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English Language Learners and Library Research

By
Jessica J. Schomberg

A Thesis Submitted in Partial Fulfillment of the Requirements for
Master of Arts

In
English (Teaching English as a Second Language)

Minnesota State University, Mankato
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Abstract

The purpose of this project was to study problems English language learners (ELLs) face when doing research in U.S. academic libraries. A review of the literature indicates that ELLs face both linguistic and cultural barriers. Those barriers are related to learning expectations, library anxiety, and technology. Research on organizational culture and its influence on website design was consulted and used to compare the design of a library catalog's interface with student responses to a library instruction session offered within Composition 101 for non-native speakers. Based on those results, it is argued that library catalogs are designed to match the cultural expectations of mainstream U.S. audiences and that focused library instruction may help ELLs become more comfortable doing library research.

TABLE OF CONTENTS

Table of Contents	i
List of Figures	iii
Chapter 1	1
Introduction	1
Problem Statement	2
Research Questions	3
Summary of the Thesis	3
Definitions	4
Chapter 2	6
Review of the Literature	6
Introduction	6
Learning Barriers	6
Learning Expectations	7
Library Anxiety	8
Social Practices of Libraries	12
Empowering Students	14
The Library Catalog	16
The Purpose and Some Difficulties with Library Catalogs	16
Library Theory	17
Problems with Online Research	20
Conclusion	30
Chapter 3	32
Methodology	32
Introduction	32
Library Catalog	34
Content	34
Interface Design and the User	35
Library Instruction and Students' Online Searching Skills	36
Chapter 4	40
Results	40
Introduction	40
Affective Barriers	40
Power Distance	41
Symmetry	43
Security Barriers	46
Institutional Symbols	47
Uncertainty Avoidance	47
Navigation	49
Help Systems	50
Choices	51
Library Instruction	52
Conclusion	54

Chapter 5	56
Conclusion	56
Summary	56
Limitations of Study	58
Implications for Future Research.....	58
References.....	60
Appendix A.....	66
Appendix B.....	67
Appendix C.....	68
Appendix D.....	69

LIST OF FIGURES

<i>Figure 1.</i> Google's basic search screen	18
<i>Figure 2.</i> Google's advanced search screen	18
<i>Figure 3.</i> Example of a website displaying high <i>Power Distance</i> features	25
<i>Figure 4.</i> Example of a website displaying low <i>Power Distance</i> features	26
<i>Figure 5.</i> Example of a website displaying high <i>Uncertainty Avoidance</i> features	28
<i>Figure 6.</i> Example of a website displaying low <i>Uncertainty Avoidance</i> features	29
<i>Figure 7.</i> Library catalog basic search screen	44
<i>Figure 8.</i> Library catalog advanced search screen	45
<i>Figure 9.</i> Library catalog browse screen	46
<i>Figure 10.</i> Comparison of student comfort with Internet and library online resources before and after a library instruction session	53

CHAPTER 1

Introduction

This paper started as a class project to examine a specific aspect of teaching English for Academic Purposes, library research. It is not uncommon to hear instructors of English language learners (ELLs) bemoan the lack of research skills displayed by their students. However, those instructors may themselves not know the best ways of teaching those skills, especially in an ever-changing online research environment. In addition, it is not uncommon to hear librarians express concern with the difficulty of effectively reaching and teaching ELLs. They may be faced with the struggle of finding how to communicate with college level ELLs.

Of interest in this study is not only students' language abilities in terms of finding, understanding, and using information resources to meet their needs, but also the paralinguistic and cross-cultural difficulties they face. It is not just the words used when ELLs interact with librarians and library structures that can lead to misunderstandings, but also how individuals communicate, when, with whom, and why. This is of particular concern when, as is the case during library research, students must "communicate" with technological interfaces; the logic differences in how the two parties interact can lead to confusion.

This researcher is in the fairly unique position of being very familiar with library structures and increasingly conversant with the pedagogy of Teaching English as a Second Language (TESL). Few librarians or TESL instructors have had the opportunity to walk in both worlds. It was in the interest of bridging that gap between library culture, TESL culture, and the needs of ELLs that this research was conducted.

Problem Statement

Library-based research is an important part of students' college experiences in the United States. Depending on their field of study, students need to know how to choose and refine a research topic; how to find books, articles, primary research materials, or multimedia resources; how to understand citations, call number systems, and other forms of bibliographic description; and how to obtain desired materials, not to mention evaluating the usefulness, appropriateness, and validity of information resources for a given task. Library research is a complex process in which English language learners, whether they are immigrant, refugee, or international students, may be presented with both linguistic and cultural challenges. The primary purpose of this project was to determine what problems English language learners face when doing research in academic libraries in the United States, particularly related to online research. Of additional interest was to determine how librarians can help introduce ELLs to U.S. expectations within the environment of library research.

Several factors of this socialization process were examined, including how libraries and online research tools are structured and presented; how American academic libraries may differ from student expectations, as based on their cultural backgrounds; and ELLs' feelings about library research. Students are socialized to respond to unfamiliar situations in a variety of ways, and within this study, the interweaving of students' responses to alien institutional structures and to unfamiliar methods and purposes of library-based research is examined.

Research Questions

In order to examine the problems ELLs face when doing research in American academic libraries relevant literature on the subject was examined, including articles written on teaching pedagogy and the cultural differences that may separate ELLs from students who are native to the U.S. This literature was also used to examine challenges specific to online research, particularly research conducted by using an online library catalog. In addition, the theory that librarians can help by providing library instruction to students within their regular, content-based course was examined.

Summary of the Thesis

This chapter introduced the purpose of the project and the researcher's professional interest in familiarizing ELLs with library-based research. Chapter 2, the literature review, examines learning barriers that may impede student success, including student expectations and library anxiety. In addition, pedagogical research involving teaching strategies and ways of empowering ELLs were discussed. To examine problems specifically related to online research, the structure and design of information databases, including library catalogs, were researched. In conjunction, technological and cultural barriers within online databases were also examined.

Chapter three, methodology, explains how the library catalog was examined in terms of cultural standards of communication and website design. To understand how culturally-influenced communication patterns are present in online library catalogs, a library catalog was examined based on the research of Geert Hofstede. A secondary part is to compare the analysis of the library catalog with information about ELLs in a

Composition 101 class. Students were surveyed to determine their cultural background and comfort with library research; information about the survey is provided.

Chapter four provides the results of the library catalog analysis in relation to the responses from the student survey. The intent was to develop a better understanding of how student backgrounds relate to their comfort with doing library research, and whether they benefit from an introduction to library research provided during class time. Finally, based on the research results, chapter five provides conclusions made during the research process, weaknesses of the project, and ways in which future study of the topic could be conducted.

Definitions

ELL will be used throughout this document to refer to English Language Learners, people who are learning English as a non-native language. This term includes students for whom English is a second or other language within an English-dominant society (ESL, ESOL) as well as students who learned English as a foreign language (EFL).

The **online library catalog**, sometimes referred to as the online catalog, is a web-accessible database of materials owned by a particular library, typically providing bibliographic descriptions and location information for books, videos, music, maps, and other formats of materials.

A **subject thesaurus** is a collection of terms expressed consistently and in relation to other terms within a hierarchy. Similar to what those in computer science refer to as an ontology, a subject thesaurus is a representation of people, places, things,

and times, along with their properties and relations within an overarching hierarchy. An example of a subject thesaurus is the **Library of Congress Subject Headings (LCSH)**, which is maintained by the U.S. Library of Congress and is commonly used in U.S. libraries. It is a controlled vocabulary to index books and other materials by topic. Subjects are arranged alphabetically under broad headings. Narrower or more precise headings are listed under those broader headings, and related headings are cross-referenced. Unlike a typical ontology, however, which is a pre-defined set of terms, LCSH is an evolving body of knowledge that reflects past and (eventually) contemporary research terminology.

Boolean searching uses the terms AND, OR, or NOT to combine different words and phrases when conducting database queries, such as when searching an online library catalog. For example, one can search for (college AND university) to retrieve only those records that contain both phrases; (college OR university) to retrieve records that contain either phrase; or (college NOT university) to retrieve records about college, but not about universities.

Truncation is used within Boolean searching to allow for variant spelling and plurals. Various symbols can be used as the truncation device; commonly used is the asterisk (*) or the question mark (?). Using the previous examples, one can search for (college* NOT universit*) to retrieve records containing the concept (college, colleges) but not records containing the concept (university, universities, etc.).

CHAPTER 2

Review of the Literature

Introduction

Teaching students how to navigate academic libraries effectively can help them to become more successful students overall. While all students face challenges when beginning to traverse these new systems, students whose first language is not English face additional problems, both linguistic and cultural (Wales and Harmon, 1998), in navigating the library. These difficulties may be the result of several factors including different learning styles, different educational backgrounds, anxiety, a lack of library-specific research training, and technological challenges. Some, perhaps many, of the challenges that face language-minority students are faced by native English speakers as well. However, helping international students and English language learners to overcome these challenges may require different teaching techniques and perhaps different information than what is used for native students.

Learning Barriers

In this section, it is argued that international and immigrant students' learning expectations may be challenged in North American academic settings. While students face some of these learning challenges in content classrooms as well, the overall focus is academic libraries. Suggestions regarding how librarians who are responsible for library instruction and reference services might ameliorate these difficulties are included.

Learning Expectations

In terms of learning expectations, depending on the student's country of origin, the student may be accustomed to pure lecture, memorization, and receipt of necessary information directly from the instructor (Badke, 2002; Garcha and Yates, 1993; Kumar and Suresh, 2000; Wales and Harmon, 1998). This set of expectations differs from what is encouraged in Western pedagogical approaches, which may include a variety of information delivery methods. Whether the information is delivered via classroom lecture or other instructional methods, American educational expectations are that students should be able to analyze and synthesize information from a variety of sources (Helms, 1995; Macdonald and Sarkodie-Mensah, 1988). Even the expectation that one should be capable of or willing to question the authoritativeness of a written text may be challenging for some international students. This task may require that students violate their own cultural norms and change their educational philosophy in order to succeed (Badke, 2002).

Conteh-Morgan (2003) argues that perceptions of critical thinking skills are culturally dependent. When assessing pedagogic methods and outcomes, Conteh-Morgan suggests that the definition of critical and active thinking skills be broadened to recognize a fuller range of learning styles. To use Gee's (1999) definition of the culturally created Discourse: "It is sometimes helpful to think about social and political issues as if it is not just us humans who are talking and interacting with each other, but, rather, the Discourses we represent and enact, and for which we are 'carriers'" (p. 27). By using the term carriers to describe individuals' roles in communication, he implies the lack of conscious awareness we have of the information we share and also the ways in which that

information is conveyed; we unthinkingly conform to societal thought patterns. As Kaplan (1966) notes in his analysis of the relationship between culture and rhetorical style, and as Hofstede (1991) notes in his analysis of how cultures organize information, logic is not universal. What we expect to see, what we do see, and how we react depend on our culturally-mediated worldview.

However they are defined, these differences in learning expectations can be exacerbated when the student is confronted with a North American academic library, which may be intimidating and anxiety-inducing. North American academic libraries differ from those in other countries—particularly in developing countries—in several significant ways, including breadth and currency of resources offered (Garcha and Yates, 1993; Liestman, 2000); open access to library resources (Badke, 2002; Macdonald and Sarkodie-Mensah, 1988); the make-up and role of librarians and library staff (Garcha and Yates, 1993; Helms, 1995; Liestman, 2000); and technological barriers, including online databases and classification systems (Badke, 2002; Jiao and Onwuegbuzie, 2001).

Library Anxiety

Jiao and Onwuegbuzie (2001) used the Library Anxiety Scale, developed by Bostick (1992), to investigate which dimension of library anxiety is the most debilitating for international students. According to their study, technological barriers (sometimes referred to as mechanical barriers) created the greatest anxiety, followed by affective barriers, barriers with staff, comfort with the library, and knowledge of the library. Affective barriers refer to “feelings of inadequacy about using the library” (Jiao and Onwuegbuzie, 2001, p. 18), especially when students believe that they are alone in those

feelings. Barriers with staff include the perception that librarians should not be approached by students in need of help, either to follow negative politeness norms by not disturbing librarians or because students find them intimidating. Comfort with and knowledge of the library refers to how welcoming and safe the library seems and how familiar the library seems, respectively. While it is important to remember that each area may be a source of anxiety, Jiao and Onwuegbuzie suggest that librarians acknowledge library anxiety in library instruction classes and reference interactions and explicitly discuss technological aspects of library research.

In arguing that linguistic differences are not the major source of anxiety for students, some, including Conteh-Morgan (2003), indicate that many international students are proficient English speakers. Instead, the difficulties arise from the aforementioned technological barriers. Technological barriers may include both navigating through unfamiliar technologies and learning about the organizational structure of libraries. According to research done by Jiao and Onwuegbuzie (2001), the technological barrier is the most debilitating. These difficulties can lead to feelings of fear, helplessness, and frustration specifically related to the library. Successfully crossing such barriers requires both technical skill and cultural understanding. For example, in Ireland, an English speaking country, library norms differ from those in the United States in several ways, a notable one being the interlibrary loan system. In Ireland, library users must pay a fee to borrow books via interlibrary loan; in the United States, it is common for libraries to pay that cost rather than researchers, and even undergraduate students are encouraged to submit interlibrary loan requests (Ashton, 2007). Students who come to the United States from another country in which interlibrary loan is not existent, limited

in scope or terribly expensive may be unaware of this service or may fear to use it even though the resources available via interlibrary loan may help their research.

As mentioned above, Conteh-Morgan (2003) examined the linguistic background of international students studying in the United States and discovered that many such students are from English-speaking countries including Canada and the United Kingdom, or are from countries which use what she calls “a nativized version of English” such as Pakistan or Nigeria (p. 260). In addition, many other students have studied and used English enough to be fairly proficient speakers in most situations. Therefore, Conteh-Morgan argues that attributing difficulties international students face when dealing with academic libraries on linguistic factors alone is misleading.

In addition to linguistic and technological barriers, which will be discussed in more detail below, students may become anxious when dealing with librarians because of issues related to status, gender, and power. This anxiety may be the result of discomfort at admitting ignorance by asking for help from a stranger, thus acknowledging lack of power within a given situation, or because many students do not realize the purpose of the reference librarians (Helms, 1995). Depending on previous exposure to libraries, discomfort at asking for research help may also be due to a student’s perception that the librarian is either a gatekeeper who should not be disturbed, or a book-retriever/clerk who is to be directed to perform a specific task. This can be especially problematic during situations of both cross-cultural and cross-gender communication, in which a student may not understand the professional role of librarians and in which a (female) librarian may perceive that a (male) student’s demanding behavior is due to a lack of respect (Garcha and Yates, 1993). This discomfort on the part of students and the perception of disrespect

on the part of librarians can result in a cycle of discomfort, anxiety, and continued misunderstandings on both sides.

The technological barrier has several facets, including unfamiliarity with the actual computer technology and with American principals of information organization. First, it can be difficult for international and immigrant/refugee students to comprehend fully the scope of American libraries. The variety of resources, both print and electronic, the variety of methods available to locate those resources, and the placement of responsibility for locating and obtaining relevant resources on the students themselves can all be challenging (Helms, 1995; Macdonald and Sarkodie-Mensah, 1988; Wales and Harmon, 1998). As Baron and Strout-Dapaz (2001) indicate, there is a learning curve that must be acknowledged for students to gain the research and technology skills that they need. Surpassing that learning curve will be easier if students are taught the broader context of library research (Badke, 2002; Conteh-Morgan, 2001). However, as Gee (1999) notes, “the human mind does not deal well with general rules and principles that do not come out of and tie back to real contexts, situations, practices, and experiences” (p. 62). Therefore practical, context-based strategies for how to conduct research should also be taught (Baron and Strout-Dapaz, 2001).

As Jiao and Onwuegbuzie (2001) and Griffiths and Brophy (2005) suggest, one of the most challenging aspects of library research is the technological barrier. Exacerbating this problem is the fact that many American librarians are “unaware of how to address the academic language needs of L2 students” (Kamhi-Stein and Stein, 1998, para. 4) in addition to their need for help in the areas of technical and critical thinking skills (Badke, 2002; Liestman, 2000). The combination of the language, conceptual, and

technological hindrances on the part of students--and knowledge of such hindrances on the part of librarians--indicates that it may be beneficial to devote special attention to the social and technological barriers international students face when navigating academic libraries.

The next sections will discuss research related to how to teach international students library specific information and skills, particularly related to social and technological skills of library use, and research related to information organization.

Social Practices of Libraries

Gee (1992) argues that learners need to be taught not only technical skills but also social skills regarding the community in which those skills will be practiced. Learners need to be taught not only discrete pieces of information, but also what that information means in a broader context. “The only way to ensure that learners have the right experiences and focus on the relevant aspects of them is to *apprentice* them to the *social practices* of sociocultural groups” (Gee, 1992, p. 48).

Part of teaching students how to use library resources is making them aware of the resources available and the purposes for which they are used. Several researchers (e.g., Ellis, 1997) have discussed Krashen’s input hypothesis, sometimes referred to as $i + 1$, which states that when learners are presented with information that is one step beyond their current state of linguistic competence, they will acquire that information, thus progressing to the next stage along their developmental path. As all learners will naturally be at different stages, learners must be exposed to authentic, natural input which they can understand for learning to occur.

According to Leow and Bowles' (2005) analysis of Schmidt's noticing hypothesis (see Ellis, 1997), which is based on Krashen's input hypothesis, by attracting students' attention to stimuli, and then asking students to interact with those stimuli in enough depth that the students construct their own meaning about it, the students not only have an awareness of those stimuli but an understanding of them. Mackey and Abbuhl (2005) offer a similar argument to suggest that learners must go beyond merely taking in information. Instead, learners need to engage in the negotiation of meaning to ensure that the input they receive is suitable for their needs.

As was already mentioned, the logic students use to organize what they encounter is culturally dependent (Kaplan, 1966). Teachers of library research skills need to keep in mind that students may notice and interpret library features in different ways depending on their prior experience and training. Gee (1999, pp. 74-78) provides an anthropological explanation of how we must understand the greater context of a situation in order to understand the specific practices. He explains that in order to understand Mayan wedding customs—to understand what is important versus what is background information, to understand the meaning “in specific social and Discourse practices” (Gee, 1999, p. 78)—one must also understand Mayan daily life, including social hierarchies, gender roles, religion, meals, etc. Similarly, to understand how to conduct library research within a particular field, one must also understand the hierarchies and social customs of both a particular discipline and Western libraries as a whole.

Empowering Students

Baron and Strout-Dapaz (2001) advocate that librarians empower international students by collaborating with their institutions' international student office or equivalent to provide library orientation and instruction aimed at those populations. They note that librarians need to be aware of students' linguistic skills and make allowances so that language barriers do not impede comprehension. As mentioned previously, however, students' difficulties may not be exclusively the result of linguistic differences. In addition, as ESL students include not just international but also immigrant and refugee students, their backgrounds, goals, and linguistic differences may be vastly different.

Kumar and Suresh (2000) highlight the importance of examining the characteristics of students at one's own institution, and the benefits of providing library instruction tailored to the needs of international students. Kumar and Suresh contacted their institution's international student office and set up interviews with Asian/Pacific area students about obstacles faced when using American libraries. The idea of evaluating students' actual experiences and needs is reinforced by Liestman's (2000) analysis of difficulties faced by adult international learners. Based on his research and experience, Liestman also cautions that librarians should not assume that students are familiar with computers or online databases, including online library catalogs.

When discussing library instruction classes to provide students with help when faced with academic libraries, Kamhi-Stein and Stein (1998) argue that such classes should be tailored to meet the specific needs of students. They offer a library instruction model in which content faculty, librarians, and ESL instructors collaborate to develop and implement library instruction for ESL students. Among their suggestions are the

following: instructors should define any terms which might be unfamiliar, including such jargon as ‘descriptor’ or ‘search engine’; scaffold instruction by breaking tasks into subtasks and modeling successful search strategies; provide library instruction within the context of a content-based course and focus instruction on relevant academic concerns; involve critical thinking strategies within the presentation; and offer students the chance to actively use the information presented.

Conteh-Morgan (2001, 2002) further argues for the empowerment of ESL students via library instruction. She also asserts that broad, unfocused library instruction is ineffective. Instead, she suggests that librarians should collaborate with ESL and content instructors to develop focused sessions taught by students’ regular instructors. Similarly to Leow and Bowles (2005) and Mackey and Abbuhl (2005), Conteh-Morgan (2002) draws on Krashen’s input hypothesis to encourage librarians to take “social context, learner characteristics, learning conditions, learning process, and learning outcomes” into consideration when teaching (p. 192). In relation to communication difficulties, Conteh-Morgan (2002) references Blau (1990) to advocate that instruction librarians, when speaking to groups of language learners, pause between semantic groups, enunciate clearly while not slowing their speech to an unnatural pace, and restate ideas in as many different ways as is appropriate.

Conteh-Morgan (2002) also argues that student anxiety will be lessened by having new information presented by their regular teacher, with whom they are familiar, and who is familiar with them. In addition, students will be able to interact with the material over a longer period of time. In this way, knowledge can be built in a way that cannot occur during a single, librarian-taught 50-minute session. Parallels are mentioned

between the pedagogy of ESL and library science. This is true especially with regard to both disciplines' views of the importance of learning the broader context in which knowledge is situated. Conteh-Morgan (2002) goes on to cite Bilal (1989) by stating that "without the conceptual awareness of how to conduct library searches, it is more difficult for [ESL] students to understand the material presented in bibliographic instruction classes" (p. 33).

The Library Catalog

The focus of this section is the mechanics behind the technological barriers: online databases and how information is organized. The importance of library catalogs for academic researchers will be discussed, as well as the difficulties of online research in general and using online library catalogs in particular.

The Purpose and Some Difficulties with Library Catalogs

Of particular interest for this research project are the barriers presented by the online library catalog. As the library catalog is one of the primary tools used by researchers, it should be usable and accurate. Once available only to researchers with physical access to the library, library catalogs are now available to anyone with an internet connection. However, despite the fact that an individual library's catalog may be open to the world, students must still confront the problems of using the right words in conjunction with the right search techniques in order to actually retrieve relevant material (Kim, 1996).

Library Theory

The principles and organizational structure of Western libraries has evolved over many years. The great librarian-philosopher S. R. Ranganathan's (1963) Five Laws of Library Science are:

Books are for Use

Every Reader his Book

Every Book its Reader

Save the Time of the Reader

Library is a Growing Organism

According to the second law of library science, *Every Reader His Book*, it is the responsibility of the library to include in the catalog "profuse subject cross-references" (Ranganathan, 1963, p. 251). In addition to recognizing that a given searcher is not likely to know or remember every possible variation of a given word, it also references the fourth law by helping students avoid "the wastage due to wading through cumbrous catalogues" (Ranganathan, 1963, p. 290). For example, a student doing research on the American Civil War may not realize that the phrase "the civil war" does not have universal meaning and that using the search terms *civil war* may retrieve information about civil wars in other nations besides just the United States. Therefore, it would help students not only to know that there are different ways of referring to the same idea, but also to have that information readily available within the library catalog itself.

In terms of online research in general, according to Marchionini (1992) and Griffiths (1996) as referenced by Griffiths and Brophy (2005), students using online information resources for research will follow the path of "least cognitive resistance" (p.

540). According to Griffiths and Brophy, this is true even among students in computer science courses; students did not seem to relate what they learned about database design in general to database searching. For example, although students learned about Boolean algebra in their coursework, they were unable to effectively apply Boolean logic when creating online search commands. Search engines that are more difficult to use result in students retrieving less useful information. Compare, for example, Google’s basic search (Figure 1) with its advanced search (Figure 2).



Figure 1. Google’s basic search screen

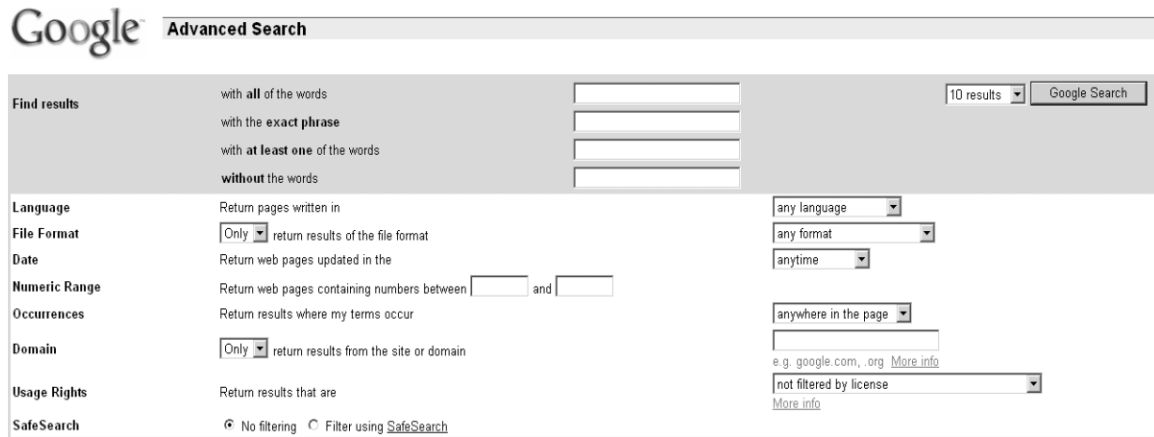


Figure 2. Google’s advanced search screen

Multiple search boxes related to particular features such as language (e.g., French) or domain (e.g., .fr), while helpful for proficient searchers, cause problems for novices. Another example of complex searching would be the Common Command Language option available on some library catalogs. Citing further research by Johnson, Griffiths and Hartley (2001, 2003), Griffiths and Brophy (2005) continue to argue that “most users will not use advanced search features, nor enter complex queries, nor want to interact with search systems” (p. 541). By this they mean that most researchers do not use pre-set limits, such as the option to limit by format within many library catalogs, nor do they take advantage of the precision allowed by Boolean searching. The results of this study are very similar to what DiMartino, Ferns, and Swacker (1995) discovered about students’ CD-ROM searching behavior, which will be discussed in more depth below.

Griffiths and Brophy (2005) then discuss the research habits of students as studied by Cmor and Lippold (2001). Behaviors identified by Cmor and Lippold include students’ reliance on Web-based research, their inability to distinguish scholarly research from the assortment of other information available to them, and their perceptions that their online search skills are better than what was objectively measured. Griffiths and Brophy use this information to preface their own research, which was conducted with the intention of observing students’ research skills and techniques as they are asked to perform a variety of tasks typical to an academic environment. Griffiths and Brophy conclude that without a conceptual understanding of the discipline in which they are doing research, it is very easy for students to become confused when browsing through hierarchically arranged information. This may help to explain why 45% of the students

in Griffiths and Brophy's study started academic research by visiting Google; only 10% started their research by visiting the online library catalog.

The above study was conducted on students in the United Kingdom; there was not a focus on ESL students. Therefore, the cognitive barriers mentioned did not include extra barriers faced by English language learners. Those barriers may include the language used within such online databases as library catalogs, in addition to the catalogs themselves (Garcha and Yates, 1993). As mentioned earlier, DiMartino, Ferns, and Swacker (1995) compared the CD-ROM searching strategies of ESL students with native-English speaking students. In particular, the authors wanted to determine students' knowledge of "basic tools" (p.50) such as Boolean operators and indexing as well as tools based on language skills, such as truncation. They found that all students in the study could have benefited from instruction in how to use Boolean logic, internal thesauri, and truncation techniques. The only areas in which ESL students differed markedly from native speakers were in the lack of plural forms and the lack of synonyms and variant words used when searching.

Problems with Online Research

The problems students face when conducting online research are related to technological barriers involving both how information is organized within their particular discipline and within databases and how to retrieve that information. Understanding how information is organized and how it can be retrieved is also related to how one expects information to be stored and displayed, in other words how students expect the world to be organized.

Technological barriers. When discussing the specific problems ESL college students encounter when confronted with the library catalog, relevant literature is sparse. Therefore, this section will examine online research in general in addition to examining studies of student responses to library catalogs and the structures behind them. While none of the following studies are specific to problems faced by ELLs, these problems are faced by all researchers.

Thorne and Whitlach (1994) found in prior online catalog user studies that the areas which pose the greatest difficulty are subject searches and technological aspects of search query formulation. Their research indicates that online catalogs which allow students to conduct subject keyword searches produce better results than those which do not. Noting previous research that indicates that some libraries do not provide as much instruction as students may need during reference transactions or that communication difficulties inhibit successful reference service, they studied the success of library users, primarily undergraduate students, at conducting catalog searches without librarian mediation. As part of the study, students at their “multicultural, multilingual university” (Thorne and Whitlach, 1994, p. 495) were observed conducting catalog searches and were then surveyed both about their perceived success and satisfaction. The results of their observations indicate that few students used more than one search strategy and even fewer took advantage of tools that would have allowed them greater control over their searches, such as the limit and expand features.

Subject thesauri, in addition to organizing information, can also provide alternate words, thereby allowing students to choose a term preferred in a particular search environment, narrow the focus of their search, or expand the focus of their search. For

example, while a student may be accustomed to seeing and using “ESL”, or “EFL”, or “ELL”, or “ESOL”, or “TEFL”, or “TESL” or any of a number of other phrases to refer to subjects related to teaching English to non-native English speakers, the Library of Congress Subject Heading (LCSH) for that concept is: English language – Study and teaching (*education level, if appropriate*) – Foreign speakers. While complex, it serves to collocate research on that topic to one term instead of several.

Several article databases provide thesauri for researchers who know of its existence; similarly, the primary subject thesaurus for library catalogs is also available to those who know to look for it. Citing Fidel (1991), Shiri and Revie (2005) indicate that interfaces which can automatically match the subject or keyword terms entered by researchers with the background thesauri would be particularly useful. Shiri and Revie (2005) found that several researchers encouraged the incorporation of the subject thesauri into the search interface to help both experienced and novice researchers find better material more quickly.

However, other research suggests that conscious use of a subject thesaurus to expand or refine a search query is useful for experienced researchers (Jones et al., 1995; Beaulieu, 1997; Sihvonen and Vakkari, 2004, as cited by Shiri and Revie, 2005). Shiri and Revie’s (2005) analysis of academic staff and postgraduate students’ use of thesauri when performing searches, which corresponds with research done by Griffiths and Brophy (2005), finds that the thesaurus was more useful to researchers who were already very familiar with the organization of information within their disciplines. For novice researchers and for those unfamiliar with how information is organized within a particular discipline, subject thesauri can cause more confusion.

In addition, Shiri and Revie (2005) found that Boolean operators and the location of command buttons were common problems for all users. Despite exhortations that information retrieval systems develop “an intermediary between the user and the database so that users do not need to know about Boolean logic, controlled vocabulary terms, or other technical matters” (Kim, 1996, p. 16) more than twenty years ago (see Hawkins and Levy, 1985), Boolean searching continues to play a major role in online catalogs.

As the library catalog is one of the primary interfaces which researchers must use to find information held in a library, it should be designed with usability in mind. Unfortunately, it is evident that “users continue to find online catalogues difficult to use” (Morrison, 1999, p. 197). Morrison used the verbal protocol approach, in which research participants verbalize the steps they take to solve problems, to discover the most common problems users encounter when using the library catalog.

The two most common problems identified in Morrison’s (1999) study were 1) limiting search results by availability and location and 2) doing subject searching. It is important to note that the participants in Morrison’s study attended a university in which the initial catalog interface—the first page students see when they want to search the library catalog—searched a consortial catalog, or one that was shared with other libraries. Morrison explained that the Library of Congress Subject Headings, the primary subject thesaurus used by academic libraries in the United States, was available in print in the reference area. However, as mentioned by Shiri and Revie (2005), an integrated subject thesaurus would be more helpful. By using an integrated subject thesaurus, students are not required to visit the reference section of the physical library in order to use this research tool. However, even in library catalogs in which the subject thesaurus is

integrated, subject thesaurus information is only available when students perform a “browse” rather than the more commonly used “keyword” search. For example, within the Minnesota State University, Mankato library catalog, students can browse for titles using “Subjects begin with...”. However, to learn to conduct research on the topic of TESL by using the phrase “English language – Study and teaching – Foreign speakers”, students would have to already know that terminology; there is no readily searchable thesaurus provided.

Cultural barriers. Hofstede (1991) and Hofstede and Hofstede (2005) examined patterns within general human behavior at a cultural level. Behavior was broken into five categories to describe power relationships, response to the unknown, masculinity/femininity, collectivist versus individualist, and long-term versus short-term orientation. For this study, the focus is on how individuals view power relationships and the unknown, which Hofstede (1991) described using the terms *Power Distance* and *Uncertainty Avoidance*. Marcus and Gould (2000) used Hofstede’s work to examine website design.

Marcus and Gould (2000), citing Hofstede (1991), use the term *Power Distance* (PD) to refer to “the extent to which less powerful members expect and accept unequal power distribution within a culture” (Marcus and Gould, 2000, p. 35). In other words, people from cultures in which PD is valued highly believe that there is and that there *should be* a gap, or distance—emotional, intellectual, and otherwise—between those who have power and those who do not. People from cultures in which PD has little value, on the other hand, prefer to have more equity between groups.

Cultures with high PD expect centralized power and extensive hierarchies, security barriers, and social control of information. Countries with low PD expect flat hierarchies, easy access to information, and the freedom to explore at will. Examples provided by Marcus and Gould (2000) include the website for Universiti Utara Malaysia. Malaysia is identified as a high PD country and this website featured symmetric design, focused on the university's official seal, and offered photographs of officials, as well as large buildings and small people. Since the time of Marcus and Gould's study, the website has changed somewhat (Figure 3). While still featuring the university's seal and a symmetric design, the photographs on its main page now feature students as well as buildings and officials.



Figure 3. Example of a website displaying high *Power Distance* features

Another example provided by Marcus and Gould (2000) is the website for the Technische Universiteit Eindhoven. This website from the Netherlands, a low PD country, focused on students, had an asymmetric layout, and offered WebCams to allow visitors to take self-guided tours of the university. While the layout for this page has become more symmetrical (Figure 4), it still offers a variety of options for visitors, including the choice of English or Dutch when navigating through the page, the choice of background colors and font styles, and a long list of related pages.

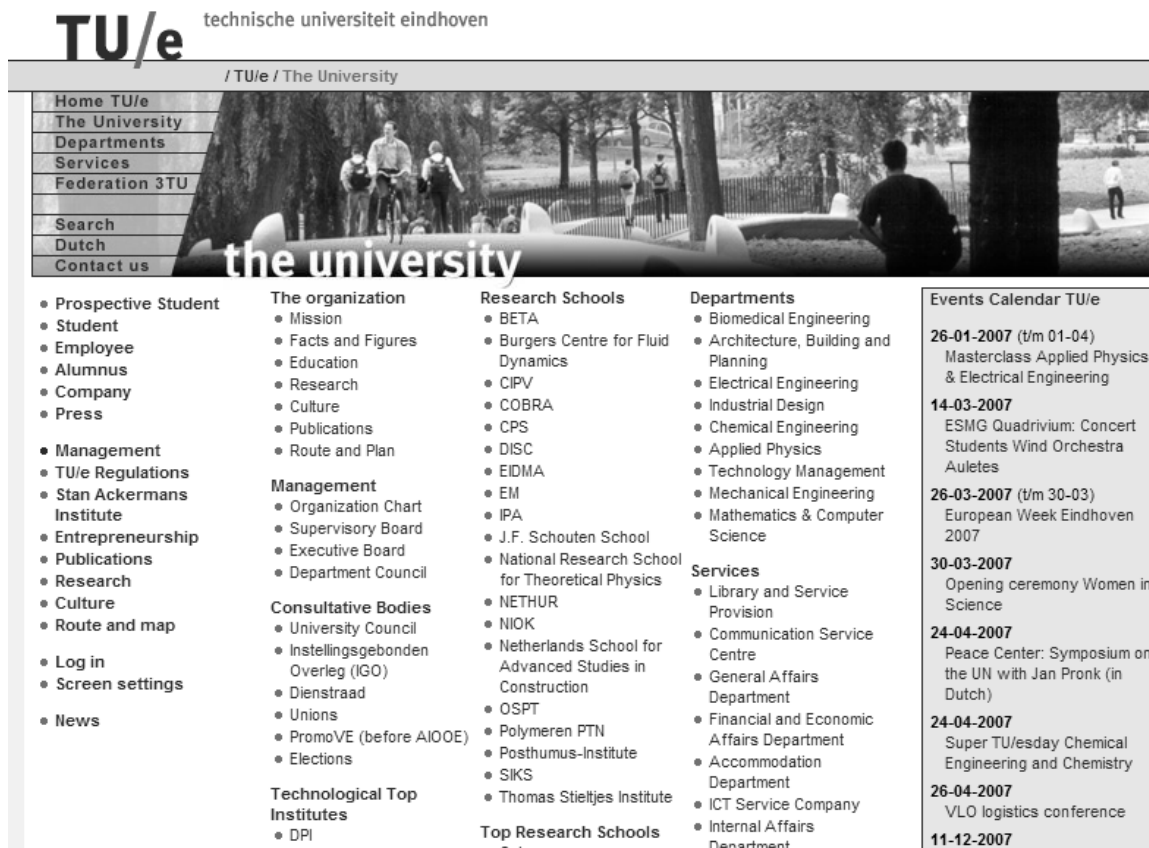


Figure 4. Example of a website displaying low *Power Distance* features

Within the realm of schooling, *Power Distance* (PD) can indicate the level to which people prefer education to be a teacher-centered process in which students depend on the teacher to share his or her wisdom, or, the level to which people prefer student-centered education in which students and teachers treat each other as basic equals in an interdependent relationship (Hofstede and Hofstede, 2005, p.53-54). Within the context of a library setting, it might be expected that students who expect a large degree of PD may be discomfited when they are presented with reference-librarians or teaching-librarians from a low PD culture, such as the United States, who expect that students will initiate contact, request help directly and independently, and be comfortable negotiating or questioning someone in a position of authority.

Also citing Hofstede (1991), Marcus and Gould (2000) use the phrase *Uncertainty Avoidance* (UA) to examine the difference “in the extent that [individuals] feel anxiety about uncertain or unknown matters, as opposed to the more universal feeling of fear caused by known or understood threats” (p.39). People from high UA countries may be especially prone to what Jiao and Onwuegbuzie (2001) and Bostick (1992) refer to as library anxiety. Cultures with high UA are more formal, tend to be emotionally expressive, and have prescribed rules and relationships. In addition, experts act as gatekeepers to protect or guard the knowledge they possess. Cultures with low UA are less formal and more relaxed in their attitudes, are less expressive, and provide knowledge seekers with opportunities to interact with experts.

In terms of interface design, high UA cultures prefer simplicity, controlled navigation schemes, help systems to perform specific tasks, and redundancy over ambiguity. In contrast, low UA cultures prefer complexity of information and of choices,

self-directed exploration, and contextualized help systems. Examples provided by Marcus and Gould (2000) are an airline website based in Belgium (Figure 5), a high UA country, which has simple imagery and limited choices and another airline website based in the United Kingdom (Figure 6), a low UA country. The airline website from the U.K. has multiple choices, different interface controls, and ‘hidden’ content.

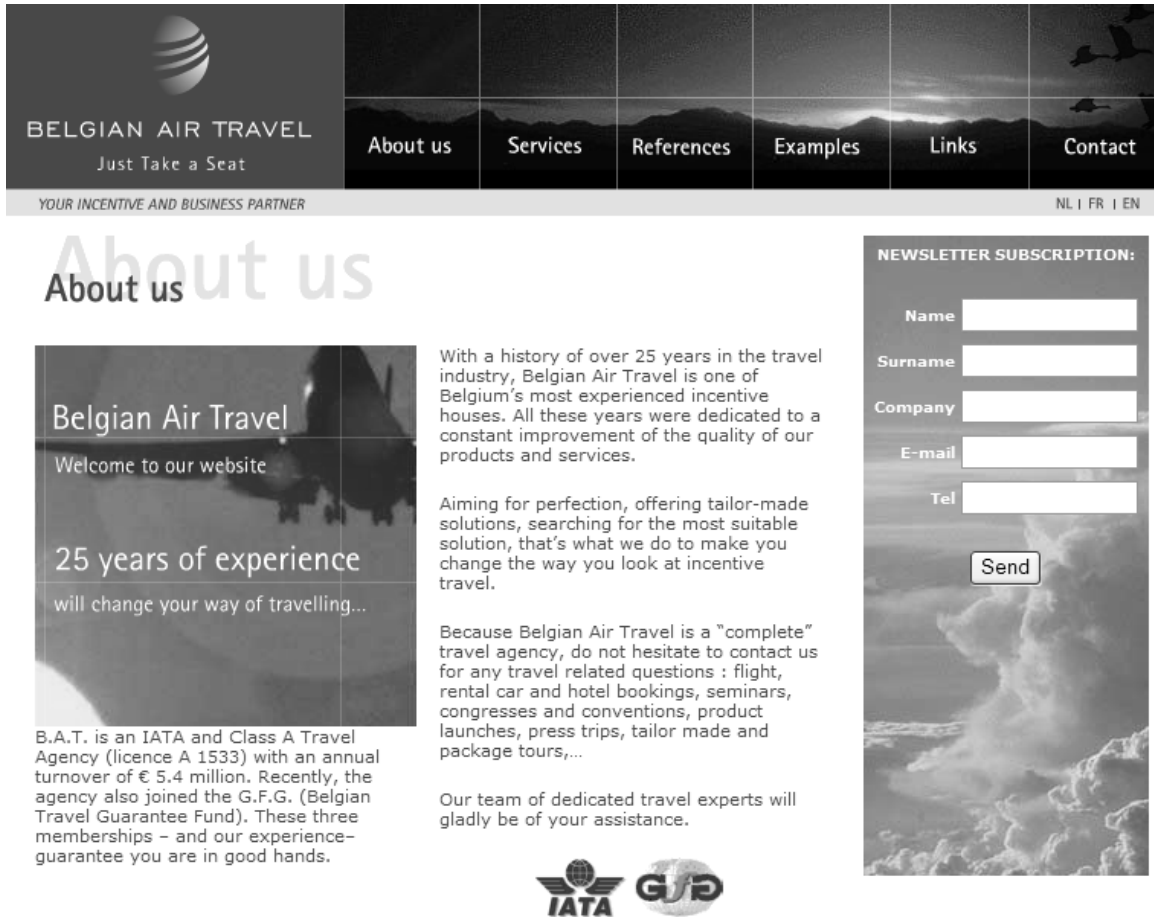


Figure 5. Example of a website displaying high *Uncertainty Avoidance* features

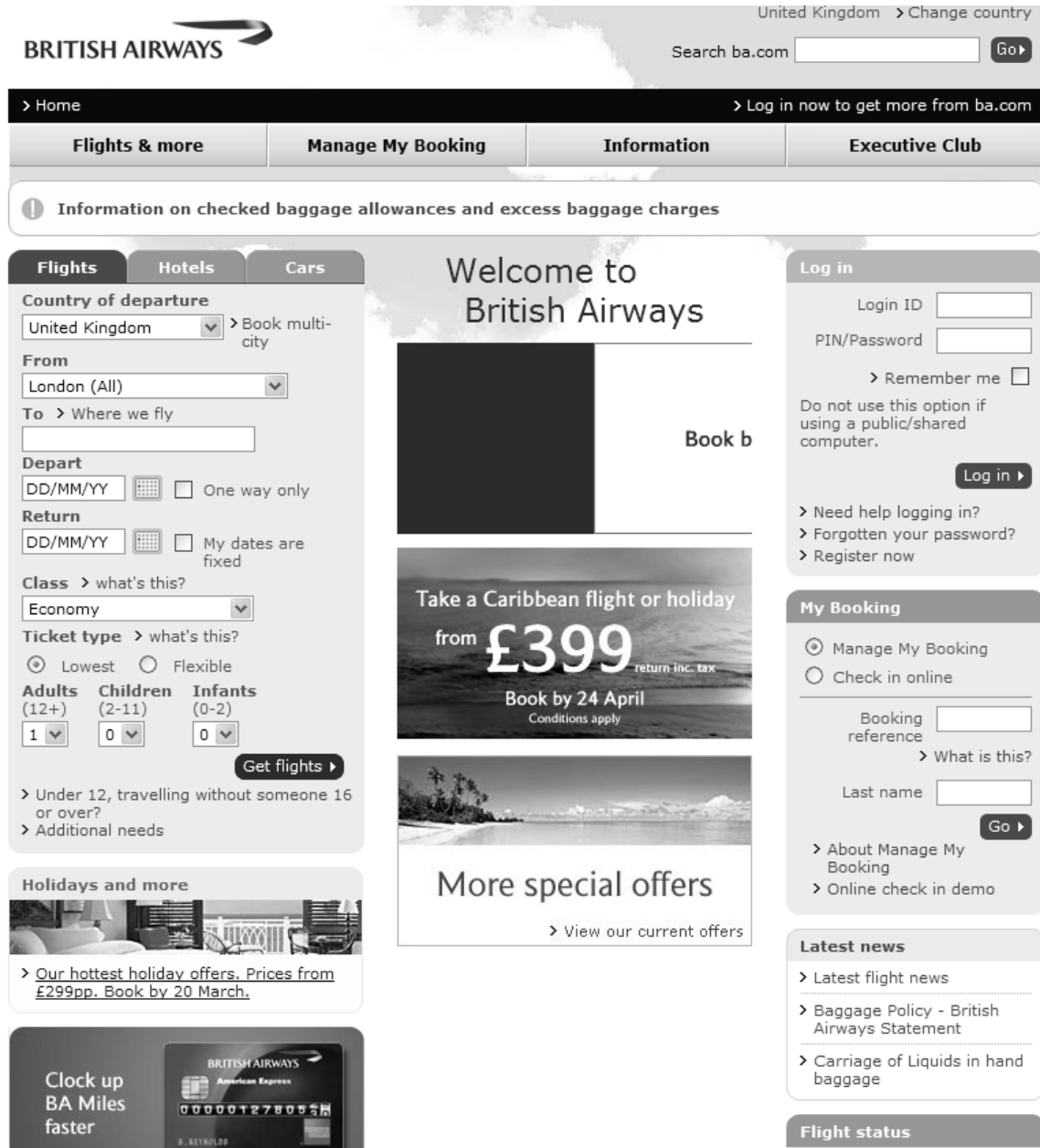


Figure 6. Example of a website displaying low *Uncertainty Avoidance* features

Within educational settings, *Uncertainty Avoidance (UA)* can determine how much structure students desire and students' preference for questions that have one correct answer versus open-ended questions which require original or creative answers. In terms of how students from high UA cultures relate to teachers, "intellectual

disagreement in academic matters is felt as personal disloyalty” (Hofstede and Hofstede, 2005, p. 179). Within the context of a library or a library website, students from low UA cultures may be amenable to self-directed exploration in search of their own information, whereas students from high UA cultures may feel an emotional or intellectual need to go to the one resource that has the correct information. Meaning negotiating within online databases or with reference librarians may be difficult.

Conclusion

This chapter examined how different learning styles and cultural expectations vis-à-vis libraries can lead to feelings of disorientation and fear. It argued for the importance of teaching students how to conduct research in an American academic library both from a conceptual stance and from a practical, context-based perspective, therefore providing them with skills they need to succeed in their college education and to alleviate their fear of libraries and library-based research.

It then examined the purpose of library catalogs and problems that English language learners may face when confronted with online databases. Those problems may involve both linguistic challenges, such as knowing when to use synonyms and truncation devices to form search queries, as well as cultural challenges related to how students expect to interact with librarians, websites, and the unknown.

Several of the researchers cited encourage ESL instructors and librarians to collaborate to meet the research needs of ELLs. However, little research has been done on the linguistic and cultural challenges presented by libraries’ existing structures, as exemplified by the online library catalog. Therefore, in the next chapters, the background

design and interface of Minnesota State University, Mankato's library catalog will be examined and the analysis of that examination will be compared with the perceptions of students in two Composition 101 classes for non-native speakers. Included in that comparison will be the cultural backgrounds of those students and how they responded to a library-instruction session provided during their regular class time.

CHAPTER 3

Methodology

Introduction

A review of the literature indicates that when doing research in U.S. academic libraries, English language learners face both linguistic and cultural barriers. Those barriers are related to learning expectations, library anxiety, and technology. To examine the relationship between social factors and technological factors, this project examines the discourse patterns present in American libraries as shown in a basic research tool, the online library catalog. Additionally, an analysis of the library catalog is compared with student responses to a library instruction session offered within Composition 101 for non-native speakers.

There are four specific research questions that guided this project. The first is, *What problems do ELLs face when doing research in American academic libraries?* To answer this question, literature on the subject was examined, including articles written on teaching pedagogy and the ways in which ELLs may differ from native English speakers from the U.S. As discussed in Chapter 2, previous research indicates that ELLs face challenges involving technology, social structures, and linguistic barriers.

The second question is, *Which of those problems that ELLs face are specific to online research?* Answering this question was the primary focus of this project. Again, relevant literature on the topic was examined. To narrow the focus of the question, a particular form of online research was selected. As the online library catalog is designed to be a primary starting point for research, it is that aspect of library research that is of

particular interest for this project. Using discourse analysis and terminology provided by Hofstede (1991), specific features of the library catalog website were examined, including how help is offered, the syntax of online searching, and non-linguistic features such as foregrounding through visual placement. While there has been research done on challenges researchers face when doing online research, none of the research examined within the literature review was specific to ELLs.

The third question is, *How can librarians help?* Once again, relevant literature was examined. Some researchers (e.g., Conteh-Morgan, 2001) assert that librarians can help by providing library instruction to students within their regular, content-based course was examined. To verify that assertion and to answer the question of how librarians can help, the librarian-researcher taught students basic research skills within an introductory Composition class restricted to ELLs.

The final question is based on question three, which argued for the provision of library instruction sessions. For the question, *How do ELLs respond to library instruction sessions?*, students were surveyed both before and after the librarian/researcher-taught library instruction class in relation to their perceived skill in using academic English, in conducting online research, and, after the session, whether they perceived that the library session helped them.

To understand how students' cultural backgrounds might affect their online searching skills, both the library catalog interface and students' responses to library instruction were explored. The library catalog was examined in relation to its structure and design using the *Power Distance* and *Uncertainty Avoidance* qualities discussed by Hofstede (1991), Hofstede and Hofstede (2005), and Marcus and Gould (2000). To

understand the analysis of the library catalog in practical terms and to verify that library instruction classes were helpful to ELLs, student responses to library instruction were collected via a survey conducted before and after 1-2 hours of library instruction. The library instruction session focused on introducing students to the library as well as how to conduct library catalog and databases searching. As part of the survey, students were asked to provide information about their country of origin and their perceived skill at conducting online research.

Library Catalog

Online resources such as library catalogs have three major components, which are the infrastructure, the information content, and the user (Bates, 2002). The particular area of emphasis in this project is the user (i.e., students). Users interact with the content via the interface. To understand how the interface functions, the content (the information contained within an online catalog and how that information is organized) will be briefly described first. Cultural aspects of interface design can mean that the same features which make an information retrieval (IR) system user-friendly to one person could create a barrier to use for another person, both in the background (information organization) and in the foreground (the interaction between the user and the system).

Content

In the background, or information organization part of an IR system, exists both the information in the system and the database structure, as well as the search engine and what Bates (2002) calls the search capabilities. Search capabilities refers to the ways in

which the user is allowed to search for information. Boolean searching associated with concept indexing, such as Library of Congress Subject Headings (LCSH) in a library catalog, is a very common type of searching. At this stage, already, different mental orientations can lead to different levels of effectiveness. Research done by Bates (2002) indicates that the “logico-mathematical character” of Boolean searching (p.393), in and of itself, is better suited to the needs of scientists than humanities scholars.

One reason Bates (2002) suggests for database searching difficulty is the way in which content is organized within research databases such as library catalogs. In library catalogs using LCSH, it is conventional to apply the most specific term to describe an item (e.g., Troubadours—France—Norbonne); however, this conflicts with humanities scholars’ desire to search for a combination of general topics (e.g., medieval music and musicians in the Languedoc-Roussillon area of France). Unfortunately, Bates (2002) did not explore the nature or cause of “scholars’ discomfort with Boolean logic” other than noting that it impeded successful database searching (p. 393).

Interface Design and the User

In the foreground of an IR system, the place in which the user and the system interact, is the interface. In addition to the search capabilities, which were discussed earlier, the interesting feature of this aspect of the IR system is how the interface functions as the “face” of the system. How the interface is designed can impact the effectiveness of the entire IR system.

For the purpose of this project, to evaluate whether a specific library catalog at a Midwestern state university reflects high or low *Power Distance* using Hofstede’s (1991),

Hofstede and Hofstede's (2005), and Marcus and Gould's (2000) terminology, the following features were examined: (1) symmetry, (2) security barriers and whether they restrict access or allow visitors to explore at will, and (3) the use and placement of institutional symbols within the website.

To determine the uncertainty avoidance level inherent in this library catalog once again according to Hofstede's (1991) and Marcus and Gould's (2000) definitions, the following features were examined: (1) whether navigation is controlled or open, (2) the existence of help systems, and (3) how many choices are available.

Library Instruction and Students' Online Searching Skills

As part of a broader study to examine the effects of library instruction on ESL students' ability to find and evaluate information, before and after questionnaire were dispersed to ESL students taking part in an undergraduate English Composition course. For the purpose of this project, data about their perceived research skills and their backgrounds were examined.

Students surveyed for this project were primarily from East Africa or Asia: Somalia (7), Ethiopia (4), Sudan (2), Eritrea (1), Kenya (1); Nepal (6), Vietnam (3), South Korea (1), Japan (1), Pakistan (1), India (1), Bangladesh (1); as well as Honduras (1), Liberia (1), Cote d'Ivoire (1), Canada (1), Mexico (1), Cameroon (1) and undeclared (1). Whether they were immigrant, refugee, or international students is not known. However, the course sections examined included self identified non-native speakers of English and were not restricted to international students, so it is assumed that some of the participants were immigrants or refugees. While the socioeconomic and educational

situations of international and immigrant or refugee students are often disparate, it has been argued that “higher education automatically makes one at least middle class” (Hofstede and Hofstede, 2005, p. 48). For purposes of comparing student responses with Hofstede and Hofstede’s ranking system—which does not include every country represented in this study—the rankings for East Africans as a group and for individual Asian cultures were examined in comparison with the U.S. ranking.

To obtain student participation, two teaching assistants (TAs) in the English department were contacted during spring semester 2005. Conteh-Morgan (2002) argues that having classroom teachers provide library information throughout the semester is more useful and less anxiety-provoking for students. However, it can also be argued that it is unfair and ineffective to require novice teachers to provide instruction on unfamiliar resources and how to access those resources, especially when those resources undergo continuous changes. In any case, it is standard practice at this institution for librarians to teach library instruction classes for Composition 101. Both of the contacted TAs agreed to allow the distribution of questionnaires before and a few days after library instruction sessions were taught. Students in the English Composition 101 courses are routinely required to attend at least one library orientation session as part of their class time. Some students in this project received one 50 minutes instruction session, some received two. (This was a result of the instructors’ individual preferences.) The student pool was small (about 40 students total). Students were required to attend the library instruction sessions. Their participation in the surveys was voluntary but rewarded with extra credit points from their instructors.

On the pre-session survey (Appendix A), students were asked to answer on a 5-point Likert scale, an attitudinal measurement device (Likert Scale, 2001) questions designed to elicit students' perceived academic English skills, their ability to conduct research independently, and their comfort with using online library research tools. In addition, they were asked to describe their linguistic and cultural background, and their field of study. On the follow-up survey (Appendix B), a 5-point Likert scale was used again to ask the same questions regarding their academic language skills and their research skills. However, instead of requesting information about their linguistic and cultural background, the post-session survey queried students about what they learned in the library session and how helpful they found it.

During the library sessions, all students were encouraged to borrow books and other materials owned by the library and informed that they were responsible for finding research material; however, reference librarians were available to assist them in their research. They were provided with a handout (see Appendix D) and were shown how to use the library catalog and other online research databases to find information relevant to their research topics. Features of online research such as truncation, using synonyms, and command boxes were pointed out. Students who attended two library sessions had more time to spend on these topics, had more hands-on time in the presence of the librarian-researcher, and were taught more about how to cite their research. Spending more time with one group of students than another was due to instructor request rather than the researcher's intent. As the pool of students in each section was fairly small (approximately 20), their responses to the survey were combined to preserve participant

anonymity. While the two instructors had set aside different amounts of time to cover library research, in general the same topics were explored but to different extents.

While it is expected that students may rate their online research skills as better than they may actually be (Griffiths and Brophy, 2005), by allowing students to rate their self-perceptions both before and a few days after receiving instruction in how to conduct research, it was hoped that the before and after differences in students' self-perceptions would be highlighted. Knowing that students rated their skills lower, higher, or the same after the library instruction sessions in conjunction with information about their cultural and linguistic backgrounds might verify that ELLs find library instruction sessions helpful.

CHAPTER 4

Results

Introduction

The purpose of this project was to determine what problems English language learners face when doing research in academic libraries in the United States, particularly related to linguistic and cultural challenges they face when doing online research. Of additional interest was to find ways librarians can help ELLs. Of note are ELLs' feelings about library research and the structure of libraries and library information systems, including how those structures may differ from student expectations. Students may respond to unfamiliar situations in a variety of ways, and within this study, the interweaving of students' emotional responses to alien institutional structures and to unfamiliar methods and purposes of library-based research is of interest. Therefore, an examination of cross-cultural responses to different organization methods is provided and will be compared with ELLs' responses to focused library instruction sessions.

The first sections will briefly review theories about affective barriers and the relationship between library anxiety and noticing. In subsequent sections, Hofstede's (1991; Hofstede and Hofstede, 2005) *Power Distance* and *Uncertainty Avoidance* theories will be compared with library catalog design. Finally, student responses to a library instruction session will be examined.

Affective Barriers

As was mentioned in Chapter 2, affective barriers related to libraries and library research can make it difficult for students to gain the research skills that they need to

succeed in American academic contexts (Badke, 2002; Jiao and Onwuegbuzie, 2001). Part of the intent of this study was to observe whether a library instruction session helps ESL students overcome some of their anxiety so that they could become aware of, or “notice” stimuli and interact with it (see Schmidt’s noticing hypothesis in Ellis, 1997). For this project, the stimuli were the library’s websites in general and the library catalog in particular.

Power Distance

Power Distance (PD) is “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (Hofstede and Hofstede, 2005, p. 46). Features common to individuals within high PD countries are “having few desires; moderation, following the middle way; keeping oneself disinterested and pure” (p. 47). On the other hand, individuals from low PD countries value “adaptability; prudence (carefulness)” (p. 47). In terms of interface design, Hofstede’s (1991) research was used by Marcus and Gould (2000) to compare the Web designs used in various countries to Hofstede’s ranking. According to Marcus and Gould, high PD countries have highly structured mechanisms by which individuals may access information, in which security and restrictions are very important; significant use of official symbols related to political or social authorities; and symmetry. On the other hand, low PD countries value open access to information, with freedom to roam at will; fewer symbols of authority; and featured more asymmetrical designs.

In this section, the *Power Distance* features of the library catalog in the participant university will be examined. Note that Hofstede’s (Hofstede, 1991; Hofstede

and Hofstede, 2005) research is focused on group characteristics which may not be entirely reflective of the characteristics of all individuals from those countries.

There are many choices available to students when faced with the library catalog. It is open to the public, with few restrictions on use, which indicates a low PD value. There is one consistently displayed institutional symbol, which both announces the name of the library and serves the utilitarian function of providing a hyperlink back to the library's homepage. There are no symbols related to the university with which the library is affiliated, and the purpose of the logo may be more related to Web navigation than to power issues, which is consistent with a somewhat lower PD value. The design is fairly asymmetrical, which is also consistent with lower PD values. As a whole, the library catalog interface reflects the relatively low *Power Distance* value of the United States, which is ranked 57-59 out of 61 according to Hofstede and Hofstede's (2005) index. In comparison, Pakistan is ranked 55; Japan is ranked 54; East Africa is ranked 34-36; Vietnam is ranked 22-25; India is ranked 17-18; and Bangladesh is ranked 12-14. This comparison indicates that it would be very difficult to find a single interface design or an instructional style that will meet the expectations of all students in the class. In addition, as this project was conducted within the United States, it may be reasonable to conclude that students from India, Bangladesh, or Vietnam may have more difficulties relating to the power structures of U.S. libraries than students from Pakistan or Japan.

In this section, three specific features of the catalog will be examined; symmetry, security barriers, and institutional symbols. In addition to describing the library catalog interface in those terms, this section will also briefly explore problems students from different cultural backgrounds may face.

Symmetry

None of the search pages are symmetric, which is consistent with Web designs from low PD countries. The default search screen (see Figure 7) for the participant library catalog is the basic search. The visual display of the basic library catalog search screen includes a top bar with catalog features listed in a right-justified display. Some options, including the selection of advanced or basic search and the “search hints” are left-justified, to the right of the library log. The text search box itself is centralized.

Students from cultures which have high PD values may expect that feature or features of most importance will be displayed prominently; their relative power will be indicated visually. However, other than perhaps assuming that the central textbox works like Google, there is no particular feature of the interface which can claim visual prominence. This may lead students to feel disoriented and leave, or to use only the centrally-located textbox and not explore the many other features available.

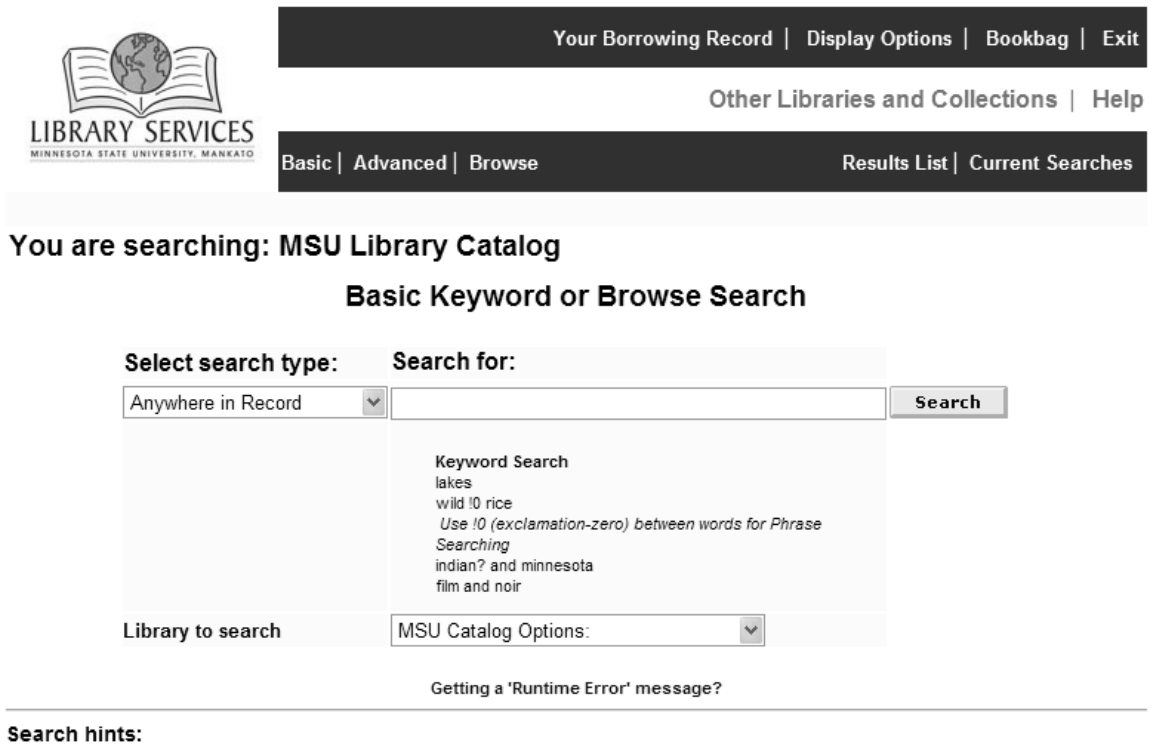


Figure 7. Library catalog basic search screen

The advanced library catalog search screen (see Figure 8) includes the same top bar information that was displayed on the default screen. Descriptive information, search hints, and search limit options are left-justified. Once again, the actual search boxes are centralized. Once again, students from high PD countries who would expect more symmetrical designs or designs in which the important, or powerful, features are prominently displayed may be disoriented. Moreover, the number of search boxes and drop-down menus is much greater than those displayed in the basic search page, which may make students even more uncomfortable.



[Your Borrowing Record](#) | [Display Options](#) | [Bookbag](#) | [Exit](#)
[Other Libraries and Collections](#) | [Help](#)

[Basic](#) | [Advanced](#) | [Browse](#)

[Results List](#) | [Current Searches](#)

You are searching: **MSU Library Catalog**

Advanced Keyword Search: Multiple Fields

Advanced Search Option: Command Language

	Field to search	Type word or phrase	Search as Phrase?
	Anywhere in Record <input type="button" value="v"/>	<input type="text"/>	Use double-quotes ("") around a phrase to search a phrase "wild rice"
and <input type="button" value="v"/>	Anywhere in Record <input type="button" value="v"/>	<input type="text"/>	
and <input type="button" value="v"/>	Anywhere in Record <input type="button" value="v"/>	<input type="text"/>	
			<input type="button" value="Search"/>
Library to search	MSU Catalog Options: <input type="button" value="v"/>		

Limit search to:

Language:
 Year: yyyy (Use ? for truncation)

Format:

Library:
 Collection:

Search hints:

Figure 8. Library catalog advanced search screen

The final search screen available to students is the browse screen (see Figure 9). This screen contains the same top bar information displayed on other screens and provides the browse search box towards the center, with descriptive information to the left. The browse page differs from the other displays in that this screen does not provide a list of “search hints” at the bottom. The drop-down menus and text box are all left-justified, which may be less visually disorienting than the advanced search screen.



[Your Borrowing Record](#) | [Display Options](#) | [Bookbag](#) | [Exit](#)
[Other Libraries and Collections](#) | [Help](#)
[Basic](#) | [Advanced](#) | [Browse](#)
[Results List](#) | [Current Searches](#)

You are searching: MSU Library Catalog

Browse an Alphabetical Index

Select index to browse: ▼

Type word or phrase:

Library to search ▼

Figure 9. Library catalog browse screen

Security Barriers

There are no security barriers in place to prevent access to the public side of the library catalog. Researchers from around the world are free to search it. However, students, faculty, and staff must have access to the library itself to access most of the materials it describes, either by themselves or via their regional library (which may be able to obtain desired materials via Interlibrary Loan). In addition, some information found within the catalog will lead users to external, restricted sites. The openness of the library catalog is consistent with low PD design standards. Students from countries which place extensive restrictions on library or Internet use may not expect the relatively open nature of U.S. libraries' database control policies. Therefore, they may be confronted with far more information than they have been trained to process.

Institutional Symbols

The library logo (a globe, a book, and a phrase featuring the library's name) and the phrase *You are searching: MSU Library Catalog* appear consistently in the upper left corner. The name of the university to which the library is attached is not prominently displayed however, nor are there logos for the university. The library logo is prominently and consistently displayed; the name and logo for the university is not. It is, therefore, proposed that the presence and prominence of institutional symbols within the library catalog is more consistent with low PD than with high PD, as high PD countries value institutional symbols and other symbols of the authority and expertise of power-holders.

While students from low PD countries might find prominently displayed symbols of authority unnecessary or distasteful, students from high PD countries might expect institutions of authority to indicate their power and importance with official logos, certifications, etc. That the library catalog does not display its role in this manner may lead students to think the library is not a real part of university education or may lead them to devalue the library and library-based research as a whole. If students value the catalog less because it does not display its role strongly, they may be wary of using information from a "weak" resource.

Uncertainty Avoidance

Uncertainty Avoidance (UA) refers to the way in which individuals handle uncertainty, based on how they were taught by family members, schools, and other societal arbiters. It is likely an unconscious process, and may lead to attitudes and behaviors not seen as rational to someone not raised in that society. According to Hofstede and Hofstede (2005), UA, not to be confused with risk avoidance, is "the extent

to which the members of a culture feel threatened by ambiguous or unknown situations” (p. 167). Interpreting Hofstede’s (1991) research with the realm of interface design, Marcus and Gould (2000) argue that websites designed to meet the needs of a high-UA culture are simple, with “limited choices and restricted amounts of data” featuring “help systems that focus on reducing ‘user errors’” (p. 41). Low-UA cultures, on the other hand, value complexity, both in terms of information provided and options; encourage self-determined exploration; and provide help systems that are designed to educate users on “underlying concepts rather than narrow tasks” (Marcus and Gould, 2000, p. 41).

In this section, the *Uncertainty Avoidance* (UA) features of MSU’s library catalog will be examined. Whether or not students notice or choose to take advantage of particular features is unknown. For example, while links to the *help* page are prominently displayed, it was beyond the scope of this project to examine whether or not students took advantage of that feature. Once again, note that Hofstede’s (Hofstede, 1991; Hofstede and Hofstede, 2005) research is focused on group characteristics which may not be entirely reflective of the characteristics of all individuals from those countries.

According to Hofstede and Hofstede’s (2005) evaluation, the United States ranks 62 out of 74 in terms of *Uncertainty Avoidance*. In comparison, Vietnam ranks 68-69, India ranks 64, East Africa ranks 54, Pakistan ranks 35-38, and Japan ranks 11-13. Similar to the results provided within the *Power Distance* examination, this means that it will be very difficult to find an interface design or an instructional style that will meet the expectations of all students in the class. In relation to these results, it can be speculated that Japanese students are much less comfortable dealing with unfamiliar situations than

their East African or South Asian counterparts, and prefer controlled navigational systems with few choices. In contrast to the Japanese students, it can be expected that Vietnamese students are more comfortable with open systems in which they are free to explore and make their own decisions.

To evaluate the UA features of the library catalog, the following elements will be examined: navigation structure, help systems, and the number of choices students have to make when conducting research. In addition to describing the library catalog interface in those terms, this section will also briefly explore barriers students from different cultural backgrounds may face.

Navigation

Low-UA countries prefer complex systems in which they can explore at will, while high-UA countries prefer systems that offer fewer choices and more explicit directives in terms of where to go and what to do. The library catalog's navigation scheme is fairly open; there are many choices available to students both in terms of what they want to find and how they want to get there. For example, when searching, students can elect to use the default "basic" search screen or can elect to use the "advanced" or "browse" screens by selecting one of those options. Within search results sets, students can elect to follow internal links to help them search within the catalog as well as external links that will take them to websites not controlled by the library. Further, there are different ways in which search results are provided, and students have several options within each of those pages in terms of what to do with the information and how to proceed with their research. The openness of the catalog in terms of security and

freedom to explore at will is typical of low-UA cultures. Students who are more comfortable with tightly controlled research projects may be uncomfortable when required to negotiate a complex, autonomous environment such as the library catalog.

Help Systems

In high UA cultures, help systems that instruct users on how to perform focused tasks and avoid errors are preferred. In contrast, in low UA cultures, help systems that instruct users on underlying concepts and how to control their searches are preferred.

Various help systems exist on the MSU catalog website. There is a separate Help page, which can be found by clicking on the link labeled *Help*. That page provides information about how to navigate through the website, how to use personalized features, and how to conduct searches. In addition, at the bottom of the search page, advice is displayed about how to conduct keyword searching, browsing, and using Boolean operators. These Help options are all designed to instruct the student on how to conduct a better search; however, rather than providing explicit instructions about what terms to enter, the directions inform students of their options and what may happen as a result of different search techniques. Therefore, this element is consistent with a low-UA culture according to Marcus and Gould (2000). Students who have not been explicitly shown the Help features and their purpose and students who have not been trained to think in this manner may not find the Help features as useful as students familiar with self-directed critical thinking tasks.

Choices

Consistent with website design from a low UA country, there are many choices available to the initiated. Students can customize how results are displayed; can look at their personal borrowing information (i.e., they can see what they have checked out, when those items are due, and can renew individual items); and can select different domains to search, such as the video collection or different library catalogs within the state. Within the content of the library catalog itself are even more choices, such as searching by author, by title, by keyword, by format, and by language. There is much complexity within the library catalog interface. Once again, students who hope to find a single, precise answer when conducting research may be disorientated at the array of choices presented to them.

Overall, the navigation, help systems, and breadth of choices offer are consistent with a website designed to meet the expectations of a low UA culture. In the previous section, it was found that the symmetry, security barriers, and institutional symbols were consistent with design standards of a low PD culture. Students who are from countries in which the values reflect high UA, high PD, or both may find the library catalog a disorienting and anxiety provoking tool. In the next section, student responses to a library instruction session in which various of these features were explicitly discussed, along with other elements of library research, such as the availability of reference librarians to assist them when they have trouble. The survey responses were intended to gauge students' comfort and familiarity with online library research both before and after the instruction session, as well as to elicit cultural and linguistic backgrounds of the students.

Library Instruction

The students examined included both international students educated in their home countries and refugee and immigrant students educated in their home countries, refugee camps, and/or in the United States. Before the library instruction session took place, students were asked to record their country of origin, their comfort with library research, and what they wanted to learn from the library instruction session.

Students were primarily from East Africa or Asia. Some students were comfortable with conducting library research and wanted to improve their skills, some students used the library as a study place but were unsure how to use the resources available to them, and some students were unfamiliar with the library in general and were very uncertain about what to expect from the library instruction session.

When asked to indicate on a 5-point Likert scale, which is an attitudinal measurement device, (Likert Scale, 2001) how well they can find information on the internet, students indicated approximately the same comfort level after the library session than before; the scores indicated a .01% drop.

When asked to indicate on a 5-point Likert scale how well they found information in the library, such as books or articles, students indicated that they were slightly more comfortable using library resources after the session than before. As can be seen in Figure 10, after the library instruction session, student comfort level when using the library for research moved closer to their comfort level in using Internet resources. It can be speculated that having instruction in the availability of library resources and opportunity to practice using them in the presence of a librarian and their regular

instructor increased their familiarity with those resources, and therefore lowered their affective barriers and anxiety levels. Also, as part of the instruction session, the availability of reference librarians to help them when they encountered difficulties was frequently mentioned. In future projects of this nature, it would be very interesting to conduct follow-up interviews with participants to discern what exactly increased students' overall comfort level.

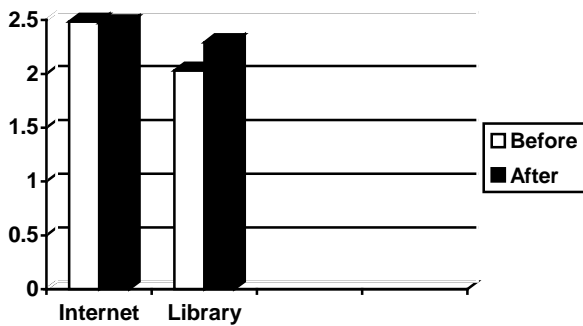


Figure 10. Comparison of student comfort with Internet and library online resources before and after a library instruction session

When asked to answer the question “*Do you think this library session would be helpful for other ESL students?*” all of the responses were in the affirmative. Several students in this section made comments that seemed to indicate that they had overcome fear they had had about doing library research or asking for help, as well as being able to consciously notice things about the library that they had not previously. (Comments have not been corrected for grammar or spelling.)

“I never used the library till after this session”

“I strongly think that it would be helpful for other ESL students because I’m sure that they will gain a lot of knowledge from it and grasp more attention to the sources”

“Probably yes. When they start doing research, it might be helpful.”

“Definitely, because mostly students do not browse all the links [on the library website] themselves. So, showing them everything one time would be really helpful.”

“ I learned SOSOSO much from a library session. I thank to the librain! I feel more confident to write research papers.”

“It would very helpful for ESL, but the time was not enough.”

“It is great service for the people who are not familiar with process of doing research.”

“Yes, because everywhere you go in the library you get help”

“Yes but we need more session”

Conclusion

The design of the library catalog and the structure of the library itself are consistent with cultural norms within the United States. The catalog and the way in which librarians approach students reflect a culture in which *Power Distance* and *Uncertainty Avoidance* are of low value. This means that students from countries such as Japan, which has a low PD score and a high UA score, may be comfortable asking for help, but uncomfortable when the help provided is not in the form of a precise and inarguable answer. On the other hand, students from Vietnam, which has a low UA score

and a relatively high PD score, may be comfortable with ambiguous answers but uncomfortable initiating contact with or appearing to question a librarian.

Looking at this information in conjunction with the results of the library instruction survey, in which students from various countries, with various UA and PD scores took part, it seems reasonable to conclude that library instruction provided to ELLs within their regular class session provides students with information that they value. Students consistently answered that they found the library instruction sessions useful in making them aware of library staff and resources. However, many students also indicated that more library help was needed, so it may be speculated that additional instruction provided by classroom teachers or librarians as needed would be beneficial.

CHAPTER 5

Conclusion

Summary

Library-based research is an important part of students' college experiences within the U.S. educational system. English language learners, including immigrant, refugee, and international students, may be presented with linguistic and cultural challenges within North American academic libraries. This project identified problems English language learners face when doing research in U.S. academic libraries, particularly related to online research, and provided insights into how librarians can help.

During the course of this project, both linguistic and cultural barriers were identified as challenges facing ELLs. While linguistic barriers may impede understanding, they are not the primary source of anxiety for students (Conteh-Morgan, 2003; Jiao and Ongwuebuzie, 2001). Instead, in a survey by Jiao and Ongwuebuzie (2001), technological barriers were identified as the primary source of anxiety. The research was to a great extent prompted by the belief that those technological barriers were related to cultural expectations and socialization into the Western research process as much as a lack of familiarity with certain technologies, such as online library catalogs.

In terms of how students can gain an understanding of U.S. library culture and technologies, several factors of the library socialization process were examined. Those factors included how libraries and online research tools are structured and presented; how American academic libraries may differ from student expectations, as based on their cultural backgrounds; and ELLs' feelings about library research.

Through this study, several elements of library structures were identified as being problematic for students. Those elements include the design of the library catalog as a one size fits all model of information delivery, which may not actually fit the needs and expectations of its users. English language learners come to U.S. academic institutions with a variety of cultural and linguistic backgrounds and needs. For example, a student from a culture in which teachers provide students with all the information they will need, with no expectation that they will search for their own information or challenge what is presented (a high PD culture), may find the autonomous, self-directed nature of library catalog research both emotionally and intellectually challenging.

Students cannot be expected to intuit how to undertake library research when the very model upon which it stands is based on very different cultural assumptions from their own. Therefore, it was theorized and, in some ways substantiated, that library instruction offered within students' regular courses offered by an instructor with some knowledge of ESL theories and some knowledge of students' backgrounds is beneficial to ELLs.

Through a before and after survey provided to ELLs in two Composition 101 courses, information was elicited about students' comfort with library-based research and their perceptions about the helpfulness of library instruction for ESL students. The survey results indicated that students were more comfortable using the library after receiving library instruction than they had been prior to that instruction (see Figure 10). In addition, students indicated that the library instruction session helped them to overcome their fear of library research and allowed them to notice library resources that they had not previously.

Limitations of Study

The limitations to this study include the fact that the study questions did not elicit specific information in terms of how students responded to features of library research or instruction techniques. In addition, the way in which information was elicited from students did not provide a way to link information about their cultural backgrounds with their perceptions following the library instruction session. While it is hoped that those problems did not impede reaching a general understanding of problems faced by ELLs, more study is needed to uncover specific ways in which librarians can better reach ELLs, including whether different techniques lead to better or worse results with students from different genders or cultural or linguistic backgrounds.

In addition, while the survey questions provided insight into the perceptions of a small group of ELLs following a library instruction session, generalizations about ELLs cannot be made based on this project due to the limited study size.

Implications for Future Research

There is still much research that needs to be done in this area. While this study provided an overview of problems ELLs face when doing research in U.S. academic libraries, particularly when using online research tools, there are many areas for expansion. Areas of particular interest include: assessing the effectiveness of specific instruction techniques aimed at students from particular cultural backgrounds; assessing whether ELLs benefit from separate instruction in addition to or instead of course content-driven instruction; assessing whether librarians who have information regarding

student backgrounds and learning expectations conduct more effective library teaching sessions; and assessing whether student learning is improved by offering walk-in, in-class, or library instruction delivered by students' regular instructors or co-taught with a librarian.

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APPENDIX A

Survey BEFORE Library Orientation

On a scale of 1-5 (1=poor, 5=excellent) please respond to the following questions. We will not know whose survey belongs to whom, so please feel safe to answer honestly. Thank you!

	Poor			Excellent	
1. How well do you speak English in class?	1	2	3	4	5
2. How well do you write English in class?	1	2	3	4	5
3. How well do you understand difficult academic vocabulary, such as you might find in a college textbook?	1	2	3	4	5
4. When you are doing research, how well can you find information on the internet?	1	2	3	4	5
5. When you are doing research, how well can you find information in the library, such as books or articles?	1	2	3	4	5

Please answer the following questions the best you can. Thank You!

1. Where are you originally from?
2. What is your first language?
3. Do you speak other languages? What are they?
4. What is your major? *Or* Are you in the ESL Civics class?
5. What do you hope to learn from the library session?
6. How often do you go the library?

APPENDIX B

Survey AFTER Library Orientation

On a scale of 1-5 (1=poor, 5=excellent) please respond to the following questions. We will not know whose survey belongs to who, so please feel safe to answer honestly. Thank you!

- | | | | | | |
|---|---|---|---|---|---|
| 5. How well do you speak English in school? | 1 | 2 | 3 | 4 | 5 |
| 6. How well do you write English in school? | 1 | 2 | 3 | 4 | 5 |
| 7. How well do you understand difficult academic vocabulary, such as you might find in a college textbook? | 1 | 2 | 3 | 4 | 5 |
| 8. When you are doing research, how well do you find information on the internet? | 1 | 2 | 3 | 4 | 5 |
| 5. When you are doing research, how well do you find information in the library, such as books or articles? | 1 | 2 | 3 | 4 | 5 |

Please answer the following questions as much as you can. Thank You!

1. What are the most important things you learned from the library session?

2. Do you think that you would be able to use library resources and the Internet to complete research necessary for a class assignment? Are there questions that you still have about how to do library research?

3. Do you think this library session would be helpful for other ESL students?

APPENDIX C

Informed Consent

A Study of ESL Students' Perceptions & Use of Library Resources

This research project is being completed for the Theory and Methods of Teaching English as a Second Language (ESL) II class. The purpose of this project is to examine the effects of teaching research skills to ESL students.

You will be asked to complete two surveys, one before the library research session and one after. You may choose not to participate. You do not have to answer any question you do not wish to answer.

Each survey will take 10-15 minutes to complete.

There are no anticipated risks, compensation or other direct benefits to you as a participant in this interview. You are free to withdraw your consent to participate and may discontinue your participation in the survey at any time without consequence.

Your response will be confidential. Your name will not be used in any report.

Information obtained during this study will be presented in the Theory and Methods class and a final paper will be given to Dr. Nancy Drescher. In addition, the research results may be published in a professional journal when completed.

If you have any questions about this study, please contact:

Dr. Nancy Drescher, English Dept., Minnesota State University, Mankato
230 Armstrong Hall, Office AH 201-H, (507) 389-5504

or

Jessica Schomberg, Memorial Library, Minnesota State University, Mankato
3092 Memorial Library, (507) 389-2155

Signature of participant

Date

APPENDIX D

Introduction to Memorial Library Name: _____

Composition 101: [X], Instructor **31 March 2005**

Jessica Schomberg, Librarian, jessica.schomberg@mnsu.edu

Library Home Page: <http://www.lib.mnsu.edu/>

1. **CHECK LIBRARY HOURS.** Go to the library home page. Select the arrow below *Use QuickLinks*. Select *Library Hours*. Friday, the library opens at _____ and closes at _____. Look at *Variations*. On May 8, the library opens at _____ and closes at _____.

2. **CHECK YOUR MSU MEMORIAL LIBRARY PATRON INFORMATION.** Go to the library home page. Select *Books and More*. Select *MnPALS Catalog Online*. Select *Your Borrowing Record*. At the next screen, you will be asked for your *UserID*, the 14-digit number found on your Mavcard, and your *Password*, which is your last name (up to 8 letters). Select *Logon*. Select *Loans*. How many items do you have checked out? _____

3. **CHECK THE LIBRARY MAP.** Go to the library home page. Select *About the Library*. Select *Maps and Tours*. Below are records of library materials with location given. Indicate where you find each item: **LL(Lower Level), 1, 2, or 3.**

_____ The world of Apu [videorecording] = Apur Sansar / Sony Pictures Classics in association with the Merchant and Ivory Foundation ; written, produced and directed by Satyajit Ray.
MSU,M Memorial Library Educational Resource Center--Lower Level DVD Collection Call #: PK1718.R3119 W67 2003

_____ Thompson, Daniel Pierce, 1795-1868. Green Mountain boy at Monticello; a talk with Jefferson in 1822. Introd. by Howard C. Rice, Jr. Drawings by Gillett G. Griffin.
MSU,M Memorial Library General Collection--2nd and 3rd Floors Call #: E332.15 .T45

_____ Read, Herbert Edward, Sir, 1893-1968. The green child / [by] Herbert Read [With an introd. by Graham Greene]
MSU,M Memorial Library General Collection--2nd and 3rd Floors Call #: PR6035.E24 G79 1947x

_____ The Southwest / edited by Mark Busby ; foreword by William Ferris, consulting editor.
MSU,M Memorial Library Reference Collection--1st Floor Call #: E169.1 .G74 2004 v.8

4. Next, go back to the records shown in #3 and circle each call number.

5. Go to the MSU home page. Select **Books and More**. Select **MnPALS Catalog Online**. Select **Title begins with**. Type in: How to succeed in academics. How are the results arranged? _____ Select “How to succeed in academics”. Who is the author? _____ What is the call number? _____ Scroll to the bottom of the record. How many subject headings are there? _____ What is the second subject heading? _____ Select **Location/Available**. Is the item available? _____

6. Scroll to the top of the screen and select **Basic Search**. Perform an *Author Keyword* search for Antony Flew (be careful of the spelling). MSU owns _____ (number) of items by this author. Select *Thinking Straight* (probably near the bottom). Write down the following information:
 Call number: _____
 Location/Availability _____
 Subject Heading: _____
 The format is (circle correct term): video/ periodical/ puppet/ audio book/sound recording/ book

7. Scroll to the top of the screen and select **Basic Search**. Perform an *Anywhere in Record* search for: sleep. How many records match the search? _____ Select the *Revise* tab. Limit the search by *Anywhere in Record* to: health. Select Go. How many records match the limited search? _____

8. Select **Basic Search**. Perform an *Anywhere in Record* search for: Opposing Viewpoints. As you did in #7, you may wish to *Revise* your search by your research topic (such as “ethics” or “environment”). Select a book that interests you. Write down the following information:
 Call number: _____
 Title: _____
 Location/Availability: _____

Introduction to Memorial Library – Online Resources

Composition 101 – [X], Instructor
Jessica Schomberg, Librarian – jessica.schomberg@mnsu.edu
31 March 2005
Library Home Page: <http://www.lib.mnsu.edu/>

Write down your research question: _____

To find online resources

CQ Researcher

You will find articles about “hot” topics including social, environmental, health, and science issues. Every issue includes comments from experts representing different points of view.

Online Resources (by Subject) → General, Current Events, and Biography → CQ Researcher

- Enter your topic in the “Quick Search” box (on the left of the screen)
- If you do not find what you want, select “Browse by Topic” (on the left of the screen)

Newspaper Collection

Online Resources (by Subject) → General, Current Events, and Biography → Newspaper Collection

1. Type in the subject you want to research (such as Sports Gambling)
2. Check the “full text” box
3. Click on “Search”
 - Make the results list smaller by clicking on “magazines” or “newspapers”
 - You could also browse through the “suggested topics” found in the box at the top of the screen. For example, if you are really interested in Legalized Gambling, you could click on that topic.

Ethnic Newswatch

Online Resources (by Subject) → Social Sciences → Ethnic Newswatch

1. Type in the subject you want to research (such as Education)
 - If you want to only find local information, type in Minnesota and select “Location” (drop-down menu on the right side of the screen)
 - If you are only interested in a particular ethnic group, select that group (such as Native People)
2. Check the “full text” box
3. Click on “Search”

Note: You could also browse through the “suggested topics” found in the box at the top of the screen.

Country Watch

Provides demographic, political, economic, business, cultural and environmental information on the 192 countries in the world

Online Resources (by Subject) → Law and Government → Country Watch

Note: At the right of the screen, use the drop down menu to find the country you are interested in

Serials List – The best place to check for periodicals (magazines)

1. From the Library Home Page, go to *Online Resources*, then go to *Serials List*
2. Type the beginning of the magazine title (such as Language Learning)
 - If the library has this magazine, you may see the name of a database (such as Ethnic Newswatch) or “in Memorial Library’s Holdings”
 - If you see the name of a database, that means the magazine is online (to the left you will see the dates the magazine is available)
 - If you see “in Memorial Library’s Holdings”, that means the magazine is on paper. Click on that link to learn the Call Number.

To find books

From the Library home page, select MnPALS (books, etc.)

How to evaluate a website

- 1) Who is the author? Is this person an expert?
 - a. Look for information about the site creator or sponsor: “About us”
 - b. Look at the domain name. In the United States, these are common domains:
 - .edu = educational
 - .gov = government agency
 - .net = network/commercial
 - .com = commercial
 - .org = nonprofit and research organization
(a personal name following ~ or “users” indicates a personal home page)
- 2) When was this website last updated?
- 3) Is the information on the website appropriate for a research paper?
- 4) Why is the information being provided? Is it an advertisement? Is it trying to persuade you to a point of view?
- 5) Where did the information come from? Are there citations to other articles or websites? Can you trust those sources?

For more information, visit:

University of North Texas: “Sources for reliable websites”
<http://www.library.unt.edu/genref/internet/reliable.htm>