

An Investigation of Student Use of the Supplementary Materials List

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This paper is based on thesis research conducted to complete the degree Masters of Library and Information Studies at the School of Library and Information Studies, University of Alberta. The purpose is to investigate student use of the supplementary materials list that is included in the home-study package for most Athabasca University courses.

Athabasca University

Athabasca University is an open university and is one of three institutions in Canada devoted exclusively to distance education (Sweet, 1986, p. 199). Athabasca University specializes in course delivery through the mode of distance education. Unlike a dual-mode open university, which is "a regular campus-based institution with a distance education component," Athabasca University is a single-mode open university, "devoted exclusively to distance education" (Konrad and Small, 1989, in Sweet, p. 197). Distance education offered by Athabasca University is distinct from the types of distance education that are offered by a traditional university, i.e. correspondence studies or extension courses.

Athabasca University adopted its mission statement and long-term plan in May 1985. The mission statement describes the purpose of Athabasca University and provides a context for the University's activities.

Athabasca University is dedicated to the removal of barriers that traditionally restrict access to and success in university-level studies and to increasing equality of educational opportunity for all adult Canadians regardless of their geographical location and prior academic credentials. (Athabasca University, 1985, p. 1)

There are two requirements which a person must meet before being accepted for studies at Athabasca University. Individuals must be at least 18 years of age and be residents of Canada. Students who are admitted to Athabasca University may take courses available through one of the three faculties: Administrative Studies, Arts, or Science. Courses may be taken for general interest or for the accumulation of credits leading to one of five degree programs: Administration, Arts, Commerce, General Studies, or Nursing (post-R.N.). In addition to the degree programmes, students may take courses leading to one of six university certificate programs: Accounting, Administration, French Language Proficiency, Information Systems, Labour Relations, or Public Administration. In addition, a selection of non-credit courses is offered.

The home-study package is the primary mode of course delivery at Athabasca University. However, courses may also be supported by tele-conference, seminar, laboratory, or field work. Upon registration, each student receives a complete course package that consists of all required texts, a student manual, a forms package, and a study guide which usually includes a supplementary materials list. Occasionally a book of readings, consisting of required, selected articles from various sources that are reproduced by Athabasca University, is included in the course package. Upon registration, each student is assigned a telephone tutor and has access to library services.

Library Services Provided by Athabasca University

It is believed that appropriate planning and organization for the use of various media must occur and that library services are essential to the delivery of a university-level education. Library service, therefore, is one of the essential supporting mechanisms in place since the inception of Athabasca University. The provision of library services to students of Athabasca University is both unique and complex. Students who reside "at a distance" from the institution at various locations across Canada must be served by the Library in radically different ways from those provided by traditional university libraries.

Each student, upon enrolment in a course with Athabasca University, has access to library services from Athabasca University Library. Athabasca University students can submit their requests for library materials by mail, FAX, telephone, or in-person. The Library Annual Report, 1989/90 reveals that 8,138 requests were received at the library information desk during the fiscal year.

Of all requests, almost half (4,116) were from students. On average, students made 343 requests for library materials per month to Athabasca University Library. During this report year, 9,559 items were circulated to students in response to their inquiries. Library materials are sent to the student either by postal service to the student's address, by inter-office courier to one of three regional offices in Alberta, or by government courier to other government office locations within Alberta.

One of the difficulties of providing library service to Athabasca University students is that of making students aware of materials in the library collection that would be helpful for completing a course assignment or project. While an on-line library catalog, AUCAT, was installed in 1989 and is operational at all Athabasca University locations, provision is not yet in place for remote access by students other than from the regional offices which are located in Calgary, Edmonton, and Fort McMurray. However, even if remote access were available, only those students with computer hardware and communication packages would be able to use the on-line catalog. Nonetheless, the Library plans to eventually provide remote access to AUCAT at some point in the future.

One useful instrument for informing all students of what library materials in the Athabasca University Library are available for a specific course is the supplementary materials list that is a part of each course package. The term "supplementary materials" refers to materials suggested by Athabasca University instructors for extra reading, listening, or viewing that would be helpful to understand the course materials. The purpose of the supplementary materials list is to provide a student of a particular course with a list of materials in Athabasca University Library's collection that would be useful, but not essential, for completing a course assignment or project. Supplementary materials are additional to the required materials that are included in the complete home-study package for each course.

This supplementary materials list is compiled by a course team that is primarily comprised of a subject matter expert (author), a production manager, an editor, and a visual designer. However, it is usually the subject matter expert and the editor who compile the supplementary materials list, and library reference staff are often called upon to participate as well.

Statement of the Problem

The primary objective of this study is to investigate student use of the supplementary materials list that forms a part of the package for most Athabasca University courses. The overall research question is: Do Athabasca University students use the supplementary materials list? Data

were also gathered to determine: (a) selected characteristics of Athabasca University students; (b) student awareness and use of library resources; (c) among students who are library users, their awareness and use of the supplementary materials list; and (d), among all students, their awareness and use of computers.

Research Methodology

The study was carried out by means of a questionnaire survey of a random sample of all Athabasca University students enrolled in one or more courses.

Approvals and Ethics Review Requirements

Approvals from the following committees or departments were required and secured prior to proceeding with the research:

The Graduate Research Committee, School of Library and Information Studies, University of Alberta.

The Library, Athabasca University.

The Academic Research Committee, Athabasca University.

The Centre for Distance Education, Athabasca University.

The Registrar, Athabasca University, to obtain mailing labels with the name and address for each student selected through random sampling.

Population and Sample

Athabasca University has an enrolment of approximately 18,000 registered students; registered students are those who have been admitted to Athabasca University. Registered students are not necessarily enrolled in a course at any given time, and therefore they are not all "active" students. The number of active students--that is, those taking at least one Athabasca University course--at the time the random sample was drawn in March, 1991 was 7,308. This figure was generated from the Institutional Student Information System (ISIS), the student records system maintained by Athabasca University. For purposes of this research, all students registered in an Athabasca University course were included in the population of active students.

From the population of active students identified by ISIS, a simple random sample of 800 students was drawn. The required sample size from a population of 7,000 is 261 cases, based on a 90% confidence level and allowing for a permissible error of ± 0.05 . The sample size was inflated to 800 cases to allow for slightly less than a 50% response rate. The inflation figure was based on data from the Centre for Distance Education at Athabasca University that revealed that recent mail surveys have resulted in response rates of approximately 50%.

The population of active students was divided into two categories: new and continuing students. The original random sample of 800 students consisted of 363 new students and 437 continuing students. New students were those, who at the time of the study, were enrolled in their first Athabasca University course and had not completed it. Continuing students were those who, at the time of the study, had successfully completed at least one course prior to the course or courses in which they were enrolled.

The distribution of new and continuing students in the random sample was found to be identical to the distribution in the original population of active Athabasca University students. The random sample was generated from ISIS, producing only a mailing label. Student identification numbers were not used; no names were used, other than for the purpose of mailing. When the mailing labels were generated, however, four labels did not have complete addresses and an attempt to obtain complete addresses through the Registry at Athabasca University was not successful. The questionnaire was sent out to 796 students; of these, three were returned undelivered. Therefore, the final sample consisted of 793 active students of Athabasca University.

Survey Instrument

Dividing the sample of students into these two categories facilitated the design of the mail survey questionnaire. A single version of the survey instrument would have meant extensive branching within questions to allow for appropriate responses by both new and continuing students. Such an instrument would have been cumbersome and students would have had difficulty working through the questionnaire in an expedient manner. Two versions of the survey instrument were therefore created. While the substance of the questions was identical for both, one version was worded appropriately for students who had previously completed a course, and the other for students who were enrolled in their first Athabasca University course. The questionnaire provided for both quantitative and qualitative responses and it was organized to facilitate the later coding of quantitative responses for analysis using SPSSx.

A covering letter with the questionnaire provided students with a brief description of the research project. Participants were provided with a pre-addressed, postage paid envelope in which to return the completed questionnaire.

Anonymity and confidentiality were assured each student. Assurance was given to each student that participation, or not, in the research study would not effect the library services provided to them.

Pretest of the Survey Instrument

The survey instrument was pretested by seven individuals at Athabasca University. Six of the seven pretest participants had taken an Athabasca University course. They pretested both versions of the questionnaire. A covering letter to the pretest respondents asked them to work through the questionnaire as if they had received it in the mail. They were asked to note any difficulties in following the instructions, ambiguities in wording, problem areas that were unclear, and to make suggestions that would improve the overall quality and effectiveness of the questionnaire. As a result of the pretest, a few minor changes were made to the questionnaire. For the most part, however, the pretesting was favourable and confirmed that the survey instrument was well organized and easy to work through.

The Survey

The questionnaires were mailed on March 11, 1991. Students were asked to complete the questionnaire and return it within a two-week period from the time of mailing, March 25, 1991, or as soon as possible. Three weeks following the mailing of the questionnaires, 236 had been received. The last questionnaire was received on May 8, 1991.

A total of 269 questionnaires were returned, for an overall response rate of 34%. The response rate for new students was 25% and for continuing students was 44%. Although the response rate of 34% was less than anticipated and attempts could have been made to solicit more

responses, the decision was made to compile the results of the questionnaires returned from the one-time mailing. This was done because follow-up was impractical, given the fact that student identification records were not kept. Therefore, there was no way to identify and track the respondents and follow up with non-respondents. In addition, follow-up was not conducted because of the extra time and expense that would have been required. Finally, as was pointed out, the sample size required for a population of 7,000 cases to attain a confidence level of 90% and a permissible error of ± 0.05 is 261 cases.

Analysis of the Data

The 269 questionnaires were coded and entered into a data file for analysis on SPSSx. Frequency distributions were generated for all coded variables. Cross-tabulations of selected variables were also generated. For the variable of "course enrolled in," the specific courses reported by respondents were recoded and grouped into disciplines, i.e., Biology, English, Psychology, etc. The disciplines were then grouped according to faculty of study, that is, Faculty of Administrative Studies, Faculty of Arts, and Faculty of Science.

Written comments provided by respondents on several questions were entered into a flat ascii text file, and compiled into separate files using an AWK program on the UNIX system. The written comments by respondents provided descriptive and illustrative information that otherwise would not have been available.

Findings

The findings are presented as follows:

1. characteristics of active Athabasca University students,
2. student awareness and use of library materials,
3. student awareness and use of the supplementary materials list, and
4. student awareness and use of computers.

1. Characteristics of Active Athabasca University Students

Students were asked to provide information on the questionnaire that would help determine typical characteristics of Athabasca university students in the survey sample. Specifically, students were asked to identify their age, gender, level of previous education, number of Athabasca University courses enrolled in, number of courses completed, and the faculty in which they were enrolled.

Age: Almost half of 268 respondents were 30 to 39 years of age. The next largest age group represented was 20 to 29 years of age. There were more respondents 50 years of age and over than there were under 20. This is unlike a traditional university, in which the majority of students enter following graduation from high school. The student body of Athabasca University is typically older and comprised of students who are already in the work force, perhaps married and with families, settled in their communities but who for various reasons want to take university courses.

Gender: Female respondents outnumbered male respondents by a ratio of 2 to 1. There were 185 females and 82 males who responded to the survey.

Previous education attained: Responses ranged from elementary education to post-secondary degree. Only 1% of 266 respondents had attained less than a secondary level of education, while most students had taken some post-secondary courses and earned a diploma, degree, or another credential. This is noteworthy because there is no academic requirement to meet for admission to Athabasca University. Almost all students (99%), however, have attained at least a secondary level of education.

Athabasca University course enrolments: At the time of the survey, three-quarters of the respondents were enrolled in a single one Athabasca University course. At the other extreme, one student was enrolled in six courses. Twenty percent of the respondents were taking either two or three courses at the same time.

Athabasca University courses completed: A question was asked to verify student status at Athabasca University, that is, whether respondents were new students or were continuing students (having completed at least one Athabasca University course prior to this survey). Out of 266 respondents, 108 students, or 40% indicated that they were taking their first Athabasca University course. Almost one-quarter of the respondents had completed either 1 or 2 courses while 8% had completed 10 or more courses. The 40/60 split of student respondents is in direct proportion to the split of students in the original random sample and to the population of active Athabasca University students. In both the random sample and the population of active students the division of new and continuing students was 45% and 55%, respectively.

Faculty enrolment at Athabasca University: Respondents were asked to identify the faculty of study in which they were enrolled. Students are not required to declare a faculty upon registration, but those intending to earn a certificate or degree must enrol in a faculty. Out of 268 respondents, about 40% of the students were undeclared, that is, they were taking a course but had not identified a program of study. Students in this category are enrolled in their first course and this course may be taken for the sake of interest. On the other hand, 60% had declared a faculty at the time of this study and it may therefore be assumed that they intend to earn a certificate or degree. In descending order, faculties having the most students were: Administrative Studies (32%), Arts (18%), and Science (9%).

Students were asked to identify the course that they had most recently completed, or the course that they were currently enrolled in if they were new students. A total of 84 Athabasca University courses were identified by 240 respondents. The most popular courses among respondents were as follows:

MATH 215: Introduction to Statistics (13 respondents)

ADMN 232: Introduction to Administrative Principles (12 respondents)

BIOL 230: Human Physiology (11 respondents)

ACCT 253: Introduction to Accounting (10 respondents)

PHIL 252: Critical Thinking (10 respondents)

PSYC 289: Introduction to Psychology (10 respondents)

The most popular disciplines were Psychology (almost 13% of the respondents), English (almost 8%), Administration (just over 7%), and Mathematics and Biology (about 6% each).

Just over half of the respondents, 133 students, were enrolled in a Faculty of Arts course. Another 27% of the respondents were enrolled in a Faculty of Administrative Studies course and 20% in a Faculty of Science course. It must be pointed out that students in one faculty must take courses offered by another faculty, not only for interest sake, but to fulfil program requirements.

A composite of the typical Athabasca University student, gathered from respondents, is as follows. The typical student is female, between the ages of 30 and 39, and has taken some post-secondary courses prior to enrolling in studies at Athabasca University. The typical student is a continuing student, that is, she has already completed at least one Athabasca University course, and she is enrolled in only one Athabasca University course at a time. This composite corresponds with previous ones.

Smyrnew reported that for the year 1981/82, there were 62% females and 38% males admitted to Athabasca University. Over two-thirds of the students were 25 to 44 years of age (Smyrnew, 1983, p. 6).

The pattern had not changed five years later. Appavoo and Hansen reported, on the basis of data gathered by the Centre for Distance Education at Athabasca University, that two-thirds of all students were between the ages of 25 and 44, and women represented two-thirds of all registered students (Appavoo and Hansen, 1988, p. 13).

Smyrnew (1983) reported also that high school education had been attained by 89% of newly admitted students, while 67% also had some post-secondary education (p. 6). The profile of the typical student has improved dramatically since 1983 in the area of education attained prior to being admitted to Athabasca University. In the current study, 95% of the respondents have some education beyond the secondary level.

2. Student Awareness and Use of Library Materials

Students were asked to provide information on the questionnaire that would help to determine their awareness of Athabasca University Library and use of library materials to complete their courses.

Almost all respondents said that they were aware that Athabasca University provides library services to registered students. A total of 233 respondents, 87%, reported awareness of Athabasca University Library. Moreover, 148 students (55%) reported that they knew the procedures for requesting materials from Athabasca University Library. A total of 90 respondents (36%) indicated that it is essential to use library materials to complete an Athabasca University course.

Relatively low library use by students was reported overall; only 21% of 265 respondents borrowed library materials for the course that they had just completed or in which they were enrolled at the time of the survey. Of the 21%, it is noteworthy that the largest proportion of library users were continuing students.

Looking at library use according to academic discipline, the highest proportion of respondents who reported library use were in Political Science (83%). The disciplines of French, Humanities, Nursing, Sociology/Anthropology, Taxation, and Women's Studies each had percentages of 50% who reported that they borrowed library materials. Psychology, English, and French are the disciplines in which the highest absolute number of respondents said they borrowed library materials (9, 7, 7 respectively).

Students who were taking a Faculty of Arts course at the time of the study reported the highest percentage of library use, 30%, followed by students who were taking a Faculty of Science course and a Faculty of Administrative Studies course. Similarly, the highest absolute number of students (39) who borrowed library materials were taking a Faculty of Arts course. It is noteworthy that students taking a Faculty of Arts course were above the overall average of students who borrowed library materials while students who were taking a Faculty of Administrative Studies or a Faculty of Science course were substantially below the overall percentage of all respondents who reported that they borrowed library materials.

Several comments made by non-library users suggested that the course materials package contained sufficient materials to complete most courses. Some students commented that they had their own reference works on various subjects that they used to help complete their course work. Selected comments made by non-library users with respect to why they did not borrow library materials are provided.

"I did not feel the need to read any other materials for this course. There was more than enough reading involved with the course as it was."

"My course was very self-contained and did not need any other materials."

"The course did not require any research."

"In the past, I found the books were not what I needed. I am NOT paying long distance charges to add to the cost of an already expensive course. The mail is too slow to depend on it."

Respondents who reported that they borrowed library materials for their courses were asked to identify the types of library material they used. Of all library users, 35 reported that they used monograph materials. Examples of materials in the "other" category are the model brain, molecular kit, computer software, and kits of physical examination instruments.

Library users were asked to identify whether they used Athabasca University Library or other libraries. Of the 56 respondents who used library materials, 44 reported that they used Athabasca University Library, 21 students used other libraries, and 9 students used both Athabasca University Library and a library in the student's community.

Students who borrowed library materials were asked to indicate how they selected them, for example, on the basis of topic, on the basis of specific items, or a combination of both topic and specific items. While most Athabasca University courses include a supplementary materials list, students may select specific materials from this list or they may select materials on the basis of the subject of the assignment. Of all library users, 34 students selected materials on the basis of specific item or on the basis of a subject. A total of 17 students reported that they selected library materials on the basis of both specific item and subject.

The advantage of selecting specific materials on the basis of topic or subject matter is that while students may have a preference for specific titles, not all titles may be available at the time the student borrows them. Other items, then, may be substituted for the materials specifically selected if the students identify their subject. It is believed that students would prefer to borrow materials on their subject rather than no material (if, for example, a student selects specific items and the items are not available for loan). Students who borrow materials on the basis of the subject of their query can proceed with their coursework rather than waiting for materials to be returned.

Students who borrowed materials from Athabasca University Library were asked how they made their requests for library materials. Requests for materials can be made by telephone, by mail, by FAX, or in person. The telephone and mail request, at the time of the study, were used most frequently by Athabasca University Library users, 70% and 30% respectively.

Students who used Athabasca University Library were asked the number of requests that were made. Most students made only one or two requests for library materials. One student reported making ten requests for library materials from Athabasca University Library.

Respondents who were Athabasca University Library users were asked if they were satisfied with the materials they received from Athabasca University Library and if they were satisfied with the time it took for the materials to arrive following the request. Almost all of the respondents were satisfied or partially satisfied with both the materials they received and the time taken for delivery.

While most respondents who used Athabasca University Library indicated that they were pleased or partially pleased with the materials they received, a few students commented that some photocopied materials arrived with pages missing. Another commented that the quality of audio/visual materials was poor. Another student commented that the book requested was out on loan and consequently a long wait for the materials was necessary. However, favourable comments outnumbered unfavourable, as the following excerpts from the questionnaires show:

"I was pleased that not only was I sent the books I requested specifically, I was sent several related books and a wonderful book with a feminist theme written by men."

"Materials were varied and fairly comprehensive."

"The reason that I am taking time to respond is because I felt that they did a good job in helping me."

"Materials were received quickly and in excellent condition."

"Materials received very promptly. Usually received materials 2 days after I have sent my FAX."

"Yes, most material was here within a week."

One student reported that the books did not arrive as anticipated, and another student reported that it took months for the books to arrive. Generally, however, students expressed satisfaction.

Students who had indicated that they used Athabasca University Library and were enrolled in two or more course or had completed two or more courses were asked if the experience they were describing on the questionnaire was typical of their other courses. Seventy-five percent said yes. This suggests that the materials in the Athabasca University Library collection meet the study needs of students and that the level of service provided to students is consistent.

In summary, almost all respondents to the survey were aware that Athabasca University provides library services to its students. While just over 35% of the respondents believed that library materials are essential to complete an Athabasca University course, only 21% of the respondents reported that they actually used library materials.

Of the respondents who were library users, almost 80% used Athabasca University Library and 30% used other libraries. Monograph material was the most frequent type of material borrowed.

Most students who used Athabasca University Library reported that they placed their requests by telephone or mail.

Most students made only one or two requests for material from Athabasca University Library and were satisfied with both the materials they received and the time it took for the materials to be delivered.

3. Student Awareness of the Supplementary Materials List

The 56 students who indicated that they used library materials were asked specific questions about course supplementary materials lists. These questions concerned whether their course had a supplementary materials list, whether titles on the supplementary materials list were relevant to the course, whether they borrowed titles on the supplementary materials list from a library other than Athabasca University Library, and whether they considered the supplementary materials list to be an essential component of the course package.

Two-thirds of all library users (37) indicated that their course had a supplementary materials list. This proportion was corroborated through a manual check of the Athabasca University Library documentation for all courses identified by respondents. It was found that, of the 84 courses identified by respondent library users in this study, 59 had a supplementary materials list. In only 10 courses did all the students recognize that a supplementary materials list was included.

When grouped by faculty offering courses, it is interesting to note, 96% of the Arts courses had a supplementary materials list, followed by half of the Science courses. Of Administrative Studies courses, only 32% had a supplementary materials list.

A question was asked of library users to determine whether they borrowed titles identified on the supplementary materials list from a library other than Athabasca University Library. Of the total of 13 students who responded, 10 reported that they were successful in borrowing supplementary materials from another library. This indicates that some students, although library services are available to them, also use libraries in their local communities. It is interesting to know that items on the supplementary materials list may be available from sources other than Athabasca University Library and that students try to obtain them elsewhere.

The three students who were not successful in obtaining items on the supplementary materials lists from another library were asked why. The reasons were that the materials were all out or that the materials were not available from the particular library.

Respondents who were library users were asked if they thought that the supplementary materials list was an essential component of the Athabasca University course package. Most of the respondents (29 out of 37) said yes.

Comments gathered from the survey questionnaire indicated that most students believe that the supplementary materials list is essential to the course package. A comment made by one student was that the supplementary materials list "can enable a student to seek clarification of the subject." Another student commented that the supplementary materials list is "helpful for completing assignments as it gives direction for research or it provides for a chance to broaden perspectives regarding the course." Other selected comments echoed the same ideas. One student said that material "can be used throughout a lifetime for learning." Another said that the supplementary materials list "helps a person look for materials needed for the course without spending a lot of time." The supplementary materials list, as one student commented, "is very handy and very time-saving."

While students who were library users believe that the supplementary materials list is essential and the use of supplementary materials is important, the reality is that most students do not use supplementary materials. For example, one student said, "I suppose I never really had need to examine the list." Other students similarly commented that they had no time to follow up on them. One student said "I found myself rushed to get through this course due to other pressures in my life."

Library users who used the supplementary materials list provided comments that indicated it is essential to the course and the materials listed were relevant to the course. Some selected comments were as follows.

"The materials mentioned would help a person understand the material better."

"The supplementary materials gave me a start when looking for books in my local libraries--even if I didn't find them."

"I would have had some difficulty in writing the necessary essays without the resource material."

"I find it somewhat difficult to study alone at home rather than sharing ideas, etc. in the classroom. The supplemental materials are a real bonus for me."

"If you need materials for the assignment this list is very helpful to get books or articles about topics which were only partially covered in the course."

"Most materials can be found at your local public library (at least in the city)."

"Questions in the workbook often have answers only found in the supplementary material."

"The choice of texts and the elaborate materials in the guides is first rate."

In summary, of the 84 courses identified by library users, a supplementary materials list was found to actually be included in 59 of them. When grouped by faculty offering the course, almost all Faculty of Arts courses had a supplementary materials list (96%). Faculty of Science courses had the next highest proportion, followed by Faculty of Administrative Studies, 47% and 32% respectively.

Library users were asked if their course had a supplementary materials list. A total of 54 student library users identified their course and 35 of those said their course had a supplementary materials list. Grouped by faculty, library users taking an Arts course had the highest percentage, 74%, of students reporting their course had a supplementary materials list. Students taking a Science course had the next highest percentage, 71%, while only 13% of students in an Administrative Studies course reported that their course had a supplementary materials list.

Library users were asked whether the supplementary materials list was an essential component of the course package. Of 37 respondents, 29 said yes. The majority of comments made by respondents were favourable and most respondents, although not necessarily having time to use supplementary materials, realize the value of the use of supplementary materials list to their course.

4. Student Awareness and Use of Computers

With respect to the use of computers, all students were asked to indicate whether they owned or had access to a computer. Two-thirds of the students said that they own or have access to a

computer. One-quarter of those students who owned or had access to a computer also had use of a modem which would be required for remote access to AUCAT, the online public access catalog of Athabasca University Library. Among students who own or have access to a computer, the highest proportion was among the continuing students. While fewer students had a modem with their computer, continuing students still had a higher proportion than did new students.

Almost half of all student respondents indicated that they had used a computerized library catalog. However, only sixteen students indicated that they knew AUCAT, the Athabasca University Library Catalog, was on computer. This figure is not surprising as AUCAT has not been advertised. It must be pointed out, however, that students are informed that AUCAT is available for their use at the Regional Offices. Comments provided on the questionnaire affirmed, however, the students are eager to access the Library catalog on a remote basis if it was possible.

Many students made comments about how remote access to the Library catalog might affect their studies at Athabasca University. Of the 193 comments, 107 (55%) were positive and suggested that remote access to AUCAT would enhance or improve studies at Athabasca University. The remaining comments were neutral, indicating that remote access would make no difference in studies at Athabasca University. The following selection of comments represents student views in general.

"It would be grand. I would get a modem for sure."

"In a word: ENHANCE."

"Information at your fingertip (how great!)."

"Would make me more aware of pertinent data."

"It would make selection of appropriate material easier and faster."

"Access to the library catalog will definitely be an asset as I proceed to higher levels of study where extra materials will be necessary to understand more complex ideas."

"Access through remote would tell me quickly what the Athabasca Library contains. I would likely borrow more materials from Athabasca with remote access."

"With remote access to the Athabasca University Library Catalog I would probably be able to find out how much additional information was available on a particular topic."

"Excellent idea!! I would purchase a modem specifically for AU courses."

"I can't afford a computer. I wish I could. It would greatly increase my academic efficiency."

"I don't think this type of access would affect my studies at all. The suggested lists of supplementary reading are probably sufficient. I don't feel a need to peruse the library catalogues, at this point, anyway."

"In my situation it wouldn't make a difference."

"I'd have to investigate it."

"It would be great for those with access, but may give an advantage to only a few."

"No effect at this time."

"I'm not sure how this system works."

On the basis of the number of students who own or have access to computers and on the basis of student comments supporting remote access to the library catalog, it would seem timely to implement remote access to AUCAT by students. However, when remote access is in place and evaluation of the effectiveness of the online library catalog is conducted, it will be interesting to determine whether the actual use of the library catalog follows the apparent anticipation of access to AUCAT that is evident in this study. The present study indicates that while 87% of the respondents to the survey indicated that they were aware of library services available to Athabasca University students, only 21% actually used library materials and only 16% used materials from Athabasca University Library. Similarly, while 41% of the respondents to the survey indicated that library materials are essential for success in Athabasca University courses, only 21% actually used library materials.

Unlike the supplementary materials list which is static upon production (until the next course revision), AUCAT is dynamic, as materials are continually added to the library holdings. AUCAT would be comprehensive while the supplementary materials list is selective. Furthermore, students, upon accessing AUCAT, could verify the circulation status of specific items of interest to them.

It is not expected that the supplementary materials list would be eliminated or replaced in the near future, as there are students, who do not, for various reasons, own or have access to computers and modems. It would not be in the Library's best interests to suggest elimination of the supplementary materials list and possibly create a barrier to a student's use of the library. Rather the Library should promote awareness and use of the supplementary materials list. It is anticipated that remote access to AUCAT will facilitate access to the library catalog, and enhance the provision of library services to Athabasca University students.

Summary of Findings

The typical student is 30 to 39 years of age, is female, and is taking her first Athabasca University course. She is most likely enrolled in a Faculty of Arts course.

Almost all students are aware that library services are provided by Athabasca University to Athabasca University students, and more than half know the request procedure for obtaining materials from Athabasca University Library. One-third of the students indicated that the use of library material is essential to courses taken at Athabasca University. At the same time, however, most students do not use library materials for their courses. Among those who do, most of them used Athabasca University Library, while a few used local libraries. Most students who borrowed materials from Athabasca University Library were satisfied with both the material and the short time it took for the material to arrive.

The majority of students own or have access to a computer and modem, and according to their comments, would make use of remote access to AUCAT, the online public access catalog of Athabasca University Library so they can search the holdings of the library and then request material.

It was found that library users made use of the supplementary materials list that accompanies most Athabasca University course packages. At the same time, however, over half of the library users indicated that the supplementary materials list is an essential component of the course materials package and that it contained items that were relevant to their courses.

Discussion

It was anticipated, at the outset of this study, that the findings would be of benefit to Athabasca University Library, to course development teams at Athabasca University, and to individuals working in the specialization of distance education librarianship. Some assessment of the study's implications is presented below for each of these areas.

Athabasca University Library

The findings presented in this thesis indicate that 21% of active Athabasca University students have used library materials and most of them used Athabasca University Library. At the same time, 87% of the students are aware that library services are available to them and 55% know the procedures to request materials from Athabasca University Library.

While positive comments were made by students about the library services provided to them, it is important that efficient, expedient, and prompt service be maintained. It is important that at least a minimal reference interview be conducted by the library staff member with the student when possible. By doing so, the library staff member who takes the student's request will have a better understanding of the student's request; if the student then requests specific material and the materials are available, the request can be filled; if on the other hand, the materials are not available, a selection of substitute materials can be sent to the student. This is only possible when the subject of the student's request is known.

It is essential that a student complete his or her first Athabasca University course if there is to be any chance of the student taking further studies towards a certificate or degree through Athabasca University. Most students are currently enrolled in a single course. This suggests that students try to take an Athabasca University course for a variety of reasons. This "first" experience, therefore, must be positive; success in the first course must be cultivated. Only when there are returning students, when there are increases in the number of students taking more than one course, or have completed more than one course, and when students indicate that they are taking certificate and degree programs will Athabasca University be able to meet the objective identified in the Athabasca University Mission Statement, namely success in university-level studies.

On the basis of student comments, Athabasca University and the Library should proceed to initiate and establish the necessary protocols, procedures, and technical requirements for remote access by students to the library catalog. That well over half of all students in the sample indicated they own or have access to a computer suggests that students are only waiting for remote access to the catalog to be made available to them.

With respect to the supplementary materials list, it is suggested that it be maintained as an integral component of the course package and that more awareness and use of it be promoted. The Library must be more active in the selection process of materials to be included on the supplementary materials list so the collection will support all Athabasca University courses and library staff will be familiar with titles in the collection. Furthermore, the Library should maintain and improve the selection process for materials added to the collection. It is important that, for each course offered by Athabasca University, there be sufficient supplementary materials to support that course.

It is important that the Library work closely with course development teams, improve dialogue with them, and endeavour to have a more complete understanding of the course development process, and the objectives of each course. At the same time, it is important that course development teams understand more fully how the Library functions and the significance of library

research to a university-level education, to ensure that appropriate and sufficient materials are in the collection when the course is developed. While it is essential that library staff have at least a minimal level of understanding of the objectives and the assignments for each course if they are to select library materials to send to students to help them complete assignments, it is also essential that the course coordinator and appropriate team members have at least a minimal understanding of how the library can support the course for which they are responsible. The result of more proactive input by the Library at the preliminary stages of course development will mean the Library will not have to "catch up" when the course is open and there are requests by students for materials. Rather, the Library will be ready to meet the information needs of students in Athabasca University courses.

Course Development Teams at Athabasca University

While the findings indicate that 21% of the students used library materials, and well over half of the courses identified had a supplementary materials list in the course package, not all students knew the course had a supplementary materials list. It may be overly simplistic to state that more students should be made aware of the supplementary materials list. It is, nonetheless, important that all courses at Athabasca University include a requirement that each student develop a basic level of library research skill.

Students, as evidenced in their responses to the survey, indicate that they receive sufficient materials in the course package to complete the course. The complete course package is a positive aspect of courses offered by Athabasca University. However, the complete course package must not, nor can it be, a substitute for the development of independent research skills. Course development teams must reevaluate the concept of the complete course package and if the complete course package remains fundamental to the way Athabasca University delivers its courses, then fine. However, each course package could also include a more elaborate introduction to Athabasca University Library and library use in general. Should remote access to AUCAT be extended to students, it will be required that more comprehensive information be included in each course package, introducing students to the Library, providing instruction for searching the catalog and for borrowing materials.

More attention must be given to the supplementary materials list. Through the preliminary pages of each course, the student should be introduced to all services available to him or her that would contribute to and/or enhance the educational experience. In so doing, success in studies will be cultivated and most likely promoted.

It is necessary that any information the Library would want to make available to students be incorporated into the course package. This would require close cooperation between the Library and the course development team.

Distance Education Librarianship

The findings of this study indicate that almost all students of Athabasca University are aware of library services provided to them. While the course materials package may be sufficient, students do avail themselves of library materials as needed.

This study suggests that distance education students have computers and are prepared to access library catalogues and increase their awareness and use of library materials.

The provision of library service to distance education students is complex. While students are aware of library services, the coursework may not require them to actually use library materials.

While students may believe that the use of library materials is essential to complete a course, relatively few students actually use library materials to complete their course. While a large proportion of students believes the supplementary materials list is essential to the Athabasca University course package, few students use library materials. It is clear that there is much to do with respect to meeting the challenge of removing barriers that would traditionally restrict access to and success in university level studies.

Distance education librarianship is a particularly unique specialty. One of the requirements to successfully provide library services to students is to first of all educate and inform them that library services are available. Students then must be informed not only of the library services of the institution in which they are enrolled, but of additional services that may be available to the student in their communities. There is a need, in general, for library and/or bibliographic instruction in all educational settings.

There are opportunities for institutions to cooperate in the provision of library services to students. Perhaps it is time to dismantle the territorial barriers that encompass institutions and engage in collective, more universal or cooperative approach to education. It is hoped that this thesis* will contribute to that and other goals in the distance education movement.

*Note: A copy of the complete text of the thesis, including tables and appendices may be obtained from the author: Steve Schafer, Athabasca University, Box 10,000, Athabasca, Alberta, Canada T0G 2R0.

References

- Appavoo, P. J., & Hansen, L. (1988). Profile of the distance education library user. In B. M. Lessin (Ed.), The Off-Campus Library Services Conference Proceedings (pp. 13-42). Mount Pleasant, MI: Central Michigan University Press.
- Athabasca University (1985). Mission statement and long-term plan. Athabasca: Athabasca University.
- Keegan, D. (1990). Foundations of distance education (2nd ed.). London: Routledge.
- Mugridge, I., & Kaufman, D. (Eds.). (1986). Distance education in Canada. London: Croom Helm.
- Smyrnew, J. (1983). Characteristics of Athabasca University students (Institutional Studies Report, No. 5). Edmonton: Athabasca University.
- Sweet, R. (Ed.). (1989). Post-secondary distance education in Canada: Policies, practices and priorities. Athabasca: Athabasca University.