



# Effectiveness Of Information Literacy Programmes: An Empirical Assessment Using The Technology Acceptance Framework In NAAC-Accredited Colleges

<sup>1</sup> S. Manikandan, & <sup>2</sup> Major Dr. T. Magudeeswaran

<sup>1</sup>Research Scholar, Research Dept. of Library and Information Science, Chikkaiah Government Arts and Science College, Erode - 638 004 & Assistant Librarian and Information Officer, Anna Centenary Library, Chennai - 600085, Tamil Nadu. manimlis020gmail.com

<sup>2</sup>Librarian (SG) and Head, Research Dept. of Library and Information Science, Chikkaiah Government Arts and Science College, Erode - 638 004, Tamil Nadu.

## Abstract

This study evaluates the effectiveness of Information Literacy Programmes (ILPs) across 41 NAAC (A, A+, and A++) accredited Arts and Science colleges affiliated with Bharathiar University, using the Technology Acceptance Model (TAM) as an interpretive framework. Data were collected from 197 respondents, comprising 64 faculty members and 133 postgraduate students/research scholars through purposive sampling. The findings reveal high levels of service awareness, particularly circulation services (81%) and access to e-resources (75%). ILPs are predominantly delivered through one-to-one guidance (92%) and orientation programmes (88%), with strong emphasis on library resources (95%) and search strategies (85%). Mean effectiveness scores range from 3.50 to 3.89, indicating favourable perceptions. A moderate positive relationship between infrastructure and ILP effectiveness ( $r = 0.41$ ,  $p = 0.028$ ) highlights the importance of institutional support. The study concludes that strengthening faculty collaboration, infrastructure, and curriculum integration can significantly enhance ILP outcomes.

**Keywords:** Information Literacy Programmes, Technology Acceptance Model, NAAC Colleges, Digital Literacy, Bharathiar University, ILP Effectiveness.

## 1. Introduction and Theoretical Framework

Information Literacy Programmes (ILPs) are essential for developing users' ability to identify, access, evaluate, and use information effectively in academic environments. In NAAC-accredited institutions, ILPs are integral to improving research competencies and digital literacy. This study adopts the Technology Acceptance Model (TAM) (Davis, 1989) as an interpretive framework. Within this model, Perceived Usefulness (PU) reflected through service awareness, satisfaction, and outcomes; Perceived Ease of Use (PEOU) reflected through ILP delivery methods and content structure. Rather than testing a full structural model, TAM is used here as an interpretive framework to explain user acceptance and effectiveness patterns.

## 2. Review of Literature

Recent studies highlight the critical role of ILPs in enhancing research skills and digital competencies. Chaurasia et al. (2023) reported that structured IL interventions significantly improved postgraduate students' information retrieval and ethical usage skills, although citation practices remained underdeveloped. Muneer and Kummamuri (2022) found that library-led ILPs enhanced students' ability to evaluate and use academic resources effectively, emphasizing the importance of instructional design. Harish (2024) identified infrastructural limitations and lack of faculty collaboration as key barriers affecting ILP implementation. Additionally, TAM-based studies confirm that perceived usefulness and ease of use significantly influence user acceptance of information systems (Venkatesh et al., 2003). These findings justify the present study's focus on institutional and user-level determinants of ILP effectiveness.

## 3. Objectives

1. To assess awareness of library services and perceived usefulness
2. To evaluate ILP delivery methods and content coverage
3. To measure ILP effectiveness using mean score analysis
4. To examine the relationship between infrastructure and ILP effectiveness
5. To interpret ILP effectiveness using the TAM framework

## 4. Methodology

The study adopts a descriptive-analytical survey design. Data were collected from 197 respondents comprising 64 faculty and 133 PG students across 41 NAAC 'A' grade and above institutions using purposive sampling. A structured questionnaire based on a five-point Likert scale was used to measure: Service awareness (PU proxy), ILP delivery and content (PEOU proxy) and Effectiveness outcomes. Data were analysed using IBM SPSS (Version 30), employing mean and percentage as descriptive statistics and Pearson correlation as inferential statistics.

## 5. Results and Discussion

**Table 1: Awareness and Use of Library Services (Mean Score)**

| Service     | Faculty (n=64) | PG Students (n=133) | Overall Mean |
|-------------|----------------|---------------------|--------------|
| Circulation | 0.81           | 0.82                | 0.81         |
| E-resources | 0.68           | 0.78                | 0.75         |
| Reprography | 0.57           | 0.67                | 0.64         |
| Reference   | 0.63           | 0.62                | 0.63         |
| Internet    | 0.53           | 0.64                | 0.60         |

Table 5.1 reveal that circulation services achieve highest awareness (0.81), indicating continued reliance on traditional services. PG students demonstrate digital orientation superiority [e-resources: 0.78 vs faculty 0.68], validating generational technology adoption patterns. Moderate utilization of reprography (0.64) and internet services (0.60) indicates transitional digital adoption phase. Reference services maintain baseline consistency (0.63).

**Table 2: Satisfaction with Library Services**

| Level             | Frequency | Percentage |
|-------------------|-----------|------------|
| Very Satisfied    | 50        | 25.38      |
| Satisfied         | 88        | 44.67      |
| Neutral           | 35        | 17.77      |
| Dissatisfied      | 15        | 7.61       |
| Very Dissatisfied | 9         | 4.57       |

Table 5.2 present that 70.05% respondents' express satisfaction, indicating effective service delivery and reinforcing perceived usefulness. Neutral segment (17.77%) represents threshold users requiring excellence enhancement. Minimal dissatisfaction (12.18%) aligns with NAAC quality benchmarks. Satisfaction dominance establishes service delivery effectiveness.

**Table 3: ILP Delivery Methods**

| Method              | Percentage |
|---------------------|------------|
| One-to-one guidance | 92%        |
| Orientation         | 88%        |
| Library tours       | 78%        |
| Workshops           | 70%        |

Table 5.3 indicates that personalized guidance dominates (92%), maximizing TAM's PEOU through individual attention. Orientation programmes (88%) establish foundational ILP architecture effectively. Library tours (78%) facilitate spatial-technology familiarization. Workshops (70%) indicate scalable capacity constraints. Delivery hierarchy reflects resource optimization strategy.

**Table 4: ILP Content Coverage**

| Content Area       | Percentage |
|--------------------|------------|
| Library resources  | 95%        |
| Search strategies  | 85%        |
| Digital literacy   | 81%        |
| Academic databases | 78%        |

Table 5.4 shows that near-universal library resource coverage (95%) establishes baseline PU. Search strategies (85%) confirm systematic competency development. Digital literacy (81%) addresses contemporary relevance effectively. Academic databases (78%) reveal advanced training capacity limitations. Progressive competency gradient validates curriculum prioritization logic.

**Table 5: Mean Score Analysis of ILP Effectiveness**

| Dimension              | Mean |
|------------------------|------|
| Content relevance      | 3.89 |
| Delivery effectiveness | 3.83 |
| Outcomes               | 3.80 |
| Planning               | 3.70 |
| Institutional support  | 3.50 |

Table 5.5 depicts that content relevance scores highest (3.89), validating curriculum alignment across dimensions. Delivery effectiveness (3.83) confirms pedagogical competence of library staff. Outcomes (3.80) demonstrate measurable user skill gains. Planning effectiveness (3.70) indicates structured programme design. Institutional support lowest (3.50) reveals administrative facilitation gaps.

**Table 6 Correlation between Infrastructure and ILP Effectiveness**

| Source                     | r    | p-value |
|----------------------------|------|---------|
| Infrastructure vs Outcomes | 0.41 | 0.028   |

Table 5.6 indicates that Moderate correlation ( $r=0.41$ ,  $p<0.05$ ) confirms infrastructure as TAM external variable influencing PU. 16.8% variance explanation establishes practical significance. Statistical significance rejects null hypothesis. Finding validates NAAC infrastructure criterion relevance for ILP optimization. Targeted investment recommended.

**Table 7: Mapping ILP Dimensions with TAM Constructs**

| ILP Dimension          | TAM Construct                |
|------------------------|------------------------------|
| Service Awareness      | Perceived Usefulness (PU)    |
| Satisfaction           | Perceived Usefulness (PU)    |
| Delivery Methods       | Perceived Ease of Use (PEOU) |
| Content Coverage       | Perceived Ease of Use (PEOU) |
| Effectiveness Outcomes | User Acceptance              |

## 6. Synthesis of Results

The findings collectively indicate that ILPs are functionally effective, with strong user acceptance driven by perceived usefulness and ease of use. However, institutional factors— particularly infrastructure and support—remain critical determinants influencing programme outcomes.

## 7. Key Findings

- High awareness of core library services
- Strong reliance on personalized ILP delivery
- Emphasis on foundational over advanced competencies
- Overall effectiveness within acceptable range (Mean: 3.50–3.89)
- Infrastructure significantly influences ILP outcomes
- Institutional support and faculty collaboration require strengthening

## 8. Recommendations

1. Integrate ILPs into academic curriculum
2. Strengthen faculty–librarian collaboration
3. Enhance digital infrastructure and access
4. Expand advanced training (citation tools, AI, databases)
5. Implement continuous ILP evaluation mechanisms

## 9. Conclusion

The study confirms that Information Literacy Programmes are effective across NAAC-accredited institutions, with strong user acceptance and satisfactory outcomes. The application of the Technology Acceptance Model highlights the importance of perceived usefulness and ease of use in shaping ILP effectiveness. However, improving infrastructure and institutional support is essential to maximize long-term academic and research impact.

## 9. References

1. Association of College & Research Libraries. (2016). *Framework for information literacy for higher education*. American Library Association.  
<http://www.ala.org/acrl/standards/ilframework>
2. Chaurasia, K., Singh, R., & Gupta, A. (2023). Impact of structured information literacy interventions on postgraduate research skills. *Library Philosophy and Practice, e-journal 2895*.  
<https://digitalcommons.unl.edu/libphilprac/2895>
3. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.  
<https://doi.org/10.2307/249008>
4. Harish, M. (2024). Infrastructure barriers to information literacy implementation in Karnataka

universities. *Journal of Library & Information Science*, 14(4), 45–62.

5. Muneer, V. A., & Kummamuri, R. (2022). Effectiveness of library-led information literacy programmes: An Indian perspective. *DESIDOC Journal of Library & Information Technology*, 42(5), 312–320. <https://doi.org/10.14429/djlit.42.5.17892>
6. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>

