians could enhance awareness of standards and strengthen their integration into academic curricula.

## 3.0 Methodology

The awareness, exposure, and views of Library and Information Science (LIS) students on library standards were evaluated using a quantitative survey design. A structured questionnaire with one open-ended question, Likert-scale statements, and closed-ended items was used to gather data. In order to include a variety of institutions, such as Panjab University, Delhi University, Central University of Haryana, University of Calcutta, Banaras Hindu University, Babasaheb Bhimrao University, School of Open Learning, IGNOU, and others, convenience sampling was used. A total of fifty-two responses, including those from more than seven key universities and other institutions, were received after the questionnaire was distributed online using Google

Forms. Microsoft Excel was used to compile and analyse the responses. Levels of awareness, exposure, and perception were examined using descriptive statistics (frequency distributions, percentages, and mean scores). To show the results, tabular and graphical representations were created. Thematic analysis was applied to open-ended replies in order to find recurrent themes and qualitative viewpoints.

#### 4.0 Objectives

1. To evaluate the level of awareness of national and international library standards among LIS students.
2. To examine LIS students' exposure to library standards through academic curriculum and learning practices.
3. To analyse students' perceptions of the importance of library standards in library and information services.
4. To identify barriers to awareness of library standards and suggest measures for improving standards education in LIS curricula.

#### 5.0 Result and Analysis

Most LIS students agree that library standards are crucial to guaranteeing the calibre, dependability, and consistency of library services. They contend that standards offer a consistent framework for digital resource management, cataloguing, classification, and general service delivery. Many stress that standards facilitate interoperability, direct decision-making, and keep libraries reputable, user-centred, and prepared for the future. While some students' express uncertainty or have no view, others point out that norms in India are not fully implemented or require modification. In general, the prevailing opinion is that library standards are essential for preserving relevance, encouraging creativity, and guaranteeing that libraries operate as efficient, inclusive, and well-structured knowledge systems.

**5.1 Curriculum Components Studied :** Figure 1 illustrates the MARC 21 (45 students) curricular component that has been investigated the most, underscoring its ongoing importance in library automation and cataloguing education. ISBD and Dublin Core (39 students each) and ISO-2709/Z39.50 (38 students) come next, indicating extensive exposure to data interchange/interoperability protocols and bibliographic description standards. Significant coverage is also shown by FRBR (35 students) and UNESCO Standards (33 students), indicating a fair focus on conceptual models and international policy-oriented standards. Compared to more conventional standards like MARC and ISBD, RDA (31 students) seems to be somewhat covered, although being crucial for contemporary cataloguing procedures. Conversely, FRISAD and IFLA Standards (19 students each) exhibit very modest exposure, suggesting a disconnect between more general international standard-setting frameworks and subject authority models. There appears to be little curricular variation outside of the fundamental bibliographic and metadata standards, as seen by the extremely low response rate for additional standards (6 students). Overall, the results show that while the program is strong in traditional and technical cataloguing standards, more focus has to be placed on conceptual models and international standard frameworks to guarantee that LIS students have a thorough understanding of standards.

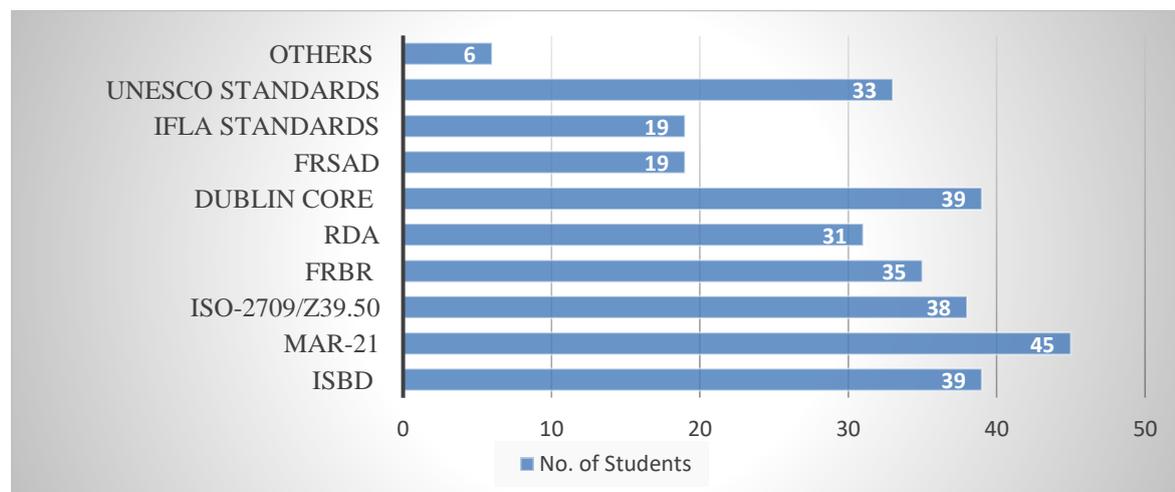


Figure 1: Curriculum Components Studied

**5.2 Initial Exposure to Library Standards:** Formal LIS education plays a crucial role in raising students' understanding of standards, as evidenced by the data on initial exposure to library standards (Figure 2), which reveals that classroom lectures (37 students) are by far the main medium via which students first encounter library standards. On the other hand, exposure through internships (3 students) and seminars/workshops (4 students) is negligible, suggesting few chances for experiential or practice-based learning in relation to standards. Eight students' exposure to the internet has a secondary role, indicating that informal or self-directed learning raises awareness but is not the primary route. All respondents had at least some exposure to library standards, as seen by the lack of responses under "Not Applicable" (0). Overall, the results point to a heavy reliance on classroom instruction, and it is evident that in order to improve early and applied comprehension of library standards, practical, professional, and outreach-based modes like internships, seminars, and continuing education programs must be strengthened.



**Figure 2: Initial Exposure to Library Standards**

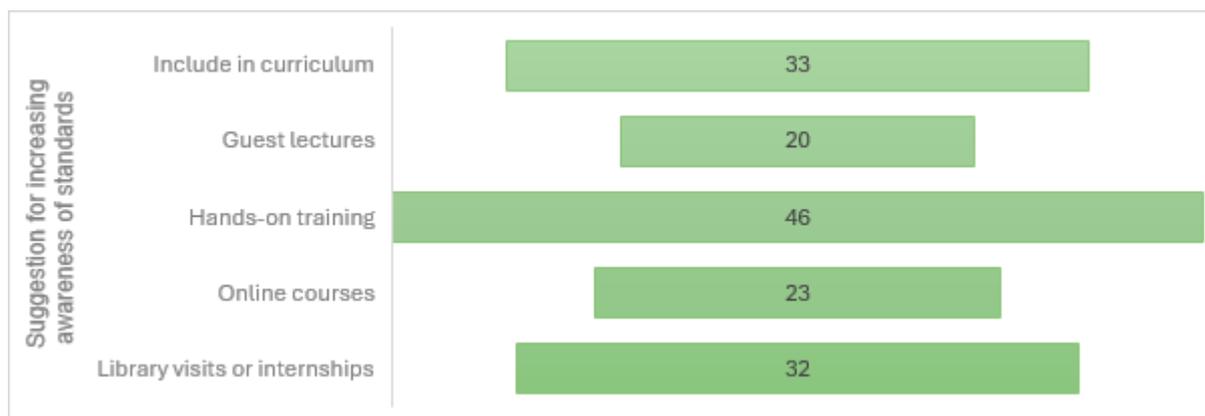
**5.3 Understanding of library standards:** The responses of LIS students in Table 1 reflect a generally positive perception of standards and standard-setting bodies, along with varying levels of awareness. Most students agree or strongly agree that national and international standards exist in LIS, indicating that a majority possess basic awareness of standards within the profession, although a small segment still reports lack of awareness. Students show the strongest consensus on the importance of standards for maintaining quality and uniformity, with a high level of agreement and strong agreement, suggesting that the conceptual value of standards is well understood during LIS education. Awareness of BIS guidelines for libraries is comparatively lower, as a notable proportion of students remain neutral, pointing to limited or superficial exposure to national standards in their coursework. Awareness of international standard-setting bodies such as ISO, IFLA, and ALA is relatively better, with most students expressing agreement, though the presence of neutral responses indicates uneven familiarity. Overall, the findings suggest that LIS students hold a favourable attitude toward standards, but there is a clear need to strengthen practical and detailed teaching on both national and international standard-setting bodies within LIS curricula.

**Table 1: Awareness of Students Towards Standards and Standard Setting Bodies**

Awareness of Standards and Standard-Setting Bodies in LIS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am aware that there are national and international standards in LIS	7	3	5	19	18
I know that standards are essential for maintaining quality and uniformity.	7	3	3	17	22
I am aware of BIS (Bureau of Indian Standards) guidelines for libraries.	4	5	11	19	13

I am aware of international standards making bodies like (ISO, IFLA, ALA, etc.)	6	4	9	15	18
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**5.4 Suggestion for increasing awareness of Standards:** According to the results (in Figure 3) regarding recommendations for raising standards awareness, participants significantly favour hands-on, experiential learning approaches. The greatest level of support was given to hands-on instruction, demonstrating that students enjoy direct interaction with standards through practical application. The inclusion of standards in the curriculum and library visits or internships come next, emphasising the necessity of both formal academic integration and exposure to professional settings. Responses to online courses and guest lectures were somewhat lower, indicating that although these approaches are useful, they are thought to be less successful than immersive or practice-based methods. In order to improve knowledge and comprehension of library standards, the trend clearly shows a preference for interactive, skill-oriented, and context-rich learning opportunities.



**Figure 3: Suggestion for increasing awareness of Standards**

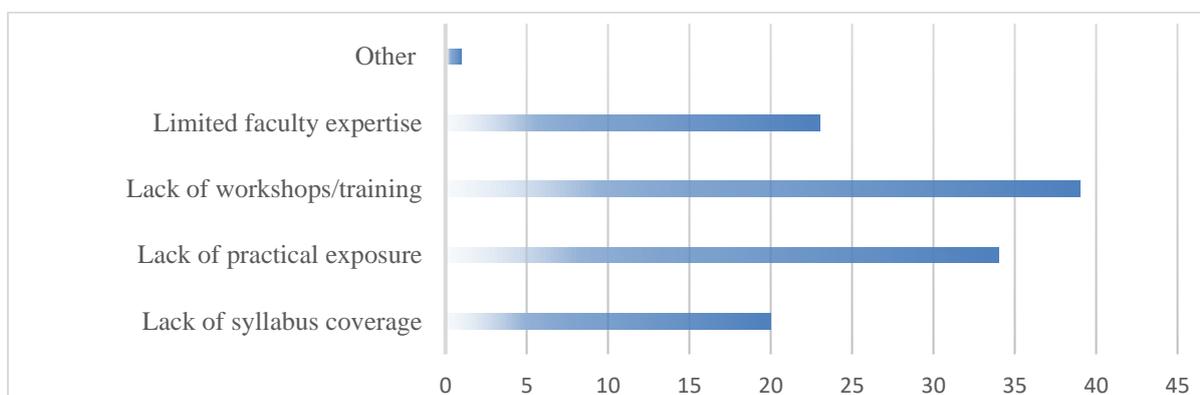
**5.5 Perception towards Library Standards of LIS students:** It is shown in the responses (in Table 2) that most participants had a very favourable opinion of library standards and their applicability in professional practice. The majority of respondents indicated a clear understanding of the importance of standards in preserving consistency and efficacy in library operations by either agreeing or strongly agreeing that standards are necessary for guaranteeing high-quality library services and that LIS professionals should be knowledgeable about standards. Although a sizable percentage of indifferent replies indicate that some participants may still not fully understand how standards operate in collaborative environments, a sizable portion also agreed that standards contribute to interoperability and resource sharing. Further, the research shows a disconnect between academic preparation and professional needs, with respondents strongly believing that understanding about standards needs to be enhanced in LIS education. Furthermore, the strong consensus on the need for additional training and seminars on LIS standards shows that professionals are eager to learn more and implement best practices. Overall, the results show favourable attitudes towards standards while highlighting the necessity of better instruction and continuing training to enable their successful application in libraries.

**Table 2: Perception towards Library Standards of LIS students**

Perception towards Library Standards	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Library standards are essential for quality library services	5	2	5	18	22
Knowledge of standards is important for LIS professionals	4	5	4	15	24
Standards promote interoperability and resource sharing	7	1	11	13	20
Learning about standards should be strengthened in LIS education	5	3	6	17	21

I would like more training/workshops on LIS standards	5	3	7	17	20
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**5.6 Barriers to Understanding Library Standards:** The responses given by the participants (in Figure 4) clearly indicate that the barriers to awareness of library standards are primarily rooted in academic and institutional shortcomings. A large proportion of participants identified the lack of workshops and training as the most significant barrier, showing that they feel opportunities to learn through structured, hands-on sessions are largely missing. The next major concern expressed by participants is the lack of practical exposure, which reflects their view that even when theoretical concepts are taught, they rarely get the chance to apply standards in real library settings or through practice-based assignments. Many respondents also pointed to the lack of syllabus coverage, indicating that standards are either briefly mentioned or not included at all in their formal coursework, which limits their understanding from the foundation level. Additionally, participants highlighted limited faculty expertise as an obstacle, suggesting that some instructors may not be sufficiently trained or updated in the area of library standards, thereby affecting the quality of teaching. Only a few participants selected Other, implying that the major issues are well captured in the primary categories. Overall, participant responses demonstrate that the awareness gap stems mainly from a lack of structured learning opportunities, limited practical experiences, and insufficient academic emphasis, making it clear that improvements in curriculum, faculty training, and experiential learning are essential.



**Figure 4: Factors Hindering Learning of Library Standards**

**5.8 Familiarity to Library standards :** The data in (Table 3) on the familiarity of respondents with various library-related standards shows a mixed but generally moderate level of awareness, with noticeable variation across standards. IS 7150:2024 (Library Catalogue and Abstract Card Specification) and ISO 28560/IS 16602 (RFID in Libraries) show relatively higher familiarity, with 10-13 respondents marking themselves as highly familiar and a strong number in the moderately familiar category (15-18). This indicates that cataloguing and RFID technologies are more visible or more frequently discussed in academic and professional circles. In contrast, highly technical standards such as IS 2672:1966 (Library Lighting) and IS 11957:1987 (Contents List of Periodicals) show lower high familiarity responses and a comparatively higher share of slightly familiar or completely unaware participants, suggesting these areas receive less emphasis in current curricula and training. Standards related to library building design (IS 1553:1989), furniture and fittings (IS 1829:2017), and library statistics (IS 12940:2017) fall in the middle range, with most respondents marking moderately or slightly familiar, indicating partial exposure without deep understanding. Overall, the pattern reflects that library professionals and students tend to be more familiar with standards linked to technology and day-to-day operations, while standards related to infrastructure, lighting, and documentation practices receive comparatively low visibility, highlighting a need for stronger curricular and practical exposure across all standard areas.

**Table 3: Awareness about some famous standards code**

Standards code	Highly familiar	Moderately familiar	Slightly familiar	Slightly familiar	Completely unaware

IS 1553:1989 – Design of Library Buildings - Recommendations Relating to Its Primary Elements	11	13	16	7	5
IS 2672:1966 – Code of Practice for Library Lighting	7	15	13	11	6
IS 1829 (Part 1 & 2, Timber & Steel):2017 – Library Furniture and Fittings Specification	8	13	14	11	6
IS 12940:2017 – Library Statistics Guide	8	16	8	13	7
IS 7150:2024 – Library Catalogue and Abstract Card Specification	10	18	13	7	4
ISO 28560: 2014/ IS 16602: 2017 - RFID in libraries	13	15	10	10	4
IS 11957:1987- Guidelines for contents list of periodicals	9	14	16	7	6

### 6.0 Discussion and Conclusion

The study reveals that LIS students possess a basic to moderately strong awareness of library standards, recognising their importance in ensuring quality, consistency, interoperability, and effective service delivery within libraries. Most students understand the role of standards in cataloguing, classification, digital resource management, and decision-making, although a few express uncertainty or limited knowledge. The data show that classroom lectures are the primary source of initial exposure to library standards, indicating that formal LIS education plays the dominant role in shaping awareness. In contrast, experiential learning opportunities such as workshops, seminars, and internships contribute very little, suggesting that student’s understanding remains largely theoretical. Internet-based learning provides some additional exposure but is not the main pathway. The findings suggest that while LIS students are aware of the significance of library standards, their practical and applied understanding is limited. Strengthening hands-on training and professional engagement opportunities would enhance their overall awareness and better prepare them for real-world library practice. The responses in Table 1 show that LIS students generally have a positive attitude toward library standards and the organisations that develop them. Most students acknowledge the existence of national and international standards, indicating basic awareness, though a small number still lack familiarity. There is strong agreement on the importance of standards for ensuring quality and uniformity in library services, suggesting that their conceptual value is well understood. However, awareness of BIS guidelines is weaker, with many students remaining neutral, reflecting limited exposure to national standards. In contrast, awareness of international bodies such as ISO, IFLA, and ALA is relatively higher, though still uneven.

The findings show that LIS students have strong exposure to traditional and widely used international standards such as MARC 21, ISBD, Dublin Core, and ISO-2709/Z39.50, indicating a curriculum heavily centred on bibliographic description and data-exchange protocols. Moderate exposure to FRBR, UNESCO standards, and RDA suggests that conceptual models and newer cataloguing frameworks are taught but not emphasised to the same extent. In contrast, very low exposure to FRSAD, IFLA standards, and other specialised standards highlights significant gaps in awareness of subject authority models and broader international standard-setting practices. The familiarity data further reveal that students are more aware of standards related to cataloguing and technology such as IS 7150:2024 and ISO 28560/IS 16602 (RFID) while older or infrastructure-related national standards (e.g., lighting, building design, furniture, periodical lists) receive limited attention. Overall, the results indicate that LIS students’ exposure is uneven: strong in core cataloguing and metadata standards, moderate in technology-related standards, and weak in conceptual, infrastructural, and national standards. This pattern underscores the need for broader curricular coverage to ensure comprehensive exposure to both national and international library standards

LIS students strongly favour practical, experiential approaches for increasing awareness of library standards. Hands-on training is the most preferred method, indicating that learners value direct, real-world engagement with standards. Integrating standards into the curriculum and providing opportunities for library visits or internships are also highly supported, reflecting the need for both structured academic instruction and exposure to professional environments. In contrast, online courses and guest lectures receive comparatively lower preference, suggesting that students view them as less effective than immersive, practice-based learning.

The main barriers according to LIS students to awareness of library standards arise from academic and institutional limitations. The most significant issue identified is the lack of workshops and training, indicating that students feel they have few opportunities for structured, hands-on learning. This is followed by limited practical exposure, suggesting that although standards may be taught theoretically, students rarely get to apply them in real library environments. Many participants also highlight inadequate syllabus coverage, showing that standards are often underrepresented or only briefly addressed in course curriculum. Additionally, limited faculty expertise is seen as a barrier, implying that some instructors may not be fully equipped to teach standards effectively. Only a small number of respondents selected "Other," confirming that the major challenges are well captured in the primary categories.

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