Invited Speech

Uncertainty Encountered by the Humanities and Social Science Undergraduates in their Information Seeking Behaviour

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ABSTRACT

This paper discusses the negative feelings of Humanities and Social Science undergraduates in their information seeking and using behavior, elicited during a series of Focus Group meetings. It is revealed that throughout the entire process of information seeking and using related to their academic assignments, the majority feels unhappy due to several factors which can be categorized as library-related, subject-related, process-related and administration-related. However, it is asserted that further ethnographic research across the universities is needed to substantiate and generalize the findings. Nevertheless, the attention is drawn to the significant role that has to be played by the librarians in order to develop the confidence of undergraduates and support them to reach maturity in their information seeking behavior corresponding to their advancement in academic years.

Keywords: Undergraduates, Uncertainty, Information Seeking Behaviour

INTRODUCTION

In the conventional Teacher-Centred Learning (TCL), teacher plays the active role in designing the curricula, preparing notes, lecturing, and assessing the students and the student plays a passive role by taking notes, memorizing information and reproduce for assessment, but in Student-Centred Learning (SCL), the roles of both the student as well as the teacher change considerably. Sri Lankan universities are rapidly shifting their paradigm of pedagogy from being teacher centred to student centred. The teachers and students engaged in SCL will essentially need an increased volume of information to achieve their teaching/learning objectives and activities. Correspondingly, they will have to be skillful in determining the type and amount of information needed, accessing the desired information effectively and efficiently, appraising information and its sources critically, integrating information into one's own work, effectively, ethically and legally in addressing given academic assignments.

University libraries consist of considerably advanced information systems than the school libraries and the demand to access and use information is much more advanced than in the school context. It becomes vital for the students to have access to the latest research information, to strengthen their knowledge base, but at the same time searching, locating and accessing information, especially, through digital media, has become a complex issue. Information offered through different publisher platforms and variations in the indexing of material makes searching and using information more complicated than using the printed material offered through the libraries. Though it is a common belief within the university system that the undergraduates do not need much guidance in using the university library, quite contrary to this misconception, they need a considerable amount of guiding to use the advanced information systems in the university libraries.

The main objective of the research was to study the information seeking and using practices of the undergraduates in the Humanities and Social Science (HSS) disciplines of University of Colombo. Four specific objectives were identified for the research; to study the Information resource usage of the undergraduates, to study the information seeking process of the undergraduates, to study the barriers they encounter, in seeking and using the information, and to make recommendations for the future developments of the information resource usage and information seeking practices of the undergraduates. To achieve the above, seven Research Questions (RQs) and five hypotheses were formulated. The main focus of this paper is related to one aspect of objective three, which will discuss the feelings of undergraduates during the information seeking and using process and the factors contributing to the origination of those feelings.

REVIEW OF LITERATURE

Review of literature was performed mainly on two perspectives; information seeking behavior and uncertainty involved in the information seeking process. Wilson (2000) perceived information seeking behavior and several other concepts as a series of nested fields (Figure 1). *Information behaviour* "is the totality of human behavior in relation to sources and channels of information, including both active and passive information seeking and information use" (Wilson, 2000: 49). *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)" (Wilson, 2000; 49). Wilson further identified *Information Searching Behavior and defines as* "the 'micro-level' of behavior employed by the searcher in interacting with information systems of all kinds. It consists of all the interactions with the system, whether at the level of human computer interaction (for example, use of the mouse and clicks on links) or at the intellectual level (for example, adopting a Boolean search strategy or determining the criteria for deciding which of two books selected from adjacent places on a library shelf is most useful), which will also involve mental acts, such as judging the relevance of data or information retrieved" (Wilson, 2000; 49).

According to him *Information Use Behavior* "consists of the physicals and mental acts involved in incorporating the information found, into the person's existing knowledge base. It may involve, therefore, physical acts such as marking sections in a text to note their importance or significance, as well as mental acts that involve, for example, comparison of new information with existing

knowledge" (Wilson, 2000; 50). This paper focuses mainly on information seeking behavior of the HSS undergraduates.

Several authors (Bates 1986; Ingwersen 1992; Kuhlthau 1993; Whittemore & Yovits 1973; Yovits & Foulk, 1985) have identified that there is an uncertainty involved in the information seeking process and Kuhlthau defines uncertainty as "a cognitive state which commonly causes affective symptoms of anxiety and lack of confidence" (Kuhlthau, 1993; 347). She further comments that "uncertainty and anxiety can be expected in the early stages of the information search process. The affective symptoms of uncertainty, confusion and frustration are associated with vague, unclear thoughts about a topic or question. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence. Uncertainty due to lack of understanding, a gap in meaning or a limited construct, initiates the process of information seeking" (Kuhlthau, 1993; 347).

Based on a series of studies, Kuhlthau proposes an uncertainty principal for information seeking and elaborates this using six corollaries; *process corollary, formulation corollary, redundancy corollary, mood corollary, prediction corollary and interest corollary* (Kuhlthau, 1993; 347).
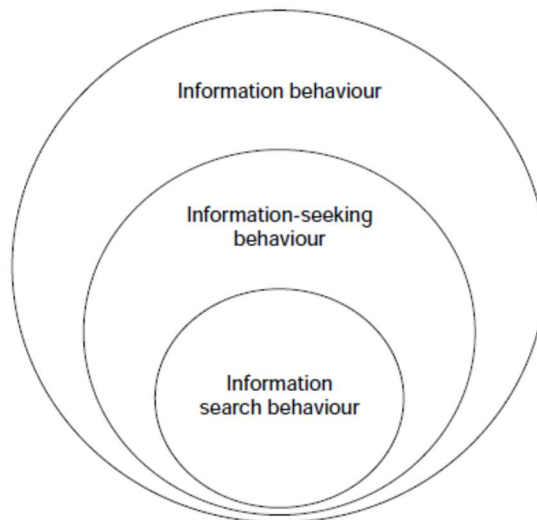

Figure 1: A nested model of information seeking and information searching
(Wilson, 1999: 263).

Contrary to the position held by Kuhlthau (1993), Bar-Anan, Wilson and Gilbert (2009) have proposed *uncertainty intensification hypothesis*, whereby uncertainty makes unpleasant events more unpleasant (as prevailing theories suggest) but also makes pleasant events more pleasant (contrary to what prevailing theories suggest)" (Bar-Anan, Wilson and Gilbert, 2009: 123). While it is not the objective of this paper to test the validity of *uncertainty intensification hypothesis,* two seminal papers of Kuhlthau (1993) and Wilson (2000) will be used to lay the theoretical foundation of the study.

METHODOLOGY

The total undergraduate population in the HSS faculties was 6065 (University of Colombo 2017). While stratified random sampling method is the ideal for the survey, there were many practical difficulties in surveying a random sample from the individual departments in four HSS Faculties. Therefore, using the convenience sampling method, a questionnaire was administered to all the undergraduates from the Faculties of Arts (FA), Education (FE), Law (FL) and Management & Finance (FMF) who expressed their willingness to respond by approaching a special desk established in the Main Library to distribute the questionnaire during December 2016 to March 2017. Satisfying the standard laid down by Krejcie and Morgan (1970), there were 451 valid responses for 550 questionnaires distributed and 95 undergraduates participated in the FGMs.

Data collection consisted of two stages; initially quantitative data were gathered using a questionnaire to satisfy objectives one and three. The questionnaire constructed using the previous research and published literature, to suit the Sri Lankan context was piloted with a small group of respondents before being administered to the full sample. Chronbach's alpha test conducted using SPSS (ver.22) established the reliability of the instrument at 0.633 (types of resources), 0.804 (purpose of using resources), 0.959 (criteria used to evaluate library material), 0.962 (criteria used to evaluate web-based material) and 0.574 (people approached to seek help). Five hypotheses were established to test whether there is a statistically significant positive relationship between the use and evaluation of library and web-based resources, people approached for help, training received and need for training in using the library resources and the Internet and the academic year of study, faculty or gender.

Secondly, Focus Group Meetings (FGM) were held with small groups of students to satisfy the objectives two and to further verify objective three. Five questions were used to support the discussion; what is the first thing you do when you receive the assignment topic? where do you look for information first? how do you select the relevant information resources from what is available? how do you extract information from the sources? and how do you incorporate information from other sources into your assignment? They were also asked to indicate how they feel about the entire process of completing an assignment using a continuum. Quantitative data were coded and analysed using SPSS (ver. 22) and qualitative data were manually analysed.

There are several limitations of the research; use of convenience sampling method to complete the survey within the estimated time period and budget could be considered as a limitation since all HSS undergraduates did not stand a chance of getting selected to respond to the survey. Even though maximum efforts were taken to reduce the biases involved with FGMs, complete reliability of the findings cannot be guaranteed. Since the sample is small the findings cannot generalized to the entire HSS undergraduate population of the university without further research. The findings must only be taken as the initial light thrown on an existing issue which needs in-depth study without further delay.

RESULTS AND DISCUSSION FINDINGS

The questionnaire response rate was 82% and of the 451 respondents, 77.3% were female, 77.4% were in the age group of 21-23 years and 48.7% from the Faculty of Arts. The largest group of respondents (52.3%) was in their first academic year. FGMs were attended by 95 and the majority (35.8%) was in their third year while 30.5% was from second year followed by 22.1% in their first

year and 11.6% in their fourth year. Faculty-wise, 64.2% were from FA, 20% from FL and 15.8 from FMF.

Survey established that they often use recommended readings (70%), Internet (62.6%), library books (55.9%), journals from the library (25.6%) and full text databases (31.3%). The main purpose of using them was for assignments (84.1%), to supplement lecture notes (65.6%), increase subject knowledge (64.9%) and to write dissertations (47.7%). To evaluate library material they often used currency of the material (61.1%), and reputation of the author (46.8%). To evaluate web-based resources, they often used currency of the resource (68.3%), and previous experience with the resource (44.9%). To seek help in selecting information resources, they often approached their batch mates (69%), lecturers (62.7%) and librarians (27%). Of the respondents 80% indicated that they would like to receive training on using library resources and Internet from the library and 87% has mentioned that difficulty of finding books/resources in the library is a barrier for them. Cramer's V tests proved that there is no statistically significant positive association between these findings and the academic year of study, faculty or gender of the respondents, therefore the null hypotheses were accepted.

FGM participants were asked to explain the process they follow from the time they receive an assignment topic to the submission of the final product. Since it is beyond the scope of this paper, the process they follow in their information seeking will not be discussed but sufficient to mention that there were six major steps; attempt to understand the question, searching for information, selection of the appropriate, organising information, writing and reflecting on the outcome, in conformity with several reputed models (Ellis, Cox, & Hall,1993; Kuhlthau, 1993; Wijetunge and Manatunge, 2014). Conversely, the chaining and monitoring stages which Ellis, Cox and Hall (1993) have identified in their model were not evident in this current model. Even though, major steps conform to the models, to confirm whether the depth of engagement in information seeking activities is the same as in other models, further research is required.

During the FGMs, in response to the question how they feel about the entire process of completing an assignment, they responded using a continuum varying from unhappy to relaxed (about the whole process). Of the 95 FGM participants, 83 respondents identified their feelings along the given continuum as depicted in Figure 2 and the findings indicated that the majority are unhappy during the information seeking process, due to a number of factors.

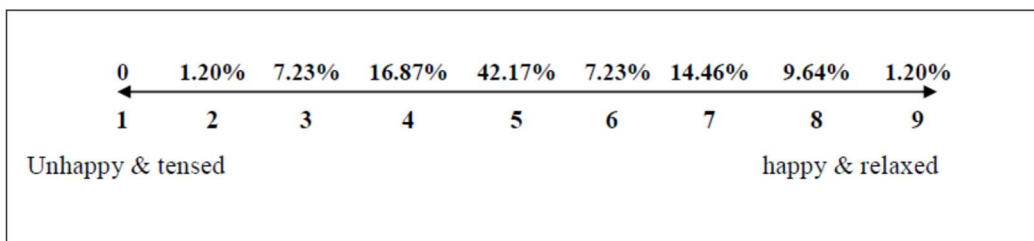| | 1.20% | 7.23% | 16.87% | 42.17% | 7.23% | 14.46% | 9.64% | 1.20% |
0								
1	2	3	4	5	6	7	8	9
Unhappy & tensed						happy & relaxed		

Figure 2: Feeling related to the information seeking and using process for assignments

The majority (42.17%) admitted that they stand at the middle with some unhappiness as well as some happiness, while 25.30% admitted that they are closer to the unhappy end between levels 2 and 4 of the continuum and 32.53% admitted that they are more closer to the happy end of the continuum. However, there were no extreme cases in either ends. Thematic analysis of the reasons they gave for their unhappiness / happiness recognized four types of issues; library-related, content/subject-related, process-related and administrative-related.

Library-related issues were identified as the difficulty in finding resources in the library, lack of relevant material in the library, some policies of the library related to opening times and loan durations, non-availability of remote access to databases as they mainly work for assignments from home, lack of awareness of the resources/services available in the library, lack of help from "*Librarians*". The quantitative survey established that 27% approach librarians for help but the FGMs confirmed that for most respondents, anyone working inside the library was a librarian and they were not aware of the different staff levels).

Content/subject-related issues included absence of access to specialized data sets and information relevant to specific topics, not being made aware of the availability of scholarly material in the databases, lack of English knowledge to use articles from the databases, lack of confidence in the focus of the expected answer as they have received low marks in previous occasions for giving irrelevant answers.

Process-related issues elicited were that the lack of confidence in discussing the information seeking process as *they have not thought of it before,* uncertainty about many things throughout the whole process of information seeking and using, which leads to considerable amount of stress, lack of skills in searching Internet effectively i.e Google Scholar, not knowing how to select the most appropriate material other than using what is given in the first few pages of Internet, not having confidence in whether the material selected are the most appropriate for the topic, lack of time to reflect on the process so that they can avoid the pitfalls next time, absence of knowledge or skills in academic reading and writing, or on plagiarism. Absence of easy access to anyone knowledgeable to seek help, therefore depending on senior students and own batch mates to clarify issues, lack of understanding whether they are doing the right thing or whether they are following the right format, once the assignments are completed lack of time to reflect as they have to rush with the other assignments to meet the deadlines.

Administrative-related issues included the issues with departmental libraries which restrict their usage, having too many assignments to be completed simultaneously, lack of input by some group members when engaged in group assignments, not knowing whether the assignment they submitted is right or wrong before they move to the next one, lack of feedback from lecturers due to large numbers of students, absence of any training in using library resources / services, uncertainty of how their performance will be assessed or whether they will get a good grade at the end.

It was observed that the 32.53% who placed them closer to the happy end of the continuum were fluent in English language and 17 of them have followed a compulsory academic writing

programme. It was also observed that these respondents engaged in the discussion with a lot of confidence.

CONCLUSION

In contrast to Kuhlthau's (1993) assertion that the uncertainty involved with the information seeking process diminishes with the advancement of the process, the FGM established that the uncertainty remains even after completing the information seeking / using process. One learning event does not seem to move them to a more confident level in their subsequent learning event. Since there was no significant positive association of the information seeks / using with the academic year of study, faculty or gender it can be concluded that most HSS undergraduates irrespective of these factors experience negative feelings and uncertainty of their information seeking and using behavior.

Due to the limited size of the sample it is not possible to generalize the findings of the survey to the entire undergraduate population in HSS, but the findings ring an alarm for the key stake-holders of HSS undergraduate education. Millions of rupees are spent on library material, staff salaries and infrastructure developments, yet it is highly disappointing to learn that the undergraduates leave the university without being able to use information effectively to solve a given problem. A key objective of higher education is to provide knowledge and skills in such a way that the undergraduates reach intellectual maturity, full of confidence and able to address the issues they encounter in the world of work in a stress free environment. Developing such HSS graduates will help reduce the negative attitudes of the society towards their relevance and employability.

While the library cannot be totally responsible to address the factors that contribute to their unhappiness and uncertainty, a significant contribution can be made by the librarians to help the HSS undergraduates to leave the university by eliminating the unhappiness and resulting uncertainties related to their information seeking behavior.

 Yet, is not an objective of this paper to prescribe a course of specific actions to be followed by the university librarians. Nevertheless, but they have a colossal responsibility towards achieving this goal by playing the essential role of an educator, in contrast to the role of caretaker of books. The advent of complicated ICT-based information systems is continuously accentuating this role, yet the findings proved only 27% have approached librarians for help.

FUTURE IMPLICATIONS

 While further ethnographic research need to be conducted to substantiate the findings of this survey, in the context of individual universities, the librarians must approach the undergraduates in whatever appropriate manner to inculcate a confidence in the librarians. This will encourage them to seek librarians' professional support to eliminate the uncertainties related to information seeking behavior and leave the university with confidence and certainty.

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