

## **User Perceptions and Satisfaction with Library Reference Services at Panjab University Library: A Survey-Based Study**

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### **Abstract**

*This research explored the perceptions and level of satisfaction of the users with reference services offered by the A.C. Joshi Library at Panjab University, Chandigarh. A questionnaire-based survey was conducted among 221 respondents who were having a library membership and belonging to various departments to evaluate different dimensions of quality of reference services like staff behaviour, communication skills, resource referral, and user satisfaction. For this purpose, an online survey was conducted amongst undergraduate, postgraduate students and research scholars of Panjab University. The results reveal that 26.2% of the respondents were highly satisfied, 38.5% were satisfied, 26.7% were partially satisfied with reference services, whereas 5.4% of the respondents were unsatisfied with reference services. The major findings of this study reveal that respondents having a highly positive perceptions regarding staff behaviour, as 53.4% respondents find reference staffs were providing answers to their queries clearly and quickly and 52.9% respondents express that staff always allow the user to mention their request fully in front of them. Moreover, 45.2% of the respondents rated the quality of reference services consistently high. It is pertinent to mention that 12.2% never find encouragement from the reference staff to revisit again for further any other queries. This study reveals that users have positive perceptions of the library's reference services especially in terms of responsiveness, professionalism, and helpfulness of the staff members. However, areas like following up with the users after addressing their queries and persuading the users to use the reference desk again in the future need to be improved.*

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**Keyword:** Academic Library; University library; Reference services; User satisfaction; Library services; Information needs.

### **1. Introduction**

Libraries have always been the intellectual core of academic institutions as far as making scholarly information available to the academic community for use in teaching, learning, and researching is concerned. Out of the many services that libraries offer, reference services take centre stage due to the direct engagement between the librarian and user in finding, evaluating, and making good use of information. According to Reitz (2004), reference services are defined as the aid offered by the librarian to meeting users' information needs.

The rise of digital information, database, repository, and AI-based research facilities means that reference services have moved on from being solely face-to-face services to hybrid and

digital services. Modern academic libraries provide virtual reference services, online research consultations, research data support, and information literacy instruction through digital communication platforms among others.

Contemporary reference librarians are required to act in several capacities such as research consultants, information literacy trainers, digital resources promoters, and technological guides. They help users cope with the challenges of the increasingly complex digital environment, assess the credibility of sources of information, manage their research data, and use scholarly databases and automated research tools effectively. Therefore, the quality of the services provided by reference librarians is an important criterion of the effectiveness of the library in general (Corrall, 2023).

Service quality is usually perceived as one of the most important criteria for measuring the effectiveness of library service because it is an expression of users' perceptions of the degree to which the library service is responsive, competent, accessible, and useful to them. Regular assessments of users' perceptions are instrumental in helping academic libraries identify gaps in their service delivery processes.

Whereas several researchers have attempted to measure library service quality and patron satisfaction, the area of reference service satisfaction has remained comparatively under-researched, especially in the case of Panjab University. Hence, this research paper is intended to analyse the patrons' perceptions and satisfaction level about the reference services offered at the A.C. Joshi Library of Panjab University, Chandigarh.

## **2. About Panjab University Library**

### **2.1 Panjab University**

Founded in Lahore in 1882, Panjab University (PU) has a long history of striving for excellence in teaching and research in the humanities, social sciences, performing arts, sports, and science and technology. Under the general direction of Le Corbusier, Pierre Jeanneret created a stunning red sandstone campus for the Panjab University in Chandigarh, the recently constructed capital of Punjab. It was moved here between 1958 and 1960. The University had affiliated colleges throughout the states of Punjab, Haryana, Himachal Pradesh, and the union territory of Chandigarh, and it had regional centres in Rohtak, Shimla, and Jalandhar prior to Punjab's reorganisation in 1966 (Panjab University, n.d.). Panjab University is well known for its proficiency in the humanities, social sciences, science and technology, and performing arts etc. Panjab University has distinguished itself in addressing a range of societal requirements with its Chandigarh campus and around 200 institutions affiliated throughout Punjab and Chandigarh. There are about 74 teaching departments, institutes, centres, and four chairs on the university's main campus in Chandigarh. With an outstanding score of 3.68, Panjab University received the coveted A++ rating from the National Assessment and Accreditation Council (NAAC).

### **2.2 A.C. Joshi Library**

The A.C. Joshi Library is the main library of the Panjab University, Chandigarh, and offers all sorts of information services and resources to its students, researchers, faculty, and staff members. The library is situated in a five-storeyed building in the centre of the campus, with a seating capacity of about 1,000 readers. It holds more than 800,000 printed volumes, which

include 1,493 manuscripts, thus becoming one of the largest academic libraries in the region (Panjab University, 2026). The library is fully computerized and provides all sort of automated services like circulation services, self-issue and return of the book services. To count the number of library users and identify the users, Patron Traffic Counter (PTC) has been placed at the entrance of the library. At present, the library is subscribing to 219 printed and online periodicals, out of which some of the major journals are in printed form only.

The library makes available about 17 bibliographic and full-text database subscriptions that include Web of Science, Scopus, SciFinder, MathSciNet, and CMIE for teaching, learning, and research purposes. Access to more than 14,000 peer-reviewed electronic journals from 32 full-text journal databases is made possible through One Nation One Subscription (ONOS) facility and institutional subscriptions. Over 695,000 e-books are accessible via ProQuest, and an extra 4,000 e-books have been added from reputable academic publishers like Oxford University Press, Cambridge University Press, Sage, Pearson, McGraw-Hill, Cengage, Orient Blackswan, EBSCO, ASME, and ALA.

Being affiliated with DELNET and INFLIBNET, the library also offers Inter-Library Loan (ILL) and document delivery facilities. All the electronic databases subscribed to by the library can be accessed either from within the campus via the IP network of the university or from outside the campus using the PU e-Library. The library has also converted and uploaded 10,529 Ph.D. dissertations into the Shodhganga database. Moreover, the library is one of the six document delivery centres of INFLIBNET. In order to make sure that there is access to all kinds of information for everyone, the A.C. Joshi Library has set up a special facility for people who are visually impaired is located on the first floor of the library. The special facility has all kinds of software and equipment available for the visually impaired such as JAWS, Indo-NVDA software, Angel India Online Daisy Player, Orbit Reader 20, Kibo Scanner and HP Intel Core i5 (12th Generation) desktop systems.

### **2.3 Reference Section of A.C. Joshi Library**

One of the most crucial locations for patrons to directly communicate with library staff regarding their research needs, sources, databases, and documents is the reference section. The Library's hallmark is its personalised reference service. This service is available to everyone at the Library's First Floor Reading Hall Reference Desk. This service is offered for the whole twelve hours. Newly enrolled students participate in library orientation programs at the start of each academic term. Although there are reference desks in both the first and third floors of the reading halls, readers can ask any staff member for help.

**Figure 1: Reference Desk/Section of the library**



Readers are made aware of newly processed books through the dedicated area meant for the displays of the books near the library's entrance. In addition, the staff of Reference Section -1, under the supervision of Reference section In-charge, publicize information about these newly acquired books on the library's social media platforms, including Facebook, Instagram, and X (formally Twitter). Through a Reference Section Incharge-1, the Library also arranges books on interlibrary loan from other libraries based on specific requests made by the users (Panjab University, 2026).

### **3. Literature Review**

The topic of user satisfaction with library reference services has attracted sustained scholarly interest to many researchers since the 1970s, especially in North America and Europe, where studies have examined the quality, effectiveness and user perceptions of references in academic libraries (Hernon & McClure, 1987; Whitlatch, 1990; D'Elia & Rodger, 1994). Over the past two decades, this research has expanded significantly to developing regions, including South Asia, reflecting the growing emphasis on user-centered library services and service quality assessment in higher education (Aharony, 2009; Singh & Satija, 2020). Satisfaction can be generally defined as the extent to which a service meets or exceeds users' expectations, and it is a multidimensional construct influenced by service quality, personnel capabilities, resource provision and environmental condition (Parasuraman, Zeithaml, & Berry, 1988).

#### **3.1 Reference Service Quality Frameworks**

The SERVQUAL model developed by Parasuraman et al. (1988) has been widely used to assess service quality by comparing users' expectations with their perceptions. It is based on five service quality dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Further research in this area, like the LibQUAL+ model, has also attempted to apply this model to the specific context of libraries to measure user perceptions in comparison to minimum and desired service levels. In all studies conducted in Indian academic libraries using the LibQUAL+ model, it was found that service quality was lacking in some areas, especially in terms of the "effect of service" dimension, which includes the helpfulness, courtesy, and knowledge of the staff, availability of resources, and environmental comfort.

Nilsson, however, posits that service encounters related to reference services are essentially relational, with communicative competence and empathetic engagement playing key roles, rather than merely transactional information provision. This view resonates with earlier works by Ross and Dewdney (1998), who established active listening, active questioning, and follow-up as key elements of effective reference interviews. Reference service staff who exhibit this behaviour have been proven to enhance user satisfaction and minimize query failure rates (Dewdney & Michell, 1997).

Contemporary studies continue to identify SERVQUAL and LibQUAL+ as the dominant frameworks for evaluating library and reference service quality. These models assess service quality across dimensions such as affect of service, information control, library as place, reliability, responsiveness, and user expectations. Recent research also emphasizes the need to adapt these frameworks to evaluate digital and AI-enabled reference services in academic libraries. (Vaidya et al., 2022; Mamta & Kumar, 2024; Barfi et al., 2023; Tella, 2023).

### **3.2 User Perceptions about Academic Libraries**

In their study on User Perception and Satisfaction with Reference Services in University Libraries of Punjab in Pakistan finds that with the development of higher education and information technology, the use of reference services in libraries has come under greater scrutiny. Rehman et al. (2011) found that user satisfaction and effective utilization of library resources is an important issue in the field of librarianship, and this is where university libraries are focusing their attention on user needs and quality of service. It is a challenging task to provide quality reference service, and this requires constant feedback and evaluation.

In their study on academic library use in Malaysia and Singapore, Majid and Tan (2002) reported that user satisfaction is strongly correlated with staff responsiveness and ability to provide clear and accurate information. These results echo those reported by Nzivo and Chuanfu (2013) in their cross-cultural study on user satisfaction in Kenya and China. They concluded that interpersonal staff behaviours such as greeting, listening, and follow-up had the greatest impact on user satisfaction.

Baro et al. (2013) reported that younger users (<25) were generally more critical of service delivery than older users. In their user satisfaction survey at Nigerian university library settings, and they established that comprehensiveness of resources, attitude of staff, and comfort of environment were the key determinants of user satisfaction.

Bharti (2023) highlighted significant variation in user satisfaction across universities and emphasized the importance of understanding with reference services in public sector university libraries across India. Using a cross-sectional survey design, data were collected from 400 library users across 10 universities through a 25-item questionnaire. The respondents were categorized based on study level, library usage, and frequency of visits to the reference section, while ANOVA was applied to examine differences in satisfaction levels among universities. The study highlights that user perception and satisfaction are key indicators of effective library services. It also identifies significant differences in satisfaction levels across universities, emphasizing the need for library authorities to better understand user expectations and improve the quality of reference services.

### **3.3 Reference Desk Behaviour and Staff Competencies**

The behaviour of the reference staff at the point of delivery of the service is an important factor that determines user experience. Greeting the user, maintaining eye contact, allowing the user to complete his or her query before responding, and checking whether the query has been resolved are behaviours that are commonly linked to high satisfaction ratings in the literature on the reference encounter (Ross & Dewdney, 1998). On the other hand, behaviours such as those of reference staff who are seen to be disinterested, interrupt the user, and do not check to ensure that the query has been resolved are more commonly linked to user dissatisfaction, irrespective of the quality of information being provided.

The landmark unobtrusive studies by Crowley and Childers (1971) found that reference staff answered only about 50-55% of factual reference questions correctly. These findings were later popularised by Hernon and McClure (1986) as the “55 Percent Rule,” which stimulated extensive research on the quality and effectiveness of reference service. Although this figure has been disputed in the digital environment (Tenopir & Ennis, 2001), the significance of communication quality, user-centeredness, and staff training in the delivery of reference services has been reinforced.

Recent studies have reaffirmed that the effectiveness of reference services depends not only on the availability of information resources but also on the behavioural attributes and professional competencies of reference librarians. Empathy, effective communication, active listening, approachability and user empowerment have emerged as essential behavioural characteristics that enhance user satisfaction during reference interactions (VanScoy, 2021; Hu et al., 2022). Furthermore, the expanding scope of academic reference services requires librarians to possess competencies in information retrieval, digital reference tools, research support, data management, bibliometrics, and scholarly communication to meet evolving user expectations (Istiana, 2024; Tella, 2023).

### **3.4 Digital Transition and Changing User Expectations**

The shift from print-centric to digital-centric information environments has significantly impacted the information landscape of reference services. For example, online information databases, digital repositories, online journals, and institutional repositories have not only expanded the information landscape of reference services but have also impacted user information needs. Kesselman and Watstein (2009) noted that the competency of reference librarians in the information landscape includes their competency in traditional and digital information environments, where they act as information intermediaries, information instructors, and information navigators in the information landscape.

Recent studies indicate that academic libraries have increasingly transformed their reference services from traditional desk-based interaction to digital and virtual service models. Virtual reference services delivered through emails, chat platforms, social media, video conferencing and mobile applications have become integral components of academic library services, enabling users to access assistance regardless of time and location. Users increasingly expect immediate responses, remote access to information resources, personalized research support, and seamless digital experiences. Consequently, reference librarians are required to develop competencies in digital communication, online information retrieval, virtual user engagement, and technology mediated instructions (Mondal & Bhattacharya; Tella, 2023).

Although considerable research has been conducted on user satisfaction with reference services in academic libraries worldwide, literature specifically addressing the reference services of A.C. Joshi Library, Panjab University, is limited. This study aims to bridge the information gap by providing primary data from the user perceptions and satisfaction level of the representative community of the university.

## **4. Importance of this Study**

Despite the relevance of reference services, there is a very few numbers of empirical research on the perceptions and levels of satisfaction of users of the A.C. Joshi Library. Most of the studies carried out in academic libraries in India are concerned with the availability of resources and development of collections, and not the quality of human-mediated reference transactions. This is important because the satisfaction of users with reference services is not only dependent on the availability of resources but also on the interpersonal abilities and competence of library staff.

The current research fills this gap by carrying out a thorough survey of 221 library users at Panjab University to investigate their experiences with and attitudes towards reference services at the A.C. Joshi Library. The research assesses staff behaviour, communication styles, follow-up trends, source referral practices, and overall satisfaction levels of a

representative sample of users from various departments, programs of study, age groups, and both genders. By combining the results of the survey with comments from users, this study offers a rich description of the current situation with reference services and recommendations for improvement based on evidence.

The study is pertinent and significant for a number of reasons. First, as digital resources and virtual access tools are becoming more prominent, the expectations of the user in face-to-face reference interactions have undergone significant change. Secondly, as the student body at Panjab University comprises a heterogeneous group, it is imperative that the reference services structure is extremely competent. Finally, as the findings of the study have implications for library policy and professional development programs at A.C. Joshi Library, it is expected that it might be used as a model for other academic libraries in India.

## **5. Objective of the Study**

The research objectives for the current study are as follows:

1. To examine the overall satisfaction levels of the users regarding the services offered through the reference services at the A.C. Joshi Library, Panjab University.
2. To examine the user perception about the interpersonal skills and communication abilities of the reference staff at the library.
3. To identify the information sources most frequently referred to the users at the reference services.
4. Aim to examine the user perceptions across age, gender, and academic programmes.
5. To identify the areas for improvement in the delivery of reference services at the library.

## **6. Research Methodology**

### **6.1 Research Design**

The researcher used a descriptive survey research design. This research design is best suited to research that seeks to describe the features, views, and practices of a particular population (Nwana, 1981). Survey research design is commonly used in research in the field of library and information science to measure user satisfaction and service quality (Cullen, 2001). It helps in the collection of large amounts of quantitative data from a wide population.

### **6.2 Population and Sample**

The target population consisted of 12700 (Approx.) registered library members of the A.C. Joshi Library of Panjab University, Chandigarh which include undergraduate, postgraduate and research scholars. Surveying every single person who is registered members of the university library proved impractical. For calculating the sample size, formula given by Yamane (1967) was used. According to Yamane, table of sample size calculation with  $\pm 5\%$  precision level and 95 % confidence level, 398 sample size is appropriate number which can represent population of more than 50,000 users. However, the accessible population for this study comprised only those who fulfilled following criteria;

*Respondents had to (i) be registered members of A.C. Joshi Library and (ii) have visited the reference section with an academic query.*

A non-probability convenience sampling with purposive screening technique was employed. The sample included respondents from both genders, allowing gender perspectives to be represented. However, because a non-probability sampling technique was used, the findings should be interpreted with caution and cannot be generalized to the entire user population. The online questionnaire was prepared on google form, its link and QR code was generated than distributed through WhatsApp messages and QR code. Participation was voluntary. A total of 432 responses were received. Of these, 221 respondents confirmed that they had used the library's reference services and had visited the reference section with an academic query. Therefore, the final sample consisted of 221 respondents, including 111 (50.2%) females and 110 (49.8%) males.

### 6.3 Data Collection Instrument

The data collection instrument used was a structured questionnaire consisting of 19 questions divided into the following sections: (i) demographic information like name, email, age group, gender, department, and course, (ii) frequency of visiting the reference section, (iii) Likert scale-based questions to measure eight aspects of the reference staff's behaviour, (iv) types of information sources used by the patron during the interaction, and (v) overall satisfaction with the reference service. There was also an open-ended question to elicit additional comments and suggestions. The questionnaire was developed by consulting of the studies 'Evaluation of reference services in academic libraries: A comparative analysis of three universities in Nigeria (Aknor & Alhassan, 2015).

### 6.4 Data Analysis

The data collected through the questionnaire were entered into Microsoft Excel and analysed using descriptive statistics. Frequencies and percentages were calculated to summarise respondents' answers, and findings were presented in tables and charts.

### 6.5 Ethical Considerations

Also, anonymity of the respondent and data confidentiality were always ensured. The email addresses and names collected for administrative purposes were not used for the study. No personal identifying details are used in the results as shown below. The participation of the respondent was entirely voluntary, and they were made aware of the purpose of the study before they filled out the questionnaire.

## 7. Analysis of the data

### 7.1 Demographic Profile of Respondents

The sample survey elicited information from 221 library users, representing a diverse cross-section of the Panjab University community. The sample composition in terms of demographics is described in Table 1 and Figure 2.

**Table - 1: Demographic Profile of Respondents (N = 221)**

| Demographic Variables | Category    | Frequency | Percentage (%) |
|-----------------------|-------------|-----------|----------------|
| <b>Gender</b>         | Female      | 111       | 50.2           |
|                       | Male        | 110       | 49.8           |
| <b>Age Group</b>      | 16-18 years | 5         | 2.3            |

|  |                  |    |      |
|--|------------------|----|------|
|  | 19-21 years      | 80 | 36.2 |
|  | 22-25 years      | 78 | 35.3 |
|  | 26 years & above | 58 | 26.2 |

The sample composition reveals near-perfect gender balance, with females forming a slight majority at 50.2%. The gender balance makes the sample more representative for generalisation across gender lines. The two most prominent age groups are the 19-21 years group, comprising 36.2%, and the 22-25 years group, comprising 35.3%, collectively accounting for 71.5%. This is consistent with the university student population, which are predominantly young adults. Respondents aged 26 years and above constituted a significant proportion of the sample.

## 7.2 Distribution of Respondents by Academic Level

Figure 2 presents the distribution of respondents according to their academic level.

**Figure 2: Distribution of Respondents by Academic Level (N = 221)**

|                     |                                                                                    |            |
|---------------------|------------------------------------------------------------------------------------|------------|
| <b>UG Students</b>  |  | 98 (44.3%) |
| <b>PG Students</b>  |   | 70 (31.7%) |
| <b>PhD Students</b> |  | 53 (24%)   |

Out of 221 respondents, Undergraduate (UG) students constituted the largest group with 98 respondents (44.3%), followed by Postgraduate (PG) students with 70 respondents (31.7%). PhD scholars accounted for 53 respondents (24%) of the total sample. The findings indicate that undergraduate students formed the largest proportion of the respondents, while postgraduate and doctoral students also contributed substantially to the study. This balanced representation from different academic levels enhances the comprehensiveness of the findings by incorporating perspectives from users with varying academic and research information needs.

## 7.3 Consistency of Reference Service Quality

The respondents were also asked to assess whether they thought that the reference services were consistently of good quality. Table 2 below shows the frequency distribution of the respondents' answers to this question.

**Table - 2: Consistency of Reference Service Quality**

| <b>Response</b> | <b>Frequency</b> | <b>Percentage (%)</b> |
|-----------------|------------------|-----------------------|
| Always          | 100              | 45.2                  |
| Sometimes       | 92               | 41.6                  |
| Rarely          | 18               | 8.1                   |
| Never           | 10               | 4.5                   |
| No Answer       | 1                | 0.5                   |
| Total           | 221              | 100.0                 |

Most of the respondents, i.e., 45.2%, thought that the reference services were consistently of good quality, while 41.6% thought that the services were provided consistently, though not always. This makes up 86.8% of the total respondents, which is quite encouraging. However, the 8.1% of the total respondents who believed that the services were rarely used 4.5% users said that services were never consistent.

This is in line with the findings from other studies conducted in Indian academic libraries, where inconsistency in the quality of the services offered by the libraries was attributed to factors like staff rotation, workload, and lack of standardized reference service encounter protocol (Singh & Satija, 2009).

#### 7.4 Staff Behaviour and Interpersonal Competencies

Eight items measured user perceptions of specific staff behaviours that occurred during reference interactions. Table 3 shows the mean scores and frequency distribution of user perceptions of specific staff behaviours that occurred during reference interactions. Items are measured on a four-point scale ranging from Always = 4, Sometimes = 3, Rarely = 2, to Never = 1. The higher the mean score, the more positive the perception.

**Table - 3: User Perceptions of Reference Staff Behaviour (N = 221; \*Reverse-coded item)**

| Behavioural Dimension                        | Always        | Sometimes    | Rarely       | Never        | No Answer    | Mean Score |
|----------------------------------------------|---------------|--------------|--------------|--------------|--------------|------------|
| Greets through smile and eye contact         | 108<br>(48.9) | 65<br>(29.4) | 24<br>(10.9) | 17<br>(7.7)  | 7<br>(3.1)   | 3.23       |
| Appears uninterested in queries*             | 22<br>(10.0)  | 52<br>(23.5) | 51<br>(23.1) | 84<br>(38.0) | 12<br>(5.4)  | 2.06       |
| Understands information needs                | 94<br>(42.5)  | 69<br>(31.2) | 27<br>(12.2) | 5<br>(2.3)   | 26<br>(11.7) | 3.29       |
| Allows the user to mention the request fully | 117<br>(52.9) | 56<br>(25.3) | 21 (9.5)     | 6<br>(2.7)   | 21<br>(9.5)  | 3.42       |
| Answers questions clearly & quickly          | 118<br>(53.4) | 60<br>(27.1) | 25<br>(11.3) | 6<br>(2.7)   | 12<br>(5.4)  | 3.39       |
| Works to locate documents /resources         | 106<br>(48.0) | 64<br>(29.0) | 21 (9.5)     | 14 (6.3)     | 16<br>(7.2)  | 3.28       |
| Asks if query has been resolved              | 79<br>(35.7)  | 68<br>(30.8) | 30<br>(13.6) | 27<br>(12.2) | 17<br>(7.6)  | 2.98       |
| Encourages a revisit for further queries     | 89<br>(40.3)  | 49<br>(22.2) | 29<br>(13.1) | 27<br>(12.2) | 27<br>(12.2) | 3.03       |

Note: Number given in brackets represents percentage.

Several interesting trends can be identified in Table 3. First, the highest mean value is for the dimension 'allows user to mention request fully,' which equals 3.42. This may indicate that library professionals are, in general, patient and non-intrusive during the reference interaction-a key factor in effective query answering (Ross & Dewdney, 1998). Second, the dimension 'answers questions clearly and quickly' has the second-highest mean value, at 3.39, which speaks to the professional competency and information foundation of the librarian.

The item 'appears uninterested in queries' is a reverse-coded item, which means it is negatively worded. The average score for this item is very low at 2.06, while 38% of the respondents say the staff 'never' appear uninterested. This shows that most of the users have not experienced much staff disengagement. However, it is interesting to note that 10% say the staff 'always' appear uninterested, and 23.5% say 'sometimes.'

The two items that have the lowest average scores are 'asks if query has been resolved' and 'encourages revisit for further queries,' which have average scores of 2.98 and 3.03, respectively. These two items relate to the staff's behaviour after the query has been made. Although it is crucial for the staff to show interest in the user after the query, it seems that this is not being done as expected. Only 35.7% say the staff 'always' ask if the query has been resolved, while only 40.3% say they are 'always' encouraged to return for further queries.

**Figure 3: Overall Distribution – Allows User to Fully State Request (Highest Rated)**

| Response  | Distribution                                                                        | Frequency (%) |
|-----------|-------------------------------------------------------------------------------------|---------------|
| Always    |    | 117 (52.9%)   |
| Sometimes |    | 56 (25.3%)    |
| Rarely    |    | 21 (9.5%)     |
| Never     |   | 6 (2.7%)      |
| No Answer |  | 21 (9.5%)     |

## 7.5 Types of Information Sources Referred

Respondents were asked to identify the type of information source that library professionals referred them to. The respondents were allowed to provide multiple answers. Table 4 and Figure 4 show the number of times each source type was recommended to the participants. In table below the percentages are based on the total number of respondents ( $N=221$ ).

**Table - 4: Types of Information Sources Referred by Library Professionals ( $N = 221$ , multiple responses were allowed; therefore, percentage do not total 100%)**

| Source Type                                 | Frequency (mentions) | % of Respondents |
|---------------------------------------------|----------------------|------------------|
| Textbooks                                   | 97                   | 43.9             |
| General Collection                          | 77                   | 34.8             |
| Online Resources                            | 61                   | 27.6             |
| Reference Collection                        | 56                   | 25.3             |
| *Other Sources of Information               | 53                   | 24.0             |
| Periodicals (Journals/Magazines/Newspapers) | 49                   | 22.2             |
| Government Publications                     | 34                   | 15.4             |
| Catalogues                                  | 34                   | 15.4             |
| Foreign Language Books                      | 21                   | 9.5              |
| Archives                                    | 20                   | 9.0              |
| Abstracts and Indexes                       | 19                   | 8.6              |
| Bound Volumes                               | 9                    | 4.1              |

(\*Google, Wikipedia, Social media, AI tools)

The highest number of respondents referred to textbooks at 43.9%. General collection material was referred to by the second highest number of respondents at 34.8%, while online resources came in third at 27.6%. Reference collection material was also referred to by a high number of respondents at 25.3%, while periodicals came in fourth at 22.2%. It can also be seen that the respondents referred to a reasonably diverse range of material in their answers. It can also be seen that more specific resource types, such as abstracts and indexes, archives, and bound volumes, have been referred to at a relatively low rate. This may also have to do with the high number of undergraduates in the sample. It may also have to do with the relatively low use of specific resource types in general. It can also be seen that periodicals have been referred to at a low rate of 22.2%. This may be of some concern, given the importance of periodicals in research at the graduate and doctoral levels.

**Figure 4: Top 7 Information Sources Referred by Library Staff**

|                             |  |               |
|-----------------------------|--|---------------|
| <b>Textbooks</b>            |  | 97<br>(43.9%) |
| <b>General Collection</b>   |  | 77<br>(34.8%) |
| <b>Online Resources</b>     |  | 61<br>(27.6%) |
| <b>Reference Collection</b> |  | 56<br>(25.3%) |
| <b>Other Sources</b>        |  | 53<br>(24.0%) |
| <b>Periodicals</b>          |  | 49<br>(22.2%) |
| <b>Govt. Publications</b>   |  | 34<br>(15.4%) |

## 7.6 User Satisfaction with Reference Services by Demographic Characteristics

### 7.6.1 Overall Satisfaction by Academic Program

Table 5 presents the overall satisfaction of respondents with the reference services across different academic programs. Undergraduate students recorded the highest number of satisfied responses, with 42 respondents reporting they were satisfied. Among postgraduate students, 27 respondents were satisfied and 14 were very satisfied, although this group also reported the highest number of dissatisfied responses (11). PhD scholars demonstrated the highest level of positive perception relative to their group size, with 26 respondents reporting that they were very satisfied and 16 satisfied, while only one respondent expressed dissatisfaction. Overall, the findings indicate that users across all the academic programs were generally satisfied with the reference services, although postgraduate students exhibited comparatively lower satisfaction level than undergraduate and doctoral students.

**Table - 5: Overall Satisfaction by Academic Program**

| <b>Program</b>       | <b>Very Satisfied</b> | <b>Satisfied</b> | <b>Partially Satisfied</b> | <b>Dissatisfied</b> |
|----------------------|-----------------------|------------------|----------------------------|---------------------|
| Undergraduate (n=98) | 19 (19.4)             | 42 (42.9)        | 33 9 (33.7)                | 4 (4.1)             |
| Postgraduate (n=70)  | 14 (20)               | 27 (38.6)        | 18 (25.7)                  | 11 (15.7)           |
| PhD (n=53)           | 26 (49.1)             | 16 (30.2)        | 10 (18.9)                  | 1 (1.9)             |
| Total                | 59 (26.7)             | 85 (38.5)        | 61 (27.6)                  | 16 (7.2)            |

Note: Number given in brackets represents percentage.

### 7.6.2 Overall Satisfaction by Gender

Table 6 shows the distribution of overall satisfaction according to gender. Both male and female respondents expressed favourable perceptions of the reference services. Female respondents recorded a slightly higher number of “Very Satisfied” responses (32) than males (27), whereas male respondents recorded slightly more “Satisfied” responses (46) than females (39). Partial satisfaction was almost identical for the groups (32 males and 30 females). Dissatisfaction remained low among both genders, although it was marginally higher among female respondents (10) than male respondents (6). These findings suggest that user satisfaction with the reference services was generally consistent across gender, with no substantial variation in perception.

**Table - 6: Overall Satisfaction by Gender**

| <b>Gender</b>  | <b>Very Satisfied</b> | <b>Satisfied</b> | <b>Partially Satisfied</b> | <b>Dissatisfied</b> |
|----------------|-----------------------|------------------|----------------------------|---------------------|
| Male (n=110)   | 27 (24.5)             | 46 (41.8)        | 31 (28.2)                  | 6 (5.5)             |
| Female (n=111) | 32 (28.8)             | 39 (35.1)        | 30 (27)                    | 10 (9)              |
| Total          | 59 (26.7)             | 85 (38.5)        | 61 (27.6)                  | 16 (7.2)            |

Note: Number given in brackets represents percentage.

### 7.6.3 Overall Satisfaction by Age Group

Table 7 presents respondents’ satisfaction according to age group. Positive perceptions were observed across all age groups. Respondents aged 19-21 years recorded the highest number of satisfied responses 39 (48.8%), reflecting their larger representation in the sample. Respondents aged 26 years and above showed the strongest positive perception relative to their group size, with 24 (41.4%) reporting that they were very satisfied and only one respondent expressed dissatisfaction. Although respondents aged 22-25 years also reported generally favourable perceptions, this group recorded a lightly higher number of dissatisfied responses (6). The youngest age group (16-18) showed positive perception, with no respondents reporting dissatisfaction; however the small sample size (n=5) limits meaningful comparison. Overall, the findings indicate consistently positive user perceptions across different age groups.

**Table - 7: Overall Satisfaction by Age Group**

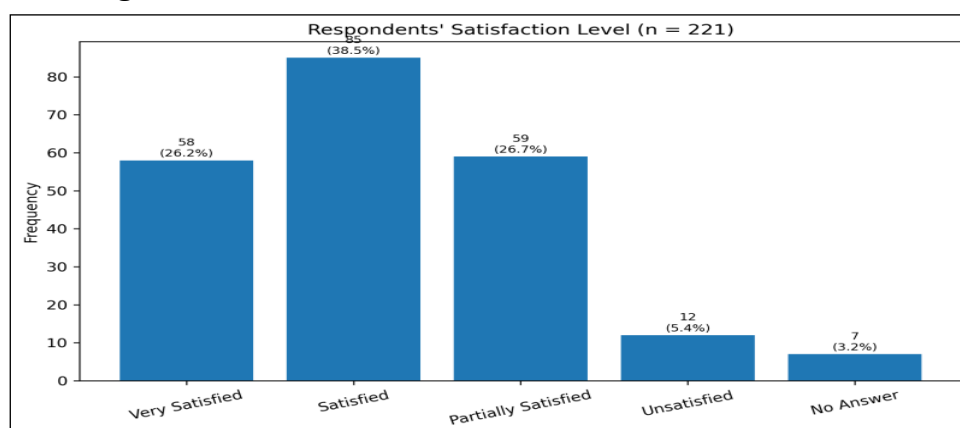
| <b>Age Group</b>        | <b>Very Satisfied</b> | <b>Satisfied</b> | <b>Partially Satisfied</b> | <b>Dissatisfied</b> |
|-------------------------|-----------------------|------------------|----------------------------|---------------------|
| 16-18 years (n=5)       | 2 (40.0)              | 3 (60.0)         | 0 (0.0)                    | 0 (0.0)             |
| 19-21 years (n=80)      | 17 (21.3)             | 39 (48.8)        | 20 (25.0)                  | 4 (5.0)             |
| 22-25 years (n=78)      | 26 (33.3)             | 29 (37.2)        | 17 (21.8)                  | 6 (7.7)             |
| 26 years & above (n=58) | 24 (41.4)             | 21 (36.2)        | 12 (20.7)                  | 1 (1.7)             |

Note: Number given in brackets represents percentage.

### 7.6.4 Overall User Satisfaction with Reference Services

For overall user satisfaction, respondents were asked to respond on a five-point scale. Figure 6 show the results for user satisfaction with respect to overall services provided by the A.C. Joshi Library.

**Figure 5: Overall User Satisfaction with Reference Services**



From the overall user satisfaction data, we find that 64.7% users are satisfied or very high satisfied with respect to overall services provided by the A.C. Joshi Library. This is a very good observation for any academic library. However, we find that 26.7% users are partially satisfied, and 5.4% users are unsatisfied. These users together form nearly one-third of users whose information needs are not being fully satisfied by the overall services provided by the library. We find that 26.2% users are very satisfied. These users might have had more sustained and positive experiences with respect to overall services provided by the library. But the real concern is that a larger percentage of users are partially satisfied. This suggests that overall services provided by the library are good but not exceeding user expectations, which is often associated with good academic library services (Hernon &Altman, 1998).

#### **7.6.5 Areas for Improvement**

The cross-tabulations suggest the following areas for improvement;

**1) Improve services for postgraduate students.**

- Postgraduate respondents reported the highest number of dissatisfied responses, indicating that their information needs may require more specialised support.
- Consider providing advanced research consultations, subject specific reference assistance, and greater support for dissertations and thesis work.

**2) Strengthen follow-up after reference consultations**

- This finding is consistent with the earlier results showing that staffs do not always confirm whether users' queries have been fully resolved.

**3) Enhance awareness and use of electronic resources.**

- Since textbooks remain the most frequently recommended source, greater emphasis should be placed on promoting scholarly databases, e-books, institutional repositories and other digital resources.

**4) Maintain consistency in service delivery across all user groups.**

- Although satisfaction levels are generally high, efforts should continue to ensure that users from different academic programs, genders, and age groups receive equally effective reference assistance.

**5) Introduce periodic user feedback mechanisms.**

- Regular satisfaction surveys and feedback forms can help identify emerging user needs and continuously improve reference services.

## 7.7 Qualitative Insights from User Comments

Open-ended comments made by respondents also added qualitative information to the quantitative results. Some major themes emerged from the thematic content analysis of the comments made by the respondents. A major number of respondents expressed their gratitude to specific named staff members, which reflected the personalized nature of their service. A respondent said, "Library staff are very helpful and motivating, they are always there to help you for all your requirements." They named professionals by name. This personalized nature of appreciation highlights the importance of the contribution of individual staff competencies to user satisfaction.

Appreciative comments also highlighted that the library offers "good service" and provides a "satisfactory" environment for research. Some research programme respondents highlighted the importance of online facilities and books in helping their research. Dissatisfied respondents also highlighted their perception of inadequate facilities and poor service quality. A critical comment, although made in a casual tone, reflected the frustration of the user over the inadequacy of the facilities.

Suggestions from respondents included increasing the variety of online database subscriptions, extending reference desk operating hours, improving digital navigation aids, and providing awareness sessions for new students on how to use reference services. These qualitative insights are consistent with findings from studies of academic library users in developing countries, where awareness and accessibility gaps often accompany structural resource limitations (Nzivo & Chuanfu, 2013).

## 8. Key Findings

The following are the key findings that can be derived from the analysis of the data gathered from the survey of 221 respondents from the A.C. Joshi Library, Panjab University.

**Table - 7: Summary of Key Findings**

| Objective                                                                                                                                                              | Key Findings                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. To examine the overall satisfaction levels of the users regarding the services offered through the reference services at the A.C. Joshi Library, Panjab University. | Users expressed an overall positive level of satisfaction with the reference services provided by the library.                                                                                                                             |
| 2. To examine the user perception about the interpersonal skills and communication abilities of the reference staff at the library.                                    | Users positively perceived the interpersonal skills and communication abilities of the reference staff. Staffs were considered courteous, attentive and capable of providing clear guidance in responding to the users' information needs. |
| 3. To identify the information sources most frequently referred to users at the reference services.                                                                    | Traditional print resources remained the primary sources recommended during reference transactions, although electronic resources also contributed to meeting user's information needs.                                                    |
| 4. To examine the user perception in terms of age, gender, and academic programs.                                                                                      | User satisfaction with reference services was consistently positive across age, gender and academic programs. However, PhD scholars and older respondents exhibited relatively higher satisfaction, while                                  |

| Objective                                                                                     | Key Findings                                                                                                                 |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
|                                                                                               | postgraduate students and the 22-25 years age group showed comparatively lower satisfaction, suggesting are for improvement. |
| 5. To identify the areas for improvement in the delivery of reference services at the library | Although users were generally satisfied with the reference services, post-reference follow-up was identified.                |

## 9. Conclusions and Recommendations

### 9.1 Conclusions

The present study examined users' perceptions and satisfaction with the reference services provided by the A.C. Joshi Library, Panjab University. Based on responses from 221 participants representing diverse academic departments, the study concludes that the library's reference services are generally well received by users. Staff responsiveness, the quality and relevance of information provided, and the patience and courtesy demonstrated while addressing user queries emerged as the highest-rated dimensions of the service quality. These findings reflect the professional commitment of the library staff towards effective user support.

Despite the overall positive assessment, the study also identifies several areas requiring improvement. The least consistent aspect of reference service was the follow-up process, particularly checking whether users' queries has been satisfactorily resolved and whether additional assistance was required. Furthermore, nearly one-third of the respondents reported only moderate levels of satisfaction of dissatisfaction, indicating scope for enhancing the quality.

The findings further reveal that printed textbooks and general collections continue to be the most frequently recommended resources, while online databases, electronic journals and specialised references sources are comparatively underutilised. This suggests that the full potential of the library's electronic resources has not yet been effectively integrated into reference practice.

Overall, the study demonstrates that the reference services of A.C. Joshi Library provide valuable support to users and maintain a satisfactory level of service quality. At the same time, it highlights the need for continuous improvement through systematic follow-up practices, greater promotion and utilization of electronic information resources, standardization of reference services and regular professional development of library staff, particularly in digital competencies. Strengthening these areas will further enhance user satisfaction and improve the effectiveness of reference services in meeting the evolving information needs of the university community.

### 9.2 Recommendations

In accordance with the findings and conclusions drawn from this present study, some recommendations are hereby provided for due consideration by the library administration and reference service staff at A.C. Joshi Library:

- i. Standardise Post-Query Follow-Up Protocols:** Library management is advised to institute standardized protocols for every reference service encounter that must include a follow-up. This could be done by inquiring from users about if their queries have been addressed or if they could come back if they still need assistance.
- ii. Enhance Digital Resource Referral Training:** Since there is a low referral rate for online databases, abstracts and indexes, and e-journals, library staff could be provided with professional training to enhance their skills in handling digital information environments. Awareness among users about the availability of electronic information could also be heightened.
- iii. Regular User Satisfaction Surveys:** Library users will have to be surveyed on a regular basis to track user satisfaction with service quality. This will also help in understanding emerging user needs and assessing the effectiveness of improvement initiatives. Results will have to be communicated to library staff to encourage a quality improvement ethos.
- iv. Recognize and Reward Excellent Staff Performance:** The appreciation for specific library staff by users underscores the importance of motivation. Library administrators will have to encourage a culture of professionalism by developing systems for recognising and rewarding excellent staff performance.

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