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Information Literacy Competency Assessment of Research Scholars in a University Environment

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ABSTRACT

A study was conducted in Karnataka State Akkamahadevi Women's University, Vijayapura to know the information literacy competency level of the research scholars. Questionnaire was used as a data collection tool. The present research is based on experimental research design. Initial competency assessment was tested in the pre-test. A programme was developed and implemented as a treatment and effectiveness of the programme was checked in the post-test. The study found that the majority of the respondents were aware regarding competency assessment. More than 90% of the research scholars agree with identifying the research topic and any other information. The majority (91.4%) of the respondents are able to develop a thesis statement and formulate questions based on the competency assessment. More than 71% of the research scholars opine that they can identify general and subject specific information sources. Majority (93.4%) of the research scholars are cleared that they know to define and modify competency assessment. The authors suggest the University to take steps to impart information literacy programmes to the research scholars. And, such training should be need for the research level also to attain the advanced level skills and expertise.

1. Introduction

As everyday life becomes increasingly digitized, Internet users faced new challenges as they endeavour to solve information problems. Mainly the information explosion has created anxiety among information users on how to reduce the information overload and use information in a more efficient way to complete the task in minimal period of time. The growth and development of information society and leading to a knowledge society has given rise to information literacy as the core of lifelong learning. Information literacy is basically empowering people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. This is considered as basic human right in a digital world and promotes social inclusion of all nations. Lifelong learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit. Zurkowski (1974) first used the term information literacy. Initially this concept was not considered seriously, but in 1980s, this concept got a prime importance as nature of information became more complex. Later during 1990's, various professional organizations and associations in Library and Information Science focused on this issue and developed standards, guidelines and models, tests, programmes, curricula for Information literacy. Criteria for Information literacy competency assessment were developed. Information literacy programmes were designed based on the assessment of Information literacy competency. A study has been made to know the Information literacy competency among research scholars in University environment.

2. Review of literature

A Literature search revealed that a number of studies were carried out in the recent past to find out the Information Literacy competency of user in academic environment.

Mutula et.al (2006) finds that information literacy instructions through online mode progress student's competencies compared to face-to-face training approach. In the study also observed a blended training approach to a distinct learning mode.

Emmett and Emde (2007) confirmed the effectiveness of a curriculum designed to foster information literacy skills in graduate students in chemistry bibliography course.

Zahid and Shoeb (2011) concluded that IUB freshman business students necessitate more competencies to solve information-related troubles.

Sakthi, (2011) assesses information literacy competency among the full-time research scholars of the University of Madras and its affiliated colleges. The study finds that a large majority of the respondents have high levels of information management competency and respondents doing Doctor of Philosophy have a higher mean score of information literacy competency compared to the candidates doing Master of Philosophy.

Vasudevan (2012) made known that the information literacy capabilities of postgraduate students and faculty of university of Kerala are comparatively low.

Singh and Joshi (2013) examined various instruction initiatives taken for positive impact upon the ILC of PG students and found satisfactory along with significant difference between the first and second year students.

Dubicki, (2013) conducted a survey to identify the value and importance of faculty place on information literacy (IL), the infusion of IL into curricular learning outcomes and an assessment of the competency levels students accomplish in mastering IL skills. It is found that faculty familiarities with IL concepts was high; and are incorporating these skills into learning outcomes for their courses.

Lata and Sharma, (2013) inspect the IL skills of the faculty and students of postgraduate institute of medical education and research, Chandigarh and Pt. B.D. Sharma university of health science, Rohtak and found that majority of the faculty and students rated their skills as high in accessing information in print and electronic format and in comparison to students, faculty members of both the medical colleges were more familiar with the bibliographical tools.

Maidul and Rahman, (2014) examine the information literacy competency (ILC) of the arts faculty students at the University of Dhaka, Bangladesh. Results indicate that students had partial skills in the area of information literacy and reasons after it is not discussed widely in their academic course curriculum.

3. Methodology

In order to satisfy the objective of the study, it was adopted single subject experimental design. The study was restricted to Karnataka State Akkamahadevi Women's University, Vijayapura. The total sample size was 152. The study population comprises of research scholars pursuing Ph.D. (Full time) in 15 P.G. departments. Samples were selected with the help of simple random sampling. Data were collected in 2 level one before experiment pre-test assessment and another after experiment post-test assessment has been done. The data analysis has been done with the help of SPSS version 20.0.

4. Analysis and interpretation of data

Figure-1: Educational Qualification

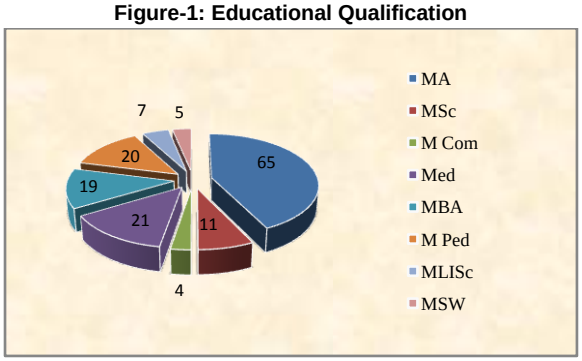


Figure-2: Departments

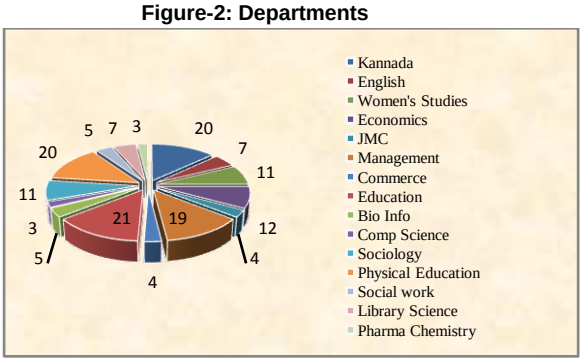


Figure-3: Faculty wise Distribution

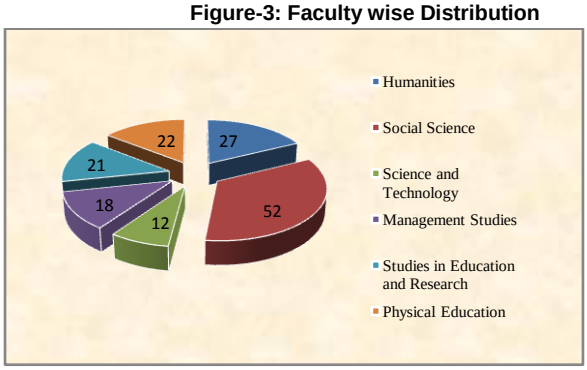


Figure-4: Age wise Distribution

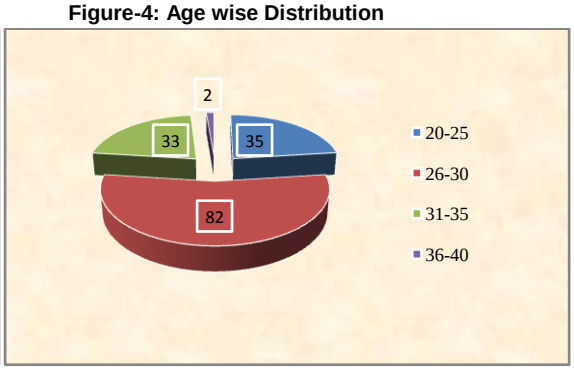
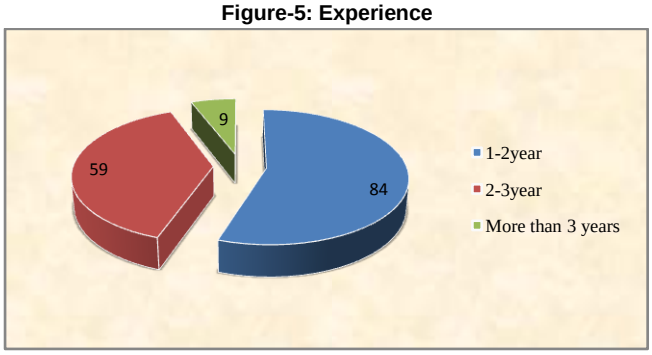


Figure-5: Experience



It can be exposed that less than half of research scholars have Masters Degree in Arts (Figure-1) less than one fourth of the research scholars have Masters Degree in Education (Figure-2). It can also be found that more than half of research scholars belong to Social Science faculty (Figure-3). More than fifty percent of research scholars are in the age group of 26-30 years (Figure-4). Also more than fifty percent of research scholars have 1-2 years of research experience (Figure-5).

Information Literacy Competency Assessment

Table No-1

Need for Information-I know how to identify a research topic or any other information need				
	Pre-test		Post-test	
	Frequency	Percent	Frequency	Percent
Strongly Disagree	108	71.1	1	0.7
Disagree	22	14.5	2	1.3
Neither Agree Nor Disagree	11	7.2	2	1.3
Agree	2	1.3	8	5.3
Strongly Agree	9	5.9	139	91.4
Total	**152**	**100.0**	**152**	**100.0**

Figure No-6: Need for Information-I know how to identify a research topic or any other information need

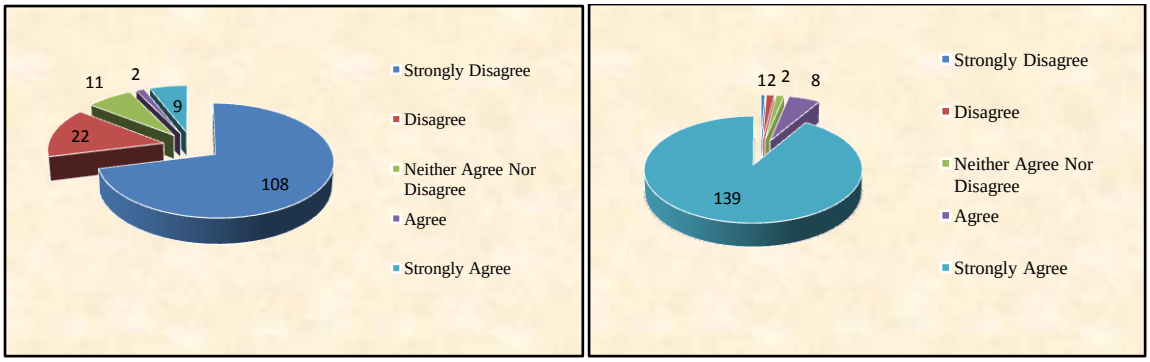


Table no-1 describes the respondent's knowledge on identifying the research topic or any other information. The data were collected by conducting pre-test and post-test. The pre-test result shows that 71.1% of the respondents don't know how to identify the research topic or other information which needed. It means they were strongly disagree with the statement. Only 7.2% of the respondents were strongly agreed with that they know how to identify the research topic. But after they were taught IL skill 91.4% of the respondents strongly agreed that they know how to identify the research topic.

Table No-1(a)

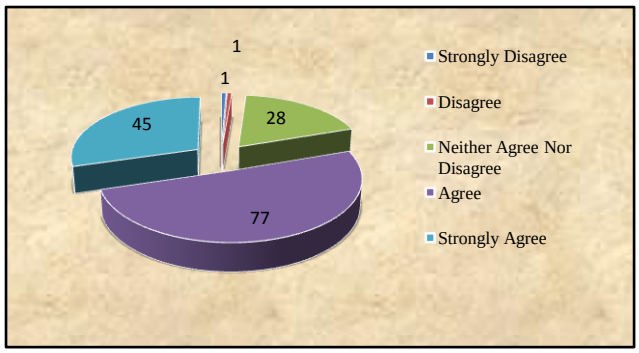
STATISTICS		
	PRE TEST	POST TEST
	Respondents-152	Respondents-152
Mean	1.5658	4.8553
Median	1.0000	5.0000
Mode	1.00	5.00
Sum	**238.00**	**738.00**

Table No-1(a) provides the Mean, Median and Mode of the respondents in pre test and post test. The Mean score of the respondents in pre test is 1.5658 and post test mean score is 4.8553. Likewise the median score of pre test 1.0000 and the post test median score is 5.0000 in same way mode score is 1.00 and in post test mode score was increased 5.00.

Table No-2

I can develop a thesis statement and formulate questions based on the information need				
	Pre Test		Post Test	
	Frequency	Percent	Frequency	Percent
Strongly Disagree	1	0.7	1	0.7
Disagree	1	0.7	2	1.3
Neither Agree Nor Disagree	28	18.4	2	1.3
Agree	77	50.7	8	5.3
Strongly Agree	45	29.6	139	91.4
Total	**152**	**100.0**	**152**	**100.0**

Figure No-7: I can develop a thesis statement and formulate questions based on the information need



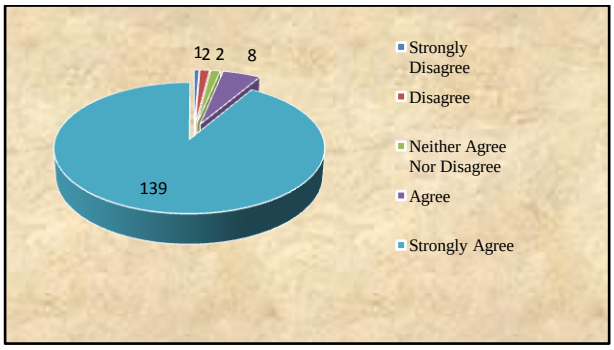


Table-2 indicates whether respondents can develop the thesis statements and formulate the questions based on the information they need. Majority (50.7%) of the respondents during pre-test said that they can develop the thesis statements and formulate questions based on the information they need. During post-test 91.4% of the respondents strongly agreed that they can develop a thesis statement and formulate questions based on the information they need.

Table No-2(a)

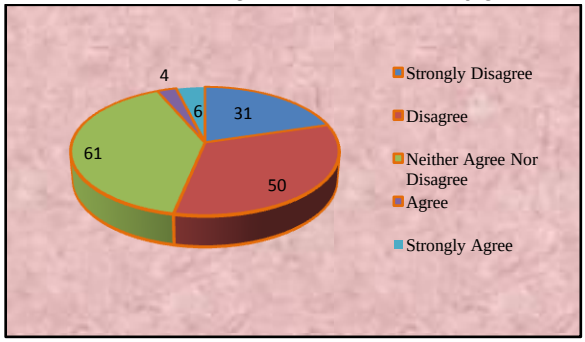
STATISTICS		
	PRE TEST	POST TEST
Mean	4.0789	4.8553
Median	4.0000	5.0000
Mode	4.00	5.00
Sum	**620.00**	**738.00**

One of the main objectives of the study was to know whether researcher can develop a thesis statement and formulate questions based on the information need. Table No-2(a) depicts the mean value X=4.789, Median 4.0000 and mode is 4.00 in the pre-test. After giving some treatment in post-test it was in increasing level Mean is X=4.8553, Median 5.0000 and Mode is 5.00.

Table No-3

I can identify general and subject specific information sources				
	Pre Test	**Percent**	**Post Test**	**Percent**
Strongly Disagree	31	20.4	1	0.7
Disagree	50	32.9	1	0.7
Neither Agree Nor Disagree	61	40.1	13	8.6
Agree	4	2.6	29	19.1
Strongly Agree	6	3.9	108	71.1
Total	**152**	**100.0**	**152**	**100.0**

Figure No-8: I can identify general and subject specific information sources



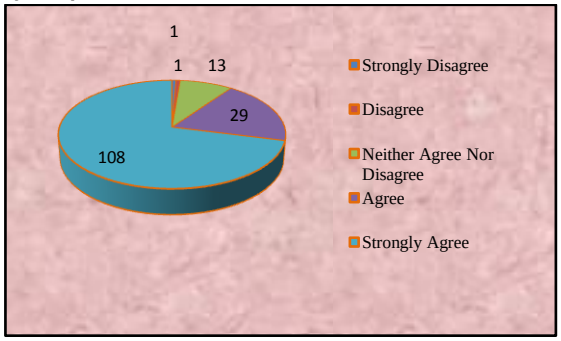


Table no- 3 reveals the result that whether researcher can identify general and subject specific information sources. 40.1% of the respondents neither agree nor disagree that they can identify general and subject specific information sources. 32.9% and 20.4% of the respondents were disagreeing and strongly disagree with the same statements during pre-test assessment. Followed by post-test assessment which shows that 71.1% of the respondents strongly agreeing that they can identify general and subject specific information source and 19.1% of the respondents also agree that they can identify general and subject specific information sources.

Table No-3(a)

STATISTICS		
	PRE TEST	POST TEST
Mean	2.3684	4.5921
Median	2.0000	5.0000
Mode	3.00	5.00
Sum	**360.00**	**698.00**

Table No-3(a) shows the Mean, Median and Mode of the respondents. Pre test assessment result shows that Mean score of the respondents is 2.3684; Median score is 2.0000 and Mode score is 3.00. But in post assessment test the score of Mean, Median and Mode has been increased to 4.5921, 5.0000 and 5.00.

Table No-4

I know how to define and modify need for information				
	Pre Test	**Percent**	**Post Test**	**Percent**
Strongly Disagree	41	27.0	1	0.7
Disagree	50	32.9	1	0.7
Neither Agree Nor Disagree	44	28.9	1	0.7
Agree	6	3.9	7	4.6
Strongly Agree	11	7.2	142	93.4
Total	**152**	**100.0**	**152**	**100.0**

Figure No-9: I know how to define and modify need for information

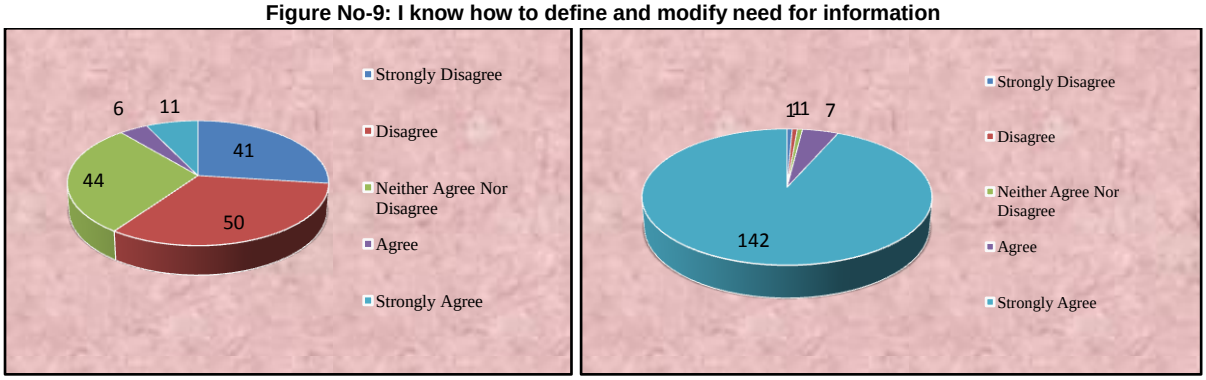


Table No-4 revels whether respondents know how to define and modify the needed information. The pre-test result shows that 32.9% of the respondents disagree that they don't know how to define and modify the needed information. Followed by 28.9% of the respondents neither agree, nor disagree and 27.0% of the respondents strongly disagree. But post-test assessment results show that 93.4% of the respondents strongly agreed with that they know how to define and modify the needed information.

Table No-4(a)

STATISTICS		
	PRE TEST	POST TEST
Mean	2.3158	4.8947
Median	2.0000	5.0000
Mode	2.00	5.00
Sum	**352.00**	**744.00**

Table No-4(a) shows the Mean, Median and Mode of the respondents. The pre test assessment result shows that the Mean score of respondents is 2.3158, Median score is 2.0000 and Mode score is 2.00. In same way the assessment of post test is increased in positive way. In post test mean score is 4.8947, median score is 5.0000 and mode score is 5.00.

Table No-5

I know how to identify the concepts and terms for the information I need				
	Pre Test	**Percent**	**Post Test**	**Percent**
Strongly Disagree	14	9.2	1	0.7
Disagree	13	8.6	1	0.7
Neither Agree Nor Disagree	38	25.0	3	2.0
Agree	31	20.4	6	3.9
Strongly Agree	56	36.8	141	92.8
Total	**152**	**100.0**	**152**	**100.0**

Figure No-10: I know how to identify the concepts and terms for the information I need

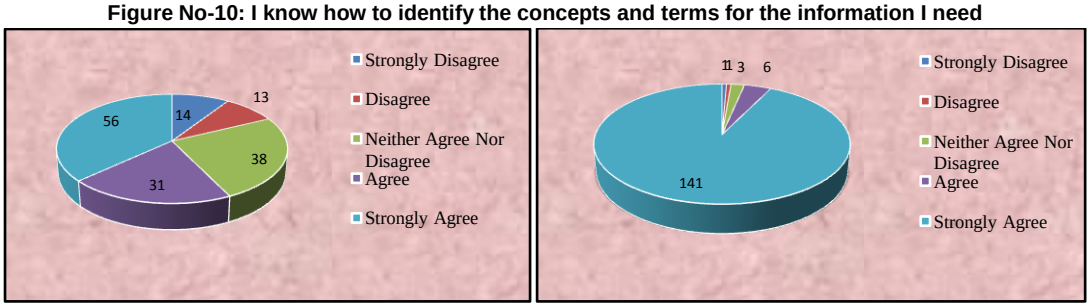


Table No-5 explores about whether respondents know how to identify the concepts and terms for the information which is needed. The pre-rest assessment result shows that 36.8% of the respondents were strongly agree with the statement. Followed by 25.0% and 20.4% of the respondent were stated that they are neither agree and nor disagree and agree. The post-test assessment result shows that 92.8% of the respondents where know how to identify the concepts and terms for the information they need.

Table No-5(a)

STATISTICS		
	PRE TEST	**POST TEST**
Mean	3.6711	4.8750
Median	4.0000	5.0000
Mode	5.00	5.00
Sum	**558.00**	**741.00**

One of the main objectives of the study was to develop a thesis statement and formulate questions based on the information need. Table No-5(a) depicts the pre test assessment result shows that mean score of the respondents is 3.6711, Median 4.0000 and Mode is 5.00. After providing a treatment the post-test assessment result observed that Mean, Median and Mode score is 4.8750, 5.0000, and 5.00.

Table No-6

I recognize that existing information can be combined with original concept to produce new Information				
	Pre Test	**Percent**	**Post Test**	**Percent**
Strongly Disagree	9	5.9	2	1.3
Disagree	47	30.9	2	1.3
Neither Agree Nor Disagree	75	49.3	4	2.6
Agree	15	9.9	15	9.9
Strongly Agree	6	3.9	129	84.9
Total	**152**	**100.0**	**152**	**100.0**

Figure No-11: I recognize that existing information can be combined with original concept to produce new information

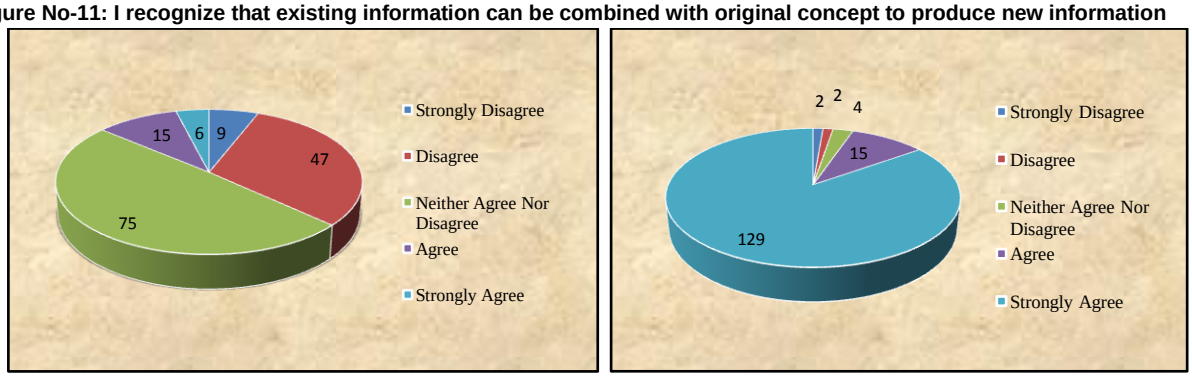


Table No-6: describes whether respondents were having knowledge about recognize that existing information can be combined with original concept to produce new information. The pre-test assessment result shows that 49.3% of the respondents were neither agree and nor disagree with the statement and 30.9% of the respondents disagree with the same. The post-test assessment result proves that majority (84.9%) of the respondents are strongly agreed that they are able to recognize the existing information can be combined with original concept to produce new information.

Table No-6(a)

STATISTICS		
	PRE TEST	POST TEST
Mean	2.7500	4.7566
Median	3.00	5.0000
Mode	3.00	5.0000
Sum	**418.00**	**723.00**

One of the main objectives of the study was to develop a thesis statement and formulate questions based on the information need. Table No-6(a) depicts the Mean value of respondents that is 2.7500, Median score is 3.00 and Mode score is 3.00 in the Pre-test. After providing the treatment the post-test assessment result shows that the respondents knowledge regarding development of thesis statement and formulate questions is increased. The Mean score is 4.7566, Median score is 5.0000 and Mode score is 5.00.

5. Findings of pre-test and post-test

Findings of pre-test and post-test are organized according to ACRL's Information Literacy Competency assessment for research scholars and Need for the Information in the present study.

- To know Research Scholars skills about to identify the appropriate topic or any other information by considering the understanding level, they were asked to identify the appropriate topic or any other information. In pre-test only 5.9% research scholars found who were able to identify the appropriate piece of information according to the understanding level of research scholars. After implementation of information literacy programme the percentage of research scholars who became aware increased and reached to 91.4.
- In order to develop a thesis statement and formulate questions based on the information need for research scholars, they were asked to develop a thesis statement. In pre-test 29.6% scholars were develop a thesis statement and formulate questions based on the information need. After implementation of information literacy programme this percentage of research scholars who became aware of develop a thesis statement and formulated question based on the information need increased and reached 91.4.
- To know the knowledge of identifying the general and subject specific information sources of research scholars, they were asked to mark the term which they identify the term. In pre-test only 3.9% scholars found who were aware to identify the general and subject specific information sources. After implementation of information literacy programme this percentage of research scholars who became aware of identify the general term and specific information sources increased and reached to 71.5.
- To know the skills to define and modify need for information, they were asked to select the appropriate one from the given options. In pre-test only 7.2% research scholars found who were able to define and modify need for information. After implementation of information literacy programme this percentage of research scholars able to define and modify need for information is increased and reached to 93.4.
- With intention know to identify the concepts and terms for the information need, they were asked. In pre-test 36.8% research scholars found who were aware to identify the concepts and terms for the information need. After implementation of information literacy programme this percentage of research scholars able to identify the concepts and terms for the information need is increased and reached to 92.8%.
- In order to know the research scholars awareness about existing and original new information, they were asked to recognize that existing information can be combined with original concept to produce new information. In pre-test only 3.9% research scholars were aware. After implementation of information literacy programme this percentage of research scholars able to recognize that existing information can be combined with original concept to produce new information is increased and reached to 84.9.

6. Conclusion

Information Literacy is a major requirement for academic society in present ICT era because the skills and abilities are the foremost features that enables research scholar to retrieve the right information from the right source without wasting their valuable time. Keeping in view the various specializations in the area, it is necessary for research scholars to be equipped with Information Literacy competencies that can help them to effectively search, locate, evaluate, and use the necessary information. It is good that research scholars of Karnataka State Akkamahadevi Women's University having the satisfactory IL skills information search capability. They are well conscious to use library resource and finding of study shows that central library of Karnataka State Akkamahadevi Women's University is providing good library orientation to research scholars. Further it is found that research scholars of University having good computer and Internet literacy which is necessary in present knowledge based academic society.

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