

# Self-Perception of Information Literacy Skills and Confidence Level in Use of Information by Women Faculty Members: An Analysis

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**Abstract** - This article is an attempt to present and publish different aspects of doctoral Thesis awarded by Anna University in the year 2018. The concept of this article is self perception of women faculty member's information literacy skills and their confidence level in using information for their teaching and research practices. Data and analysis have been compiled as per the aspect of taken topic. Sample size 364 based on primary data collected through well structured questionnaire from 41 Engineering colleges affiliated to Anna University in Coimbatore region. Data have been tabulated and applied suitable statistical tools. Women faculty members self perceived that they do have the confident in evaluating the quality, Interpretation, use of e-format and information retrieval skills. Their confidence level on skills to handle the information is positively significantly correlates with information literacy skills towards information seeking attitudes and the same on internet sources. It is concluded that the faculty member's information seeking attitude and the same attitude on the internet sources influences to increase effectively confidence level of their skills to handle the information. It has been proved qualitatively and quantitatively. The author suggested to requiring more course integrated information literacy program, motivation and appreciation for research, presentation and publication among women faculty members.

**Keywords:** Self-Perception, Literacy Skills, Research and Teaching, Confidence Level

## I. INTRODUCTION

Information has been an important resource for Human beings to help them to make decisions and guide their actions. The volume of information and complexity of information systems, technological development and economic progress has added to complexity. The definition of the American Library Association (1989) (ALA) defined "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information". Later it has been defined "21<sup>st</sup> century information literacy as the ability to seek and effectively utilize information resources, including knowledge of how to use technologies and the forms in which information is stored". In terms of information literacy competency standards, Association of College & Research Libraries (ACRL) (2000) has defined an information literate student as one who determines the nature and extent of the information needed; accesses needed information effectively and efficiently; evaluates information and its

sources critically and incorporates selected information into his or her knowledge base and value system; individually or as member of group, use information effectively to accomplish a specific purpose; understand many of the economic, legal, and social issues surrounding the use of information, and accesses and uses information ethically and legally."

## II. LITERATURE REVIEW

Bao (1998) analysed user gratification with information services delivered through the Internet's World Wide Web. The majority of the respondents prioritised web resources. Bao concluded that the information access through internet is becoming a significant element of library services in the future. Academic librarians need to reallocate their budget to redesign the infrastructure and to develop the availability of electronic resources for students and faculty members. Bao recommended effective internet accessing training programs for effective usage of learning groups.

Huerta & Sandoval-Almazan (2007) stated that users expressed frustration in information seeking and that the participants lacked in three abilities from the Digital Literacy framework – branching (ability to navigate through a nonlinear environment to find the preferred information), recreation (ability to analyse and synthesize the information retrieved) and information abilities (ability to assess the quality of information). It has also identified barriers, such as internet access speed, lack of knowledge of the English language.

Thanuskodi (2011) analysed the information seeking behaviour and attitude of faculty members towards using e-journals. The study concluded with pointing out the importance of converting conventional resources into digital sources and awareness on creating usage of those resources. National Association of Software and Services Companies (NASSCOM) (2007) and Saha & Ghosh (2012) pointed that the Quality of faculty members and teaching methodology to be key factors to create quality engineers. Regha (2014) made an attempt to explore if there are any differences in Information Literacy Competency and its dimensions based on gender. The study found that there is no difference based on gender except for information search through technology. Male research scholars are better in information search through technology than the female research

scholars. The study concludes that this difference may be due to the exposure towards technology and the opportunities available to the male research scholars. The author suggested that female research scholars ought to be given more training in technology based information source and accessibility. They can be encouraged to take part in such training programs. Information literacy skills are fundamental for creating skilled engineering professionals for the 21<sup>st</sup> century. The attitude of faculty of engineering colleges is one of the crucial factors determining the quality of information literacy skills taught in engineering programs.

### III. NEED FOR THE STUDY

Tamil Nadu has seen a very high growth of engineering colleges over the last two decades: which has also raised concerns of the quality of engineering education. Locating the study in Tamil Nadu, gives the study a geographical and professional relevance. Women account for 35% of the faculty in engineering colleges affiliated to Anna University. Hence the focus of this study is on information literacy skills of women faculty. Further Wen & Shih (2008) had identified “attitude” as the most powerful force for promoting teachers in information literacy competence and their willingness to apply information technology in teaching. Hence the present attitudinal study, which is “Self-Perception of information literacy skills and

confidence level in use of information by women faculty members: An analysis”.

### IV. OBJECTIVES OF THE STUDY

To reveal women faculty member’s self confidence level on use of information and opinions regarding barriers to use of information in teaching and research.

### V. METHODOLOGY

The part of study has been done using data collected for Doctoral Thesis. Sample Size 364. The study based on primary data. Responses had been collected through well structured questionnaire from women faculty members working in engineering colleges in Coimbatore region. Percentile analysis, Correlation, ANOVA and Regression had been applied to find results of the taken study.

### VI. DATA ANALYSIS

#### A. Self-Perception on Confident among Women Engineering Faculty Members in Handling the Information

The following Table I shows that the data collected on the self-perception/opinion/attitude of women engineering faculty on five statements related on the confident level to handle the information retrieved.

TABLE I ASSESSMENT OF SELF-CONFIDENCE IN HANDLING INFORMATION

S. No.	Attitudinal Barriers	Agree	%	Partially agree	%	Disagree	%	No Opinion	%	Modal response	Median response
1	Not confident in evaluating the quality of information	66	18	108	30	175	48	15	4	Disagree	Disagree
2	Don't have the skills to make use of information	22	6	58	16	262	72	22	6	Disagree	Disagree
3	Not confident in interpretation of information	44	12	83	23	219	60	18	5	Disagree	Disagree
4	Don't know how to use e-format (e.g. Online catalogue)	22	6	142	39	178	49	22	6	Disagree	Disagree
5	Lack of information retrieving skills to search	47	13	109	30	193	53	15	4	Disagree	Disagree

The statements have been worked negatively, agreement of the statement, implies that the respondents do not have the attitude of self confidence in the particular skill of handling information retrieved. Simple percentage analysis has been done on each statement accepted. Model and Median

response on each factor is been disagree. So the majority of the faculty members self perceived that they have the confident in evaluating the quality, Interpretation, use of e-format and information retrieval skills.

TABLE II ATTITUDES TOWARDS USE OF INFORMATION IN RESEARCH AND TEACHING

S. No.	Attitudinal barriers	Agree	%	Partially agree	%	Disagree	%	No Opinion	%	Modal response	Median response
1	Lack of Facilities	80	22	164	45	95	26	25	7	Partially agree	Partially agree
2	Minimal Benefits	84	23	149	41	106	29	25	7	Partially agree	Partially agree
3	Less Benefits to Myself	33	9	157	43	167	46	7	2	Disagree	Partially agree
4	No Time to Make Changes	66	18	80	22	178	49	40	11	Disagree	Disagree
5	No Need to Change	80	22	138	38	139	38	7	2	Disagree/	Partially agree
6	Little Orientation in Pedagogical Issues	18	5	127	35	132	36	87	24	Disagree	Disagree

*B. Attitudes towards Use of Information in Research and Teaching*

The Table II shows majority of the respondents partially agree this attitudinal barriers statement which means they accept the constructs under use of information in research and teaching. Altogether ‘agree’ and ‘partially agree’ around 60% of respondents agreed this attitudinal barrier on all statements except the barrier ‘no time to make change’. It is concluded that the women faculty members have a self-perception that making use of information cannot process into action in terms of research and teaching because of lack of facility, minimal action, lesser benefits, no need to change and little orientation in pedagogical issues. 178 out

of 364 (49%) respondents have disagreed with this statement, women faculty members self-perceived themselves; they do have time to make changes for teaching practice as a result of new acquired information.

*C. Correlation between Information Literacy Skills and Faculty Member’s Confidence Level on Skill to Handle the Information.*

The following analysis deals relationship between information literacy skills towards information seeking attitudes and faculty member’s confidence on skill to handle the information.

TABLE III INFORMATION SEEKING ATTITUDE AND FACULTY MEMBER’S CONFIDENCE LEVEL

		IL skills towards ISA	IL skills on Internet sources	Confidence level on skill to handle the Information
IL skills towards ISA	Pearson Correlation	1	.079	.240**
	Sig. (2-tailed)		.005	.000
	N	364	364	364
IL skills on Internet sources	Pearson Correlation	.079	1	.054
	Sig. (2-tailed)	.035		.006
	N	364	364	364
Confidence level on skill to handle the Information	Pearson Correlation	.240**	.054	1
	Sig. (2-tailed)	.000	.006	
	N	364	364	364

\*\* . Correlation is significant at the 0.01 level (2-tailed).

It is observed that the Information literacy skills towards information seeking attitudes is positively significantly correlates with information literacy skills on internet sources ( $r=.079$ ,  $sig.0.005$ ). Information literacy skills towards information seeking attitudes of faculty members is negatively significantly correlates with faculties confidence level on skill to handle the information( $r=-.240$ ,  $sig.0.000$ ). Information literacy skills towards information seeking attitudes on internet sources of faculty members is positively significantly correlates with faculties confidence level on skill to handle the information. ( $r=.054$ ,  $sig. 306$ ).

*D. Influences between ILS towards ISA on Internet Sources and Confidence Level of Women Faculty Members.*

The following analysis carried out to understand to what extent information literacy skills towards Information seeking attitude and on internet sources influences faculty’s Confident level on skills to handle the information. The following table shows the correlation between Information seeking attitude and on Internet sources and confident level on skills to handle the information.

Model	R	R <sup>2</sup>
1	.243	.059

The following ANOVA table ensures the model fit.

TABLE IV INFORMATION SEEKING ATTITUDE ON INTERNET SOURCES AND CONFIDENCE

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	280.880	2	140.440	11.309	.000 <sup>b</sup>
Residual	4483.076	361	12.418		
Total	4763.956	363			

a. Dependent Variable: confidence on skills to handle the information  
b. Predictors: (Constant), seeking attitudes on internet sources and others

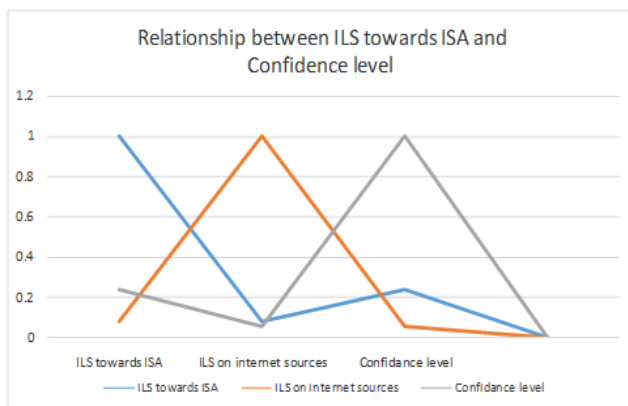


Fig. 2 Relationships between ILS towards ISA and confidence level

The table of significant (0.000) is less than 0.05, the level of significance which indicates that the fit is good one. The following table gives the regression co-efficient. The

regression equation is:  $ISA = 3.164 + 0.144(\text{MODEL A}) + 0.62(\text{MODEL B})$

TABLE V ILS TOWARDS ISA AND CONFIDENCE LEVEL

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.164	1.599		1.978	.049
A	Seeking attitude	.144	.031	.238	4.638	.000
B	Seeking attitude on Internet sources	.062	.090	.035	.686	.493

a. Dependent Variable: confidence on skills to handle the information

It is understood that 100 units change in information seeking attitude and the same skills on internet sources will improve the confidence level of skills to handle the information by (0.01x100) 'T' unit. Therefore high level of information seeking attitude will improve confident level of skills to handle the information to minimum level. From the table it is understood that 100 units of seeking attitude of faculty members and the same on internet sources influences significantly (.062\*100) =06.2 units by confident level of their skills to handle the information.

### VII. RESULTS

1. The majority of the faculty members self perceived that they have the confident in evaluating the quality, Interpretation, use of e-format and information retrieval skills.
2. 178 out of 364 (49%) respondents have disagreed with this statement, women faculty members self-perceived themselves; they do have time to make changes for teaching practice as a result of new acquired information.
3. Faculties Confidence level on skills to handle the information is positively significantly correlates with information literacy skills towards information seeking attitudes and the same on internet sources.
4. It is concluded that the faculty member's information seeking attitude and the same attitude on the internet sources influences to increase effectively confidence level of their skills to handle the information.
5. Majority of the respondents 'Agree' and 'partially agree' this attitudinal barriers statement which means they are accepting the constructs under use of information is not possible in research and teaching. Altogether 'agree' and 'partially agree' around 60% of respondents agreed this attitudinal barrier on all statements except the barrier 'no time to make change'

### VIII. CONCLUSION

The relationship between information literacy skills, information seeking attitude, information retrieval strategies, and the same on internet sources are positively impact on confidence level of women faculty members. Further, it requires more course integrated formation literacy program, motivation and appreciation for research, presentation and publication.

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