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INDIGENOUS KNOWLEDGE IN LIBRARY AND INFORMATION SCIENCE CURRICULA: A GLOBAL BIBLIOMETRIC ANALYSIS AND QUALITATIVE INSIGHTS FROM INDIA

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Abstract: This study examines the integration of Indigenous Knowledge (IK) in Library and Information Science (LIS) curricula through a mixed-methods approach combining global bibliometric analysis and qualitative evidence from India. A bibliometric analysis was conducted using publications indexed in the Scopus database to map global research trends, thematic patterns, and scholarly contributions related to Indigenous Knowledge in LIS curricula. To complement this global overview, a qualitative study was undertaken in India, focusing on state universities to explore perceptions, practices, and challenges associated with integrating Indigenous Knowledge into LIS curricula. The qualitative results indicate strong support for the inclusion of Indigenous Knowledge in LIS education. This study contributes to ongoing discussions on curriculum reform and underscores the importance of contextualising Indigenous Knowledge within LIS education. The findings offer valuable implications for educators, curriculum designers, and policymakers seeking to foster inclusive and culturally responsive LIS programs.

Index Terms: Indigenous Knowledge, curricula, higher education, Library and Information Science, integration.

I. INTRODUCTION

Indigenous knowledge (IK), long practised within traditional communities, possesses great value for sustainability, ecology, and cultural continuity, yet remains marginalised and not properly documented, particularly in India, where it is focused mainly on some disciplines like medicine and agriculture. The absence of systematic documentation and integration into academia undermines the survival of this tacit knowledge, particularly as younger generations become increasingly less interested in it. Integrating indigenous knowledge (IK) into tertiary education through writing, collaborative work with instructors and indigenous peoples, and integration into instruction and scholarship would reframe universities as dynamic centres of cultural exchange and comprehensive education. In Library and Information Science (LIS), this integration is particularly crucial: integrating indigenous knowledge (IK) into theoretical, practical, and internship aspects can further cultural identity, ethical stewardship, and social applicability. With the changing needs of LIS education, emphasising indigenous knowledge within an already full curriculum would bring it in line with international trends toward

inclusivity, sustainability, and the valuation of diverse knowledge systems, so that graduates will be well-placed to work responsibly among diverse communities.

The concept of bridging epistemologies underscores the need to develop symmetrical dialogues between Western information systems and Indigenous ways of knowing, which are generally rooted in oral traditions, community memory, and relational worldviews. Globally, there is a growing recognition of the need for embedding Indigenous Knowledge (IK) in university curricula to advance inclusivity, sustainability, and cultural continuity. This movement in India resonates with a more general educational reformist call toward indigenizing knowledge and taking care of local intellectual traditions.

II. LITERATURE REVIEW

Dei (2000) advocated for the integration of IK into the fabric of academic knowledge creation and reconstruction. This recommendation stems from the understanding that knowledge is not a static entity but an ever-evolving concept influenced by its context. Embracing this idea involves acknowledging that various types of knowledge can coexist, complement one another, or even come into conflict.

Before IK is incorporated into Western curricula, it's crucial to recognize and appreciate the role it plays in creating a positive impact on the environment. This acknowledgment is essential as a lack of education can result in indigenous youth becoming disconnected from their own cultural heritage. Education, in this sense, becomes a vehicle for self-determination, and one proposed approach is the teaching of local languages in schools (United Nations Permanent Forum on Indigenous Issues, 2003). This can help ensure that IK is not lost but continues to thrive and contribute to both local communities and the broader academic landscape. The recognition of IK as a unique system of knowledge with its own management regimes is the first challenge facing the LIS field (Nakata et al., 2005). The same applies to professional education, where the incorporation of IK needs the recognition of indigenous views in addition to global and disciplinary views.

The paper "Language as a Resource in India's Decolonised Cultural Curriculum: A Case Study of the Santali Language" by Ghosal and Singh (2024) examines how the integration of Santali into formal curricula is contributing to the decolonisation of education in India. Through the recognition of Santali as an official medium of education and cultural expression, this effort enhances the language's recognition and fosters cultural identity and pride among Santali-speaking communities. The acceptance of the Ol-Chiki script also improves literacy and continuity, in addition to preserving IK systems and oral culture. The results indicate that incorporating Santali into curricula amounts to more than a symbolic acknowledgement; it represents a significant movement toward defying Eurocentric models and opening up space for indigenous epistemologies in scholarly dialogues.

Motsaathebe (2019) evaluated the decolonisation rhetoric in African higher education, arguing that it remains largely rhetorical without significant structural or epistemic change. The research highlighted the need for curriculum transformation, integration of indigenous knowledge, linguistic diversity, and a shift from Eurocentric epistemology. However, challenges such as institutional resistance, reliance on international scholarship, budget constraints, and superficial adoption of decolonisation principles persist. Effective transformation, according to the author, requires strong institutional support, active participation from academic staff, and genuine recognition of diverse epistemologies in African knowledge systems, underscoring the connection between decolonisation and the incorporation of IK in curriculum development and knowledge production.

Porter and Siddiqui (2024) examined how colonial and militarised ideologies persist in shaping the organisation and practice of STEM education. They posited that science and technology, long described as objective and apolitical, have long served to promote colonial expansion, resource extraction, and military dominance. The research underscored that these legacies continue to be present in today's STEM curricula, research priorities, and institutional collaborations, mainly through defence-funded expenditures and the hegemony of Western epistemologies. To respond to these challenges, the authors propose decolonial and demilitarised strategies for STEM education that prioritise critical pedagogy, ethical considerations, and epistemic diversity. They call for

the inclusion of non-Western and IK systems as a way of disrupting entrenched hierarchies and towards more socially responsive and contextually situated scientific learning.

The chapter "Decolonising Nonprofit, NGOs and Development Higher Education: Valuing Indigenous Knowledge in the Majority World," authored by Mirabella, Carpenter, and Shafau (2024), critically analyses how higher education in the Global South remains infused with the dominance of Global North ideologies in nonprofit and development studies. It asserts that pedagogies and curricula tend to reproduce neocolonial values by giving preference to Western theories and excluding local epistemologies. The authors call for the decommodification of higher education and positioning IK as a valid and fundamental underpinning of teaching and practice. Their submission is informed by evidence indicating that nonprofit and development education in the Global South remains structurally and ideologically reliant on Western academic paradigms, with course materials and theoretical frameworks being significantly rooted in Global North contexts. This reliance reinforces epistemic inequality, wherein Western constructs of "progress" and "development" dominate indigenous methods based on community, sustainability, and communal welfare. The chapter also highlights that incorporating indigenous epistemologies into curricula leads to more participatory, ethical, and socially responsible education, enabling students to critically examine local realities and empowering institutions to make meaningful contributions to local and national development agendas.

Philip Higgs' (2023) study, "A 'Decolonial Turn' in Higher Education: Some Reflections," highlights the long-standing dominance of Eurocentric epistemologies in African universities, where Western traditions dictate what constitutes valid knowledge. According to him, this epistemic imbalance pushes IK systems to the marginalised, establishing intellectual hierarchies that disclaim Africa's own intellectual and cultural heritage. The research demands a true "decolonial turn"—a paradigmatic shift that transcends the reform of the curriculum to reframe the epistemological foundations of African higher education. Higgs asserts that learning to value and incorporate IK is the key to contextualising education, making it more ethically sound and socially equitable. Ocholla (2021) suggested that indigenous knowledge must be incorporated into university curricula in general and LIS curricula in particular if decolonization is to take effect.

The research conducted by McCormack et al. (2024) found that the United Nations' Sustainable Development Goals (SDGs) yielded positive results when integrated into the dietetic programs of health professionals' education in Australia. The researchers conducted a nominal group technique, a structured consensus-building method that gathers information from experts systematically, and the result showed that three core SDGs are most relevant to the discipline, viz. SDG 2 (zero hunger), SDG 3 (good health and well-being), and SDG 12 (responsible consumption and production). Participants stressed the inclusion of indigenous ways of knowing, being, and doing, which leads to the need to recognise IK as vital to sustainable practice. This method harmonises ecological and cultural wisdom and professional ethics to enhance learning experiences for students. They concluded by stating that situating the SDGs in this way ensures curricula are both locally contextualised yet globally informed, resulting in socially aware, culturally attuned health professionals able to help achieve sustainable development within their work.

The article "Decolonising African Higher Education: Practitioner Perspectives from Across the Continent," done by Knaus et al. (2022), critiques the lingering colonial influences in African higher education that favour Eurocentric views and undermine African knowledge systems. It highlights the experiences of various educators pushing for the decolonisation of curricula, teaching methods, and institutional frameworks to enhance relevance and inclusion. The argument is made that true decolonisation involves more than superficial curriculum changes; it requires a shift in pedagogical approaches, governance, and research paradigms traditionally aligned with Western thought. The article calls for the recognition of Indigenous African knowledge, languages, and cultures as valid academic foundations. It concludes with a call for collective commitment among institutions, policymakers, and educators to achieve epistemic justice and align African education with the intellectual and cultural contexts of the societies it serves.

The chapter by McIver et al. (2022) examines the emergence of cultural proficiency in the context of indigenising higher education curricula. It emphasises that decolonisation begins with comprehensive cultural awareness among students and staff. The authors utilise empirical data to illustrate a shift from superficial inclusion of indigenous content to a transformative curriculum that embraces indigenous worldviews and values. Despite general support for indigenisation, many staff and students express a lack of readiness and confidence in effectively integrating IK. Continuous dialogue and collaboration with indigenous scholars are deemed essential for achieving cultural proficiency. Finally, the authors assert that institutional commitment through policy and leadership is vital for creating inclusive learning environments that respect Indigenous epistemologies and experiences.

Hannaway and Du Preez (2021), in their paper "Ethnocentric Shapeshifting: Finding Glimmerings of Culturally Responsive Teaching and Caring among Early Childhood Education Lecturers," discuss how lecturers of early childhood education deal with cultural diversity and inclusion in the classroom. "Ethnocentric shapeshifting" is a term employed by the writer to characterise the behavior of teachers who change their method of teaching to look culturally responsive while working within prevailing Western or Eurocentric paradigms. While numerous lecturers voice concerns for care and equity, their practices more often than not represent only superficial modifications, rather than a profound commitment to culturally sustaining pedagogy. This finding supports Dei (2000), who asserts that IK continues to be marginalised when educational systems pay homage to its worth without questioning prevailing Eurocentric knowledge paradigms. Similarly, Barnhardt (2011) notes that curriculum reform cannot occur effectively unless IK is integrated within the education system as opposed to being introduced as additional material. Austin and Hickey (2011) concur with this notion, having established that even as science teacher educators acknowledged the value of IK, they failed to integrate it into the classroom consistently. The research emphasises that critical self-reflection, decolonial consciousness, and institutional reform are essential to transcend tokenistic praxis and genuinely incorporate Indigenous and diverse cultural perspectives into early childhood education.

De Costa et al. (2024) explore how pedagogy in higher education can be decolonized with critical and collaborative professionalism, highlighting co-created knowledge sharing between educators and communities. Their research is based on collaboration between U.S. graduate students and a Nepali English teacher to co-create culturally responsive curriculum materials. It highlights contextual relevance, reflexivity, and power hierarchies flattening while developing curricula. Instead of the imposition of Western models, the research facilitates mutual learning and respect for indigenous epistemologies, situating decolonization as an iterative, dialogic process that honors a multiplicity of worldviews and seeks to make education more local and equitable.

The paper "Criteria for Enhancing Student Wellbeing in STEM Classrooms: ICT and Indigenous Knowledge in South African Higher Education" by Nkopodi, Jakovljevic, and Photo (2024) formulates a theoretical framework that connects Information and Communication Technology (ICT) and Indigenous Knowledge Systems (IKS) to enhance student wellbeing in STEM education. According to the authors, South African higher education tends to isolate students with culturally disassociated curricula and stressful learning environments. Through integrating current literature, they suggest twelve criteria based on five themes: ICT and IKS synergy, Indigenous epistemologies integration in the curriculum, building teacher capacity, ICT as an inclusive learning platform, and professional development for decolonized teaching. These criteria seek to minimize anxiety and maximize engagement by making STEM instruction congruent with local knowledge, languages, and cultural contexts. Though the model is theoretical, the research invites subsequent empirical work to test and apply these criteria across disciplines and institutions.

According to the paper titled Decolonizing Higher Education Curricula: Perspectives from Teaching Indigenous Literature, studied by Longkumer (2024), she discusses her own experience of creating and teaching an Indigenous literature course as a pragmatic response towards decolonization in higher education. The research, operating within India's National Education Policy (2020), asserts that authentic curricular decolonization is more than a matter of inserting Indigenous content—it demands a reimagining of pedagogical forms, a recognition of Indigenous epistemologies, and a resistance to Western-oriented academic conventions. Longkumer explores how integrating Indigenous perspectives in the teaching of literature promotes cultural knowledge, self-awareness, and student interest, as well as institutional challenges and the necessity of

preparatory training for educators. The paper concludes that decolonizing the curriculum is a long-term, reflexive process that requires commitment, teamwork, and authentic respect for IK ways.

One way to impart or disseminate IK in a classroom is by using digital materials during lectures and tutorials. Video storytelling is one method to represent studied by Grogan et al. (2021) for communicating indigenous experiences, knowledge systems, and worldviews respectfully and authentically within the context of academics. Utilising videoed narratives to deliver Indigenous voices makes indigenous studies not a study on Indigenous peoples but a study with and through indigenous peoples, producing a more participatory, respectful, and authentic learning space.

The article “‘Mati, Mati, My Boy, Mati Mati’: Using Slow Academia to Embed Indigenous Knowledges in Higher Education” by Celise Gibson and Lauren Woodlands (2024) explores how the concept of slow academia can support the meaningful integration of IK within Australian higher education. Based on their own and others' lived and working experiences as Indigenous and non-Indigenous academics, the authors contend that integrating Indigenous worldviews requires time, contemplation, and relational work—components that are frequently negated by the rapid, productivity-focused culture of contemporary universities. They illustrate how structural arrangements, anticipation of tokenism, and absence of support hamper genuine inclusion of Aboriginal and Torres Strait Islander worldviews. The article emphasizes that decolonization is more than a mere curricular change but an intimate process of unlearning, developing positional awareness, and recognizing indigenous temporalities and pedagogies. At the end, the authors call for slowing academic practice to develop respectful, culturally centred spaces that can host indigenous and Western knowledges and learn from one another.

Mthembu (2020) examines how IK research and education have to be based on ethical, decolonial, and culturally nuanced practices that treat Indigenous peoples with respect and as equal knowledge partners, not study subjects. The chapter critiques Western academic paradigms that have marginalized Indigenous epistemologies in the past and demands methodologies that are based on Indigenous values of respect, reciprocity, and relational accountability. Mthembu emphasizes that ethical IK education requires collaboration with community elders, recognition of oral traditions, and a shift from extractive to participatory research approaches. The work highlights the importance of indigenizing higher education curricula to foster inclusivity and epistemic justice.

Chapter "Levelling up: towards decolonising apprenticeship learning" discussed by Beaudry and Perry (2020) highlights revolutionizing apprenticeship learning by disrupting Eurocentric and colonial schemes prevailing in existing systems. It pleads for interweaving indigenous and local knowledge, participation of the community, and experience-based learning to devise more inclusive and egalitarian models of training. The writer urges an appreciation of multiple epistemologies, encouraging intersubjective learning between mentors and apprentices, and reclaiming cultural identity through decolonized pedagogies. The aim is to make apprenticeship learning socially equitable, contextually appropriate, and encompassing various knowledge systems instead of being limited to Western viewpoints.

Jimenez and Kabachnik (2023) maintain that higher education needs to transcend Western-based models of sustainability by indigenizing environmental pedagogy and curriculum. Rather than inserting indigenous content, they suggest reconceptualizing the way knowledge is pedagogized and valued through indigenous cosmologies that privilege relationality, community, and ecological harmony. The authors present the concept of "indigenous sustainabilities" as plural, place-based, and culture-based forms of living sustainably capable of providing resonant answers to the worldwide ecological crisis. They also point out obstacles like institutional resistance and superficial engagement with Indigenous perspectives. Overall, the article encourages a decolonized sustainability education that truly incorporates IK in promoting environmental justice and transforming education. Jimenez and Kabachnik (2023) contend that higher education needs to transcend Western-centric models of sustainability by Indigenizing environmental curricula and pedagogy. Rather than adding Indigenous content alone, they encourage reframing how knowledge is taught and prized through Indigenous worldviews that highlight relationality, community, and balance with nature. The authors propose the concept of "indigenous sustainabilities"—plural, localized, culturally specific forms of living sustainably—

that are capable of providing meaningful responses to the worldwide ecological crisis. They also point out obstacles like institutional resistance and superficial integration of Indigenous viewpoints. The paper generally appeals for a decolonized pedagogy of sustainability that meaningfully incorporates Indigenous epistemologies, promoting environmental justice and educational change.

In fact, the work of Weise et al. (2021) provides a critical foundation for how educational institutions can move beyond superficial inclusions of IK toward genuine epistemic collaboration. It further speaks directly to efforts integrating IK Systems into curriculum design, community education, and information literacy initiatives, particularly those of and for Indigenous and farming community contexts that seek to self-preserve and pass on their knowledge. As the authors explicate, "participation and community voice are the foundations of collective curriculum design" (p. 343), and educational transformation has to be relational, dialogical, and respectful of local epistemologies. They concluded that "the process offers a model for constructing knowledge through deep intercultural dialogue and mutual respect" (p. 344).

International Federation of Library Associations and Institutions (IFLA) was aware of the significant part that libraries played in the protection and accessibility of traditional knowledge of indigenous peoples, recommending libraries and archives to acquire, protect, and disseminate indigenous and traditional knowledges; increase awareness of its importance and contribution; prevent its exploitation and misuse; and include indigenous elders and communities in creation, protection, and dissemination (IFLA, 2002). In the field of Library and Information Science, according to Tumuhairwe (2013), there was found to be a significant difference in the inclusion of IK in different contexts of education. It was observed that the inclusion of IK in the study of LIS would help develop skills of professionalism and culture, whereas, in most developing countries, no such inclusion in LIS education was observed systematically. Moreover, from the perspective of library practice, Abioye et al. (2017) emphasise the role of libraries in collecting, documenting, preserving, and digitising IK as part of their responsibility as repositories of human knowledge. Such practices highlight the importance of preparing LIS professionals with the competencies required to manage IK collections and facilitate their long-term preservation and access. This observation is especially pertinent to India, as the country has diverse Indigenous Knowledge Systems.

III. RESEARCH GAP

Despite the increasing global focus on decolonisation and integration of IK in higher education, research in India mainly focuses on medicine, agriculture, and environmental studies, leaving Library and Information Science relatively unexplored. LIS is an interdisciplinary subject field concerned with the organisation, management, preservation, retrieval, and dissemination of information in both physical and digital forms, and most existing literature emphasises epistemic justice and cultural inclusion but lacks a systematic examination of IK's application in LIS curricula.

So the gap in the study is highlighted by the scarcity of studies that integrate bibliometric evidence with institutional insights from state Indian universities. Therefore, the study critically analyses how IK is constituted and addressed in higher education curricula in the LIS Context through bibliometric analysis. To examine the strategies, policies, and practices regarding IK in Indian higher education. To critically examine how IK is treated in LIS education in India, specifically through documentation, preservation, and ethical access.

The present study is guided by a set of interrelated research questions that examine the integration of IK into Library and Information Science curricula. They are given as follows:

1. How have global publication trends, thematic patterns, and scholarly discussions on IK evolved in the curriculum, particularly in the field of LIS education?
2. To what extent is IK represented in the LIS curricula of institutions in India regarding its documentation, preservation, and ethical access?
3. What roles do LIS professionals, institutions, and policy frameworks play in integrating IK into LIS education?

4. What are the major challenges and opportunities associated with incorporating IK into LIS curricula, and what sustainable strategies can enhance its inclusion?

IV. OBJECTIVES

The study has the following objectives:

1. To analyse global publication trends, thematic patterns, and scholarly discourse on IK in curriculum research, with particular emphasis on LIS education, using bibliometric analysis.
2. Using data from Indian state universities to critically evaluate the representation of IK in LIS education, especially in connection to the documentation, preservation, and ethical access of IK.
3. Assess the extent of IK integration in LIS curricula in higher education and the role of LIS professionals and policy frameworks.
4. Identify key challenges and opportunities in integrating IK into LIS curricula and suggest sustainable strategies for inclusion.

V. METHODOLOGY

This study utilised a mixed-method research design, integrating bibliometric analysis and a questionnaire survey. The bibliometric analysis was used to map and analyse research trends in the study of IK within higher education curricula globally, while the questionnaire survey was conducted to obtain empirical insights from higher education in India and to supplement the bibliometric findings.

Data Source

Bibliometric data were retrieved from the Scopus database in April 2025. Indexed records were searched using the search string TITLE-ABS-KEY ("indigenous knowledge" AND "curricula" AND "higher education"). Publication records were retrieved for 1996 to 2024. A total of 161 documents were exported in CSV file formats, which comprise articles, books, book chapters, conference papers, notes, reviews, and brief surveys. The bibliometric analysis comprises thematic analysis and publication trends. Bibliometric analysis was conducted using RStudio (Aria & Cuccurullo, 2017).

Another data source employed in this study was a structured questionnaire comprising dichotomous (Yes/No) and multiple-response closed-ended questions. Considering the extensive number of state universities in India, purposive sampling was employed to select institutions offering LIS programmes and capable of providing relevant qualitative insights. The questionnaire was distributed both by mail and through in-person visits to state universities across India that offer a Master of Library and Information Science (MLIS) programme during the period 2023-2025.

The study employed purposive sampling, selecting one knowledgeable respondent from each of the 38 state universities included in the study, with the responses being collected primarily through email. The respondents comprised academic and information professionals holding positions such as Professor, Associate Professor, Assistant Professor, Guest Lecturer, Director, and Librarian. The response statistics representation is given in Fig. 1.

RESPONSE STATISTICS

■ Assistant Professor ■ Associate Professor ■ Professor
 ■ Librarian ■ Guest Lecturer ■ Director
 ■ Total

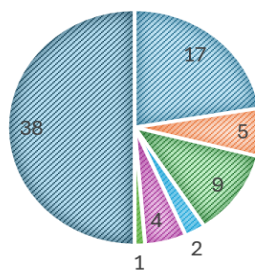


Figure 1: Questionnaire response statistics

Source: Author's own work

The majority of the respondents were Assistant Professors, followed by Professors and Associate Professors. Moreover, the participating universities were: University of Kashmir, Jammu and Kashmir; Maharshi Dayanand University, Haryana; Rani Channamma University, Karnataka; University of Lucknow, Uttar Pradesh; University of Calcutta, West Bengal; University of North Bengal, West Bengal; Vidyasagar University, West Bengal; Karnataka State Akkamahadevi Women University, Karnataka; Rashtrasant Tukadoji Maharaj Nagpur University, Maharashtra; University of Jammu, Jammu and Kashmir; Panjab University, Punjab; Berhampur University, Odisha; University of Calicut, Kerala; Fakir Mohan University, Odisha; Cotton University, Assam; Tumkur University, Karnataka; Himachal Pradesh University, Himachal Pradesh; Kalyani University, West Bengal; Guru Nanak Dev University, Punjab; University of Mumbai, Maharashtra; Adikavi Sri Maharshi Valmiki University, Karnataka; Alagappa University, Tamil Nadu; Bharathiar University, Tamil Nadu; Kakatiya University, Telangana; Annamalai University, Tamil Nadu; Kuvempu University, Karnataka; Dr. B.R. Ambedkar University, Andhra Pradesh; Maharaja Sriram Chandra Bhanja Deo University, Odisha; Jadavpur University, West Bengal; Dibrugarh University, Assam; Sant Gadge Baba Amravati University, Maharashtra; Andhra University, Andhra Pradesh; Sardar Patel University, Gujarat; Dr. Babasaheb Ambedkar Marathwada University, Maharashtra; Gulbarga University, Karnataka; Mohanlal Sukhadia University, Rajasthan; University of Rajasthan, Rajasthan; and Gauhati University, Assam.

The responses were compiled and analysed using descriptive statistics in RStudio. Before analysis, dichotomous responses were coded as binary variables, while each option in the multiple-response questions was treated as an individual binary variable. The analysis focused on summarising respondents' opinions regarding the prioritisation of IK integration into the LIS curriculum.

VI. RESULTS

The analysis was conducted in two complementary components: (i) bibliometric analysis, which examines publication trends and thematic patterns, and (ii) questionnaire survey analysis, which explores respondents' perspectives on IK integration in LIS curricula.

Publication and Thematic Trends

To assess the research publications on IK in higher education curricula, the analysis focused on determining publication trends and thematic patterns. Year-wise publication analysis was undertaken to examine the growth of research over time, and the regional distribution of publications was conducted to determine which countries contribute most to the publications on Indigenous Knowledge in Library and Information Science curricula.

The results of the analysis for year-wise publication trends are shown in Fig. 2, which indicates a relatively low volume of publications in the early years, followed by a gradual increase over time, with 2024 recording the highest number of publications on IK integration in higher education curricula. This trend suggests that LIS scholars are placing greater emphasis on documenting, preserving, organising, and integrating IK into information systems and LIS curricula. It also indicates the growing influence of decolonial perspectives and the recognition of Indigenous epistemologies within the discipline.

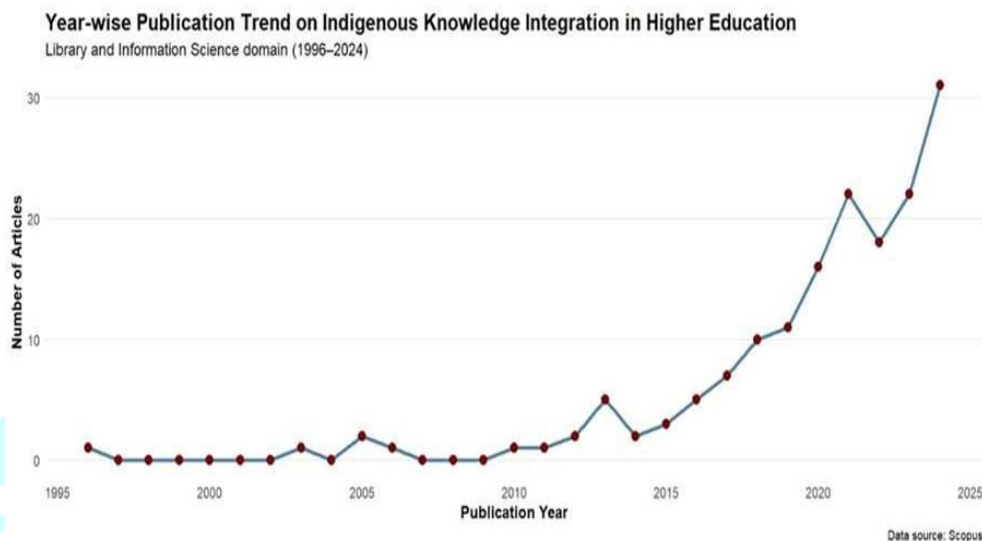


Figure 2: Year-wise publication trend

Source: Author's own work

The regional publication trends are presented in Fig. 3. The regional distribution indicates that Australia, South Africa, the United States, Canada, and the United Kingdom are the principal contributors to scholarly research on IK integration in higher education within the Library and Information Science domain. These countries reflect their well-established research infrastructures and sustained scholarly engagement with Indigenous communities and knowledge systems. The analysis also suggests that research on IK remains unevenly distributed, with comparatively limited contributions from many developing regions such as India, despite their rich IK traditions, which underscores the need to strengthen research initiatives and curriculum development related to IK within Library and Information Science education.

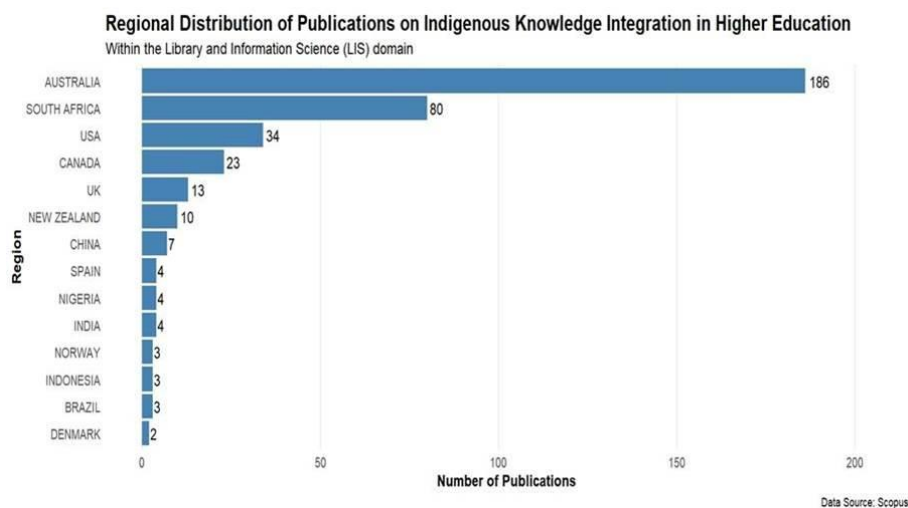


Figure 3: Regional publication trend

Source: Author's own work

The thematic analysis identified the dominant research themes: human, curriculum, and cultural competence, highlighting the central research directions and conceptual relationships within the field. The thematic structure and the connections among these themes are illustrated in Fig. 4.

The importance of the human themes reflects the emphasis on indigenous communities, learners, educators, and knowledge holders as the central stakeholders in the creation, transmission, and preservation of IK.

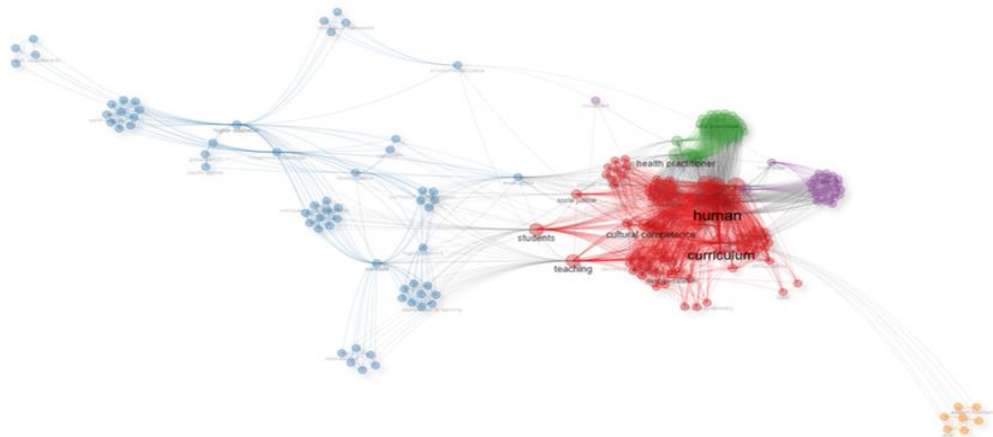


Figure 4: Visualisation of thematic trends

Source: Author's own work

The theme cultural competence suggests increasing recognition of the importance of equipping LIS professionals with the knowledge, skills, and ethical understanding necessary to engage respectfully with indigenous communities and knowledge systems. Collectively, these themes demonstrate that contemporary research extends beyond the documentation and preservation of IK to encompass its meaningful integration into education, professional practice, and culturally responsive learning environments.

Questionnaire Survey

A structured questionnaire survey was distributed to library professionals and faculty in Library and Information Science across Indian state universities to obtain empirical insights into the integration of IK within higher education curricula. A total of 38 valid responses were received and analysed using descriptive statistical methods. Table 1 presents an overview of the respondents' perceptions of IK.

Table 1: Respondents' perceptions of indigenous knowledge

Item	Yes n (%)	No n (%)	Total (n)
Awareness of Indigenous Knowledge (IK)	37 (97.37)	1 (2.63)	38
IK is valuable in preserving cultures and promoting mutual respect	37 (97.37)	1 (2.63)	38
IK has become marginalised and requires preservation and documentation	37 (97.37)	1 (2.63)	38

Source: Author's own work

The findings indicate that the majority of respondents acknowledge the relevance of IK and most opine that IK is valuable in preserving diverse cultures and promoting mutual respect within society. Only one respondent disagreed. The results also indicate a strong agreement among respondents that IK has become marginalised and needs preservation and documentation.

Following this, the study examined the perceived need to include IK in the LIS curriculum. As shown in Fig. 5, the majority of respondents agreed that IK education is necessary within LIS programmes.

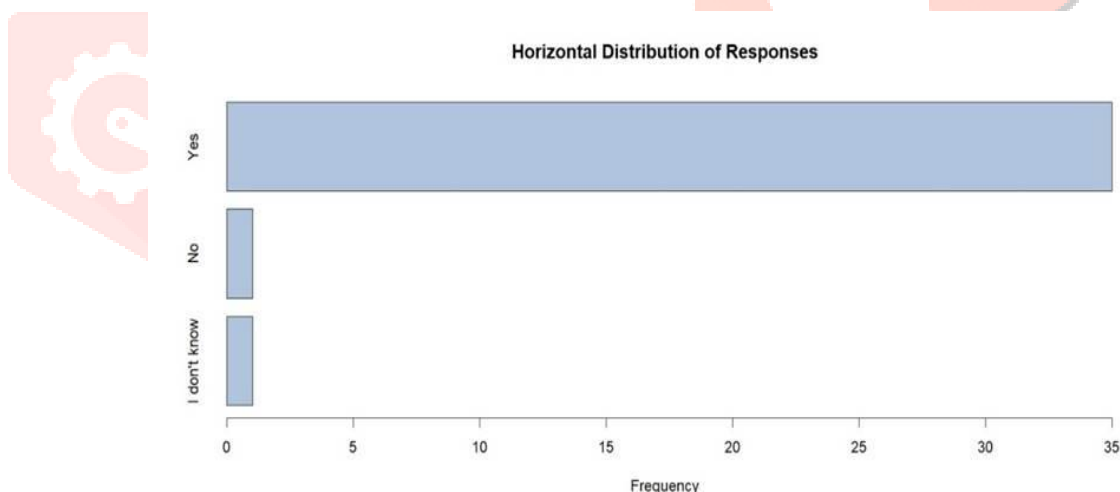


Figure 5: IK education in LIS necessary

Source: Author's own work

Likewise, the finding in Fig. 6 reports the number of respondents who perceived that IK can enrich the LIS curriculum by promoting diversity and inclusivity, incorporating cultural heritage, encouraging critical thinking, and supporting environmental sustainability.

Among these, incorporating cultural heritage and promoting diversity and inclusivity were the most frequently mentioned benefits, highlighting the perceived value of IK in fostering culturally responsive and inclusive LIS education.

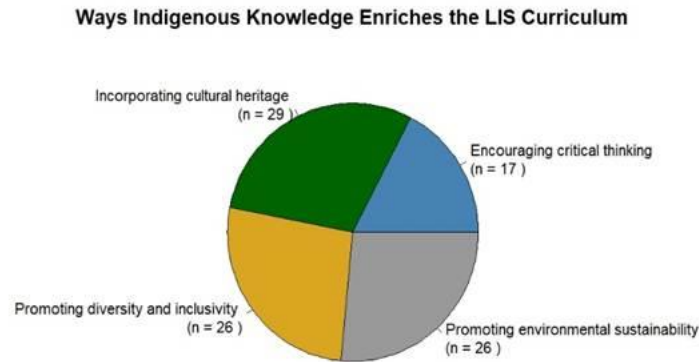


Figure 6: Respondents' perception on ways IK can enrich the LIS curriculum with frequency

Source: Author's own work

Additionally, Fig. 7 indicates that a substantial majority of respondents believe that the integration of IK into the LIS curriculum should be a priority for their institution, which reflects a growing recognition of the importance of IK in fostering inclusive, culturally responsive, and contextually relevant curricula.

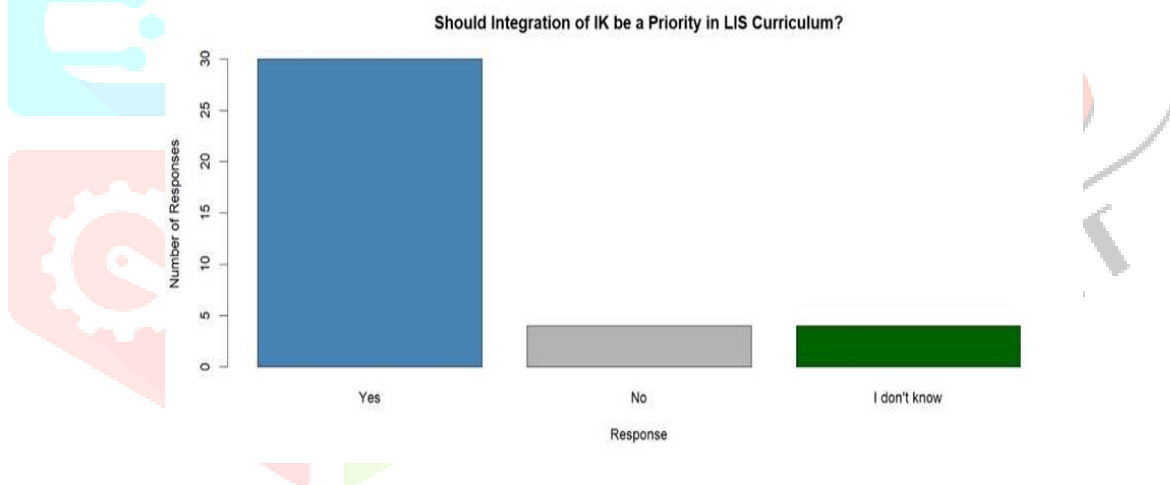


Figure 7: Respondents' perceptions of IK integration as a priority in the LIS curriculum

Source: Author's own work

The findings provided in Table 2 indicate that the inclusion of IK in the LIS curriculum is currently limited and uneven across the state universities in India. Where present, IK is most commonly incorporated through promoting awareness and understanding of indigenous cultures, protocols, and ethical considerations, as well as recognising indigenous ways of creating, organising, and sharing information.

Table 2: Reported areas of IK inclusion in LIS curricula

IK Inclusion	Area	Frequency
1	access	2
2	Addressing the representation of IK	3
3	and control of indigenous culture	2
4	and cultural materials in library collections	3
5	and ethical considerations	5
6	and share information	3
7	At initial level	1
8	Examining issues of ownership	2
9	literature	3
10	organize	3
11	Promoting awareness and understanding of indigenous cultures	5
12	protocols	5
13	Recognising and understanding the unique ways indigenous communities create	3

Source: Author's own work

Some respondents also reported attention to issues of ownership, access, and control of indigenous culture, and the representation of IK and cultural materials in library collections. However, a large number of respondents either did not indicate IK inclusion or explicitly described it as being at an initial level, suggesting that IK integration remains nascent rather than fully embedded within LIS curricula.

Benefits of IK Inclusion Across Heritage Institutions

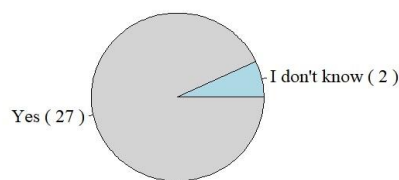


Figure 8: Respondents' perception of the benefits of IK inclusion across heritage institutions

Source: Author's own work

Additionally, the findings in Fig. 8 reveal an overwhelming level of agreement among respondents that the inclusion of IK in the LIS syllabus would enhance students' ability to deliver services not only in libraries but also in museums and archives. The dominance of affirmative responses suggests that respondents perceive IK as providing transferable knowledge and skills applicable across various cultural heritage institutions. This strong positive perception highlights the perceived value of IK in broadening professional competencies and supporting interdisciplinary practice within the information and heritage sectors.

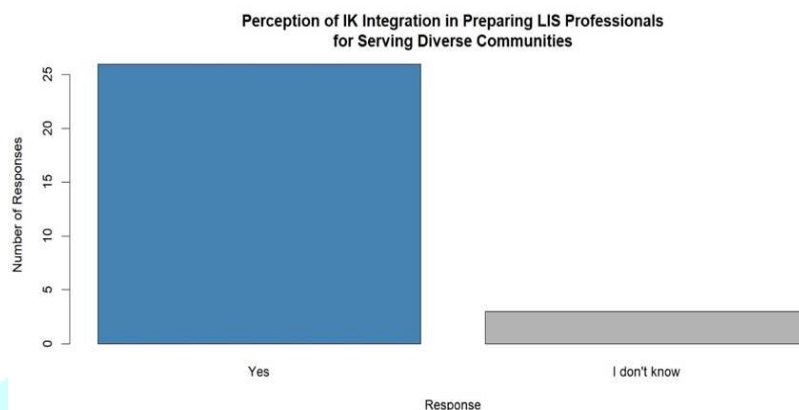


Figure 9: Respondents' perception of IK integration in preparing LIS professionals

Source: Author's own work

The analysis presented in Fig. 9 reveals a strong consensus among respondents that integrating IK into the LIS curriculum would better prepare professionals to serve diverse communities, including indigenous populations. The overwhelming majority of respondents agreed, indicating widespread recognition of the value of IK in enhancing cultural competence, inclusivity, and responsiveness within LIS practice. Only a small number of respondents indicated uncertainty. Overall, the findings highlight strong support for curriculum integration of IK as a means of strengthening professional preparedness in diverse service contexts.

In the subsequent section, data were analysed through qualitative content analysis, whereby closed-ended multiple response items were systematically reviewed and coded into predefined thematic categories reflecting key policy dimensions for integrating IK into the LIS curriculum.

Following coding, frequency counts were calculated to indicate the prevalence of each theme among respondents. The resulting data presented in Fig. 10 provide an overview of the extent and patterns of IK-related policy considerations within the LIS curriculum.

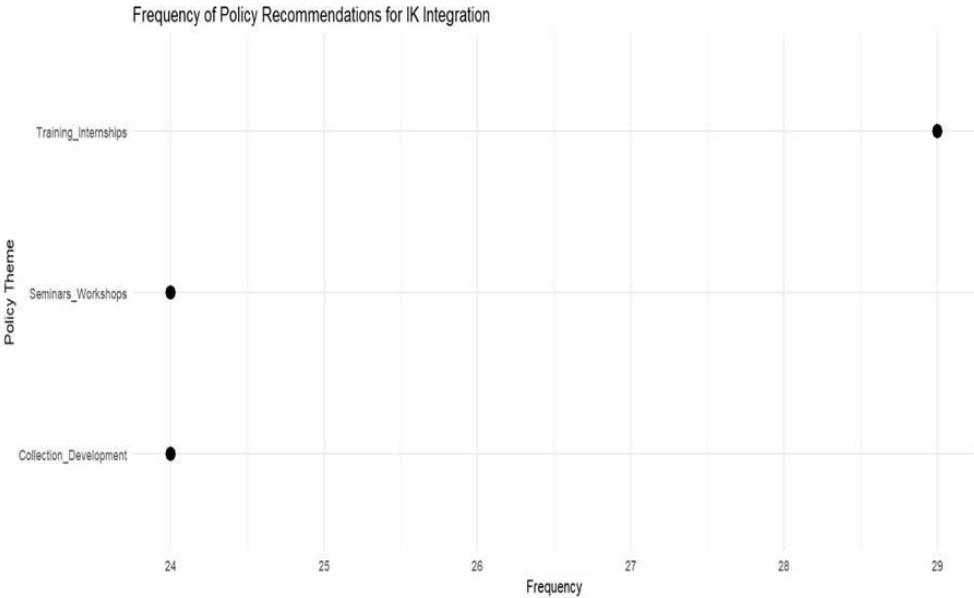


Figure 10: Frequency of policy recommendations for IK integration in the LIS curriculum

Source: Author's own work

Training and Internships emerged as a prominent theme, receiving a relatively high frequency of responses, which highlights the perceived importance of hands-on capacity-building initiatives.

On the other hand, the analysis results provided in Table 3 reveal that lack of societal recognition of IK, scarcity of indigenous teachers, limited availability of indigenous information sources, and curriculum overload are the most frequently reported challenges. In addition, limited learner interest and insufficient stakeholder involvement further constrain the effective integration of IK within LIS curricula.

Table 3: Reported challenges to the integration of IK in LIS curricula

Problem_Category	Frequency	Percentage
Lack_Recognition	20	55.6
Congested_Curriculum	11	30.6
Lack_Indigenous_Teachers	15	41.7
Lack_Learner_Interest	16	44.4
Lack_IK_Sources	18	50
Lack_Stakeholder_Involvement	7	19.4
Syllabus_Redesign	1	2.8

Source: Author's own work

Moreover, the findings in Table 4 and represented in Fig. 11 indicate that collecting and identifying IK, analysing and linking IK to LIS education, and expanding research opportunities are the most frequently recommended steps for sustaining IK within the curriculum. These reflect the need to establish a robust knowledge base and scholarly foundation that supports the long-term preservation, teaching, and application of IK in LIS education.

Table 4: Reported recommended steps for sustaining IK

IK_Maintenance_Step	Frequency	Percentage
Collect_IK	22	62.9
Select_Topic	19	54.3
Analyse_Connect	24	68.6
Implement_Lesson	16	45.7
Reflect_Perspectives	17	48.6
Evaluate_Process	14	40
Expand_Research	19	54.3
Share_Outcomes	11	31.4

Source: Author's own work

Furthermore, evaluation, reflection, and sharing of outcomes further underscore the importance of continuous pedagogical review.

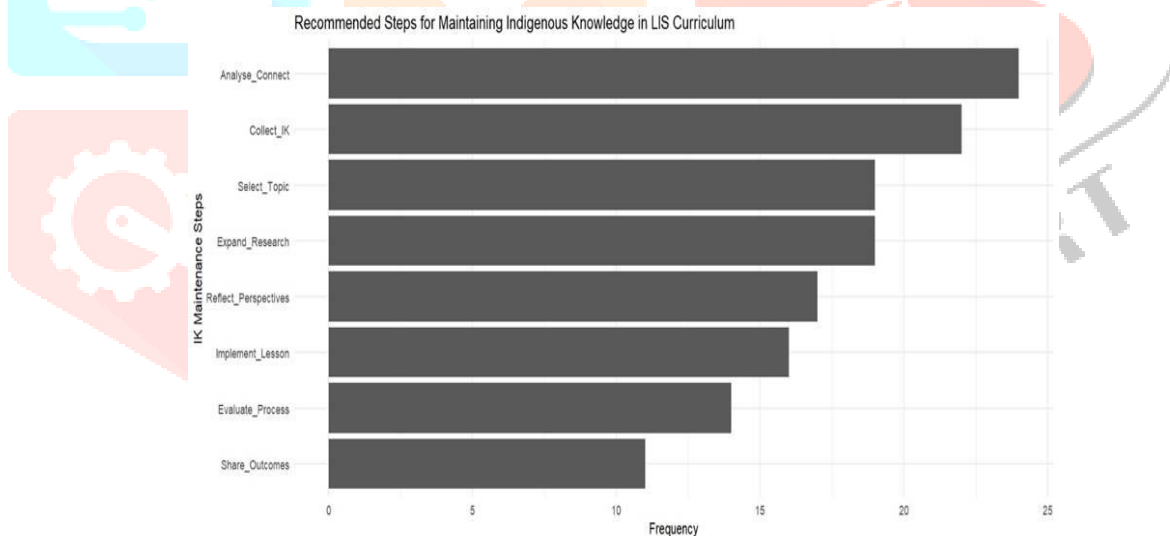


Figure 11: Visualisation of reported recommended steps for sustaining IK

Source: Author's own work

VII. DISCUSSION

The bibliometric analysis identified curriculum and cultural competence as dominant themes in the global literature, while the survey findings corroborate these trends by demonstrating that respondents also recognise the importance of integrating IK into LIS curricula. The convergence of these findings suggests that both the scholarly literature and academic practitioners acknowledge curriculum reform as a key strategy for promoting IK in higher education. The above finding is well supported by Tumuhairwe (2013), who maintains that LIS institutions need to include IK in the curricula in order to produce information professionals that are culturally competent. This is in agreement with Ocholla (2021), who contends that decolonisation of the curricula in universities will not be possible without including such valuable knowledge in LIS.

VIII. LIMITATIONS OF THE STUDY

This study is subject to certain limitations. First, the bibliometric analysis of publications on IK in higher education curricula was restricted to records indexed in the Scopus database. This limitation may have influenced the overall publication count. Second, the qualitative analysis was limited to certain state universities in India. Consequently, the results should be viewed as exploratory rather than generalisable to all higher education institutions.

IX. CONCLUSION

With a focus on LIS, this study examined Indian and global research on the integration of IK in higher education curricula. The bibliometric results show that IK-related curriculum research is largely driven by institutions in Australia and South Africa, with relatively few contributions from India. On the other hand, the qualitative data obtained indicate that LIS has a vital but underutilised role in promoting IK through ethical access, documentation, and preservation. Although LIS programs are well-established, formal curricular integration of IK is still inconsistent and mostly implicit, according to supporting institutional data from Indian state universities. This disparity underscores the need for thoughtful curricula, faculty preparedness, and policy-level support.

All things considered, the study makes a contribution by bringing together disparate material, pointing out disciplinary and regional gaps, and placing international discussions in the context of Indian LIS education. It urges future studies and curriculum development initiatives to integrate IK in LIS education in a methodical, moral, and community-engaged manner, going beyond symbolic inclusion.

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Appendix: Structured Questionnaire

- Q1. Are you aware of Indigenous Knowledge (IK)?
- Q2. Do you believe that IK is valuable in preserving varied cultures and assisting society in respecting one another's cultures?
- Q3. Do you think IK has become marginalised and requires preservation and documentation?
- Q4. Is IK education in LIS schools necessary?
- Q5. If IK is to be included in the LIS curriculum, in what ways do you believe it could enrich the curriculum?
- Q6. Do you think that the integration of IK into the LIS curriculum should be a priority for your institution?
- Q7. Are librarians responsible for preserving IK like any other type of information?
- Q8. How do you perceive the role of library professionals in shaping the LIS curriculum?
- Q9. How can libraries support and promote the recruitment and retention of Indigenous librarians?
- Q10. To what extent is IK currently included in the LIS curriculum at your institution?
- Q11. Do you think inclusion of IK in LIS syllabus will help students to perform services not only in libraries but in museums and archives as well?
- Q12. Do you believe that integrating Indigenous Knowledge (IK) into the curriculum would better prepare LIS professionals to serve diverse communities, including Indigenous populations?
- Q13. What policy changes do you think are necessary for IK integration in LIS curriculum?
- Q14. What are the problems faced in incorporating IK in LIS Curricula across India?
- Q15. What steps need to be taken for keeping and maintaining IK in the curriculum?