

**Application of Kulthau's Information Search Theory in Enhancing Library User
Education among Postgraduate Students in a Selected Nigerian University**

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Abstract

Effective library user education is crucial for promoting information literacy among postgraduate students in today's dynamic academic environment. This study qualitatively investigates the application of Kuhlthau's Information Search Process (ISP) theory within Library User Education (LUE), focusing on ten postgraduate students from the Department of Information Management, Lead City University, Ibadan, Nigeria. Through in-depth interviews, the research explores students' cognitive and emotional experiences across ISP stages: initiation, exploration, formulation, and presentation during information-seeking tasks. Thematic analysis of the interview data reveals recurring patterns of anxiety, uncertainty, confidence-building, and reflective learning. Participants reported greater self-awareness in research topic development and enhanced ability to evaluate information sources after ISP-aligned sessions. The findings underscore the potential of ISP-based instruction to personalise LUE programmes and improve user engagement. The study concludes with recommendations for adapting qualitative, theory-driven approaches to user education in Nigerian academic libraries.

Keywords: Information Search Process (ISP), Carol Kuhlthau, Library User Education (LUE), Information Literacy, Information (seeking) behaviour

Introduction

Libraries have long stood as sanctuaries of knowledge. These are spaces where curiosity meets discovery, and where academic inquiry is nurtured into lifelong learning and professional growth (Moonasar, 2024). Yet, in today's information-saturated world, the simple act of "finding information" has become anything but simple. The explosion of digital resources and online databases has created a paradox: more access, but also more confusion. Users are often left overwhelmed, unsure of how to sift through the noise to find what truly matters (Onunka, Onunka, Fawole, Adeleke, & Daraojimba, 2023). Thus, library user education becomes not a mere orientation, but a transformative experience that equips users with the tools to navigate both physical and digital landscapes with confidence and clarity (Oyedokun, 2025).

Traditionally, library user education has focused on the mechanics: how to locate materials, use catalogues, and perform basic searches (Rathee & Sharma, 2024). While these skills are essential, they barely scratch the surface of what users truly need. Beneath every search query lies a complex web of emotions, uncertainty, frustration, even fear that can derail the research process before it begins (Trixa & Kaspar, 2024). Carol Kuhlthau's Information Search Process (ISP) theory offers a compelling lens through which to understand and address these challenges. By mapping the emotional and cognitive journey of information seekers, Kuhlthau reframes research not as a sterile task, but as a deeply human experience.

Kuhlthau's ISP theory outlines six sequential stages: Initiation, Selection, Exploration, Formulation, Collection, and Presentation, each marked by distinct emotional and intellectual shifts (Kuhlthau, 2010). What makes this framework powerful is its recognition of the affective dimension of research, especially in the early stages where ambiguity and doubt are most pronounced. By acknowledging these emotional states, librarians and educators can design user education programmes that do more than teach. These programmes can transform fear into curiosity, and confusion into clarity.

In this light, the ISP model becomes more than a theory. It becomes a roadmap for modern library instruction. It encourages structured inquiry, fosters self-reflection, and promotes active engagement with information (Caffrey, Lee, Withorn, Clarke, Castañeda, Macomber, & Kohn, 2022). When integrated into library training, ISP-based instruction does not just improve search skills, it cultivates critical thinking, nurtures confidence, and deepens the learner's connection to their research. This study explores how such an approach can reshape library user education for postgraduate students in Nigeria, making it not only more effective, but more empathetic and responsive to the real challenges users face.

Objectives of the Study

The objectives of this study are as follows:

1. to examine how postgraduate students experience the stages of Kuhlthau's Information Search Process (ISP) during academic research tasks;

2. to explore the influence of library user education (LUE) on postgraduate students' information-seeking behaviour and emotional responses across the ISP stages;
3. to assess the extent to which ISP-informed library instruction enhances students' ability to select appropriate research topics and evaluate information sources effectively;
4. to investigate postgraduate students' perceptions of library tools and resources;
5. to analyse how postgraduate students reflect on their research process after completing information-seeking tasks; and
6. to identify postgraduate students' recommendations for enhancing library user education programmes.

Literature Review

This literature review examines the theoretical foundations and empirical evidence supporting the application of Carol Kuhlthau's Information Search Process (ISP) model in the design and delivery of effective Library User Education (LUE) programmes. The ISP model emphasises cognitive, affective, and behavioural dimensions of information seeking, providing a comprehensive framework for understanding user challenges and developing targeted interventions to improve information literacy.

Kuhlthau's ISP model posits that information seeking is a complex, holistic experience characterised by varying stages of cognitive and affective states, rather than a linear, rational process (Kuhlthau, 2005). Six stages are identified by the model:

1. Initiation - The initial confusion

This is the moment when a person first realises they need information. It is often accompanied by vague thoughts and a sense of confusion or anxiety. Imagine a postgraduate student who has just been assigned a thesis topic, for example: "The Role of Indigenous Knowledge in Climate Adaptation." They feel overwhelmed. Where do they begin? What does "indigenous

knowledge” even encompass in its entirety? At this stage, the emotional tone is uncertain, and the need for direction is high.

2. Selection: The Influence of Guided Discovery

Here, the individual begins to define the general area of focus. They scan available resources, weigh options, and settle on a specific angle. A student decides to narrow the topic to how indigenous farming practices in Nigeria contribute to climate resilience. There is a slight lift in confidence, but still a lingering doubt about whether this is the “right” path. The selection process is both intellectual and emotional, balancing curiosity with fear of making the wrong choice.

3. Exploration - From Chaos to Strategy

This is often the most chaotic phase. The student goes into literature, reads conflicting viewpoints, and discovers unfamiliar terminology. They might stumble upon articles that challenge their assumptions or raise new questions. Emotionally, this stage is marked by confusion and frustration. But it is also where deeper understanding begins to form, even if it feels like they are going in circles.

4. Formulation - The moment of insight

After wrestling with the chaos, the student starts to see patterns. They refine their research question: “How do indigenous yam cultivation techniques in Kwara State reflect adaptive strategies to changing rainfall patterns?” Now, the fog begins to lift. Confidence grows. They can articulate their focus clearly and begin to see how the pieces fit together. This is the turning point, where uncertainty transforms into purpose.

5. Collection - Gathering with Intent

Armed with a clear direction, the student now searches with precision. They collect relevant articles, conduct interviews, and organise their findings. The emotional tone shifts to

satisfaction and control. They are no longer just browsing. They have started the process of building new knowledge. Every source feels like a puzzle piece falling into place.

6. Presentation - Sharing the Journey

Finally, the student compiles their work into a coherent narrative. It could be a research paper, presentation, or thesis. They reflect on the process, polish their arguments, and prepare to share their insights. There is a sense of accomplishment, but also a touch of nervousness. After all, presenting research is not just about facts, it is about telling a story that others can understand and learn from.

Empirical Studies on ISP in Information Seeking Behaviour

Empirical research on Kuhlthau's Information Search Process (ISP) has consistently validated its relevance across diverse contexts, demonstrating that information seeking is not merely a technical exercise but a deeply emotional and cognitive journey. Numerous studies have explored how users, who could be either students, professionals, or everyday information seekers experience uncertainty, confusion, and eventual clarity as they navigate the stages of the ISP model. These emotional transitions are not confined to academic environments; they are echoed in workplace research, healthcare decision-making, and even casual online searches (Ha et al., 2024; Anderson, 2006).

One of the most striking findings across these studies is the persistence of emotional turbulence during the early stages of information seeking. Ha et al. (2024) observed that students often grapple with ambiguity and doubt during the initiation and exploration phases, which can significantly hinder their engagement with information. Anderson (2006) similarly documented the presence of "uncertainty in action," noting that even experienced researchers encounter emotional roadblocks when faced with unfamiliar topics. These findings reinforce Kuhlthau's assertion that affective experiences are central to the search process and must be acknowledged in any instructional intervention.

Building on this foundation, Celestin (2025) emphasised the importance of emotional and cognitive support systems particularly within library environments to help users navigate these challenges. His work suggests that when librarians provide timely guidance and empathetic feedback, users are more likely to persist through confusion and develop meaningful insights. This aligns with Ahmed's (2025) study, which explored the emotional journey of doctoral students and found that structured support, including gamified learning and peer mentoring, significantly improved information-seeking outcomes.

Moreover, the generalisability of the ISP model has been affirmed through its application in non-academic settings. Ahmed (2025) highlighted how professionals in fields such as law, medicine, and business exhibit similar emotional patterns when conducting complex searches. These parallels suggest that the ISP framework is not limited to student populations but can inform broader strategies for information literacy training across sectors.

Taken together, these studies underscore the transformative potential of ISP-informed instruction. They advocate for a shift from purely skill-based training to a more holistic approach that integrates emotional awareness, cognitive scaffolding, and reflective practice. For library user education programmes especially in Nigerian higher education institutions, this means designing interventions that not only teach how to search but also support users through the psychological demands of the search process. By embedding ISP principles into curriculum design, librarians can foster resilience, deepen engagement, and ultimately empower users to become confident, independent researchers. (Ha, Chen & Park, 2024; Anderson, 2006).

Library User Education Programmes in Higher Education Institutions (HEIs) in Nigeria

Among other services, Library User Education (LUE) programmes are a critical component of the services provided in academic libraries of Nigerian higher education institutions (HEIs) (Olaniyi & Awujoola, 2024; Governor & Mesagan, 2024). LUE's programmes are designed to support the research, teaching, and academic pursuits of scholars, instructors, and students by providing them with access to, acquisition of, and utilisation of a diverse array of information

sources, both within and outside the library. The ultimate goal is to foster the development of information literacy skills that facilitate independent learning.

LUE has traditionally been implemented in Nigerian higher education institutions in a variety of ways:

1. Orientation programmes: These are typically conducted at the commencement of the academic year for new students. A general library tour typically includes an introduction to the physical layout, basic rules and regulations, and an overview of available services.

2. Use of the Library as a G.S. Course: The majority of universities in Nigeria require the use of the library as a mandatory General Studies course with credit units. This offers a more structured and comprehensive introduction to basic research methodologies, information-seeking skills, and library resources. Lectures, practical training, online training through learning management systems (LMS), and assignments are frequently implemented to accomplish this.

3. Bibliographic Instruction: These sessions are typically more focused and are frequently customised to meet the specific needs of specific disciplines or research assignments. They may encompass expertise in citation management, the utilisation of specialised databases, advanced search strategies, and the evaluation of information sources.

4. Point-of-Use Instruction: This is a spontaneous process that takes place at the point of need, such as at the reference desk, where librarians offer immediate assistance to users who are having difficulty locating or utilising resources.

5. Library Guides and Handbooks: Printed or online guides and brochures are frequently provided to supplement formal instruction, providing a quick reference on library services and resources.

Challenges Faced by LUE Programmes in Nigerian HEIs:

Okunoye & Okunoye (2022) have noted that the implementation of LUE in Nigerian higher education institutions is confronted with substantial obstacles, despite its significant role.

Part of the challenges are enumerated as follows:

- **Inadequate Funding and Resources:** The funding of numerous academic libraries in Nigeria is insufficient, which frequently leads to a shortage of resources (both physical and electronic), an inadequate ICT infrastructure, and a lack of modern instructional tools (e.g., projectors, reliable internet access). This has a direct effect on the quality and comprehensiveness of LUE delivery.
- **Insufficient number of Professional Librarians:** There is frequently an absence of professional librarians who are fully trained and qualified, particularly those who possess the necessary skills and expertise in emerging information technologies. This can place a strain on the ability to provide LUE programmes that are both engaging and effective.
- **"One-Shot" Instruction Model:** The "one-shot" approach, which is particularly common in orientation programmes, restricts the depth and continuity of instruction. It is challenging to provide comprehensive coverage of intricate information literacy concepts and to offer continuous assistance as students advance through their research processes.
- **Curriculum Integration:** LUE courses are frequently offered in addition to the primary academic curriculum. This implies that these information literacy skills are frequently taught separately rather than being reinforced and applied within specific disciplines.
- **Student Attitude and Awareness:** The significance of LUE may not be fully understood by certain students, potentially resulting in low attendance or engagement. Additionally,

there may be a lack of awareness regarding the comprehensive array of library resources and services.

- **Infrastructure Deficiencies:** The delivery of ICT-driven LUE, which is becoming increasingly essential for the instruction of contemporary information retrieval skills, is significantly impeded by an unstable power supply and inconsistent internet access.

METHODOLOGY

A qualitative case study approach was adopted to explore how postgraduate students in Information Management at Lead City University experience the stages of Kuhlthau's ISP model within a Library User Education (LUE) framework. Ten postgraduate students were purposively selected based on their prior engagement with library user education sessions at the undergraduate level.

Data Collection

Semi-structured interviews were conducted with each participant. Questions focused on students' perceptions, emotions, strategies, and challenges at each ISP stage such as initiation, selection, exploration, formulation, collection, and presentation. Interviews lasted 30-45 minutes and were audio-recorded with consent. Verbatims of each participant were converted to speech using the Microsoft Office 365 in-built speech-to-text converter.

Data Analysis

Transcripts were manually coded using thematic analysis to identify recurring concepts and emotional patterns. Themes emerged around *information anxiety*, *strategy development*, *confidence building*, and *guided inquiry*.

Ethical Considerations

Informed consent was obtained from all participants. The anonymity and confidentiality of responses were ensured. This aligns with the study by Junça-Silva, Violante and Brito (2023).

Results and Discussion

Ten semi-structured interviews were analysed, and the results showed clear patterns in the cognitive, emotional, and behavioural experiences that Kuhlthau's ISP model explains. With the help of participant insights and illustrative quotes, themes were categorised under ISP phases. The findings indicate a progression from initial anxiety to the development of strategic learning, cognitive growth, and enhanced self-reflection. These stages are listed as follows:

1. The Fog of Beginning: The Initiation Stage

Most participants reported apprehension and confusion at the outset of their research projects. The early stages of academic research were characterised by a persistent sense of being overwhelmed, with many individuals indicating they felt unprepared and inexperienced.

"When the lecturer instructs me to "write on any topic," my mind abruptly ceases to function." There is a sense of panic, which is similar to stage fright, but it is specifically related to reading. " – Participant 2

This anxiety and psychological distress are not uncommon. According to Kuhlthau's (1991, 2004) theory, the initial phase of the ISP is characterised by a lack of confidence and a hazy or perplexed understanding. The fear of not being able to use and become accustomed to library resources is a common issue, particularly for postgraduate students unfamiliar with advanced research methods, as Mellon's (1986) study on library anxiety revealed.

During Library User Education (LUE) sessions, participants reported relief upon recognising that their emotional challenges were acknowledged as integral to the learning process. These sessions reframed confusion as a basis for academic development rather than as an obstacle.

2. Topic Selection: The Influence of Guided Discovery

Selecting a research topic was often described as complex, requiring the refinement of broad interests into specific research questions. Most students attributed their increased clarity to structured Library User Education (LUE) sessions and librarian guidance.

"I intended to compose an article regarding mobile technology; however, the subject matter was exceedingly vague. I was introduced to a database by a librarian colleague, which proved advantageous. I ultimately selected mobile information systems." - Participant 6

The literature places a significant emphasis on the role of librarians as academic counsellors. Yan, Zhang, Zha, Jiang, Qin and Li (2017) emphasised the impact of the quality of the information and mediation on the capacity of students to identify viable research topics. Consequently, library staff are no longer passive observers or bystanders; they are now actively engaged in the information-seeking process, assisting students in transitioning from reluctance to confident guidance. Thematic patterns indicate that students who engaged in one-on-one discussions were more inclined to generate subject ideas. This research corroborates Kuhlthau's (2008) assertion that guided inquiry is a method for fostering greater cognitive engagement in research methodologies.

3. Exploration Stage: From Chaos to Strategy

After selecting research topics, students entered the exploration phase. Information overload often diminished initial enthusiasm. Reduced engagement was attributed to the high volume of articles, conflicting data, and unfamiliar terminology.

"I entered my subject matter into Google Scholar and received thousands of results. I was unsure of what to believe, what to read, or what was sufficient." - Participant 7

Edwards & Kelly (2016) also documented this disorientation or lack of focus, which is central to Kuhlthau's ISP model. They observed that search fatigue is a genuine obstacle to information engagement. The research determined that students' search protocols were gradually developed as a result of the instruction of strategic concepts and instructions in LUE sessions, such as the application of filters in academic databases or the use of Boolean operators.

During the exploration stage, students learned to refine search queries, experiment with keywords, and identify reliable information sources. These activities resulted in measurable improvements in information-seeking skills.

4. The Moment of Insight: The Formulation Stage

Several participants identified a pivotal moment in their information search, often linked to the systematic organisation of research ideas or the discovery of a highly relevant article.

"It was not until I encountered a conceptual map in a single paper that everything began to make sense." - Participant 10

A transition from uncertainty to certainty occurs at a specific point in Kuhlthau's formulation level. This is referred to as the "moment of insight" by Kuhlthau (2025), during which students are able to convert their fragmented, incomplete, and disjointed data into a coherent understanding. Student engagement with information became increasingly critical and purposeful, as they began to demonstrate conceptual clarity at this juncture.

5. Information Literacy in Action: Collection and Evaluation

Upon gaining confidence in their direction, students transitioned into the collection phase, which was characterised by heightened evaluative rigour and discernment. The CRAAP test, a framework for evaluating sources based on pre-defined understanding of the acronyms Currency, Relevance, Authority, Accuracy, and Purpose, was cited by many as instrumental.

"Previously, I used whatever resources I could find." I will abandon it if it fails the CRAAP test. - Participant 1

This stage demonstrated an increasing sense of academic integrity and information literacy, which aligns with Bennett and Abusalem's (2024) emphasis on providing students with evaluative tools. Additionally, students began to implement citation management software, including Mendeley and Zotero, which improved their professionalism and efficiency. The analysis demonstrated a robust correlation between enhanced confidence in the selection and organisation of credible materials and profound engagement with library resources.

6. The Hidden Curriculum of Affective Learning: Emotional Transitions

The research identified a progression of emotional states among participants, beginning with stress and confusion and culminating in greater confidence, curiosity, and satisfaction.

"Initially, I experienced feelings of inadequacy." However, it subsequently evolved into a game. I was aware that I needed to establish connections and resolve issues. I felt a sense of accomplishment and pride in my accomplishments at the conclusion." – Participant 4.

Kuhlthau's notion that the ISP is not merely cognitive, but also affective, is substantiated by this shift in thought process. Dahlqvist (2024) contended that affect is essential in the development of user satisfaction and perseverance. Participants who received empathetic guidance from librarians and had access to peer reflections and support groups were more successful in overcoming emotional obstacles.

The data suggest that student engagement and resilience are significantly improved when Library User Education (LUE) includes affective support such as open dialogue, feedback, and validation.

7. Preferences and Gaps in Tool Engagement

Online Public Access Catalogue (OPAC) systems, academic databases such as EBSCOhost, and digital research guides were frequently identified as central to the workflow processes of participants. Nevertheless, a number of students reported that they neglected to utilise resources that were not as widely publicised, including institutional repositories and grey literature databases.

"The library's research guides were only discovered at a later date; it would have saved me time and stress if I had been aware of them sooner." - Participant 5.

Library User Education (LUE) sessions that incorporated hands-on discovery activities significantly influenced the adoption and effective use of research tools.

Participants indicated that they preferred interactive instructional sessions, structured resource guides, and demonstrations of library tools. These techniques enabled more efficient navigation of electronic resources.

8. Metacognitive Development and Reflection

Following the completion of their research, students engaged in a diverse array of activities that demonstrated their increased awareness. Participants identified the challenges they encountered, described effective strategies, and devised plans to enhance future research processes.

“Next time, I will begin with a draft outline, dedicate additional time to the refinement of keywords, and consult with the librarian.” - Participant 9

The emergence of self-directed learning, planning foresight, and adaptive research strategies is emphasised by this final stage, which parallels Kuhlthau's presentation phase. The significance of reflection in developing lifelong learning habits is affirmed by Nobutoshi's (2023) research on metacognition.

9. Recommendations for the Improvement of LUE

Participants suggested that student engagement and retention would improve if multiple Library User Education (LUE) programmes were implemented throughout their academic training.

“Library education should not be conducted in a single session. We require follow-up workshops, peer groups, and potentially research clubs.” - Participant 3

This is consistent with Locker and Whelan's (2024) advocacy for integrating information literacy instruction into academic curricula. Students desire contextualised learning that is integrated into their postgraduate experience and is customised to their research timelines and disciplines (Ahmed & Agosto, 2024).

Implications for Theory and Practice

The application of Kuhlthau's Information Search Process (ISP) model to improve library user education (LUE) programmes has substantial implications for both library and information science theory and professional practice.

Implications for Theory

- i. **The operationalisation of the ISP Framework in LUE Design:** This investigation confirms that Kuhlthau's ISP theory is not only descriptive but also pedagogically applicable. It enables educators to anticipate emotional and cognitive shifts, thereby customising support to align with the changing needs of learners, by incorporating it into the framing of library instruction.
- ii. **Broadening the Affective Turn in Information Behaviour Research:** The necessity of theoretical models that more deliberately incorporate affective dimensions is emphasised by the strong presence of emotion at every stage. It corroborates Nahl's (2007) assertion that emotional literacy should be prioritised in the discourse of information science.
- iii. **Integrating Implicit and Explicit Knowledge Structures:** Participants' recognition of ISP stages despite their lack of prior exposure indicates that users intuitively internalise structured research processes. This raises theoretical questions regarding the development of schemas, the use of reflection prompts, and the potential for information literacy frameworks to adapt to tacit learning.

Implications for Practice

- i. **Developing Emotionally Responsive Instruction:** Librarians and educators should incorporate affective checkpoints into their instruction, acknowledging student anxiety, validating confusion, and celebrating moments of clarity and understanding. This results in safer and more productive learning environments.
- ii. **Integrating Theory into Instructional Practice:** In user education sessions, ISP stages should be explicitly discussed and visually represented to enable students to familiarise themselves with a structured process. This fosters self-regulation and reflection.
- iii. **Prioritising Tool Fluency over Tool Familiarity:** Instruction should transition from the introduction of resources to the development of strategic competence, which involves

instructing students on the why, how, and when to employ specific tools in specific research environments.

iv. Longitudinal Integration of LUE: While one-time LUE sessions may provide temporary relief, sustainable information literacy necessitates consistent engagement across programmes. Semester-based instruction, mentorship schemes, and library-integrated coursework are all proposals that institutions should seriously consider.

v. Fostering a Reflective Research Culture: In order to cultivate reflective habits and promote the development of metacognitive skills, librarians should implement journaling, peer debriefing, and post-search analysis exercises.

Limitations and Areas for Future Research

While the study provides valuable insights, its small sample size and focus on a single institution restrict generalisability. Future research should include cross-institutional comparisons, employ mixed methods, and assess the long-term effects of Library User Education (LUE) on postgraduate performance, as well as exploring the application of the ISP model in other Nigerian universities and among different user groups, including undergraduates, faculty, and non-academic users. Comparative studies could also examine how cultural and institutional factors influence the emotional dynamics of information seeking.

Conclusion

This study provides a comprehensive analysis of postgraduate students' academic research experiences from the perspectives of Kuhlthau's Information Search Process (ISP) theory and Library User Education (LUE). Thematic analysis of a sample of 10 students from Lead City University's Department of Information Management revealed the behavioural, cognitive, and emotional aspects of information-seeking.

The library provided a thorough educational setting that promoted the growth of research skills, intellectual maturity, and critical scholarship. Library User Education (LUE) sessions, which combined active support, theoretical frameworks, and empathy, successfully addressed emotional challenges and information overload. The results show that the process of moving from fear to confidence and from uncertainty to clarity is iterative and heavily impacted by affective elements. By addressing emotional ambiguity, using instructional support, and progressively improving their critical thinking abilities, judgement, and awareness, students progressed through the ISP phases.

Recommendations

Based on the findings of this study, several recommendations are proposed to enhance the effectiveness of library user education programmes, particularly in Nigerian higher education institutions:

1. Integrate ISP-Based Instruction into Library Curricula

Library user education should move beyond procedural training and embrace the emotional and cognitive dimensions of information seeking. Incorporating Kuhlthau's ISP model into instructional design will help students navigate uncertainty, develop critical thinking, and engage more deeply with their research topics.

2. Train Librarians in Affective and Cognitive Support Strategies

Librarians should be equipped not only with technical expertise but also with the skills to recognise and respond to the emotional states of users during the search process. Professional development workshops and in-service training should include modules on affective support, empathy, and inquiry-based learning.

3. Develop Structured, Stage-Based Learning Interventions

Educational programmes should be designed to align with the six stages of the ISP model. For example, early-stage interventions might focus on topic selection and managing uncertainty, while later stages could emphasise synthesis, evaluation, and presentation. This scaffolding approach ensures that students receive targeted support at each phase of their research journey.

4. Encourage Reflective Practice Among Students

Students should be encouraged to reflect on their information-seeking experiences, including the emotional highs and lows. Journaling, guided reflection prompts, and peer discussions can help normalise the challenges of research and foster resilience.

5. Leverage Technology to Support ISP Implementation

Digital tools such as learning management systems, online tutorials, and interactive search guides can be used to reinforce ISP principles. These tools should be designed to guide students through each stage of the process, offering both instructional content and emotional reassurance.

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Interview guide for research on Postgraduate students and Kalthau's ISP Theory and their use in Library User Education

Introduction:

We are a group of researchers interested in learning about your experiences with Library User Education (LUE) especially in relation to how you search for and manage information during academic tasks. Your responses will help us understand how we can improve library support for postgraduate students. Please be informed that your anonymity and confidentiality of responses are protected.

Thank you for participating in this study.
Researchers

1. Initiation Stage:

“Can you describe how you usually feel at the beginning of a research assignment or academic project?”

2. Topic Selection:

“How do you go about choosing a topic or direction for your research? What role does the library play in that decision-making?”

3. Exploration Stage:

“What challenges do you face when starting to look for information on your chosen topic?”

4. Formulation Stage:

“At what point do you begin to feel confident or certain about what you are researching? What triggers that shift?”

5. Resource Evaluation:

“How do you decide which information sources are reliable or useful for your project?”

6. Emotional Journey:

“How do your emotions change as you move through the different stages of searching for information?”

7. Use of Library Tools:

“What library tools or resources do you find most helpful during your research process, and why?”

8. Role of the ISP Framework:

“To what extent did your user education sessions explain or reflect the ISP model's stages (even if indirectly)? Did it help you organise your thinking?”

9. Post-Search Reflection:

“After completing your research, do you reflect on what worked well or what you might improve next time? If so, how?”

10. Recommendations for Improvement:

“What suggestions would you make to improve future library user education programmes for postgraduate students?”

Thank you

Okhakhu David

Dunmade Aderinola Ololade

Akinade Funmilola Abosedo

Dosunmu Kehinde Paul

Moronfolo Funso Segun

Odebunmi Bolanle Faderera