

# **Integrating information behaviour and information literacy during academic tasks: A comparative study of Japanese and Canadian undergraduate students in Canadian universities**

**Abstract:** This presentation reports preliminary results from doctoral research that investigates the information behaviour and information literacy skills of Japanese and Canadian undergraduate students during their research tasks in Canadian universities. Differences and similarities in behaviours and skills between the two groups are identified through analysis of research portfolios and interviews.

**Résumé :** Cette communication présente les résultats préliminaires d'une étude doctorale portant sur le comportement informationnel et la maîtrise de l'information des étudiants japonais et canadiens de premier cycle lors de leurs travaux de recherche dans les universités canadiennes. Les différences et les similitudes dans les comportements et les habiletés des deux groupes sont décelées au moyen de l'analyse des dossiers de recherche et d'entrevues.

## **1. Introduction**

International students bring Canadian universities an international perspective, add diversity to classrooms, bring financial benefits to both universities and local communities, and contribute intellectually to their academic fields (Association of Universities and Colleges of Canada 2002). Despite their contributions, recruitment of students is not always accompanied by attention to their experience after enrolment, which may contribute to dissatisfaction. As a result, international students may come to think they are simply financial resources for universities. It is important for academic institutions to improve international students' experience for their academic success. This presentation will report preliminary results from doctoral research that investigates how Canadian and Japanese students, as one example of international students, perform their academic tasks and to what extent they are information literate in Canadian universities. Differences and similarities of behaviours and skills between the two groups are sought. The research findings will contribute to the capability of North American academic libraries to facilitate international students' success in academia.

## **2. Background**

According to data from Statistics Canada (2007), international students increased from 30,885 in 1995 to 73,386 in 2004. The number of students from non-North American and non-European countries is particularly significant. Considering that the population has been increasing, academic libraries need to be active in improving students' learning experiences and facilitate their intellectual contributions in Canada. Among various choices, improvement of their information literacy skills (i.e., abilities to recognise information needs and to find, evaluate, and use information effectively and efficiently) is essential to students' academic success in today's information intense environment.

Researchers argue that international students tend to have barriers to information literacy development due to their cultural and linguistic differences (e.g., Sarkodie-Mensah 1998).

However, the research tends to focus on librarians' opinions, perceptions, and experience rather than on empirical evaluations of students (Curry and Copeman 2005). Other studies are based on students' self-assessment of the skills, which limits understanding of students' actual information literacy skills (e.g., Ishimura, Howard, and Moukdad 2008). Thus, before planning strategies to improve their skills, first, it is critical for academic institutions to understand how students conduct research and to what extent they are information literate.

In order to do so, this study combines information behaviour models (how students behaved) and information literacy (how the behaviour related to recommended guidelines). Information behaviour models consider each process (information needs, seeking and use) as interdependent and dynamic (e.g., Wilson 1999). Analysis of the process as a complete, inter-related dynamic whole will reveal the efficiency and effectiveness of students' tasks, which is a component of information literacy. Although there are differences among models in terms of the scope of their examination of the process, the concept of information behaviour is a useful framework for understanding how people engage with information to satisfy their goals. But information behaviour models do not usually address the quality of each element of the process (i.e., information needs, seeking, and use).

On the other hand, information literacy is concerned with the "quality" of each behaviour in relation to its desired outcomes, while each step is considered as independent (Association of College and Research Libraries [ACRL] 2000). Analysis of students' behaviour using information literacy theories will shed light on how well students conduct individual research tasks and how much gaps exist between ideal and actual state of their skills. However, in the information literacy approach, each step is considered as independent rather than interrelated. This does not answer the question of how the entire process determines the quality of students' output. The present research combines both information behaviour models and information literacy standards to complement existing research and reveal a more complete picture of students' information literacy.

### **3. Research Questions**

This study is guided by a primary question with three secondary questions:

- What are Japanese students' information behaviours during their research tasks as compared to Canadian students?
  - What factors (e.g., personal, social, and linguistic) are involved in information behaviour during the research task?
  - What are their actual behaviours in relation to information literacy standards?
  - What differences and similarities in behaviour exist between the two groups of students?

### **4. Methods**

It is crucial to investigate students' research process in this study. Undergraduate Japanese and Canadian students who are taking 300 or 400 level in universities in the Montreal area are selected as participants in this study because they tend to have research assignments in their courses.

In this study, Japanese students are defined as students whose mother tongue is Japanese, completed compulsory education in Japan, and have been in Canada for less than five years. Universities categorise students whose parents were immigrants as domestic

students. However, these students would still fit the profile of “Japanese” described above. Thus, in this study, Canadian students are defined as students who were born in Canada, use English as their mother tongue, and were primarily educated in Canada. As of April 2010, five Japanese and nine Canadian students have participated the study.

Students’ information behaviour and information literacy skills are investigated from the beginning to the completion of their research tasks using: 1) research portfolio, 2) semi-structured in-depth interviews, and 3) flowcharts. Research portfolios are used to capture information behaviour and levels of students’ information literacy skills. This approach is useful to investigate students’ higher-order skills (e.g., analysis, synthesis, and evaluation), work process and strategies toward the goal, problem-solving skills in real settings, and reflection on their performance during the tasks (Salvia, Ysseldyke, and Bolt 2007). Each participant is asked to select one research assignment from a particular class or project. Students’ portfolios include all activities related to their research tasks from the beginning of the research process to its completion. For example, record their decision-making process (e.g., paper topics and resources to use), search process, ideas that arise during brainstorming, and actions taken. Their reflection on their actions is included as well. Finally, students’ final papers and projects will be analysed to reveal their higher-order skills. There is a high probability that participants will not record their activities on a daily basis. In order to avoid this, the researcher regularly contacts students and tracks their activity progress through email.

In addition to the process, in-depth semi-structured interviews reveal context affects students’ information behaviour. In particular, a phenomenological approach is used to understand students’ lived experience of a particular situation as opposed to the experience that exists external to them without “taxonomizing, classifying, or abstracting” (Van Manen 1990, 9). Three individual in-depth interviews with each participant will be conducted following the three-step interview guideline designed by Seidman (2006).

Finally, following Kuhlthau’s (2004) approach, participants will draw flowchart in this study as a method of data collection. By mapping and diagramming their process, the researcher will be able to see the research steps, all important events, strategies, and decision making points as research steps participants followed. This will be conducted during the second interview session.

The data collected from the students’ research portfolio, interviews, and flowchart will be consolidated and analysed using constant comparative methods (Glaser and Strauss 1967). The data from each student will be analysed and their information literacy skills will be assessed according to the ACRL information literacy standards. The results of each student’s behaviour will be compared to find commonalities and differences among them.

## 5. Anticipated Results

It is expected that this research will provide a holistic picture of individual students' processes during their research tasks. The process will be matched with and assessed by information literacy standards. This will generate knowledge of how students perform their research and what information literacy skills they possess or lack. An understanding of which elements affect their behaviour will add another layer to better understand why their behaviours are information literate or not. Comparisons between Canadian and Japanese students will highlight evidence of differences and similarities in behaviours, which have not been defined in previous research.

## 6. Significance of the Study

Academic libraries struggle to answer the question of how they can provide support for international students with diverse needs, experiences, and expectations. To answer these questions, it is necessary to investigate one specific international student group as an initial, but important step. Later, this study could expand to other groups using the replication approach. Thus, this will become a fundamental framework for future research to understand the larger population of international students.

This research is unique in its merging of the concepts of information behaviour (more closely associated with the scholarly community) and information literacy (more closely associated with the practitioner community). In doing so, how and why students behave in certain ways and to what extent students have information literacy skills will be investigated. Through comparison of two students groups, academic libraries will be able to better understand and meet international students' needs and facilitate their intellectual contributions to Canadian academic institutions.

## 7. References

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