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DIGITAL TRAINING REQUIREMENTS FOR REFERENCE AND INFORMATION SERVICES IN ACADEMIC LIBRARIES IN BENUE STATE

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ABSTRACT

Digital reference services allow Academic libraries to help users locate, evaluate and access information through email, web forms, chat and other remote channels. Their quality depends on librarians' search and communication skills, the design of service workflows and the infrastructure available to staff and users. This conceptual article examines digital training requirements for Academic libraries in Benue State, Nigeria. It draws on selected Nigerian library and information science literature and professional guidance to connect training priorities with recurring reference tasks and institutional constraints. The synthesis identifies six competency areas: digital reference interviewing and communication, search and source evaluation, electronic resource access and troubleshooting, accessible service design, privacy and responsible automation, and service assessment. It proposes a phased programme that starts with a needs assessment and a staffed asynchronous service, then adds channels as staff coverage and infrastructure permit. Performance tasks, mentoring and service reviews provide evidence of whether librarians can apply what they learn. The framework offers Academic librarians and administrators a basis for planning training and testing service improvements under local conditions.

Keywords: digital reference services, academic libraries, librarian training, digital competencies, Benue State, Nigeria

Introduction

A Academic library's digital collection can be extensive while its users still struggle to find and use relevant material. A postgraduate student who cannot open a database article off campus may need help with authentication, an alternative route to the full text or guidance on finding a comparable source. A student preparing a first literature review may need assistance turning an assignment into searchable concepts. In both situations, access to a website or catalogue is only the starting point. The librarian must establish what the user needs, choose an appropriate source or service and explain the next step in terms the user can follow.

Digital reference extends that work to email, web forms, live chat, telephone and video.

Across these channels, the core responsibilities remain recognisable: clarify the question, conduct or guide a search, evaluate the results and check whether the user can proceed. Remote delivery adds practical decisions about accessibility, identity verification, response time, channel selection and follow-up. Professional guidance treats inclusion, effective searching and appropriate closure as integral to reference service (International Federation of Library Associations and Institutions [IFLA], n.d.; Reference and User Services Association [RUSA], 2023). Training therefore needs to connect technical operation with the judgement required in a reference interview.

Nigerian discussions of reference services have identified a need to strengthen digital skills as library work increasingly includes remote interactions (Awogbami, 2024; Onakoya et al., 2023). Work in North-Central Nigeria also points to the relationship between staff capacity and the conditions in which digital resources are made available (Isaac & Aboh, 2023). In Benue State, Obande and Ayongo (2024) examined electronic information resource access from the perspective of postgraduate students and recommended attention to staff training and supporting facilities. Their study helps frame questions about user assistance in the state. The specific training needs of each library still require a local assessment.

This article brings together three concerns raised in the source manuscript: the modes and benefits of digital reference, the competencies and training methods needed to deliver it, and the organisational constraints that can prevent staff from applying new skills. It translates these concerns into an implementation framework for Academic library managers, reference staff and professional development coordinators. Benue State is the setting for the proposed application.

Statement of the Problem

Academic users increasingly encounter reference problems that span more than one system. Finding a citation in a discovery service may lead to a subscription platform, an institutional sign-in page and, eventually, a request for help with access. A librarian may know how to use each platform individually and still need practice diagnosing where the process has failed for a user on a mobile device. The same is true of searching: knowing how to operate a database interface does not establish that a librarian can turn an imprecise question into an effective search or explain how to refine it. Training for digital reference should therefore be framed around the tasks staff are expected to complete during an encounter.

Reports from Nigerian higher education identify recurrent constraints, including funding limitations, interruptions in power and subscription costs (Isaac & Aboh, 2023). Obande and Ayongo (2024) likewise direct attention to facilities and librarian capacity in relation to postgraduate access in Benue State. These conditions complicate the distinction between a training need and a service dependency. A librarian who cannot retrieve an article may need instruction in database navigation, an institutional account with the correct permissions, a working connection or some combination of these. Sending staff to a workshop will have limited effect if they return to a desk with no dependable access to the systems on which they trained.

Service design can magnify these problems. A library may publicise several contact channels while leaving responsibility for monitoring and escalation unclear. Users may then send the same inquiry to multiple places, and staff may handle each message in isolation. Equally, an institution may measure training by attendance and digital reference by the number of messages handled. These measures leave unanswered whether staff

can resolve realistic queries, whether users can act on the advice and whether the service can recover from an outage.

The problem addressed here is how Academic libraries in Benue State can identify training priorities and link them to realistic service standards and institutional support. The article examines the competencies needed for common digital reference encounters, the methods through which staff can acquire and apply those competencies, and the evidence library managers can use to evaluate the programme. It also identifies where infrastructure, staffing or policy decisions are required to support the training.

Scope and Approach

The paper is a conceptual synthesis informed by the supplied manuscript, selected Nigerian studies and professional guidance on reference work and continuing development. Nigerian sources inform the discussion of reported skills, access barriers and local service conditions. Professional guidelines inform the proposed service behaviours and training practices. The synthesis is organised around the sequence of a reference transaction, from receiving a question to documenting and evaluating the response. The tables operationalise that sequence into practice tasks, responsibilities and evaluation measures.

The selection was purposive and the discussion is narrative. The proposed framework has yet to be tested in the institutions for which it is intended. Existing empirical findings are attributed to their study settings. References to Academic libraries in Benue State establish the intended setting for implementation and future evaluation.

Digital Reference Channels and Resources

Asynchronous assistance

Email and web forms allow users to submit inquiries outside staffed hours and give librarians time to investigate complex questions. A form can request the inquiry, the user's preferred contact method and any relevant deadline. Optional fields about previous searches or an error message may help the librarian respond. A short acknowledgement should explain when the user can expect a substantive reply and where to turn for urgent technical problems.

An "Ask a Librarian" link can direct users to the shared queue from the library homepage, the catalogue or a subject guide. The queue should have assigned coverage and a distinction between pending, referred and resolved inquiries. For example, a request for a particular article may be resolved by identifying a permitted copy or by explaining the document delivery route. An email exchange about a broad research topic may require an initial clarification and a follow-up consultation. Both can enter through the same channel while receiving different types of support.

A frequently asked questions page provides self-service support for recurring issues such as finding theses or opening licensed resources from home. Articles should point users to staff when the instructions fail. Assigning an owner and review date to each entry helps prevent obsolete screenshots or broken links from becoming a repeated source of inquiries. Staff can use recurring questions to identify which guides require changes or which platform instructions need a simpler explanation.

Synchronous assistance

Live chat and scheduled calls are useful when several rounds of clarification are likely. In a chat about a research topic, the librarian can propose initial keywords, share a short search and check the user's understanding in the same conversation. Telephone or video consultations may be appropriate when a user needs help navigating a complex interface.

Screen sharing requires clear consent and should be limited to what the user needs to show. Staff should have a way to continue by email or telephone when bandwidth is insufficient.

Live channels make staffing and handover more important. A small team can publish staffed windows and use the asynchronous queue outside those hours. During an interruption, a visible status message can explain how to continue and when users can expect further information. If instant messaging is used, an institutionally managed account and a documented handover process keep inquiries available to the staff assigned to respond. The suitability of a channel depends on the nature of the question, staffing and the access conditions of the users it serves.

Resources and access pathways

A reference collection in digital form includes catalogues, indexing and abstracting databases, electronic books and journals, institutional repositories, research guides and reliable open resources. Training should require staff to answer realistic questions with the sources they actually have permission to use. Staff should be able to distinguish a bibliographic record, an abstract, publisher-hosted full text and a permitted repository copy. When a requested item is unavailable, the response can explain authorised options such as an open version, interlibrary referral or a related source.

Repository records introduce a separate set of tasks. A librarian may need to check whether a thesis record includes the actual file, whether access is restricted and how the user should cite the item. Digital preservation and metadata practices influence which resources remain retrievable and intelligible over time (Obande et al., 2024). Reference training can therefore include the interpretation of repository records and the reporting of incomplete metadata or persistent links that no longer resolve.

Competencies for Digital Reference

Interviewing and communicating remotely

A librarian should be able to identify the purpose of a query, the audience for the information and any limits on time, geography, language or format. Questions such as what the user has already tried and how the information will be used can prevent an answer that is technically correct but poorly suited to the task. In text-based communication, a brief restatement gives the user an opportunity to correct misunderstandings. The response should conclude with a feasible next action or a clear explanation of what remains unresolved (RUSA, 2023).

Training can use anonymised scenarios that vary in complexity. One scenario might involve a first-year student seeking basic background material. Another might require a postgraduate student to refine a topic and distinguish peer-reviewed evidence from commentary. Staff should practise handling a request that falls outside the library's remit so that they can provide an appropriate referral and explain why the referral is useful.

Searching and evaluating evidence

Professional searching requires choosing a source, identifying concepts and synonyms, testing search terms, using field restrictions when appropriate and modifying a query based on the results. Database training should include a case in which the first search yields few results and a case in which it yields too many. Staff should be able to explain how they adjusted the query and help a user reproduce the search. Foundational office and internet skills are helpful, while the reference role also draws on database searching, file handling and communication across channels (Tsafa et al., 2024).

A librarian should be able to describe why a source is appropriate for the question and identify its limitations. Relevance depends on the research need, while evaluation can consider authorship, publication context, date, scope and the evidence presented. A response may provide a small set of sources and a brief explanation of how each could be used. This creates an opportunity for user instruction and makes the reasoning behind the recommendation visible.

Electronic resource access and troubleshooting

An access complaint should be investigated by checking the citation or link, the user's eligibility, the resource's coverage and whether the problem occurs on or off campus. Staff can practise distinguishing between a broken link, an expired session, a title outside the licence and a platform interruption. They should know when to refer an account or network issue to ICT staff and what information is needed to reproduce the fault. Reference staff should avoid asking users to disclose credentials and should guide them through the institution's approved sign-in process.

The practice environment should reflect local systems and devices. A training exercise can include an inquiry received from a mobile user who cannot open a large PDF. Staff should practise offering a lawful alternative or an accessible version if available. They should also document repeated access problems so that collection and ICT staff can identify a systemic issue.

Inclusive delivery and user instruction

The service should be usable by people with different devices, levels of connectivity and familiarity with library terminology. Staff can practise writing instructions with descriptive links, short steps and a text alternative to screenshots. When uploading a tutorial or a recording, they should check whether users can follow it without audio and whether an equivalent text guide is available. Instruction should be tailored to the user's immediate task, with a route to more detailed support for those who need it.

An accessibility check during training can compare a form on a desktop and a basic mobile screen. The reviewer can test whether the question is easy to submit, error messages are understandable and contact alternatives are visible. At service level, recurring access problems can inform revisions to the library website and the choice of channels offered. The goal is for a user to receive competent assistance even when the main platform is difficult to use.

Privacy and responsible automation

Reference inquiries can reveal a person's research interests, identity or personal circumstances. Staff need a shared understanding of what they should capture in the queue, what should be removed from training examples and who can see inquiry records. The library should agree with relevant Academic offices on retention and access procedures before transcripts are reused for assessment. Training exercises can use constructed cases or suitably de-identified examples.

Automation may be useful for acknowledging receipt, pointing to approved guidance or identifying common questions. It should provide an obvious route to a librarian. Before deploying an automated assistant, staff should test it against cases where the correct action is clarification, referral or escalation. Responses that include citations or access instructions require verification against reliable records and local service policy. Training should cover when to use automation, how to detect a wrong answer and who is responsible for correcting it.

Service assessment and continuous improvement

Staff need to distinguish between an inquiry received, one acknowledged and one resolved. An acknowledgement may tell a user the service is active while giving little information about whether the request was answered. A small set of measures can support improvement if the team agrees on their definitions and reviews the difficulty and consequences of outstanding cases. An example of a practical review is to ask whether an apparently resolved inquiry included an accessible resource and an explanation the user could follow.

Training Design and Delivery

Diagnose needs before selecting courses

The Academic Librarian can sponsor a needs assessment led by the head of reference with participation from staff responsible for electronic resources, ICT and accessibility. The assessment should combine staff self-ratings, a review of recurring inquiries and a small set of observed tasks. Staff may report confidence in a database while overlooking the authentication problems that frequently prevent off-campus use. Observation can identify where practice is needed and where the infrastructure itself blocks completion. IFLA's continuing professional development guidance supports needs-based objectives, hands-on learning and assessment (Varlejs et al., 2016).

Managers should separate competencies required of all reference staff from specialist responsibilities. Every librarian covering a queue should be able to acknowledge a question, conduct basic searches, follow the referral process and handle user details appropriately. A smaller group may manage electronic resource settings, analytics or the knowledge base. Clear role boundaries allow training to focus on what each person will use and help colleagues know when to call for support.

Combine guided practice with workplace support

Workshops can introduce concepts and allow participants to practise using the same tools. Mentoring and supervised shifts help staff apply the techniques when the inquiry is less predictable. A useful learning sequence is to demonstrate a task, have staff perform it independently, discuss alternative responses and observe a later attempt in a realistic setting. Self-directed courses can support revision where time, bandwidth and equipment permit. This combination reflects the original manuscript's emphasis on formal study, workshops, mentoring and peer learning (Awogbami, 2024).

The workload implications should be addressed before training starts. Staff need scheduled time for practice and coverage for their duties while attending. A mentor should have time to review responses, discuss decisions and record agreed support. Inter-Academic collaboration can make it feasible to share instructors or scenarios, with local follow-up on each institution's platform and subscription arrangements. Recognition can be based on demonstrated proficiency, contributions to the knowledge base or coaching colleagues. Attendance records serve a separate administrative purpose.

Assess competence through realistic tasks

A scoring guide can evaluate four elements across cases: clarification of the user's need, quality of the search or diagnosis, appropriateness of the response and handling of user information. Rubric categories such as requires support, performs independently and can coach others can guide feedback. A safe referral may be the appropriate outcome when a question falls outside the librarian's authority or the necessary resource is temporarily unavailable. The assessment should reward

staff for recognising those conditions and giving the user a workable next step.

Two reviewers can score a small set of the same responses and discuss differences before independent assessment. A delayed reassessment gives managers a clearer picture of whether skills transfer beyond the workshop. Where performance falls short, record whether the issue calls for further practice, improved access to systems or a change to service procedures. Training plans can then be revised using observed performance instead of repeating courses automatically

the volume and complexity of inquiries. Where staff numbers are limited, fewer published channels and reliable response windows may make coverage manageable.

Implementation in Benue State Academic Libraries

Establish institutional responsibilities

Digital reference should have a designated service owner and named responsibilities for scheduling, referral, monitoring and documentation. The Academic Librarian can approve the service scope and resource requirements. A reference coordinator can manage queue coverage, staff practice and inquiry reviews. Electronic resources and ICT staff can maintain an escalation route for login problems, subscription questions and outages. The arrangement should be recorded in a short policy and introduced during staff induction.

Funding decisions should reflect the costs of maintaining the service across an academic session, including connectivity, power, equipment maintenance, staff release time and technical support. The literature on electronic resource access in Benue State and adjacent settings supports considering these conditions alongside staff training (Isaac & Aboh, 2023; Obande & Ayongo, 2024). Locally, the Academic should estimate costs from the systems already available and from

Pilot a service before adding channels

A pilot can begin with an institutional email address or web form, an agreed response window, a rota and an escalation contact. A six-to-eight-week period is one option for observing inquiry patterns and testing coverage under normal workloads. The pilot team should review unanswered inquiries, authentication cases and referral delays, then revise the workflow with input from staff and users. During this phase, test access from off campus and on mobile devices and verify that a fallback channel is functioning.

Expansion to live chat or video should follow evidence of demand and an assessment of whether enough trained staff are available during the proposed hours. A service may benefit more from an additional email shift or improved troubleshooting guidance than from a new channel. Libraries can share staff training scenarios across institutions while retaining ownership of inquiries, user records and local service agreements.

Evaluate whether training improves service

Set a baseline before the pilot using a short staff performance exercise and a review of the existing inquiry process. During the pilot, report acknowledgement and resolution separately, alongside the share of cases reopened or transferred. Include a simple user feedback prompt about whether the response made the next step clear. Review a small, de-identified sample of responses for accuracy, relevance and accessibility. Numeric targets should reflect local staffing and user needs and can be revised after the first review.

Interpret service records in context. Longer resolution times may reflect a greater volume of complex questions or referral delays outside the reference desk. An increase in reported access

failures may occur because the new service makes them easier to report. Combining process measures with review of actual cases helps managers distinguish genuine deterioration from changes in the mix or visibility of inquiries. Competence assessment should be revisited when platforms, licences or channels change.

Discussion

The proposed framework links professional competence to institutional capacity. Training in search, communication and troubleshooting prepares librarians for common digital encounters. Its application depends on a service environment that provides staff with reliable access to resources, time for practice and clear roles. This interpretation connects discussions of professional competence (Awogbami, 2024; Tsafa et al., 2024) with reported constraints on resource use and service delivery in Nigerian Academic contexts (Isaac & Aboh, 2023; Obande & Ayongo, 2024).

The service model also makes digital reference an instructional opportunity. A well-structured response can help a user complete the immediate task while showing a reusable method for searching or accessing evidence. This instructional role is particularly important for users moving between a search engine, an academic database and a restricted publisher page. Its value can be assessed by examining whether users can repeat a procedure or recognise when to seek further assistance.

Three implementation priorities follow. First, test staff capability through the tasks users ask the library to perform. Second, assign responsibility for dependencies such as sign-in, connectivity, staffing and subscriptions so that operational failures receive a response. Third, collect enough evidence to judge whether a training investment changed staff performance or user experience. These priorities can guide libraries with different collections and staffing levels because each institution sets its own workload assumptions and access conditions.

Limitations and Future Research

The article draws on a selected literature base, and the strength of the evidence varies across professional guidelines, published studies and working papers. Findings from postgraduate students and reference librarians in other settings inform the choice of training domains. They do not establish the prevalence of a barrier in any particular Benue State Academic library. Local assessments should document the channels in use, staff coverage and the practical constraints relevant to each institution.

Future research could apply the competency tasks across participating Academic libraries and compare staff self-ratings with independently scored responses. A pilot evaluation could follow the same staff before training and after supervised implementation, with anonymised service data and user feedback. Studies should report participation, the scoring procedure and changes to infrastructure or workload during the evaluation. A comparative design would help determine which components are transferable and which require adaptation.

Conclusion

Digital reference service requires librarians to clarify inquiries, search and evaluate sources, diagnose access problems and communicate solutions through appropriate channels. In Benue State Academic libraries, a practical training programme should connect those activities with available systems, staffing, reliable power and clear referral arrangements. A needs assessment, supervised practice and a monitored asynchronous pilot provide an achievable starting point. Expanding services in response to evidence of user need and staff readiness can help universities use training resources where they have the most direct effect on service delivery.

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