

A Study on Behavioral Traits of Library and Information Science Students in South India

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ABSTRACT

Human behaviour normally depends on the environment of the incident and the time of its occurrence. The behaviour of people depends on many factors and these behaviour traits are an important aspect in the Library and Information Science (LIS) field. Hence in this paper an attempt has been made to examine the behaviour traits of LIS students in South India. Out of 400 questionnaires distributed 367 have responded and the response rate is 91.75%. In this survey three aspects comprising student behaviour have been analysed such as Work Environment, Natural Environment, and Social Environment. In the case of Work Environment the respondents were grouped as Workaholic, Impatience, Achievement oriented, Rash nature, and Punctuality. Further, in respect to Natural environment, the respondents are grouped as Complacent, Patience, Easygoing, and Relaxed. Last, the respondents were grouped in the Social Environment as Balancing nature, Magnanimity, Naturalistic, Assertive nature, Dependency, Lucrative, Lonely nature, and Time Based personality. Finally the authors conclude that LIS students need to possess these qualities and behaviours to work in different environments.

Keywords: LIS students, behaviour traits, work environment, natural environment, social environment, India

1. INTRODUCTION

There is widespread interest, discussion, and exploration globally regarding school improvement in one form or another. One of the often cited reasons for educational change is the need to prepare

the young for participation in new economic and work environments, where the basis of employment is more flexible and the required skills tend to be higher order, more diverse, and continually changing. Today it is seen that academic skills and intelligences alone are not sufficient to cope up with the

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global competition. In the field of Library and Information Science (LIS), the possession of skills and competencies are needed which demand that students shall behave properly in their learning and working environments. It has been established that LIS professionals should possess a quality of psychological aspects as a built in capability of the profession. Hence multiple intelligences become mandatory coupled with proper behaviour, which in turn refers to behavioral psychology. Behaviour is a manner of behaving or conducting oneself. Conditioning, reinforcement, and punishment are key concepts used by behaviorists.

The profiles of behavioral traits are as follows (Friedman and Rosenman, 1959; McAdams, 1996; Vázquez-Carrasco and Foxall, 2006; Wright, 1996):

- * Accommodating – concern for group accountability
- * Assertiveness – a measure of generalized self acceptance and confidence
- * Attitude – related to stability and poise
- * Decisiveness – associated with taking control as well as self – acceptance
- * Energy Level – a tendency toward restlessness, activity, and drive
- * Independence – individual preference rather than being directed by others
- * Manageability – social responsibility and stability
- * Objective Judgment – a sense of rational competence and objectivity
- * Sociability – a measure of social presence and self-confidence

Stogdill (1948) and Mann (1959) reported that many earlier studies on traits attempted to identify personality characteristics that appear to differentiate one from the other. More recently people have tried looking at what combinations of traits might be good for a particular situation. There is some mileage in this. It appears possible to link clusters of personality traits to success in different situations (Wright, 1996).

McAdams (1996) suggests that personality traits, which deal with temporal and situationally invariant personal characteristics, distinguish different individuals and lead to consistencies in behavior

across situations and over time. The service industries are always associated with direct personal contact such as personality, temperament, and other internal factors (Feng and Zhang, 2009).

There are no studies reported in the context of LIS students and hence this study bridges the gap. In this paper an attempt has been made to study the behavioral traits of Library and Information Science (LIS) students and to categorize them based on 'Work environment,' 'Natural environment,' and 'Social environment.' The study has been carried out with the following objectives:

- * To identify the Behavioral traits of 'Work Environment,' 'Natural Environment,' and 'Social Environment' among Library and Information Science students in South India.
- * To identify the differences in behavioral traits between male and female Students in Library and Information Science.
- * To compare the behavioral traits of the students of Library and Information Science in different geographical environments.

2. RESEARCH DESIGN

This study sought views on behavioural traits of master's degree students in Library and Information Science in various universities of Southern India. For this purpose a structured questionnaire was administered among all 400 LIS students (Population) of LIS schools spread through four southern States namely Tamil Nadu, Andhra Pradesh, Karnataka, Kerala, and one Union Territory, Pondicherry. The survey is based on the census method. There are about 400 master's students studying in the states of Southern India and the survey has been given to the entire population. Out of 400 questionnaires distributed, 367 have responded and the response rate is 91.75%.

The data collected from the respondents were analysed using the SPSS software package. The background information of the respondents is presented in Table 1.

Out of 367 respondents, 58.04% are male and

41.96% are female. 71.39% of respondents are in the age group of below 25 years, 24.52% are in the age group of between 25 and 29 years and 4.09% are above 29 years. The largest number of respondents is from Karnataka (36.51%), followed by Andhra Pradesh (27.79%), Tamil Nadu (23.71%), and Kerala (10.64%). The lowest number of respondents (1.36%) belong to Pondicherry since there are only 5 PG stu-

dents studying in that university at the time of the survey.

The university-wise distribution of respondents is shown in Table 2.

A total of 22 LIS Schools are listed in four southern states, including one Union Territory. Out of these there are 7 each in Tamil Nadu and Karnataka, followed by 5 in Andhra Pradesh.

Table 1. Demographic Background Information about the Respondents

	Description	No. of Respondents	Percentage
Gender	Male	213	58.04
	Female	154	41.96
Age	Below 25 years	262	71.39
	Between 25 and 29	90	24.52
	Above 29	15	4.09
State	Tamil Nadu	87	23.71
	Andhra Pradesh	102	27.79
	Karnataka	134	36.51
	Kerala	39	10.63
	Pondicherry	5	1.36

Table 2. University-wise Distribution of Respondents

State	University/Institution	Frequency	Percent
Tamilnadu	Alagappa University	12	3.27
	Bharathidasan University	7	1.91
	University of Madras	10	2.72
	Bishop Heber College	17	4.63
	AVVM Sri Pushpam College	10	2.72
	Madurai Kamaraj University	10	2.72
	Annamalai University	21	5.72
Andhra Pradesh	Sri Venkateswara University	15	4.09
	Andhra University	30	8.17
	Ambedkar University	23	6.27
	Sri Krishnadevaraya University	18	4.90
	Osmania University	16	4.36
Karnataka	Bangalore University	21	5.72
	Mysore University	24	6.54
	Karnatak University	24	6.54
	Mangalore University	16	4.36
	Gulbarga University	28	7.63
	Kuvempu University	16	4.36
	Documentation Research and Training Centre(DRTC)	5	1.36
Kerala	Calicut University	18	4.90
	Kerala University	21	5.72
Pondicherry	Pondicherry University	5	1.36
Total		367	100

3. RESEARCH ANALYSIS: BEHAVIOR TRAITS OF LIS STUDENTS

Friedman and Rosenman (1959) first propounded the A/B type of behavioural pattern to describe certain kinds of individuals who, they believed, tended to be overrepresented as clients in their clinical practice. Based on their study, this paper examined the behavioral traits of LIS students in South India and categorized them under three different environments, namely ‘work environment,’ ‘nature environment,’ and ‘social environment.’ The work environment group has been described as working in the office, the nature environment is described as naturally/habitually showing attitudes irrespective of the environment, and the social environment is described in regard to attitudes toward the society.

In this study the behaviour traits of the LIS students has been examined in three environments stated above and the number of variables taken up under each are:

- * Work Environment – 16 variables
- * Natural Environment – 16 variables
- * Social Environment – 27 variables

3.1. Reliability Test

Reliability is concerned with the consistency of a variable. There are two identifiable aspects of this issue: external and internal reliability. Nowadays, the most common method of estimating internal reliability is Cronbach’s alpha (α), which is roughly equivalent to the average of all possible split-half reliability coefficients for a scale (Zeller and Carmines, 1980). The usual formula is

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right) \tag{1}$$

Here K is the number of items; $\sum \sigma_i^2$ is the sum of the total variances of the items; and σ_x^2 is the variance of the total score (Pedhazur and Schmelkin, 1991). As a result, alpha is most appropriately used when the items measure different substantive areas

within a single construct. When the set of items measures more than one construct, coefficient omega_hierarchical is more appropriate (McDonald, 1999; Zinbarg et al. 2005).

Commonly accepted rules for describing internal consistency using Cronbach’s alpha (Cronbach, Lee J., and Shavelson R J, 2004) are $\alpha \geq 0.9$ (Excellent), $0.9 > \alpha \geq 0.8$ (Good), $0.8 > \alpha \geq 0.7$ (Acceptable), $0.7 > \alpha \geq 0.6$ (Questionable), $0.6 > \alpha \geq 0.5$ (Poor) and $0.5 > \alpha$ (Unacceptable).

Therefore Cronbach’s alpha value has been calculated for the variables taken up for three groups and the same is shown in Table 3.

Table 3. Reliability Test

Environment	No. of Variables	Alpha Value
Work Environment	16	0.7307
Natural Environment	16	0.7271
Social Environment	27	0.9019

The Cronbach alpha value indicates that of all the variables taken up for the study are acceptable.

3.2. Work Environment Group

The nature of behaviour is time-bound in the case of work environment. Opinions on 16 variables were taken up in a five point scale such as “strongly agree,” “Agree,” “No opinion,” “Disagree,” and “Strongly Disagree.” The mean and standard deviation were calculated based on the opinions. Further ranks were assigned. The opinions, mean, standard deviation, and rank are shown in Table 4.

The mean value in Table 4 shows that the highest value (4.14) is for “*I am never late if I have an appointment,*” whereas the same variable shows more variation with the standard deviation value as 1.20.

Based on the responses from 367 LIS students for the 16 variables, component factors were administered. The scores obtained were subjected to factor analysis and five factors have emerged (Table 5).

As can be seen from the table, the variables are grouped into five components. Further Eigen values

Table 4. Frequency Data on Behavioural Nature of the Respondents

S. No.	Variables	SA	A	N	D	SD	MEAN	Std	R
W1	I prefer to move around rapidly when I am not doing anything	79 (21.53)	157 (42.78)	56 (15.26)	42 (11.44)	33 (8.99)	3.47	1.10	8
W2	I prefer to finish the tasks at hand as soon as possible	133 (36.24)	168 (45.78)	49 (13.35)	13 (3.54)	4 (1.09)	4.11	0.85	2
W3	I am never late if I have an appointment	173 (47.14)	123 (33.51)	42 (11.44)	19 (5.18)	10 (2.72)	4.14	1.20	1
W4	I tend to feel impatient with the rate at which most events take place	53 (14.44)	141 (38.42)	103 (28.07)	52 (14.17)	18 (4.90)	3.38	1.20	11
W5	I have very few interests outside my work	73 (19.89)	146 (39.78)	67 (18.26)	50 (13.62)	31 (8.45)	3.41	0.97	9
W6	I feel impatient when I don't have any work in hand	67 (18.26)	179 (48.77)	65 (17.71)	36 (9.81)	20 (5.45)	3.59	1.06	6
W7	I always feel rushed	32 (8.72)	148 (40.33)	79 (21.53)	86 (23.43)	22 (5.99)	3.16	1.06	15
W8	I habitually have quick meals	52 (14.17)	133 (36.24)	101 (27.52)	57 (15.53)	24 (6.54)	3.29	1.12	12
W9	Competition is my first choice	138 (37.60)	144 (39.24)	57 (15.53)	21 (5.72)	7 (1.91)	4.03	1.01	3
W10	I enjoy doing two or more things simultaneously	65 (17.71)	173 (47.14)	65 (17.71)	52 (14.17)	12 (3.27)	3.59	1.09	7
W11	I cannot relax without feeling guilt	65 (17.71)	126 (34.33)	80 (21.80)	65 (17.71)	31 (8.45)	3.27	1.08	13
W12	I have always struggled to achieve more in less time	105 (28.61)	138 (37.60)	59 (16.08)	53 (14.44)	12 (3.27)	3.71	1.06	4
W13	I am very particular to exhibit my superiority whenever I play	63 (17.17)	129 (35.15)	101 (27.52)	58 (15.80)	16 (4.36)	3.41	1.04	10
W14	I have always lived the life of deadlines	35 (9.54)	87 (23.71)	89 (24.25)	122 (33.24)	34 (9.26)	2.82	1.24	16
W15	I take it as a privilege to display or discuss my achievements or accomplishments whenever I get an opportunity to do so	85 (23.16)	168 (45.78)	59 (16.08)	41 (11.17)	14 (3.81)	3.69	1.20	5
W16	I have never found sufficient time for the task at hand	62 (16.89)	132 (35.97)	79 (21.53)	52 (14.17)	42 (11.44)	3.21	1.15	14

SA-Strongly Agree A-Agree N-No opinion D-Disagree SD-Strongly Disagree Mean – Arithmetic Mean SD-Standard Deviation R-Rank

for the same have been carried out. It can be seen that only the first five factors have Eigen values greater than 1. '1' was the criterion for retention of a factor, which indicates that only the first five factors are to be extracted. It can be seen that the variances were more evenly distributed in the rotated sum of the squared loading (11.945%, 11.424%, 11.376%, 10.744% and 9.933% respectively; Cumulative vari-

ance ratio 55.422%). This indicates that five factors are interpretable.

The components were named based on the variable under each component such as Workaholic, Impatience, Rash nature, Achievement oriented, and dominating nature. Further, the number of persons and the gender under each component has been identified and the same is shown in Table 6.

Table 5. Result of Factor Analysis of Work Environment Variables

S. No.	Component				
	1	2	3	4	5
W5	.495				
W9	.562				
W10	.700				
W15	.713				
W1		.676			
W4		.699			
W16		.601			
W6			.731		
W17			.702		
W8			.616		
W11				.632	
W12				.733	
W13				.606	
W14				.470	
W2					.795
W3					.789
Eigen value	1.911	1.828	1.820	1.719	1.589
Cumulative variance ratio	11.945	23.369	34.745	45.489	55.422

1-Workaholic 2-Impatience 3-Rash Nature 4-Achievement Oriented 5-Dominating Nature

Table 6. Work Environment vs. Gender

Work Environment	Male		Female		Total	
	No.	%	No.	%	No.	%
Workaholic	55	14.99	24	6.54	79	21.53
Impatience	34	9.26	33	8.99	67	18.26
Rash Nature	39	10.63	19	5.18	58	15.80
Achievement oriented	30	8.17	38	10.35	68	18.53
Punctuality	55	14.99	40	10.90	95	25.89
Total	213	58.04	154	41.96	367	100.00

It can be seen from Table 6 that the “punctuality” group works out to 25.88%, followed by the “workaholic” group (21.52%).

From Table 6 it can be observed that ‘Workaholic’ (14.99%) and ‘Punctuality’ (14.99%) are of equally importance among the males, whereas ‘Punctuality’ (10.9%) and ‘Achievement oriented’ (10.35%) are of equally important among the females. While ‘Rash

Nature’ dominates among males (10.63%) in the work environment, on the other hand it has the least impact (5.18) among females. Further, it can be seen that ‘Workaholic’ natures (14.99%) persist among males whereas in the female it is 6.54%. It is also found that ‘Impatience’ nature in the work environment group is almost equal among males and females, i.e. 9.26% and 8.99% respectively.

Table 7. Work Environment vs. State of Respondents

State	Workaholic		Impatient		Rash Nature		Achievement Oriented		Punctuality		Total
	M	F	M	F	M	F	M	F	M	F	
Tamil Nadu	10	6	5	8	12	5	6	10	11	14	87
	2.72	1.63	1.36	2.18	3.27	1.36	1.63	2.72	3.00	3.81	23.71
Pondicherry	4	0	0	0	1	0	0	0	0	0	5
	1.09	0	0	0	0.27	0	0	0	0	0	1.36
Andhra Pradesh	18	5	12	6	12	4	14	7	18	6	102
	4.90	1.36	3.27	1.63	3.27	1.09	3.81	1.91	4.90	1.63	27.79
Karnataka	21	7	16	14	13	5	10	10	24	14	134
	5.72	1.91	4.36	3.81	3.54	1.36	2.72	2.72	6.54	3.81	36.51
Kerala	2	6	1	5	1	5	0	11	2	6	39
	0.54	1.63	0.27	1.36	0.27	1.36	0.00	3.00	0.54	1.63	10.63
Total	55	24	34	33	39	19	30	38	55	40	367
	14.99	6.54	9.26	8.99	10.63	5.18	8.17	10.35	14.99	10.90	100.00

The state-wise distribution of respondents under work environment is shown in Table 7.

The following skills have been identified as distinguished between genders:

1. In Tamil Nadu, 'Rash nature' followed by 'Punctuality' are more frequent in males whereas 'Punctuality' followed by 'Achievement oriented' are priorities among females.
2. In Pondicherry all the respondents are male and all favoured the category of 'Workaholic' (1.09%) and 'Rash nature' (0.27%).
3. In Andhra Pradesh the male group dominates on 'Workaholic' and 'Punctuality' (4.9%) equally, followed by 'Achievement oriented' (3.81%). However, in females 'Achievement oriented' (1.91%) dominates, followed by 'Punctuality' (1.63%).
4. In Karnataka males fall under the category of 'Punctuality' (6.54%), followed by 'Workaholic' (5.72%), whereas 'Punctuality' and 'Impatience' (3.81%) are equally found among females.
5. In Kerala, the male group falls under 'Workaholic' and 'Punctuality' (0.54%), followed by 'Impatience' and 'Rash nature' (0.27%), where-

as females have 'Workaholic' and 'Punctuality' (1.63%), followed by 'Impatience' and 'Rash nature' (1.36%).

From the data in Table 8, the top priority variables for the students can be presented in Table 8.

3.3. Natural Environment

The sixteen variables thus selected to ascertain the natural environment behavioural traits among LIS professionals has been evaluated. From the factor analysis of obtained scores, four factors emerged and the result is shown in Table 9.

Table 8. Work Environment - Top Priority Skills of Students in States vs. Gender

State	Male	Female
Tamil Nadu	Rash nature	Punctuality
Pondicherry	Workaholic	-
Andhra Pradesh	Workaholic	Achievement oriented
Karnataka	Punctuality	Punctuality
Kerala	Punctuality	Punctuality

Table 9. Natural Environment

S.No	Description	SA	A	U	D	SD	Mean	Std	Rank
N1	I do not work under time pressure	81 (22.1)	149 (40.6)	52 (14.2)	69 (18.8)	16 (4.4)	2.44	1.204	9
N2	I do not display or discuss either my achievements or accomplishments unless such exposure is demanded by the situation	71 (19.3)	169 (46.0)	82 (22.3)	33 (9.0)	12 (3.3)	1.87	.850	15
N3	I have never set deadlines for my accomplishments	47 (12.8)	166 (45.2)	83 (22.6)	54 (14.7)	17 (4.6)	1.83	1.006	16
N4	I play for fun and relaxation	109 (29.7)	191 (52.0)	39 (10.6)	23 (6.3)	5 (1.4)	2.57	1.056	6
N5	I relax whenever I want to do	85 (23.2)	188 (51.2)	44 (12.0)	34 (9.3)	16 (4.4)	2.51	1.196	8
N6	I do not give much weightage to quantity in comparison to other measures of success	56 (15.3)	144 (39.2)	86 (23.4)	66 (18.0)	15 (4.1)	2.35	1.058	11
N7	I prefer to concentrate on one task at a time	102 (27.8)	202 (55.0)	44 (12.0)	10 (2.7)	9 (2.5)	2.78	1.086	2
N8	I enjoy my food by making no haste while eating	87 (23.7)	168 (45.8)	61 (16.6)	41 (11.2)	10 (2.7)	2.64	1.105	5
N9	I never feel rushed	58 (15.8)	160 (43.6)	88 (24.0)	51 (13.9)	10 (2.7)	1.95	.965	14
N10	Leisure time is welcome after a spell of work	105 (28.6)	173 (47.1)	57 (15.5)	17 (4.6)	15 (4.1)	2.38	1.036	10
N11	I am open in expressing my feelings	108 (29.4)	172 (46.9)	49 (13.4)	27 (7.4)	11 (3.0)	2.65	1.203	4
N12	I have many interests outside my work	91 (24.8)	149 (40.6)	72 (19.6)	48 (13.1)	7 (1.9)	2.26	1.120	13
N13	I am comfortable with the rate at which most events take place	64 (17.4)	175 (47.7)	74 (20.2)	41 (11.2)	13 (3.5)	2.55	1.082	7
N14	I take appointments casually	52 (14.2)	177 (48.2)	79 (21.5)	46 (12.5)	13 (3.5)	3.09	1.148	1
N15	I prefer to complete the tasks at hand slowly	40 (10.9)	126 (34.3)	77 (21.0)	96 (26.2)	28 (7.6)	2.27	1.056	12
N16	I prefer to sit at one place when I am not doing anything	41 (11.2)	119 (32.4)	75 (20.4)	93 (25.3)	39 (10.6)	2.67	1.238	3

As can be seen from the table, the variables are grouped into four components. Eigen values were calculated for the same variables. The first four factors have Eigen values greater than 1. '1' was the criterion for retention of a factor, which indicates that only the first four factors are to be extracted. It can be seen that the variances were more evenly distributed in the rotated sum of the squared loading (12.676%, 12.508%, 11.811%, and 11.739% respectively; Cumulative variance ratio 48.734%), which shows that the four factors are interpretable. The four components have been extracted and named as Complacent, Patience, Easygoing and Relaxed.

Moreover, the number of respondents and the gender under each component is shown in Table 11. It is seen that individuals under each group are

almost evenly distributed ranging from 23.43% to 27.52%. Further, it can be seen that 'Patience' (27.52%) in nature dominates and is followed by the 'Complacent' group (25.34%).

From Table 11 it can be seen that *Easygoing* (16.89%) and *Patience* (15.8%) respectively were given importance among the males, whereas *Complacent* (12.81%) and *Patience* (11.72%) were important among the females. Both *Complacent* and *Relaxed* (12.53% and 12.81%) are equal in importance among the males, where the females gave less importance to '*Easygoing*' (6.81%). In general there is contraction in the natural environment in the case of '*Easygoing*' more in males and less in females. Similarly the '*Complacent*' nature was more favored by female than male respondents.

Table 10. Result of Factor Analysis of Natural Environment

Description	Component			
	1	2	3	4
N7	.599			
N9	.446			
N11	.643			
N13	.689			
N6		.596		
N14		.428		
N15		.580		
N16		.723		
N1			.629	
N2			.673	
N3			.621	
N4				.686
N5				.714
N8				.469
N10				.462
N12				.485
Eigen value	2.028	2.001	1.890	1.878
Cumulative variance ratio	12.676	25.184	36.995	48.734

1-Complacent 2-Patience 3-EasyGoing 4-Relaxed

Table 11. Natural Environment Components vs. Gender

Natural Environment	Male		Female		Total	
	No.	%	No.	%	No.	%
Complacent	46	12.53	47	12.81	93	25.34
Patient	58	15.80	43	11.72	101	27.52
Easygoing	62	16.89	25	6.81	87	23.71
Relaxed	47	12.81	39	10.63	86	23.43
Total	213	58.04	154	41.96	367	100.00

Regarding the skills relating to Natural Environment, the following have been identified among states and gender of the respondents:

1. In Tamil Nadu, “*Patience*” (3.54%) is followed by “*Easygoing*” (3.26%) for males. *Patient* (3.81%) followed by *Complacent* (3.26%) are strongest among females.
2. In Pondicherry all the respondents are male and all favoured the category of *Patience* (1.08%) and *Relaxed* (0.27%).
3. In Andhra Pradesh the male group dominates on *Easygoing* (6.53%) and *Patient* (5.44%). This is followed by *Complacent* (4.35%). Whereas, in females *Relaxed* (3.81%) is dominant, followed by *Complacent* (2.72%).
4. In Karnataka males fall under the category of

Easygoing (6.53%), followed by *Relaxed* (5.72%), whereas in females *Complacent* and *Relaxed* (4.08%) had equal importance followed by *Patience* (3.26%).

5. In Kerala the male group falls under the categories of *Patience*, *Easygoing* and *Relaxed* equally (0.54), whereas *Patience* (3.54%) is strongest, followed by *Complacent* (2.72%), among females.

From Table 12, the top priority variables of the students are summarised and shown in Table 13.

3. 4. Social Environment

Similar to that of work environment and natural environment, the behavioural natures of LIS students in the case of Social Environment have been identified by making use of 27 variables (Table 14).

Table 12. Skills on Natural Environment vs. State

States	Complacent		Patience		Easy going		Relaxed		Total
	M	F	M	F	M	F	M	F	
Tamil Nadu	10	12	13	14	12	7	9	10	87
	2.72	3.26	3.54	3.81	3.26	1.90	2.45	2.72	23.7
Pondicherry	0	0	4	0	0	0	1	0	5
	0	0	1.08	0	0	0	0.27	0	1.36
Andhra Pradesh	16	10	20	4	24	6	14	8	102
	4.35	2.72	5.44	1.08	6.53	1.63	3.81	2.17	27.79
Karnataka	20	15	19	12	24	8	21	15	134
	5.44	4.08	5.17	3.26	6.53	2.17	5.72	4.08	36.51
Kerala	0	10	2	13	2	4	2	6	39
	0	2.72	0.54	3.54	0.54	1.08	0.54	1.63	10.62
Total	46	47	58	43	62	25	47	39	367
	12.53	12.80	15.80	11.71	16.89	6.81	12.80	10.62	100

Table 13. Natural Environment - Top Priority among States vs. Gender

State	Male	Female
Tamil Nadu	Patience	Patience
Pondicherry	Patience	-
Andhra Pradesh	Easygoing	Relaxed
Karnataka	Easygoing	Complacent
Kerala	Patience	Patience

Table 14. Social Environment

S.No	Description	E	G	A	P	U	Mean	Std	Rank
S1	Do you just listen, or do you get invited to speak at gatherings?	79 (21.5)	166 (45.2)	104 (28.3)	10 (2.7)	8 (2.2)	2.19	.878	26
S2	Do you always use the phone?	60 (16.3)	131 (35.7)	128 (34.9)	34 (9.3)	14 (3.8)	2.49	.997	19
S3	Has your work been published?	39 (10.6)	83 (22.6)	111 (30.2)	96 (26.2)	38 (10.4)	3.03	1.153	1
S4	Do you always tell people, "I never lie"?	37 (10.1)	104 (28.3)	139 (37.9)	48 (13.1)	39 (10.6)	2.86	1.107	5
S5	Do your friends entrust you with their keys and money at parties?	76 (20.7)	134 (36.5)	98 (26.7)	25 (6.8)	34 (9.3)	2.47	1.166	20
S6	Do you think working in groups wastes your time or encourages your best work?	82 (22.3)	166 (45.2)	81 (22.1)	33 (9.0)	5 (1.4)	2.22	.939	25
S7	Are your projects always due last week, or did your class project go public already?	39 (10.6)	128 (34.9)	137 (37.3)	41 (11.2)	22 (6.0)	2.67	1.010	13
S8	Do you think someone else can fix it?	27 (7.4)	112 (30.5)	148 (40.3)	45 (12.3)	35 (9.5)	2.86	1.043	4
S9	Do your friends ask you to balance their check books?	53 (14.4)	105 (28.6)	129 (35.1)	51 (13.9)	29 (7.9)	2.72	1.116	11
S10	Do you think everything you see or hear is true?	59 (16.1)	106 (28.9)	118 (32.2)	63 (17.2)	21 (5.7)	2.68	1.109	12
S11	Do policymakers call you for advice?	67 (18.3)	110 (30.0)	114 (31.1)	47 (12.8)	29 (7.9)	2.62	1.155	16
S12	Do you think taking risks is too risky?	44 (12.0)	122 (33.2)	125 (34.1)	46 (12.5)	30 (8.2)	2.72	1.090	10
S13	Do your friends earn great returns on your investment advice?	62 (16.9)	129 (35.1)	121 (33.0)	38 (10.4)	17 (4.6)	2.51	1.037	18
S14	Do you keep the rulebook on your bedside table?	41 (11.2)	120 (32.7)	107 (29.2)	60 (16.3)	39 (10.6)	2.83	1.156	6
S15	Do your friends admire the way you handled both traffic court and the Royal Court?	55 (15.0)	94 (25.6)	128 (34.9)	56 (15.3)	34 (9.3)	2.78	1.155	7
S16	Do you think leaders are megalomaniacs?	40 (10.9)	91 (24.8)	144 (39.2)	56 (15.3)	36 (9.8)	2.88	1.104	3
S17	Are you asked to chair committee meetings?	41 (11.2)	103 (28.1)	119 (32.4)	59 (16.1)	45 (12.3)	2.90	1.172	2
S18	Do you like to be alone?	61 (16.6)	116 (31.6)	95 (25.9)	47 (12.8)	48 (13.1)	2.74	1.253	9
S19	Do you handle deadlines by ignoring them or by doing your most creative work under pressure?	60 (16.3)	118 (32.2)	128 (34.9)	39 (10.6)	22 (6.0)	2.58	1.071	17
S20	Do you celebrate random actions all day every day?	45 (12.3)	96 (26.2)	160 (43.6)	42 (11.4)	24 (6.5)	2.74	1.031	8
S21	Do people ask you to leave the problem to them or to help them find the solution?	70 (19.1)	151 (41.1)	117 (31.9)	23 (6.3)	6 (1.6)	2.30	.904	23
S22	When someone says, "hello," do you need to think for a moment about what language to reply in?	66 (18.0)	159 (43.3)	82 (22.3)	44 (12.0)	16 (4.4)	2.41	1.052	22
S23	Do you always get someone to help you, or are you the one providing the help and advice?	68 (18.5)	162 (44.1)	103 (28.1)	28 (7.6)	6 (1.6)	2.30	.912	24
S24	Do you specialize in big-picture thinking?	59 (16.1)	142 (38.7)	115 (31.3)	40 (10.9)	11 (3.0)	2.46	.985	21
S25	Do your friends ask you to plan their weddings?	51 (13.9)	143 (39.0)	94 (25.6)	47 (12.8)	32 (8.7)	2.63	1.137	15
S26	Do you think everyone should figure things out for themselves?	46 (12.5)	114 (31.1)	152 (41.4)	35 (9.5)	20 (5.4)	2.64	1.000	14
S27	Do you get asked to help teach your friends?	90 (24.5)	168 (45.8)	79 (21.5)	20 (5.4)	10 (2.7)	2.16	.949	27

The factor analyses of obtained scores for social environment under a rotated component matrix and eight components which emerged are presented in Table 15.

The Eigen values thus calculated for the above variables are shown in Table 15. It can be seen that only the first eight factors have Eigen values greater than 1. '1' was the criterion for retention of a factor, which indicates that only the first five factors are to be extracted. Even though the variances were not evenly distributed in the rotated sum of the squared loading (percentages ranges between 4.376% and 10.896%; cumulative variance ratio 60.659%), the Eigen values are in ranges between 1.181 and 2.942.

This indicates that the eight factors are interpretable.

The variables grouped into eight components are Balancing nature, Magnanimity, Naturalistic, Assertive nature, Dependency, Lucrative, Loneliness, and Time Based activity.

The number of respondents and the gender under each component is shown in Table 16. It can be seen that persons under each group are evenly distributed ranging from 9.54% to 14.442%. Further, it can be seen that 'Naturalistic' and 'Assertive nature' (14.44%) were equally given importance in the Social environment, followed by the 'Time based' personality group (13.9%).

Table 15. Result of Factor Analysis of Social Environment

S. No.	Component							
	1	2	3	4	5	6	7	8
S1	.557							
S3	.694							
S4	.679							
S7	.498							
S11	.449							
S13	.462							
S14	.414							
S10		.485						
S24		.682						
S25		.735						
S15			.504					
S16			.575					
S17			.487					
S19			.479					
S20			.557					
S26			.575					
S6				.523				
S21				.606				
S23				.699				
S27				.649				
S5					.812			
S9					.590			
S8						.521		
S12						.556		
S22						.667		
S18							.816	
S2								.757
Eigen value	2.942	2.332	2.317	2.277	2.050	1.818	1.461	1.181
Cumulative variance ratio	10.896	19.531	28.112	36.546	44.140	50.873	56.283	60.659

1-Balancing Nature 2-Magnanimity 3-Naturalistic 4-Assertive Nature 5-Dependency 6-Lucrative
7-Lonely Nature 8-Time Based Personality

Table 16. Social Environment Components vs. Gender

Social Environment	Male		Female		Total	
	No.	%	No.	%	No.	%
Balancing nature	22	6.00	21	5.72	43	11.72
Magnanimity	37	10.08	15	4.09	52	14.17
Naturalistic	35	9.54	18	4.90	53	14.44
Assertive nature	24	6.54	29	7.90	53	14.44
Dependency	18	4.90	20	5.45	38	10.35
Lucrative	22	6.00	13	3.54	35	9.54
Lonely nature	27	7.36	15	4.09	42	11.44
Time Based personality	28	7.62	23	6.27	51	13.90
Total	213	58.04	154	41.96	367	100

From the table, it can be seen that Magnanimity (10.08%) and Naturalistic (9.54%) respectively were prominent among the males, whereas Assertive nature (7.9%) and Time Based personality (6.27%) were given importance among the females. In males this was followed by Lonely nature (7.36%) and Time Based personality (7.62%), where in females it was ‘Balancing nature’ (5.72%) and ‘Dependency’ (5.45%). In general there is contraction in the case of Magnanimity—more in males and less in females. Similarly the case of ‘Naturalistic’ features more in males and less in females.

The skills of the respondents have been identified among states and sex as follows:

1. In Tamil Nadu, ‘Magnanimity’ and ‘Naturalistic’ (2.72%) are equally considered among male students, followed by ‘Balancing nature’ and ‘Lonely nature’ (1.36%) in equal rank as well. ‘Assertive nature’ and ‘Naturalistic’ (2.18%) are equal among female respondents followed by ‘Balancing nature’ and ‘Magnanimity’ (1.63%), also in equal rank.
2. In Pondicherry, all of the respondents are male and all favoured the category of ‘Magnanimity’ and ‘Time Based’ personality (0.54%) equally, followed by ‘Assertive nature’ (0.27%).
3. In Andhra Pradesh, the male group dominates on ‘Lonely nature’ (3.81%), followed by ‘Magnanimity’ and ‘Time Based’ personality (both

3.00%) These are followed by ‘Assertive nature’ and ‘Lucrative’ (2.72%) equally. Whereas, for females ‘Time based’ personality (2.18%) is followed by ‘Assertive nature’ (1.09%).

4. In Karnataka, males fall under the category of ‘Naturalistic’ (5.72%) followed by ‘Balancing nature’ and ‘Time based’ personality (3%), whereas for females ‘Dependency’ (3.27%) and ‘Assertive nature’ (3%) dominate, followed by ‘Naturalistic’ and ‘Lucrative’ (both 1.63%).
5. In Kerala, the male group falls under the categories of ‘Dependency’ and ‘Lucrative’ (0.54%) equally whereas among females ‘Balancing nature’ (2.45%) is followed by ‘Assertive nature’ (1.63%).

From Table 17, the top priority variables for the students are identified and the same results are presented in Table 18.

In order to identify the overall view of the three environments such as Work Environment, Natural Environment, and Social Environment, their relationship to states of south India and gender is shown in Table 19.

Rash nature, Workaholic, Punctuality, Patience, Easygoing, Magnanimity, Lonely Nature, Naturalistic, and Dependency are some of the behavioral traits thus existing among male LIS professionals. Similarly Punctuality, Achievement oriented, Patience, Relaxed, Complacent, Assertive, Time

Table 17. Social Environment Components vs. States vs. Gender

States	Balancing Nature		Magnanimity		Naturalistic		Assertive Nature		Dependency		Lucrative		Loneliness		Time Based Activity		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Tamil Nadu	5	6	10	6	10	8	3	8	3	4	4	1	5	3	4	7	87
	1.36	1.63	2.72	1.63	2.72	2.18	0.82	2.18	0.82	1.09	1.09	0.27	1.36	0.82	1.09	1.91	23.71
Pondicherry	0	0	2	0	0	0	1	0	0	0	0	0	0	0	2	0	5
	0.00	0.00	0.54	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	1.36
Andhra Pradesh	5	1	11	1	4	2	10	4	9	2	10	3	14	7	11	8	102
	1.36	0.27	3.00	0.27	1.09	0.54	2.72	1.09	2.45	0.54	2.72	0.82	3.81	1.91	3.00	2.18	27.79
Karnataka	11.	5	14	3	21	6	9	11	4	12	6	6	8	2	11	5	134
	3.00	1.36	3.81	0.82	5.72	1.63	2.45	3.00	1.09	3.27	1.63	1.63	2.18	0.54	3.00	1.36	36.51
Kerala	1	9	0	5	0	2	1	6	2	2	2	3	0	3	0	3	39
	0.27	2.45	0.00	1.36	0.00	0.54	0.27	1.63	0.54	0.54	0.54	0.82	0.00	0.82	0.00	0.82	10.63
Total	22	21	37	15	35	18	24	29	18	20	22	13	27	15	28	23	367
	5.99	5.72	10.08	4.09	9.54	4.90	6.54	7.90	4.90	5.45	5.99	3.54	7.36	4.09	7.63	6.27	100.00

Table 18. Top Priority Variables in Social Environment among States vs. Gender

State	Male	Female
Tamil Nadu	Magnanimity	Assertive
Pondicherry	Magnanimity	-
Andhra Pradesh	Lonely nature	Time base personality
Karnataka	Naturalistic	Dependency
Kerala	Dependency	Balancing nature

Table 19. Comparison of Top Priority Variables in Three Environment among States vs. Gender

State	Work Environment		Natural Environment		Social Environment	
	Male	Female	Male	Female	Male	Female
Tamil Nadu	Rash nature	Punctuality	Patience	Patience	Magnanimity	Assertive
Pondicherry	Workaholic	-	Patience	-	Magnanimity	-
Andhra Pradesh	Workaholic	Achievement oriented	Easy going	Relaxed	Lonely nature	Time based personality
Karnataka	Punctuality	Punctuality	Easy going	Complacent	Naturalistic	Dependency
Kerala	Punctuality	Punctuality	Patience	Patience	Dependency	Balancing nature

based, Dependency and Balancing nature exist among female LIS students.

4. CONCLUSIONS

It is often said that people's behaviour is purely based on the environment and differs from one profession to another and from person to person. Further, it depends on culture, sex, and state of mind. This study helped to identify the behavioral psychology of LIS students in South India. Attitude is of utmost importance as it can make or mar the library professional par excellence. The importance of optimism, enthusiasm, courage, confidence, sense of humor, empathy, sympathy, patience, altruism, and intellectual curiosity should be the focus of library professionals. Their qualities in fact should be a combination of knowledge, skills, and attitudes that these authors also seek from the new breed of librarians. The respondents exhibit a sense of values and standards, a public service orientation, and above all the commitment to the fundamental values of access to information. This study also demonstrates that LIS students shall need to possess these qualities, including risk taking, adaptability, assertiveness, and willingness to embrace approaches from outside the library world.

This study discusses research results on the behavioral traits of Indian LIS students using descriptive inferential statistics. Future studies can replicate its methods in various nations and/or regions with various groups of users in various types of libraries. Further studies and inferential analysis on the relationships between behavioral traits and customer satisfaction and loyalty can suggest much more beneficial information for library management as well.

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