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INFORMATION LITERACY ASSESSMENT AMONG STUDENTS – MADURAI KAMARAJ UNIVERSITY AND MANONMANIAM SUNDARANAR UNIVERSITY

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ASSESSING INFORMATION LITERACY SKILLS AMONG STUDENTS OF MADURAI KAMARAJ UNIVERSITY AND MANONMANIAM SUNDARANAR UNIVERSITY – A STUDY

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ABSTRACT:

Information literacy enables the society to utilize the information power in holistic way. Information literacy helps to extend the learning beyond formal classroom settings. The main aim of this study is to assess the information literacy level of students undergoing higher education in Tamil Nadu. In order to do this, the study enrolled a total of 207 students from Madurai Kamaraj University and Manonmaniam Sundaranar University. A total of 68 female students and 134 male students were included in the study. Majority of the students are in the age group <23. Around 70.8% students responded that they received formal training / orientation to use. Around 38.1% of the students learnt the information literacy from Friends and it holds the first rank. Around 86.1% of the students received information literacy education from single educator. Around 47.5% of the students use Books and it holds the first rank. Around 51% of the students are using single information source. Around 77.2% of the students use internet to locate information and it holds the first rank. Around 72.3% of the students are using single tool to locate information. Around 45% of the students use Title to locate information and it holds the first rank. Around 68.3% of the students are using single searching mechanism. Majority of the students exhibit the good information literacy skills and good ICT literacy skills. There is a significance difference between students' information literacy and age group.

Keywords: Information Literacy, ICT literacy.

1. INTRODUCTION:

Information literacy enables the society to utilize the information power in holistic way. Information literacy is inevitable in the society due to the following reasons:

- Creation and dissemination of knowledge has increased.
- The current knowledge creation and dissemination practice is changing frequently.
- The advancements in information communication technology imposes striking changes conventionally.
- The social and technological changes drives more information need and information use.
- In society, the social pressure on keeping themselves on par with others is increased.

Even though information communication technology is the major drive of information literacy, Information literacy is not same as Information communication technology literacy. Information literacy

is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information".

The higher education institutions stress upon the information literacy among students since they are future pillars. Information literacy helps to extend the learning beyond formal classroom settings. It develops the students as lifelong learners and enables the students to fulfill their information need in an effective manner, helps them to be updated and keep themselves on par with others in the student community.

To understand the information literacy in higher education, the SCONUL working group defined a core model "Seven Pillars of Information literacy" in 1999 which was revised in 2011 and then reviewed in 2015. The seven pillars of the information literacy are

1. Identify - Able to identify a personal need for information
2. Scope - Can assess current knowledge and identify gaps
3. Plan - Can construct strategies for locating information and data
4. Gather - Can locate and access the information and data they need
5. Evaluate - Can review the research process and compare and evaluate information and data
6. Manage - Can organize information professionally and ethically
7. Present - Can apply the knowledge gained

The main aim of this study is to assess the information literacy level of students undergoing higher education in Tamil Nadu with the help of the SCONUL model. In order to do this, the study enrolled a total of 207 students from Madurai Kamaraj University and Manonmaniam Sundaranar University. Madurai Kamaraj University is located in Madurai city in Tamil Nadu, India. Manonmaniam Sundaranar University is located in Tamil Nadu, India. This representative sample indicates the total population of students pursing studies in higher education institutions in Tamil Nadu. The main outcome of the study is to represent the information literacy level of students undergoing higher education in Tamil Nadu.

2. REVIEW OF LITERATURE:

Maughan, P. D. (2001) has conducted a Information Literacy survey among Undergraduates of California Berkeley University. The most fundamental conclusion that was drawn from the survey was that students think they know more about accessing information and conducting library research than they are able to demonstrate when put to the test.

Kwon, N., & Song, H. (2011) examined the influence of personality traits on information competency. Data were collected using standardized survey instruments, including Costa and McCrae's NEO-Five Factor Inventory. The surveys were administered to a convenient sample of 185 college students at a large public university in the southeastern United States. The study results revealed that three of the five personality traits were significant determinants of information competency among the population sample. Those students, who are more conscientious, open to experience, and extroverted tended to report greater information competency than students who are not. Revealing the moderating role of gender, the study uncovers gender-specific personality traits that affect information competency. Specifically, the study finds extroversion to be a male-specific trait and openness to experience a female-specific trait. The results identify conscientiousness as the most consistent and robust determinant of information competency across both genders.

Pinto, M. (2010) has conducted the IL-HUMASS survey on information literacy among the students, teachers and librarians holding various degrees in social sciences and humanities at

Spanish and Portuguese universities. The case-study method, experts' opinions, and a literature review were used to prepare an initial version that was refined through student focus groups, interviews with librarians, and academics' reports. A final version contained 26 items grouped into four categories (information search, assessment, processing and communication / dissemination) and three self-reporting dimensions (motivation, self-efficacy and favorite source of learning). The self-reporting nature of the IL-HUMASS survey involves a self-assessment approach that has until now been proposed rarely and only in a limited way. This will provide a better understanding of user groups through a mixed analysis including two quantitative dimensions (motivation and self-efficacy) and one qualitative dimension (the preferred source of learning).

Islam, M. A., & Tsuji, K. (2010) investigated the information literacy competency of Information Science and Library Management graduate students of Dhaka University. In general it was found that students had limited skills in the area of information literacy, as it is not discussed extensively in their academic course curriculum. This study urges the incorporation of an information literacy Programme in the course curriculum, and more writing, discussion and other relevant issues that will make the students more information literate.

The present study investigates the information literacy level of students undergoing higher education in Tamil Nadu with the representative sample from Madurai Kamaraj University, Madurai and Manonmaniam Sundaranar University.

2. OBJECTIVES OF THE STUDY:

The objectives of the study are:
- To know how many of the students already receive formal orientation programs to use information.
- To find out who educate the students on how to access and use information.
- To identify the main information sources the students uses to find information.
- To know about the tools the students used to locate information.
- To elucidate the searching mechanism used to locate information.
- To find out the information literacy level among students.
- To identify the information communication technology literacy level among students.

3. HYPOTHESIS:

1. There is no significant difference in the information literacy level with gender
2. There is no significant difference in the information literacy level with age group

5. METHODOLOGY:

Survey design was used to conduct the study and a structured questionnaire is used to collect data. The structured questionnaire is framed after a thorough literature review. Students of Madurai Kamaraj University and Manonmaniam Sundaranar University were randomly selected for the study and a total of 250 questionnaires were distributed. A total of 202 students were completed and returned the questionnaire. Data collected were organized in Excel and analyzed by using SPSS PASW 18.

6. ANALYSIS AND INTERPRETATION:

In Madurai Kamaraj University, a total of 125 questionnaires were distributed and 105 students were responded. The response rate was 84%. In Manonmaniam Sundaranar University, 125 questionnaires were distributed and 72 students were responded. The response rate was 77.6%. The total number of questionnaires distributed was 250 and 202 students were responded. The overall response rate was 80.8%. The Questionnaire distribution details are as shown in Table 1.

Table 1: Distribution of Questionnaire

S.no	University	Distributed	No. of Respondents	Response Rate
1	Madurai Kamaraj University	125	105	84.0%
2	Manonmaniam Sundaranar University	125	97	77.6%
	Total	**250**	**202**	80.8%

The student demographics details are shown in Table 2. A total of 68 female students and 134 male students were included in the study. The Minimum age of the student included in the study is 18 and maximum age is 39. Majority of the students in the age group <23. On considering the course discipline category, the arts category students is 54.5%, science & humanity category students is 45.5%.

Table 2: Student Demographics

S.no	Characteristic	No. of Respondents	Percentage
	Gender		
1	Female	68	33.7%
2	Male	134	66.3%
	Age Group		
1	< 23	85	42.1%
2	Between 23 and 25	71	35.1%
3	> 26	46	22.8%
	Course Discipline Category		
1	Arts	110	54.5%
2	Science & Humanities	92	45.5%
	Total	**202**	

The students and the formal training / orientation program they received to use information was examined and presented in Table 3. A total of 143 students responded that they received formal training / orientation to use information and it was around 70.8%.

Table 3: Formal Training / Orientation to use information

S.no	Training / Orientation attended	No. of Respondents	Percentage
1	Yes	143	70.8%
2	No	59	29.2%

The students and the information literacy educators was investigated and presented in Table 4. Around 38.1% of the students learnt the information literacy from Friends and it holds the first rank. Both the Library Staff and Learn by me holds the second rank with 25.7%.

Table 4: Information Literacy Skills Educators

S.no	Educator	No. of Respondents	Percentage	Rank

1	Friends	77	38.1%		1
2	Library Staff	52	25.7%		2
3	Learn by myself	52	25.7%		2
4	Teacher	33	16.3%		4
5	Internet	28	13.9%		5
	Total	242			

The pattern of information literacy skills educators is shown in Table 5. Around 86.1% of the students are received information literacy education from single educator and 13.9% of the students are received information literacy education from more than one educator.

Table 5: Information Literacy Skills Educators Pattern

S.no	No. of Educators	No. of Respondents	Percentage
1	1	174	86.1%
2	2	19	9.4%
3	3	7	3.5%
4	5	2	1.0%
	Total	**202**	

The key information sources used by the students are examined, ranked and tabulated in Table 6. Around 47.5% of the students use Books and it holds the first rank. Newspapers (33.2%) and Journals (32.2%) holds the second and third rank respectively.

Table 6: Information Sources Used by the Students

S.no	No. of Information Sources	No. of Respondents	Percentage	Rank
1	Books	96	47.5	1
2	Newspapers	67	33.2	2
3	Journals	65	32.2	3
4	Websites/ Blogs / Wiki	57	28.2	4
5	Online journals	55	27.2	5
6	Digital Library	22	10.9	6
7	Database	22	10.9	7
8	Institution Repository	19	9.4	8
9	Podcast	8	4.0	9
	Total	**411**		

The pattern of information sources is shown in Table 7. Around 51% of the students are using single information source and 49.9% of the students are using more than one information sources.

Table 7: Information Sources Usage Pattern

S.no	No. of Information Sources	No. of	Percentage

		Respondents	
1	1	103	51.0
2	2	41	20.3
3	3	29	14.4
4	4	12	5.9
5	5	14	6.9
6	6	1	0.5
7	7	1	0.5
8	8	1	0.5

The tools used to locate information is investigated, ranked and tabulated in Table 8. Around 77.2% of the students use internet to locate information and it holds the first rank. Bibliography (30.7%), Abstracts and Indexes (15.3%) holds the second and third rank respectively.

Table 8: Tools used to Locate Information

S.no	Tool	No. of Respondents	Percentage	Rank
1	Internet	156	77.2	1
2	Bibliography	62	30.7	2
3	Abstracts and Indexes	31	15.3	3
4	Catalogue / Union Catalogues	19	9.4	3
5	OPAC	14	6.9	4
	Total	282		

The pattern of tools used to locate information is shown in Table 9. Around 72.3% of the students are using single tool and 27.7% of the students are using more than one tool.

Table 9: Pattern - Tools used to Locate Information

S.no	No. of Information Tools	No. of Respondents	Percentage
1	1	146	72.3
2	2	36	17.8
3	3	18	8.9
4	5	2	1.0

The searching mechanism used to locate information is investigated, ranked and tabulated in Table 10. Around 45% of the students use Title to locate information and it holds the first rank. Author (38.6%), Subject (36.1%) holds the second and third rank respectively.

Table 10: Searching Mechanism used to Locate Information

S.no	Searching Mechanism	No. of Respondents	Percentage	Rank
1	By Title	91	45.0	1

2	By Author	78	38.6	2
3	By Subject	73	36.1	3
4	By Keywords	45	22.3	4
5	By Publisher	22	10.9	5

The pattern of searching mechanism used to locate information is shown in Table 11. Around 68.3% of the students are using single searching mechanism and 18.3% of the students are using more than one searching mechanism

Table 11: Pattern - Searching Mechanism used to Locate Information

S.no	No. of Searching mechanism	No. of Respondents	Percentage
1	1	138	68.3
2	2	37	18.3
3	3	17	8.4
4	4	4	2.0
5	5	6	3.0

The students' information literacy skills were assessed with Likert 5 – point scale. Table 11 shows up the literacy skills frequency and percentages. Majority of the students exhibit the good information literacy skills.

Table 11: Information Literacy

S.no	Description	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1	I have the ability of recognizing a need of information	33 (16.33)	13 (6.43)	39 (19.3)	80 (39.6)	37 (18.31)
2	I have the ability of defining the scope of information requirement	13 (6.43)	29 (14.35)	39 (19.3)	80 (39.6)	41 (20.29)
3	I can identify the correct sources of information	21 (10.39)	14 (6.93)	55 (27.22)	65 (32.17)	47 (23.26)
4	I have the ability of accessing information effectively	10 (4.95)	18 (8.91)	59 (29.2)	64 (31.68)	51 (25.24)
5	I can assess the accessed information with defined requirement	13 (6.43)	24 (11.88)	58 (28.71)	58 (28.71)	49 (24.25)
6	I have the ability of organize, apply and communicate the information efficiently	8 (3.96)	21 (10.39)	64 (31.68)	64 (31.68)	45 (22.27)

S.no	Description	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
7	I have the ability of synthesize the information and accomplish the defined purpose	13 (6.43)	26 (12.87)	50 (24.75)	75 (37.12)	38 (18.81)
8	I have the ability of understand the economic, legal, social issues surrounding the use of information	9 (4.45)	21 (10.39)	60 (29.7)	72 (35.64)	40 (19.8)
9	I can access and use information ethically and legally	15 (7.42)	18 (8.91)	54 (26.73)	75 (37.12)	40 (19.8)
10	I know about "Copyright" laws	10 (4.95)	20 (9.9)	49 (24.25)	75 (37.12)	48 (23.76)
11	I know what is "Plagarism"	18 (8.91)	22 (10.89)	48 (23.76)	65 (32.17)	49 (24.25)
12	I can address the knowledge gaps in the existing literature	9 (4.45)	18 (8.91)	43 (21.28)	76 (37.62)	56 (27.72)

The students' information communication technology literacy skills were assessed with Likert 5 – point scale. Table 12 shows up the ICT literacy skills frequency and percentages. Majority of the students exhibit the good ICT literacy skills.

Table 12: Information Communication Technology Literacy

S.no	Description	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1	I know important terms related to PC and internet	17 (8.41)	17 (8.41)	40 (19.8)	78 (38.61)	50 (24.75)
2	I know how to work with Browser	15 (7.42)	22 (10.89)	44 (21.78)	65 (32.17)	56 (27.72)
3	I know how to search in Search engines	10 (4.95)	19 (9.4)	40 (19.8)	74 (36.63)	59 (29.2)
4	I know how the structure of the www	12 (5.94)	23 (11.38)	47 (23.26)	63 (31.18)	57 (28.21)
5	I know how to create a safe password	10 (4.95)	22 (10.89)	40 (19.8)	68 (33.66)	62 (30.69)
6	I know about viruses and is able to avoid them	16 (7.92)	19 (9.4)	46 (22.77)	66 (32.67)	55 (27.22)
7	I know what is keyword / tag word	11 (5.44)	21 (10.39)	53 (26.23)	65 (32.17)	52 (25.74)
8	I use Boolean operators (AND, OR, NOT) in search techniques	15 (7.42)	28 (13.86)	46 (22.77)	67 (33.16)	46 (22.77)

Based on the students' response, the information literacy skills variables contains values 1 – Strongly disagree, 2-Disagree, 3- No Opinion, 4-Agree, 5-Strongly Agree. An information literacy score is derived for each student based on the 12 skills. The information literacy score is then examined with gender and age groups.

To investigate about the statistical relationship between the information literacy score and students individual characteristics, the significance level (P value) is found out through the popular statistical tests. To verify the significance level of information literacy score and gender, t-test is used. To verify the significance level of information literacy score and age groups, ANOVA test is used. The table 13 shows up the information literacy score and significance (p-Value).

Table 13: Students' Information Literacy Vs Individual Characteristics

Information Literacy	Gender	Age Groups
P Value	0.302	0.047*

* Significant at the 0.05 level

The t-test significance value shows up that there is no significance difference between students' information literacy and gender. The ANOVA test significance value shows up that there is a significance difference between students' information literacy and age group.

Based on the students' response, the ICT literacy skills variables contains values 1 – Strongly disagree, 2-Disagree, 3- No Opinion, 4-Agree, 5-Strongly Agree. An ICT literacy score is derived for each student based on the 8 skills. The information literacy score is then examined with gender and age groups.

To verify the significance level of ICT literacy score and gender, t-test is used. To verify the significance level of ICT literacy score and age groups, ANOVA test is used. The table 14 shows up the ICT literacy score and significance (p-Value).

Table 13: Students' ICT Literacy Vs Individual Characteristics

ICT Literacy	Gender	Age Groups
P Value	0.717	0.182

* Significant at the 0.05 level

The t-test significance value shows up that there is no significance difference between students' ICT literacy and gender. The ANOVA test significance value shows up that there is no significance difference between students' ICT literacy and age group.

7. CONCLUSION

Students of Madurai Kamaraj University and Manonmaniam Sundaranar University were randomly selected for the study and a total of 202 students was enrolled in the study. A total of 68 female students and 134 male students were included in the study. Majority of the students are in the age group <23. On considering the course discipline category, the arts category students is 54.5%, science & humanity category students is 45.5%. A total of 143 students responded that they received formal training / orientation to use information and it was around 70.8%. Around 38.1% of the students learnt the information literacy from Friends and it holds the first rank. Around 86.1% of the students received information literacy education from single educator. Around 47.5% of the students use Books and it holds the first rank. Around 51% of the students are using single information source. Around 77.2% of the students use internet to locate information and it holds the first rank. Around 72.3% of the students are using single tool to locate information. Around 45% of the students use Title to locate information and it holds the first rank. Around 68.3% of the students are using single searching mechanism. Majority of the

students exhibit the good information literacy skills. Majority of the students exhibit the good ICT literacy skills. There is a significance difference between students' information literacy and age group. There is no significance difference between students' ICT literacy and gender, age group.

The information literacy capacitates the students to use the information independently and ethically. It enables the students to be productive during their student life and contribute better to the society.

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