English Web page use in an EFL setting
A contrastive rhetoric view of the development of information literacy

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The nonlinear and interactive nature of Internet searches makes them quite different from other types of reading acts. This chapter describes a study that investigated how English as a foreign language (EFL) Internet users in a Chilean university community approached English language websites and databases. Participants were observed in computer workshops, surveyed, interviewed, and asked to use a think-aloud protocol while navigating unfamiliar websites in English. Contrastive rhetoric and schema theory were used to interpret the findings. English-specific problems included word order confusions and incorrect interpretations of synonyms. Among the younger participants, level of English proficiency did not correlate highly with skill in finding information over the Internet. Differences between user schemata and Web page layouts were found to negatively affect some information search attempts. Pedagogical implications are discussed.

Introduction

Information literacy has been defined as "[recognizing] when information is needed and [having] the ability to locate, evaluate, and use effectively the needed information" (American Library Association 2004). Academics throughout the world who seek information about their fields of study often must retrieve a substantial amount of that information in English. The retrieved documents can usually be easily translated into the information seeker's own language, but the information searches themselves must be carried out in English. Although some attention has been given to information literacy programs for nonnative English speakers (Warschauer 2002), the role that the language barrier plays in the process of acquiring information literacy has not been addressed. Being able to find a document on the Internet without knowing beforehand precisely which
document one seeks is a skill that develops over time. One develops the ability to
guess the right search terms, to combine them so that neither too many nor too
few documents are hit upon by a search engine, and sometimes to use Boolean
operators to refine the relationships between terms. Acquiring this subtle art is all
the more complicated if the database or catalogue through which one must search
was developed in a culture other than one's own.

Classification is arguably the central activity in all daily and scientific activi-
ties, and it emerges through social dialogue (García Marco & Navarro 1993). As
such, methods of classification can differ from one society to another. Connell
(1995), in describing the metaknowledge that experienced database searchers
possess, includes awareness of the principle of specific entry as fundamental for
successful searches. To illustrate this, Connell gives the simple example of looking
for a book about jazz and knowing to look under the term "jazz" and not "music."
Traditions of usage within a culture will, over time, determine when to organize
information under a larger category and when to use more specific terms. Such
knowledge is thus culturally bound.

Information is organized in libraries and databases on the principle of col-
location. All related terms that rightfully fall together must be cross-referenced
to each other. Since, however, it is not feasible to index a work under all possible
descriptors, a domain of controlled vocabulary is established, in which key terms
define the major categories and hierarchical ordering of taxonomies of knowledge
entities (Smiraglia 2002). Not only does the information seeker need to know
where on a hierarchy of categories he or she needs to begin a search, it is also
necessary to know the precise terms that have become, through usage, the keywords
that hold together corpora of texts.

The American Library Association (2004) lists specific skills that constitute
information literacy, including three which are impacted when there are linguistic
and cultural differences between authors and information seekers: "An informa-
tion literate person is able to... access the needed information effectively and effi-
ciently, evaluate information and its sources critically, and incorporate selected
information into one's knowledge." Language differences play a role here because
access to information cannot be as effective or efficient when it is done in a lan-
guage one has not mastered. Being unfamiliar with the context of the source of
the information will negatively affect the ability for critical evaluation. These fac-
tors will in turn complicate the proper incorporation of new information into
what was previously known.

Readers of a traditional, printed text know to simply read the pages in ascen-
ding order. In contrast, Web site readers must choose between hyperlinks, which
can lead them to different sections of a document, or take them to a different site
altogether. Even more flexible and unpredictable is the path followed by a database
user. Database users typically have no lists of topics to choose from but instead
must provide the key terms themselves. To find the information that one seeks,
an information literate person must figure out, interact with, and manipulate the
organizational logic of the Web site or database that he or she uses. However, this
organizational logic may not match with what the Web site user or database user
is familiar with.

This is how the word 'surf' came to be used for the experience of looking at web
pages: it is almost like you are being carried by forces that you don't control. If
you go to a library and just sit in a chair, nothing will happen, but with the mini-
mal effort of clicking a mouse you can very quickly be surrounded by informa-
tion - metaphorically lost at sea.

(Boordman 2004:70-71)

Contrastive rhetoric and reading

Beginning with Kaplan's (1966) seminal work, contrastive rhetoric has helped
to identify differences in the presentation and organization of textual informa-
tion between cultures and between languages. Over the years, there has evolved
a more complex understanding of the many interweaving and dynamic cultural,
historical, and social factors that help to create these differences (Connor 2004).
This evolution has included a broader conception of culture itself, which takes
into account "small" cultures, such as a disciplinary culture (Atkinson 2004). The
professional context that members of a discipline share in common shapes the
rhetoric of the discipline's written products, and new members of the profession
are socialized into writing within the discipline (Hyland 2000). Language differ-
ences and their influence on writing can be explored by examining manifesta-
tions of the same phenomenon across languages. For example, research articles
from the same discipline but written in different languages can be compared (e.g.,
Moreno 2004).

More commonly, contrastive rhetoric studies have looked at how nonnative
speakers operate within a second language genre. Contrastive rhetoric has tradi-
tionally concerned itself with second language writing, and rarely with second
language reading. One exception to this is Thatcher (2004), who looked at how
Ecuadorian readers respond to electronic genres, such as e-mail. The content of
e-mail has many of the characteristics of oral communication, yet it is stripped
of the information that voice can communicate through tone and rhythm. E-
mail also lacks the kind of visual input, such as facial expressions, that typically
accompanies conversational exchanges. The Ecuadorian participants found the
text-only nature of e-mail to obscure messages in that format. Thatcher suggests
that the Ecuadorians of his study were particularly affected by these restrictions
inherent in e-mail because they come from what can be described as a high-context tradition. Like the Ecuadorians, the Chileans in the present study come from a high-context tradition. Their use of the Internet might then be predicted to be highly influenced by the visual context that Internet text is encountered in. As will be seen, the findings of the study support this prediction.

Textual organization and schemata

Carrell (1987) is another author who discusses reading from the contrastive rhetoric framework. She outlines research that demonstrates that the organization of a text affects reading comprehension as well as recall. Also, she notes, it has been found that signaling devices — words such as “therefore;” “consequently;” and “summary” — aid most readers’ comprehension. Such devices are thought to improve reading comprehension by making clear a text’s hierarchical structure. The hierarchical structure dictates the relationship that the parts of a text have to one another, and this in turn aids the reader in retaining the most important information and integrating it into the reader’s developing mental model (Kintsch & van Dijk 1978). Lesser details must be discarded because of limitations on a reader’s working memory. “Sentences are assigned meaning and reference not only on the basis of their constituent components but also relative to the interpretation of other, mostly previous, sentences” (Kintsch & van Dijk 1978:389). However, in the case of reading hypertext-rich Web sites, or when using search engines or databases, the original hierarchical structure of the text(s) may become completely obscured, depending on how the reader chooses to proceed from one document to another. The burden on the reader is greater in the hypertext context. Charney (1994) argues that by skipping around to different parts of texts, one reads in a less cohesive context, with the effect that one ultimately reads a less cohesive text.

Whether or not a reader is able to properly detect the structure of a text depends on the schema by which the reader is operating. The reader’s schema functions as an abstract script that the reader expects the text to adherence to (de Beaugrande 1980). When an academic reads an article from within his or her own disciplinary culture, he or she has the advantage of being familiar with the genre; a corresponding schema is well established, and this facilitates reading. Academic articles online are often presented in a format that is similar to the way they are presented in printed journals. This also helps the reader by presenting the material in a predictable and familiar manner. Thus, the information seeker can proceed through the stages of scanning through a document in order to decide if a thorough reading is worth his or her time, and then perhaps reading the article from top to bottom; these stages should not differ much from the way one experiences them with printed texts. For this reason, it was never expected that the participants in the study described here would have trouble with this side of their Internet use. What was the object of study was the process of finding this information online through search engines, databases, and hypertext links, and how such operations would in turn be complicated by the additional challenge of doing these things in a second language.

The study was undertaken with the understanding that linguistic features were not the only culturally-determined factors that would influence the EFL learners’ success rate. Visual characteristics of Web pages carry a great deal of information that is meant to guide the users’ movement and choice of hyperlinks within sites. The visual impact of Web pages and the ease of going between one and another influence the way in which words themselves are put together.

Visual aspects of the Internet

The Internet’s graphic manifestation is essential to its character and indeed its popularity. The Internet only started to become widely used in 1991, when it was taken from its purely text-based, UNIX-like format to including graphics (Bolter & Grusin 1999). Burbules (1998) traces how, both in print and television, the presentation of information has shifted away from the centrality of text. Images have become increasingly important in these media. This shift is referred to as remediation. Burbules argues, however, that this term is misleading, because it wrongly suggests that visuals are simply taking the place of text and are therefore communicating the same information as the text they are replacing. Burbules claims instead that the nature of messages has changed to something more easily captured in a quick glance.

Words now carry less of the central message and trend instead, on an image-laden page, to serve a pointing function. In order to capture the Web navigator’s attention and quickly direct him or her to interesting parts of a Web site, Web page creators often choose short, dense phrases, rather than full sentences (Boardman 2004). This is often done by forming long noun phrases with multiple modifiers, such as “a general computer use workshop.” This is something that is not possible in Spanish, the native language of this study’s participants. Commenting on the ease of stringing words together in noun phrases in English, as opposed to other languages, Boardman (2004) muses,

Where instantaneous decoding of lexical meaning and semantic relations is important, in the instant where the casual surfer decides whether to stay at that page or hit the Back button, perhaps the English noun phrase structure offers the kind of condensed linguistic code that web designers need.
These complex noun phrases, whose decoding requires word order rules - also quite different from Spanish - are the linguistic pointers that indicate links between Web pages. The author of a Web page decides which links to put where, and how to identify them. Tacit assumptions lie behind these decisions and carry the stamp of the author's cultural context (Burbules 1998; Fuicher 2003). In the earlier stages of Web site design, links were almost always marked by the traditional underlined blue words. Increasingly, this is being replaced by hyperlinks that are logos, buttons, or regular text that has no special marking when the cursor is not hovering over it. Often, to find a hyperlink, the reader must know when to expect one. The user must understand a number of cues, which can include color schemes, fonts, placement on a page and the changing behavior of the cursor (Boardman 2004).

In a paper entitled "Cultural processing of technology," Saferstein (1991) describes a serious misunderstanding that resulted when a (U.S.) West Coast educator contacted an East Coast computer programmer about changing logo designs in educational software. Although both professionals worked on the same computer-oriented educational project and came from the same country, each could not understand the meanings that the other attached to certain icons. Naturally, differences between people from different countries and who speak different languages allow for an even greater potential for misinterpretation.

Observational methods

Watching a Web navigator clicking on a link does not tell the researcher whether the navigator then finds what he or she expected to find, nor much indeed at all about the thought processes of the navigator. Thus, in addition to observing navigational habits, it is revealing to hear the navigator's description of the process. This might be done either concurrently with the search, or retrospectively. Both methods were used in this study. The former, using the think-aloud protocol, involves giving the participant a task to do, and asking the participant to "think aloud" while performing the task. The fundamental assumption of this methodology is that the participants' verbalizations are truly representative of their cognitive processes, even though it is recognized that the participant will not be able to verbalize the most automatic parts of the process (Pomerantz 2004). By hearing the participants' own description of what they are doing, the researcher can become aware of subtle but potentially important details of a process. Birns, Joffre, Leclerc and Paulsen (2002) give the example of learning whether a person shopping online expects to click on a "shopping cart" icon or a "checkout" button to begin a purchase. A small difference like this matters, because often one cannot find what one does not know one is looking for.

A number of Internet and database use studies employ both concurrent and retrospective methods of study (e.g., Birns, et al. 2002; Fidel, Davies, Douglass, Holder, Hopkins, & Jushner 1999; Pomerantz 2004; Van Den Haak, De Jong, & Schellens 2003). Van Den Haak, et al. (2003) found that the two methods on the whole gave similar information, but more explanations and suggestions were given during retrospection, while online methods tended to produce responses limited to pure descriptions of actions. This last study shows that participating in the think-aloud protocol does not always interfere with the performance of the task, as one might fear. This might be especially worrisome in a task like the one done in this study, where the participants read in their second language and reported on it in their first language. Leow and Morgan-Short (2004) also did not find a significant difference in text comprehension between participants who did and those who did not verbalize their thought process in their first language while reading in a second language.

The study

This study looked at how Chilean academics without a firm mastery of English accessed, evaluated, and incorporated into their previous knowledge information from English Web sites. The following questions guided the investigation:

1. Are English as a foreign language (EFL) navigators who have a higher level of English more adept at finding information on English Web pages?
2. What aspects of English cause the greatest difficulties for Spanish speakers using English Web sites?
3. What nonlinguistic characteristics of Web pages serve as stumbling blocks to Chilean EFL Web page users?

Context

The Chilean educational system

The years of Chile's dictatorship under Augusto Pinochet (1973–1989) were marked by a reaction against the previous, socialist leader's policies. This resulted in increased economic growth, but at a cost of the torture, death, or exile of a number of intellectuals, political leaders, and others. Education in Chile during
those years was largely disrupted, and when functioning, operated in a banking model style of pedagogy, despite the direct involvement of critical pedagogy’s founding father Paulo Freire in the Chilean educational system in the late 60s (Austin 1997). After the dictatorship ended, massive reform efforts, supported technically and financially by several European countries, were made in order to bring in more integrative methods of teaching (Chilean Ministry of Education 1995). Educational reform involved a strong influx of computer technology, which then kept pace with innovation, unlike the country’s understocked libraries. Due to the unavailability of current books and journals in Chilean libraries, at universities and elsewhere, the Internet is an even more essential research tool to a Chilean academic than to someone in the U.S.

English education

The university where the data were collected is in a rural area of south central Chile. Its approximately 4,000 students are mostly from the region. In years prior to when the study was conducted, all students at the university were required to take one semester of general academic English reading and one semester of specialty-specific reading. English classes at that university had, just the year before the study was conducted, become entirely optional, with most English classes switching to a conversation format. The majority of students arriving at the university at the time were still unable to produce complete sentences in English, despite a national policy of English studies beginning by at least the fifth year of grade school. Most professors at the university were also unable to converse fluently in English.

Computer accessibility

A general computer use workshop is required of all first-year students at the university. The university had seven open-access computer labs at the time, making an undergraduate’s wait for a computer no longer there than at most U.S. universities. Outside the university, there were at least four large (15+ computers), and a great many small, cyber cafés in the community, where the cost for computer use was affordable even for most students.

Method

Data were collected from 25 participants in three formats. One point of contact was by attending two different nine-hour workshops given at the university on the use of the Internet for research (different from the required workshop for first-year students). Of the 25 students who attended those workshops, 14 returned completed surveys. In addition, basic demographic information, how they had learned computer and Internet skills, what they used them for, and what their various experiences were with those media (see Appendix A for a translation of this survey). From those 14 participants, four were interviewed at length. Like the survey, all interviews were conducted in Spanish. The interviews had two main phases: one part during which the participant showed and explained Web pages that he or she used regularly, in both Spanish and English (where applicable); and another part during which the participant was asked to look for specific information on English Web sites and follow a think-aloud protocol throughout. The same tasks were given to all participants (see Appendix B for a list of the core interview tasks). The shortest interview lasted 40 minutes. Besides the four volunteers from the workshops, another three students (one of whom was a graduate student) were given the same interview. Additionally, nine faculty and staff were interviewed. Four of these shared limited English knowledge in common with the students, and their interviews were like those of the students. The other five were fluent in English, and some of them specialized in uses of the Internet. Interviews with these five aimed to gather their expert opinions.

Participants

These latter five (experts) were the following: an English professor with more than 20 years teaching at the university; a head of a division of the business school; the person in charge of the university’s online education courses; the computer science staff member who ran the observed Internet workshops; and the librarian who teaches (other) Internet workshops. The other four faculty/staff, with limited English skills, were two secretaries, one computer support technician, and the head of another division of the business school.

Table 1 contains information about the sex, field of study, navigation skills, and reading ability in English of the 17 students. Navigation and reading ability scores came from the surveys (questions 7 and 18 from Appendix A) and are self-evaluations. When no survey was available, the participants were asked the questions orally. The students’ majors cover all but one (psychology) of the majors offered at the university. The same kind of information is also given for the four faculty/staff...
During the observed workshops, these students followed the instructor’s directions closely. The two participants in this group who were interviewed (T and U) mostly declined to attempt to find information on new Web sites during interviews but were eager to show off and navigate around their favorite Web sites.

People in the middle range had some experience using search engines to explore new pages, both in Spanish and English. When faced with a new Web site, such as the University of Arizona Web site, they usually stumbled upon, after a few wrong turns, the sought-after information. If a few clicks down a chosen path did not yield the desired results, they would return to the main page and try somewhere else. After about three such attempts, they would begin to voice doubts as to whether the information was available, or they would declare themselves unable to find the information. This matches with Pooock and Lefond’s (2003) Web site usability study in which they found that even for users reading in their first language, “If they can not find the information they are seeking in three ‘clicks,’ they indicated an increased likelihood to give up their search” (p. 17).

The best navigators demonstrated relative ease in finding information during both the workshops and the interviews, even when they were using English Web sites that they had never used before. In their survey responses describing previous navigating difficulties that they had experienced (question 10 from Appendix A), they demonstrated their heightened understanding of the process, citing “impatience” and “I put in too general of a term at first” as past problems. (The other difficulty cited by them was the Internet connection going down.) During the observed workshops, these navigators generally had several windows open at once, the least attended-to window inevitably being the one that they maintained in order to follow the Internet workshop instructor’s lead. They reported having learned little in the workshops, staying around only because they would later get a certificate of attendance.

**Effect of English proficiency level**

As may be observed from Table 1, the answer to the first research question is that navigation skills among the student participants had essentially no correlation (0.05) with language ability. The participants who were proficient in using Web sites in their native language, Spanish, all reported choosing to occasionally use Web sites in English as well. On the other hand, there is a strong correlation (0.75) between the two indicators for the four faculty/staff included in Table 1.

The extent to which the participants understood extended texts, once settled upon after being found through a browser or database, depended primarily upon their experience with reading similar texts in English before. For instance, all stu-
Problematic features of English

The second research question asked what features of English caused the greatest difficulties for Spanish speakers using Web sites in English. The major problem with English that the participants encountered had to do with word order. Participants would enter search terms in the wrong order, and this would result in their failure to find what they were looking for. When search engines list hits (i.e., Web pages matching the search terms that have been entered), they first list those Web pages that contain the search terms appearing on the page in the order that the search terms were entered into the search engine by the user. Often the participants in this study entered in English search terms backwards, following the Spanish order of modified-modifier – the opposite of the correct order in English. In a large database or in a search engine like Google, hits containing the search terms in the order that expresses the meaning intended by the information seeker may come only after hundreds of off-topic results (consider, for example, the difference in meaning of “abstract writing” versus “writing abstract”). If the user really meant to search for something expressible by “XY” but instead entered “YX,” he or she will first be shown hundreds of Web pages that contain the word “Y” first and the word “X” second. Looking through some of these pages, the user sees that the recovered pages do not relate to the user’s topic of interest. The pages that would be of interest to the user may not appear until, say, the 35th page of hits, but the user has no way of knowing this.

Finding too many off-topic hits, one participant (Participant I) used an often very effective trick: he entered the search terms with quotation marks around them, thus securing the word order. Typically this restricts the search so that the number of hits is more manageable. In this case, however, this move resulted in no hits whatsoever. Participant I had entered “Norms ISO” instead of “ISO norms.” “Norms” cannot serve as a modifier but only as a noun, thus no pages with “norms” in the modifier position were hit upon. Although Participant I was at the time trying to find information that his professor had previously found for him on the Internet – on the topic he was writing his senior thesis on – he eventually had to abandon his efforts to find that information during the interview.

Word order is the single largest cause for Chileans’ unsuccessful searches on academic topics in English databases, according to the librarian specializing in Internet use who was interviewed for this study. The second most common problem, according to her, is when a person does a search on a synonym of the correct search term rather than the actual term used in the technical sense. This occurred especially when students looked up terms in Spanish-English dictionaries. This was a common problem, even though the students and faculty she saw making this mistake presumably had already read many articles in English about the topic of their inquiry and should have been able to pick out key terms from those sources.

Misinterpretation of cognates was also a common source of trouble. For instance one participant (B) saw “alumni” on a university Web site and assumed it would lead to information on applying to the school, because of the word’s similarity to the Spanish word for students, alumnos. Clicking on the “alumni” link, she became confused with what she found, despite her strong reading skills in English, and she eventually asked to move on to another part of the interview.

A few times within the study a participant managed to locate a Web page that was on the right topic but was too specific. An effective move would have been to navigate to one level up on the Web site, either by manipulating the URL (such as going from www.cnn.com/WEATHER/ to www.cnn.com) or by following links on the page. Finding, for example, pages about “English literature” instead of “English as a second language” or “ Fulbright” instead of “scholarships,” the participants declared “this isn’t it” instead of recognizing “this is almost it.” In all such cases, the participants abandoned their searches instead of probing for nearby links.

Nonlinguistic features

The third research question asked what, if any, nonlinguistic features of Web pages caused problems for the participants. A consistent problem observed during the study was the fact that links on the edges of Web pages in English were almost always overlooked by the Chilean participants. For many of the stock questions that were used in the think-aloud part of the interviews (see Appendix B), responding correctly required noticing some of the reference links placed at the edges of the Web pages. The participants either failed to use these peripheral links or they took a very long time before trying them out. Most Chilean university Web sites, like most Chilean Web sites in general, contain extensive Flash introductions and/or several flashing icons and scrolling message boards. Participant R, the computer support person, said that she sometimes preferred English versions of Web support pages because they contained the same drivers, downloads, etc., as their Spanish language equivalents but had fewer words and less distracting icons. However, all other participants in the study, besides Participants R and J, responded negatively to the survey’s question (question 16 in Appendix A) about
whether they had noticed nonverbal contrasts in U.S. and Chilean Web sites. Visual and nonverbal characteristics of Web sites will be taken up in further detail in the discussion.

Discussion

There was a strong (0.75) correlation between English proficiency level and navigation skill among the four faculty/staff not fluent in English. For that generation of Chileans, both English ability and Internet expertise are typically the results of learning that happened later in life, beyond college age. Both skills are today considered essential for getting ahead in Chilean society. The three participants who rated themselves with 3s and 4s (average or slightly above) in these two skills all spoke of using the Internet extensively in their work, as well as having taken English classes as an adult. In stark contrast, Participant U, a secretary who gave herself the lowest rating in both English ability and navigation skills, was a single mother of two, paid near minimum wage, who had not had the time nor resources in recent years to work on either of those two skills. Also, her job did not demand it of her.

Unlike the situation with the older participants of the study, student users’ English ability did not correlate with how well they were able to use the Internet to locate information. This agrees with the conclusion of an earlier study (Bilal 1989) in which it was found that English ability in no way predicted international students’ successful acquisition of new library skills in a U.S. setting.

This lack of correlation implies that the skill of finding information on the Internet is distinct from reading. Because Web pages are not merely text but rely also on formatting, icons, and other visual features to convey meaning, there is a sense in which Web pages are not read but used (Kress 1998). Most navigators operate in a quick, superficial “surfing” mode, grabbing onto whatever links catch their attention, as opposed to a mode of critical reading (Burbules 1998). Words, to the information seeker operating in this mode, take on pointing functions instead of deeper, more complex meanings. Web page users may switch into a mode of match/no match when evaluating the potential usefulness of a link.

Certainly a criterion of match/no match operates when the Web user types in good search terms in the wrong order. Although a close match in one sense, it results in a failed search, as discussed earlier. This is sure to confuse the nonnative English speaker and delay his or her learning about which search terms are effective. Entering search terms in the wrong order is a straightforward outcome of a basic difference between English and Spanish word order. This tendency to confuse word order may be exacerbated, however, by the surfing mode in which navigators typically operate, in which words can serve the same function as icons, without a complex syntax tying the words together.

Scanning pages in a match/no match mode may be why participants were sometimes observed failing to recognize close connections between what they had found (for example “English literature”) and what they were looking for (“English as a second language”). Furthermore, going from link to link can effectively circumvent whatever hierarchical structure might have originally been in the text. A different hierarchical order may exist in the Web user’s mental model of the electronic text he or she has visited. This alternative hierarchical order might be based upon the Web user’s world knowledge and assumptions, or on the chronological order in which Web pages were hit upon, among other influences. The alternative hierarchical structure of the Web user’s mental model may or may not correspond to the author’s or authors’ original intentions. If it does not, Web searches are likely to end in failure.

The moments during the interviews when participants were forced to give up on information searches generally came about when the participant was ineffectively incorporating the retrieved information into previous knowledge. That is, the participants would get partial information but would be unable to use their previous knowledge to interpret it. Making no sense of the data, they would reach the conclusion that the sought-after information was simply not there. Sometimes they expressed mild surprise that the page was written in the nonsensical way in which they were interpreting it. The Web text had at these points lost its coherence for the user.

If the Web users had at their disposal a schema that could accommodate the kind of input that they had encountered, they would, presumably, be able to make sense of the information. One feat of fairly impressive, nonlinear search engine usage that a great many people who speak no English have mastered is downloading music off of file-sharing Web sites. Because of a familiarity with the music and the purpose of such Web sites, a young Latin American music pirate has no problem using these sites, even if they are entirely in English. This was at the time in fact a widespread phenomenon in Chile.

The participants in this study who were best at using the Internet had all spent hours on end of unsupervised free time to play on the Internet and explore. Participant J, who spoke no English, claimed to have taken his job in student government in order to have access to an office space that had an Internet connection. The other advanced navigators who were interviewed and/or surveyed, reported spending long hours in the university’s open-access computer labs. Most of them also spent a considerable amount of time at cyber cafés. The only four student participants who had a computer with Internet access at their (parents’) homes were, notably, precisely the four most adept and knowledgeable navigators: par-
Participants A, B, C, and D. Although the interviewed staff/faculty had computers in their offices, they rarely (if ever) had free, unstructured time to explore topics of their own choosing – except, notably, participant R, the computer technician.

By navigating, one learns to navigate. By following hunches and experiencing both success and failure, one starts to get a feel for the logic behind the organization, and one creates new schemata to handle the new genre. Interestingly, there was one phenomenon concerning which none of the participants seem to have developed an appropriate schema. It concerned a purely visual cue in Web navigation. All participants at least initially failed to notice links that were in banners or off to the side in U.S. Web pages. This was likely due to the visual style differences between Chilean and U.S. Web sites. To test this hypothesis, a survey of 28 U.S. university Web sites from around the country and of the Web sites of 15 larger Chilean universities (see Appendix C for list) was made. Indeed, a general trend was found. U.S. university Web sites tend to push reference materials and tools into the margins or in banners at the top of their Web pages, labeling them using a small font. Seeking to show their vitality as institutions, almost all U.S. universities put news items in large text and in the center of the page. Chilean Web sites, on the other hand, usually place reference tools in the center and mark them using a large font. News items are off in the margins but highlighted with flashing icons or scrolling text. This may explain why the participants in this study took a very long time to make use of (if they ever did) information found in banners or off to the sides in U.S. Web sites.

Pedagogical implications

Contrastive rhetoric has served to point out what conventions of the research paper (and other genres) ESL/EFL students could most profit from having their attention drawn to as they learn to write their own research papers. In the domain of improving ESL/EFL students' information literacy with English language Web sites and databases, we can identify common features of these media that students could most benefit from examining in greater detail. With respect to the visual presentation, students should be led to appreciate the typical layout of Web pages and the fact that, in the U.S., the most vital tools are usually located on the periphery of a Web page.

To aid in the identification of useful keywords for Internet searches, students should be taught to use the indices, subject lists, and thesauri that come with most commonly used databases such as Medline (a resource for medical information) and ERIC (the educational database). A user of these databases can type in his or her search terms and then choose to look them up in one of these references. These indices will list terms that are semantically related to what the user has entered. They also give definitions of the keywords and provide collocation-based "see also" lists.

Limitations and future research

The participants of this study came from only one university in Chile. It would be illuminating to see what, if any, major differences would be found by conducting a similar study in a dissimilar EFL context – for example, studying Internet users in countries where computers are less available to schoolchildren, or where the native language is much less like English, with fewer cognates and less opportunity for word order transfers.

The findings of this study imply that people are better able to build schemata for Web surfing as they gain more experience in these activities. One becomes, in a sense, socialized into the Internet culture. This implies that children who have grown up with an Internet-connected computer always available to them could have an entirely different set of schemata guiding Internet usage. It would be fascinating to investigate, from a contrastive rhetoric point of view, the potential differences in reading and writing schemata, due to the amount and quality of Internet exposure, of members of different generations. Results of the current study indicate that such differences between these "small" cultures exist and that the genre of the Internet search can cause the reader to make greater use of visual cues, which in turn changes the nature of a reader's use of text – perhaps any kind of text.

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References


Appendix A

Survey

1. How much time per week do you spend using a computer?
2. How important are computers to you? Indicate 1=not at all important to 5=extremely important.
3. What do you use computers for? Indicate “word processing” "databases," etc.
4. How often do you use the Internet or other electronic forms to access information?
5. How many hours per week do you spend on the Internet?
6. How do you find information when you are in the library?
7. How well do you think you are able to find and use the information that you seek on the Internet? Indicate 1=very poor; 5=very effective.
8. Have you ever been completely unsuccessful in a particular search for information on the Internet?
9. Is there something that you know is possible to access on the Internet but that you do not know how to access? If so, what?
10. What difficulties do you encounter when you use the Internet?
11. How do you try to overcome those difficulties?
12. What difficulties do you have in gaining access to the Internet?
13. If you wanted to teach someone (who speaks Spanish) how to efficiently use Web pages in English, what advice would you give?
14. Do you think that in Chile Internet access is as good as in other countries?
15. Do you restrict your Internet access to sites written in Spanish?
16. Other than the language, have you noticed any differences in the typical organization of Web pages from other countries, as compared to Chilean Web pages?
17. Do you have difficulty reading sites written in English? If so, what do you do to overcome these problems?
18. How well do you read English? Indicate 1=very poorly to 5=very well.
19. Rate your ability to write in English. Indicate 1=very poorly to 5=very well.
20. Rate your ability to speak English. Indicate 1=very poorly to 5=very well.
21. Rate your ability to understand spoken English. Indicate 1=very poorly to 5=very well.
22. How important is it to you to read/write well in English? Indicate 1=not important to 5=very important.
23. How important is it to you to speak and understand spoken English? Indicate 1=not important to 5=very important.
24. What experience do you have with languages other than Spanish and English?
25. How do you feel about the Anglo-American culture? Indicate 1=strongly dislike to 5=strongly like. Please comment, if you wish.
26. How well do the English courses [at your university] prepare you in English? In what aspects have you been well prepared? What changes would you suggest?
27. How have you learned the English that you do know? Please describe the English instruction that you have had and indicate the total time. Include any informal exposure to English, including travels, opportunities to converse in English, additional reading that you do on your own, music interests, etc.

Appendix B

The core tasks given during the think-aloud navigation part of interviews*

1. Find the Web site of my university, the University of Arizona.
2. Describe to me what you see on the main page.
3. How could you find information about me on this Web page?
4. When do classes start in the fall?
5. What English as a second language classes are available on campus?
6. If you wanted to study here, how would you begin gathering information about the application process?
7. Do they offer classes in your field of study?
8. How much would it cost you to attend this university?
9. Can you find any information about scholarships?
10. Is the tuition at the University of Arizona comparable to tuition at other universities?
11. Can you find information about scholarships elsewhere, on another university Web site or otherwise?

*Other questions were added, according to the person's demonstrated interests.

Appendix C

U.S. and Chilean university Web sites compared (based on Web site access January 10, 2005)

U.S. Web sites with news items in center
- Auburn University
- Brigham Young University
- Columbia University
- Harvard University
- Hawaii Pacific University
- Indiana University-Purdue University Indianapolis
- University of Alaska
- University of Arizona
- University of Arkansas
- University of Chicago
- University of Colorado at Boulder
- University of Delaware
- University of Georgia
- University of Kansas
- University of Kentucky
- University of Maine
- University of Michigan
- University of New Hampshire
- University of Oregon
- University of Southern California
- University of Tennessee
- Washington State University

U.S. Web sites with no news on page
- Florida State University
- University of Southern Florida

U.S. Web sites with reference tools central
- Tulane University
- University of Idaho
- University of Nevada
- University of Wisconsin-Madison
- Yale University

Chilean Web sites with the references central
- Universidad Austral de Chile
- Universidad Católica del Norte
- Universidad de Antofagasta
- Universidad de Concepción
- Universidad de Magallanes
- Universidad de Talca
- Universidad Diego Portales
From Confucianism to Marxism
A century of theme treatment in Chinese writing instruction

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Theme treatment is a long neglected issue in intercultural studies of school writing. Taking a historical approach, this chapter traces theme treatment in Chinese school essay writing during the 20th century. The study shows that Chinese school writing moved from neo-Confucian topics to Socialist issues for the most part of the century and that the themes always needed to be "correct," or in alignment with the dominant Chinese ideology. Currently, Chinese students write on diversified themes reflecting a hybrid value system emerging in Chinese society. The study further reveals that theme treatment carried equal, if not more, weight to textual organization in that it often decided the selection of types of writing and dictated the layout of text structure.

When recapitulating the history of contrastive rhetoric, Connor (2003) asserts that contrastive studies in school essay writing, along with studies in other genres, will continue to shed insight in both ESL and EFL writing instruction. Her positive assertion about studies in school essay writing stems from her openness to the criticism of contrastive rhetoric that has emerged in recent years. She cautions the field, "Consistent with postmodern indications, contrastive rhetoric needs to promote further research-situated reflexivity, to be more sensitive to local characteristics and particularity of writing activity, and to become more conscious of the influences of power and ideology in any setting" (p. 236). Therefore, to pursue further inquiries in school essay writing, the staple of contrastive rhetoric, we need to be more reflexive and critical of our assumptions, methods, and analyses. The foremost step we can take is to examine several criticisms of contrastive rhetoric in relation to studies of school essay writing.