USER STUDIES IN LIBRARIES OF AGRICULTURAL UNIVERSITY
2. MEETING THE INFORMATION REQUIREMENTS OF POSTGRADUATE STUDENTS

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Studies the relationship between the adequacy of library collection and the quantum of daily library use. Two independent samples of post graduate students have been taken, one each from Haryana Agricultural University, Hisar, and Punjab Agricultural University, Ludhiana. The Spearman's Rank Correlation Coefficient has been calculated for two different sample groups and the results have been compared.

INTRODUCTION

The increasing awareness in educational institutions regarding library effectiveness has prompted the librarians to evaluate their degree of response to user needs for information. In recent years the concept of library collection has changed from quantity to quality. A mere size of a library collection is not a positive proof of its usefulness. From the review of literature [1], it is clear that users attach maximum importance to the relevancy of the needed material rather than to any other aspect of the library. It is evident also from the author's investigation [8] that greatest concern as well as dissatisfaction of the users has always been linked to the reading materials.

METHODOLOGY

Based on the empirical findings the hypothesis is framed as:

HYPOTHESIS

The use of the library is directly proportional to the relevancy of the library resources to the contemporary needs of the student community.

To construct the scores of the independent variable (adequacy of library resources) a number of questions concerning this aspect were asked. The questions related to the adequacy of reading materials were provided with two (or more) response categories viz. 1) yes, 2) sometimes, 3) never.

Table 1 gives the frequencies falling under various categories formed of half open intervals and other descriptive data. Calculation of scores for the dependent variable (i.e., library use) has been discussed under the heading "Quantum of daily work done."

The highest score was fixed at 1 and the lowest at 7. A score of 4 was treated as the neutral point. Cumulative effect of all the questions regarding the adequacy of reading materials was taken by using the expression \((1.A+4.B+7.C)/(A+B+C)\) where A, B and C are the frequencies of the responses 1, 4 and 7 respectively. In other words, the process of taking cumulative effect may be expressed as: a single weighted (average) score for each respondent was calculated by summing each columns ranking for a question and dividing by the number of questions or columns. The order was reversed in case of a question where a negative reply indicated adequacy of reading materials.

It is obvious that the scores of the entire sample belonged to the closed interval \([1,7]\) with 1 and 7 as the two bounds of the interval. A number of predictors have been used to ascertain the adequacy of library resources, namely order of priority shown for the university library, adequacy of library collection for individual research and for the projected research, references, assignments, primary sources, reference collection, indexing and abstracting sources, books, scientific and technical periodicals etc. In short this study identified and ranked statistically a total of 15 variables which could be used to predict the adequacy of library resources for post graduate students engaged in study and research.

The significance of a difference in opinion concerning the adequacy of library resources between the two user groups has been tested by the use of K.S.Chi Square Test. The stated hypothesis has been tested by the use of Spearman's Rank Correlation Coefficient in different sample groups and the results have been compared.
ADEQUACY OF LIBRARY RESOURCES; THE DEPENDENT VARIABLE

K.S. test statistic is given in Table 1 and is found insignificant at 0.05 level of significance. Table 1 also suggests that the HAU user group reported a greater satisfaction with the adequacy of library resources than the PAU user group. The location of the respective medians in Table 2 supports the above observation.

**TABLE 1**

*Adequacy of library resources: frequency distribution*

<table>
<thead>
<tr>
<th>Sample group</th>
<th>Magnitude of Response</th>
<th>Frequency</th>
<th>HAU %</th>
<th>Cumulative Frequency</th>
<th>Frequency</th>
<th>PAU %</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of Library Resources</td>
<td>[0,1]</td>
<td>2</td>
<td>1.18</td>
<td>170</td>
<td>4</td>
<td>1.99</td>
<td>201</td>
</tr>
<tr>
<td></td>
<td>(1,2]</td>
<td>44</td>
<td>25.88</td>
<td>168</td>
<td>37</td>
<td>18.41</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>(2,3]</td>
<td>75</td>
<td>44.12</td>
<td>124</td>
<td>77</td>
<td>38.31</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>(3,4]</td>
<td>33</td>
<td>19.41</td>
<td>49</td>
<td>58</td>
<td>28.86</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>(4,5]</td>
<td>8</td>
<td>4.71</td>
<td>49</td>
<td>21</td>
<td>10.45</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>(5,6]</td>
<td>8</td>
<td>4.71</td>
<td>57</td>
<td>4</td>
<td>1.99</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>(6,7]</td>
<td>0</td>
<td>0.00</td>
<td>57</td>
<td>0</td>
<td>0.00</td>
<td>57</td>
</tr>
</tbody>
</table>

One Way Chi Square (HAU) = 93.47; Significance Level = .01; Degrees of Freedom = 4
One Way Chi Square (PAU) = 83.35; Significance Level = .01; Degrees of Freedom = 4
Kolmogorov-Smirnov Chi Square = 5.73; Not Significant; Degrees of Freedom = 2

**TABLE 2**

*Adequacy of library resources: percentiles of the frequency distributions*

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>HAU</th>
<th>PAU</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>P10</td>
<td>1.34</td>
<td>1.44</td>
<td>1 = The Highest Score</td>
</tr>
<tr>
<td>P25</td>
<td>1.92</td>
<td>2.12</td>
<td>7 = The Least Score</td>
</tr>
<tr>
<td>P50 [Median]</td>
<td>2.52</td>
<td>2.77</td>
<td>Location of the median shows that a greater number of HAU subjects have better perceptions about the adequacy of library resources as compared to PAU subjects as 2.52 is nearer to 1 as compared with 2.77</td>
</tr>
<tr>
<td>P75</td>
<td>3.20</td>
<td>3.56</td>
<td></td>
</tr>
<tr>
<td>P90</td>
<td>3.97</td>
<td>4.23</td>
<td></td>
</tr>
</tbody>
</table>
QUANTUM OF DAILY WORK DONE; THE DEPENDENT VARIABLE

The quantum of use made of the university library in a day by the post graduate students was regarded as the dependent variable. It is the self reported library use. The mode of collection, computation and tabular presentation of the dependent variable may be recalled from Part 1 [14].

SPEARMAN’S RANK CORRELATION COEFFICIENT

To calculate the Spearman’s Rank Correlation Coefficient, the scores for the two variables (dependent and independent) were translated into rankings and their relationships were studied in detail.

The test was completed by examining the significance of $r_s$ [12] for $n=170$ and 201 representing HAU and PAU sample group respectively. The independent variable attains maximum at 1 and as the intensity decreases, its value in terms of score increases. The rankings in the case of dependent variable were in the reverse order. They were, therefore, inverted so as to fix one direction of increasing value for both the variables. To test the significance of $r_s$, it is stated as:

NULL HYPOTHESIS

$H_0 : r_s = 0$ here $r_s$ denotes the correlation of the dependent variable with the independent variable.

SIGNIFICANCE LEVEL

$r_s = 0.05, n = 170, 201$

DECISION RULE

a) if $r_s >$ or = tabular value, reject $H_0$

b) if $r_s <$ tabular value accept $H_0$

RISK

1) under (a) type I error, concluding that the correlation of $r_s$ is significant when it is not.

2) under (b) type II error, concluding that $r_s$ is not significant when some other statement or relationship is true. To test the hypothesis the value of $r_s$ was calculated to be:

$$r_s = 0.09 \quad n = 170$$

$$r_s = 0.01 \quad n = 201$$

The correlation coefficient is too low and fails to reach statistical significance at 0.05 level of significance for any of the sample groups. This leads to the acceptance of the null hypothesis. However, the data do not support it and thus the findings of the study go against the hypothesis in both the sample groups.

To sum up it may be stated that there exists a low (but positive) correlation between the adequacy of library resources and daily library use by post graduate students. At the same time, it is also observed from the study [8] that post graduate students are most critical about the adequacy of library materials. It clearly shows that the adequacy of library resources is of a much greater concern for them than any other aspect of the library. Out of the total of 625 comments [8] on 24 topics, 213 comments (34.08%) were about the adequacy of library resources in the HAU. In PAU sample group the corresponding figures are 846 and 246 (29.08%) respectively. What, then, could be the possible reason of the low correlation. Sections 2, 6 and 7 of [8] explain in detail the priorities shown and the use of various types of documents. Findings of section 7 of the same suggest that: 1) post graduate students mainly consult scientific and technical periodicals, 2) there is comparatively low use of other types of reading materials e.g. review journals, reference books, conference proceedings, indexing and abstracting periodicals and they are rarely given any priority. It has also been observed that more than 60% of the post graduate students do not consult indexing and abstracting periodicals which are a valuable source of information for a post graduate student engaged in study and research.

CONCLUSION

The study does not support the hypothesis in any of the two sample groups, the reason being a low use of certain types of documents discussed above. The low use of such vital sources of information by post graduate students may be attributed to: firstly, their unawareness of the potential value of this type of literature, secondly, inadequate collection of such materials in the libraries, and thirdly, they may not have been initiated to the wealth of information contained therein. It is therefore, suggested that efforts may be made to train the post graduate students in the following areas:

a). use of library,

b). literature search,

c). understanding the value and use of reference tools,

d). familiarisation with the existing reference tools in the library and,

e). acquisition of as many relevant sources as possible.

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A practical course may be organised on how to use the library effectively for the benefit of postgraduate students.

REFERENCES


3. Burdick, C: The library and the academic community Lib Resour Tech Serv 1964, 8(2), 157-60.


