

INFORMATION SEEKING BEHAVIOUR OF POST-GRADUATE STUDENTS

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ABSTRACT

The study aims at determining that while searching for information for study assignments, how post-graduate students search for information, which sources they consult, which search strategies they followed, how they evaluate information and how they refer to the information they have used in their reports. This study focused on post graduate students of Education, Commerce, Science and Arts. The study compared the information seeking behavior of post graduate students of Education with Commerce, Science and Arts.

Keywords: Information, Information Seeking Behavior, Education, Post-Graduate Students.

INTRODUCTION

Information seeking behavior is dealing with the information needs and information seeking pattern of researchers. "Information Seeking Behavior is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web)". The aim of an information system is to maximize the use of information (Wilson 2004). The information seeking behavior of users varies from discipline to discipline and research to research. Information has now become interdisciplinary in nature. Due to interdisciplinary nature, information is found scattered in numerous sources. New management techniques are being developed for qualitative management of information. Information flow has become faster and information needs of the user cannot be understood properly without having a clear understanding of their information seeking behaviour which involves nature and type of required information, motive and purpose of information seeking, sources of information, pattern of information seeking behaviour etc.

Information seeking behaviour varies from one subject to another and from one category to another. The post graduate students

are required to undertake research project during the course of their study, which require them to search for information. Several studies have been carried out to investigate the Information Seeking Behaviour of students. But rare studies have been conducted which studies Information Seeking Behaviors of post-graduate students in Education and no study has compared the behavior of Education Students with Arts, Commerce and Science post-graduate students. Thus this study focused on post graduate students of Education, Commerce, Science and Arts. The study compared the information seeking behavior of post graduate students of Education with Commerce, Science and Arts.

RESEARCH METHODOLOGY

For the present study the investigator used the Survey Method and used standardized questionnaire which consists of 4 general questions such as Name, Age, Gender and Subject and 48 statements covered under "INFORMATION-SEEKING BEHAVIOUR SCALE' developed by Caroline F. Timmers (Institute of Marketing & International Management, Saxion University of Applied Sciences, Enschede, The Netherlands) and Cees A.W. Glas (Department of Research Methodology, Measurement and Data Analysis, Faculty of Behavioral Sciences, University of

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Twente, Enschede, The Netherlands). The main purpose this scale is to measure information-seeking behaviour of undergraduate and postgraduate students during their study assignments.

OBJECTIVES

- i. To know the different types of information sources use by post-graduate students.
- ii. To find the application of various search strategies by post-graduate students.
- iii. To determine how post-graduate students select and evaluate information they need for their study assignments.
- iv. To find out how effectively students manage and acknowledge the information.
- v. To compare the information seeking behavior of post-graduate students in Education with post-graduate students of Arts.
- vi. To compare the information seeking behavior of post-graduate students in Education with post-graduate students of Commerce.
- vii. To compare the information seeking behavior of post-graduate students in Education with post-graduate students of Science.

HYPOTHESES

- i. There will be no significant difference between the information seeking behavior of Education and Arts post-graduate students.
- ii. There will be no significant difference between the information seeking behavior of Education and Commerce post-graduate students.
- iii. There will be no significant difference between the information seeking behavior of Education and Science post-graduate students.

DATA ANALYSIS AND INTERPRETATION

The questionnaire used in the study consisted of 48 statements and these statements were grouped under four broad research components

underlying information-seeking behaviour. These four broad research components were sources, applying search strategies, evaluating information and referring to information. Research component 1 consisted of 14 statements related to sources of information, Component 2 consisted of 13 statements related to application of search strategies, Component 3 consisted of 15 statements related to evaluation of information found and Component 4 consisted of 6 statements related to how students refer to the information. The Table 1, Table 2, Table 3 and Table 4 are grouped according to 4 broad research components.

SOURCES

The Table 1 and Figure 1 shows the mean scores for the extent to which Arts, Commerce, Science and Education students use various sources when seeking information for study assignments.

Table 1: Use of Sources of Information

S.No	Statements	Arts		Commerce		Education		Scienc e	
		N	M	N	M	N	M	N	M
1.	I use study materials handed by my teacher	86	3.4	91	3.6	86	3.4	88	3.5
2.	I go to the library	81	3.2	80	3.2	81	3.2	87	3.5
3.	I consult librarians	69	2.8	67	2.7	63	2.5	68	2.7
4.	I consult the library catalogue	61	2.4	56	2.2	58	2.3	60	2.4
5.	I consult database	66	2.6	61	2.4	73	2.9	65	2.6
6.	I consult Google	92	3.7	94	3.8	91	3.6	93	3.7
7.	I consult other search engines	52	2.1	55	2.2	72	2.9	65	2.6
8.	I consult teacher	90	3.6	88	3.5	89	3.6	85	3.4
9.	I consult my fellow students	66	2.6	62	2.5	71	2.8	64	2.6
10.	I consult newspapers	59	2.4	56	2.2	62	2.5	56	2.2
11.	I consult books	87	3.5	90	3.6	87	3.5	88	3.5
12.	I consult journals	63	2.5	52	2.1	67	2.7	59	2.4
13.	I consult Wikipedia	60	2.4	65	2.6	67	2.7	64	2.6
14.	I consult metasearch engines	58	2.3	58	2.3	63	2.5	67	2.7

Interpretation

From Table 1 , it can be seen that Google is the most used source of information. Statement 6 (I

consult Google) has highest mean score in all the four subject areas (Arts 3.7, Commerce 3.8, Education 3.6 and Science 3.7) which clearly shows that post-graduate students in all the four subject areas prefer to consult Google when seeking information for study assignments. Teacher as a source of information has second highest mean score in Arts (3.6) and Education (3.6) which shows that post-graduate students in Arts and Education considered teacher as an important source when seeking information for study assignments. Statement 1 (I use study materials handed by my teacher) has second highest mean score in Commerce (3.4) and Science (3.5). Books have got third highest mean score in the three subject areas (Arts 3.5, Commerce 3.6 and Education 3.5).

SEARCH STRATEGIES

The Table 2 shows the mean scores for the extent to which Arts, Commerce, Science and Education students apply various search strategies when searching information for study assignments.

Table 2: Application of Search Strategies by Post-Graduate Students

S.No	Statements	Arts		Commerce		Education		Science	
		N	M	N	M	N	M	N	M
15.	I search for general background information on the topic	74	3	69	2.8	76	3	76	3
16.	I formulate sub questions	80	3.2	80	3.2	84	3.4	84	3.4
17.	I use words from my questions as search terms	90	3.6	85	3.4	91	3.6	89	3.6
18.	I make a list with search terms before I start my search	63	2.5	56	2.2	59	2.4	62	2.5
19.	I determine the best places to search for this information	77	3.1	78	3.1	75	3	76	3
20.	I start by typing words in a search engine	87	3.5	89	3.6	94	3.8	93	3.7
21.	I determine new search terms during the search process	74	3	70	2.8	71	2.8	78	3.1
22.	I use the option 'advanced search'	59	2.4	52	2.1	60	2.4	63	2.5
23.	and find little or no information on the topic, I adjust the questions	68	2.7	67	2.7	73	2.9	64	2.6
24.	I examine number of results found	62	2.5	60	2.4	69	2.8	69	2.8
25.	and a search produces many results, I narrow my search	72	2.9	71	2.8	66	2.6	67	2.7
26.	I quit searching the moment, I find relevant information	75	3	80	3.2	92	3.7	71	2.8
27.	I manage the information found so as to easily find it again later on	53	2.1	46	1.8	58	2.3	61	2.4

INTERPRETATION

Table 2 shows that Statement 20 (I start by typing words in a search engines) has got the highest mean score in Commerce (3.6), Education (3.8) and Science (3.7) and it is second highest in Arts (3.5) which shows that post-graduate students search for information by typing words in a search engine. Statement 17 (I use words from my questions as search terms) has got highest mean score in Arts (3.6), second highest in Commerce (3.4) and Science (3.6) and third highest in Education (3.6) which shows that post-graduate students in Arts, Commerce, Education and Science use words from their questions as search terms when seeking information for their study assignments. Post-graduate students also formulate sub questions (statement 16) when searching for information. This statement has got third highest mean score in three of the subject groups (Arts 3.2, Commerce 3.2 and Science 3.4). Statement 22 (I use the option advanced search) and Statement 27 (I manage the information found so as to easily find it again later on) has got the lowest mean score in all the four subject categories which clearly shows that post-graduate students neither use advanced search option when searching for information neither they prefer to manage the information found by them so that they can find the same information easily later on.

EVALUATING INFORMATION

The Table 3 shows the mean scores for the extent to which Arts, Commerce, Science and Education students evaluate information when searching information for study assignments.

Table 3: Evaluating Information

S.No	Statements	Arts		Commerce		Education		Science	
		N	M	N	M	N	M	N	M
28.	I scan through the information found	65	2.6	64	2.6	65	2.6	75	3
29.	I use the top list results	83	3.3	92	3.7	90	3.6	90	3.6
30.	I examine results on subsequent result pages	55	2.2	49	2	53	2.1	48	1.9
31.	I examine URL to evaluate information	49	2	47	1.9	44	1.8	44	1.8
32.	I search information that corresponds with my own opinion	46	1.8	42	1.7	57	2.3	50	2
33.	I select information which brings new thoughts to mind	63	2.5	56	2.2	65	2.6	61	2.4

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34.	I select information which takes an effort (e.g. copying, visit library)	50	2	48	1.9	49	2	48	1.9
35.	I select information that is accessible right away	67	2.7	59	2.4	72	2.9	66	2.6
36.	on the WWW, I examine the date of the last update	35	1.4	32	1.3	36	1.4	34	1.4
37.	on the WWW, I examine the rest of the webpage to judge the reliability of the information	36	1.4	42	1.7	40	1.6	38	1.5
38.	on the WWW, I determine whether the information consist of facts or opinions	42	1.7	33	1.3	37	1.5	38	1.5
39.	on the WWW, I examine who makes or edits the websites	30	1.2	30	1.2	28	1.1	28	1.1
40.	I carefully read the information found	93	3.7	95	3.8	90	3.6	90	3.6
41.	I use more than one source to answer my question	77	3.1	82	3.3	78	3.1	76	3
42.	I formulate the answer to the questions in my own words	79	3.2	78	3.1	74	3	71	2.8

INTERPRETATION

The Table 3 shows that Statement 40 (I carefully read the information found) got the highest mean score in Arts (3.7) and Commerce (3.8) and second highest in Education (3.6) and Science (3.6) whereas Statement 29 (I use the top list results) got the highest mean score in Education (3.6) and Science (3.6) and second highest in Arts (3.3) and Commerce (3.7). This shows that post-graduate students use the top list results and carefully read the information found when searching information for study assignments. It has been found that post-graduate students do not prefer to examines who make and edit information on WWW (statement 39) and the date of last update (statement 36). Post-graduate students also do not prefer to examine the webpage to judge reliability of information (statement 37) nor they prefer to determine whether the information consists of facts or opinions (statement 38) as the mean score of these statements falls in the bottom four with little variation in all the subject groups.

REFERRING TO INFORMATION

The Table 4 shows the mean scores for the extent to which Arts, Commerce, Science and Education students refer to information when they search information for study assignments.

Table 7: Referring to Information

S.No	Statements	Arts		Commerce		Education		Science	
		N	M	N	M	N	M	N	M
43.	and write a report, I add an overview of sources used	46	1.8	45	1.8	43	1.7	50	2
44.	and write a report, I give citation for information within the text	62	2.5	57	2.3	56	2.2	54	2.2
45.	and write a report, I use reference standards to refer to sources used	62	2.5	58	2.3	63	2.5	49	2
46.	and use quote exact in my report, I use quotation marks	56	2.2	55	2.2	69	2.8	69	2.8
47.	and use information in my report, I cite to the source in the text	54	2.2	48	1.9	64	2.6	54	2.2
48.	and use information put into my own words, I give reference of the source in the text	67	2.7	55	2.2	68	2.7	56	2.2

INTERPRETATION

Table 4 show that with regard to referring to information, difference in behaviour of post-graduate students was found in Education and Commerce. Mean score of Statement 46 (and use quote exact in my report, I use quotation marks) was highest in the Education (2.8) and Science (2.8) in comparison to Arts (2.2) and Commerce (2.2). Post-graduate students in education responded that they use quotation marks when they use quote exact in their report (statement 46). With regard to Statement 48 (use information put into my own words, I give reference of the source in the text) behavior of Post-graduate student in education differs from that of Commerce and Science. The mean score for this statement in Education was 2.7 which is second highest among the six statements, where as in case of post-graduate students of Commerce and Science it is on fourth position. Very few post-graduate students prefer to add an overview of sources used while writing a report (Statement 43). The mean score for this statement is lowest in all the four subjects.

TESTING OF HYPOTHESES

Hypothesis (i): There will be no significant difference between the information seeking behavior of Education and Arts post-graduate students.

Table 5: Difference between Post-Graduate Students of Education and Arts

Post-graduate Students	Mean	S.D	S.Ed	T. Score	Level of Significance (0.05)	df
Education	129.56	12.23	3.18	1.15	2.1	48
Arts	125.06	10.18				

INTERPRETATION

It can be observed from the Table 5 that the mean score of Education and Arts post-graduate students are 129.56 and 125.06 respectively. The calculated value of 't' between two groups comes out be 1.15 which is not significant at 0.05 level. It means that post-graduate students of Arts and Education are not differ significantly with regard to their information seeking behavior. Therefore Null Hypothesis is accepted and there is no significant difference in information seeking behavior of Education and Arts post graduate students of University of Delhi.

HYPOTHESIS (ii): There will be no significant difference between the information seeking behavior of Education and Commerce post-graduate students.

Table 6: Difference between Post-Graduate Students of Education and Commerce

Post-graduate Students	Mean	S.D	S.Ed	T. Score	Level of Significance (0.05)	df
Education	129.56	12.23	2.76	2.74	2.1	48
Commerce	121.8	6.36				

INTERPRETATION

It can be observed from the Table 6 that the mean score of Education and Commerce post-graduate students are 129.56 and 121.08 respectively. The calculated value of 't' between two groups comes out be 2.74 which is significant at 0.05 level. It means that post-graduate students of Education and Commerce are differ significantly with regard to their information seeking behavior. Therefore Null Hypothesis is rejected and there is significant

difference in information seeking behavior of Education and Commerce post graduate students of University of Delhi.

HYPOTHESIS (iii): There will be no significant difference between the information seeking behavior of education and science post-graduate students.

Table 7: Difference between Post-Graduate Students of Education and Science

Post-graduate Students	Mean	S.D	S.Ed	T. Score	Level of Significance (0.05)	df
Education	129.56	12.23	2.93	1.22	2.1	48
Science	126.04	8.05				

INTERPRETATION

It can be observed from the Table 7 that the mean score of Education and Science post-graduate students are 129.56 and 126.04 respectively. The calculated value of 't' between two groups comes out be 1.22 which is not significant at 0.05 level. It means that post-graduate students of Education and Science are not differ significantly with regard to their information seeking behavior. Therefore Null Hypothesis is accepted and there is no significant difference in information seeking behavior of Education and Science post graduate students of University of Delhi.

FINDINGS AND DISCUSSION

The present study revealed that Google is the top most used source of information by post-graduate students in the field of Education as well as in the field of Arts, Commerce and Science. It was found that post-graduate students in Arts, Commerce, Education and Science mostly search information by typing words in a search engines and by using words from questions as search terms. Very few students in the study reported use of advanced search option while searching for information and on retrieving little or no information on the topic very few know how to adjust questions. Thus students don't know

much about using various searching techniques and using proper search terms for retrieving relevant information. Thus in this regard teachers as well as librarians should organize learning courses for the students, so that they can become more competent in searching and retrieving information. Similarly with regard to evaluating information and referring to information large numbers of post-graduate students were not aware of how to properly evaluate the information and how important is to give proper citations and references for the information they have used in their study assignments. Teachers should make students more aware how of students on how to evaluate and manage information. While doing comparison, the study revealed that their no significant difference between the information seeking behavior of post-graduate students in the field of Arts and Education and also no significant difference between post-graduate students in the field of Science and Education. Whereas significant difference was found with regard to information seeking behavior in field of Commerce and Education.

CONCLUSION

Effective information skills are a prerequisite for post-graduate students in present changing environment, relatively little is known about how post-graduate students actually find information. The existing knowledge base on this subject is scanty and piecemeal, and few efforts have been made to explore, as an entirety, studies of education post-graduate students' information

seeking. Examination of these areas can alert prospective investigators to issues that they should explore and approaches that they might wish to take in their own work. Further taking into account the constant development in the provision of recent electronic systems, the lack of understanding about the information seeking behavior of students poses on obstacle in the process of interpreting the way in which the electronic information services are being delivered. Thus knowledge generated by such user studies will help in improving information literacy skills of the students and will also further helps in developing proper information systems and information services for students. The study necessitated the need for organizing Information literacy programmes in colleges on frequent basis. The programmes should make students more aware of on how to use web resources, how to properly conduct search for information, how to evaluate and judge reliability of information available on the web. Students need to be made aware of using reference standards for giving proper references and citing sources within text.

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