

---

## Access Ability: Harnessing Knowledge of “Thinking Like a Searcher”

MARIE FIELDER AND MARY M. HUSTON

---

### ABSTRACT

THIS ARTICLE IS IN TWO PARTS, indicating two aspects of a unified whole. The first section describes the teaching experiences from which the second part, an instructional text, was derived. Together, these discussions illuminate aspects of a fundamental reorientation in teaching and learning about information. This reconceptualization transforms the traditional dynamics in the classroom so as to place student learners' knowledge at center stage. As the classroom examples illustrate, such an inclusive approach encourages exchanges which approximate that of the scholarly communication systems which participants are studying. Through harnessing knowledge accrued through their own experiences, students can then, empowered, enter the domain of “learned information.”

### THE INTENTIONALITY OF THE INQUIRY

Ideas cannot be detached from the experiences which birthed them and so this discussion will begin by describing the classroom situation which informed the subsequent curriculum development. The joint investigation into the teaching of inquiry had its origin in our shared belief that individuals who lack formal research training do, however, possess substantial knowledge that might be applied to searching the scholarly literature. More specifically, the inquiry was predicated on the assumption that, through daily problem-

Marie Fielder, 774 San Luis Road, Berkeley, CA 94707

Mary M. Huston, School of Library and Information Studies, Texas Woman's University, P.O. Box 22905, Denton, TX 76204

LIBRARY TRENDS, Vol. 39, No. 3, Winter 1991, pp. 299-315

© 1991 The Board of Trustees, University of Illinois

solving experiences, individuals develop information-gathering and problem-solving expertise which prepares them for academic information handling.

With the intention of discovering the everyday experiences which could provide the foundation for an information education program which engaged and extended individuals' existing understandings and abilities, we embarked on a one-quarter research study at the Tacoma, Washington, campus of The Evergreen State College (TESC) in January 1987. Sixty-five culturally diverse, academically inexperienced students and eight faculty members and community experts ultimately contributed to the project.

The resultant teaching model developed from the communication systems found to be common to both "everyday" and scholarly information exchanges has been reported elsewhere in the literature (Huston, 1989; Huston & Oberman, 1989). This article, therefore, will focus on the generativity of the pedagogical method, so as to describe a generic approach for participant-driven curriculum development. In the process, the information-seeking knowledge possessed by student participants will be exemplified so as to illustrate how their existent expertise was enhanced through classroom instruction.

#### THE EVOLUTION OF PARTICIPANT-INFORMED EDUCATION

With the consultative encouragement of Marie Fielder, an educational consultant from Berkeley, California, The Evergreen State College's library research course (Huston & Perry, 1987) assumed a new level of responsiveness to participants during the winter quarter of the 1986-87 academic year. Whereas in previous academic quarters course content had been determined by librarian instructors, the assumed "experts" on the subject of information seeking, Fielder encouraged the three co-instructors—only one of whom was an academic librarian—to allow the student learners to provide the content of each week's three-hour class session.

Faculty members W. F. "Joye" Hardiman, Sally Riewald, and Mary M. Huston had willingly agreed to try this approach out of concern for weaknesses they had observed in the traditional instructional method whereby students located bibliographically-controlled information through the library-finding tools recommended by librarians. The teaching team recognized that this method encouraged students to remain passive consumers of experts' "second-hand knowledge" (Wilson, 1983) through encouraging their dependency on librarians' professional expertise and their subsequent uncritical acceptance of library owned information.

Through user-centered problem focused instruction, these educators hoped to cultivate students' critical engagement with

information by first creating an environment in which student learners' strengths assumed center stage and, second, by requiring that class participants meaningfully utilized information sources. In these ways, they hoped to further individuals' active evaluation and interpretation of sources during information handling, whether in their daily lives or in formal literature searching.

### CREATING AN EMPOWERING ENVIRONMENT

The intended course outcomes for the class were defined for students by Huston in these terms: "that you be producers of information, that you take the information and evaluate it and work with it in ways that are not at all passive, in ways that give you the power rather than allow the information to have power over you" (Huston, 1988, p. 60). So as to encourage them to become active creators of information, the sixty-five participants in the study were expected to identify, evaluate, analyze, synthesize, and disseminate information during the quarter.

### INFUSING EXCELLENCE THROUGHOUT THE CURRICULUM

For purposes of this study, learners were not given specific directions by faculty. Early in the quarter, for instance, they were challenged to formulate compelling research questions so as to conduct informative investigations in preparation for reporting on their experiences at the end of the quarter. They were not provided with instruction on research strategy; rather, they were given generic counsel, as they requested it, in weekly group meetings.

During the first class session, for example, learners were charged with selecting research topics of "passionate" personal interest and local significance. When they expressed uncertainty over that assignment, Fielder talked with them more specifically on "problem finding." She counseled them to "own" their personal researching authority and create "provocative declaratives" out of their topical interests. In underscoring her theme, she said: "You're intellectuals. You know what to ask." Subsequently, during the following week's class, she challenged them further, saying: "As intellectuals, you are held responsible for the right questions." Her remarks accurately anticipated the intellectual and emotional needs of the group, and, with a sense of excitement and possibility, they proceeded in forging their research interests.

During the third session, they expressed uncertainty about how to make choices among information sources and requested some basic vocabulary with which to make distinctions among resources. So, as students described the kinds of information they had located, the

instructors provided them with appropriate specialized terms, such as *primary and secondary sources*, *scientific method*, and *multidisciplinary*.

With chalk on a blackboard and broad-based student input, instructors graphically developed models of the information generation process in academic disciplines (McInnis, 1982; Keresztesi, 1982). The group also discussed information generation in social institutions (Rubens & Huston, 1989). Relatedly, in response to students' requests for discussion on accessing as yet uncollected information, instructors encouraged students to tell one another about questionnaires and interviews in which they had participated. Together, through dialogue, student and faculty learners pieced together the basics of social science field work techniques.

Later in the quarter, as learners were beginning to consider possible audiences for their developing ideas, they asked faculty for more specific information on the creation, dissemination, storage, retrieval, and delivery of the society's official "knowledge." Initially referencing common experiences with the newspaper, magazine, and television media, instructors then facilitated a discussion about the communication systems which feed information into those media. Both student and faculty learners contributed wide-ranging information about the subject.

Because many student learners subsequently came to question the "place" of their perspectives in either library owned or nonlibrary owned information, they next requested more detailed information on the social structures impinging on the dissemination of ideas. Faculty invited guest presenters—a Black sociologist, an oral historian, and an ancient Egyptologist—through whom students gained a sense of the differences in perspectives and procedures among researchers investigating a common topic. These resource people exemplified schools of thought among societal populations both with and without social and economic privilege. They ably discussed the diverse "voices" representing majority and minority viewpoints in the published literatures.

For instance, as the author of two self-published books on Blacks in early Washington State, historian Esther Mumford spoke of the powerful stories she had recorded during her years of conducting oral interviews to "broaden the scope and purpose of history." Fortified with anecdotes of information-gathering issues, resources, and techniques, and assured by the faculty that "You will know what to do," students continued to invent ways to further investigate their research topics.

## THE SUBSTANCE OF EMPOWERED INVESTIGATIONS

A most striking aspect of the interview data was the robust searching which characterized learners' information-gathering activities, beginning with characteristically strong statements of a research problem and extending into knowledgeable selection of information sources.

### *Problem Finding*

Typically, individuals with especially compelling research interests had significant personal experiences—in duration or in intensity—with their subjects. Their investigations were driven by a lack of “sense” (Dervin, 1977) about some aspect of their situations. That uncertainty was translated into a research question.

For instance, a first generation college student and a Black military retiree investigated the success rates for this population in Puget Sound area community colleges. His research topic had its origins in disturbing patterns he had observed among his peers.

Some of these people have children in school who are 17-18 years old and ... when they come out of the military, they ... say, ‘Well, I can’t go back and tell my family I need a remedial class. I’m taking English 80 and my son’s taking 102. I can’t ... ask my son to help me study.’ They can’t face those kinds of problems and ... they just drop out.

Having worked with a hospital’s sex offender program for two years, another student forged a research query out of these experiences. She had seen many offenders: “Mostly men are coming through there and 90% of them being white and only a few of them Blacks or Asians or Indians...”; she perceived a pattern of white abusers and nonwhite victims. For her research project, she investigated the frequency and causality of the offender phenomena in the Tacoma, Washington, area.

### *Problem Solving*

Learners’ comments typically conveyed their assurance in puzzling out where and how particular data could be found. In describing one of his search strategies for investigating historical race relations in the Seattle-Tacoma area, for instance, a retired military student stated:

I was fortunate to have served in the army with a Japanese-American whose parents had been part of the incarceration and internment of the Japanese during the Second World War. That led to the most expensive part of my research because, to get this interview, I had to buy the rascal dinner! And he discussed with me the really tough time his parents had during their internment.

In describing their search pathways, students enumerated a rich list of potential sources of information. Their choices conveyed a

confident, deeply ingrained sense of where they should go to obtain needed information, given the ways in which information about different subjects arise. For instance, despite one student's probable desire to please the instructor, she said: "I could go to the library and do some more cross-checking on some of the facts [but] ... what wound up being a better cross-check was to go knock on two other neighbors' doors and both of them told me, 'Oh, no, he's wrong.... I remember when such and such happened....'"

### *Information Resources*

As stated by one person with a clear sense of the information terrain, "you see areas where you need to go...." When classified, learners' collective "information universe" was divisible into three major repositories of information: informal sources, institutional sources, and library sources. Although potential information sources were mentioned as available by students, some resources were more accessible to novices than others.

*Informal Sources.* The first of these categories, informal sources, was frequently recognized as a "close at hand" source of information. Informal sources were perceived as available in the form of personal knowledge, casual reading, collegial or neighborly chats, and personal observations.

The origin of one student's topic was an article he happened to read.

One of the things that got me interested in the history of the light company is ... an article on the different price ranges of the rates in the country, and I found out that our city light—Tacoma City Light—has the cheapest power in the whole United States and also that they have lots of firsts. They were the first ones to start generating power in the Northwest....the first to establish paying for kilowatt hours instead of just paying for the amount of light bulbs....

Another person observed that his research also involved familiar material: "half of the information I used came out of my own library.... It was just a matter of looking up the information I knew was there," information which he re-analyzed to make unfamiliar conclusions.

Information from informal sources was sometimes obtained quite by accident, serendipitously, as another individual divulged when she described two incidents in researching the history of her house, 911 North Third in Tacoma, Washington.

A lot of the things that I found were by accident. I was down at Fox Bookstore two weeks ago, thumbing through the "Blue Book," which is a society register of early Tacoma, and a name popped out that I recognized. Fumbling through the book, I found another name and then I came upon the address of our house with someone in there that I didn't know had ever lived in the house.

On another occasion, she recalled: "We met some people in the Tacoma library who were also doing research on Tacoma and they invited us to their homes and shared with us data that they had gathered...."

There was a sense of "conductivity," a natural flow/movement, in students' descriptions of research among informal information sources—that is, one thing led to another.

*Institutional Sources.* Institutional sources were another potential resource category for informants. Such sources include all the information developed by society's institutions—i.e., governments, corporations, churches, voluntary associations, schools, and trade unions. These institutions offered both a paper trail recording their information and a corps of knowledgeable people conversant in their activities.

In explaining her primary information source, one student said:

I wanted to focus on [comparable worth in] Tacoma ... and I knew that there had been a study done about a year ago for city employees ... so I did find a lady ... who is the women's rights supervisor for the department of human rights in Tacoma, and she had been very involved right from the very beginning through the entire process of the study and up to the point that it was presented to the city council. I interviewed with her and found out things that you only find out by interviewing someone who had been there from step one all the way through....

In conducting research on the sexual abuse of minority children in Pierce County, another student approached personnel from two governmental institutions with relevant jurisdictional responsibilities. As she explained: "I had an interview with child protection services on this.... Some of the information I'm attempting to get from the Tacoma Police Department, they do not want to give due to the confidentiality surrounding such a harsh subject."

Frustrated but persevering, she intended to approach a third government institution, saying: "You almost have to go to the governor's office to get this information that I want." Not to be outdone, another student claimed that, to obtain an interview with a top national security defense commander, he was willing to procure "a note from the President." Surely the most unusual institutional sources were those of the student who researched the history of Tacoma cemeteries "from the dead files on the granite stones ... and through touring memorial facilities." Such comments evidenced learners' well-instilled understanding of the structure and function of social institutions, including the material culture of death and burial, and the points of information access within those organizational schemas.

*Library Sources.* Library sources constituted the third class of information resources. Libraries house formally organized collections of human wisdom or, as one author-librarian has said, control “metaphysical meanings by means of physical conditions” (Wright, 1979, p. 74). The remarks of students who consulted library resources demonstrated their awareness of the physical manifestations of the accumulation of knowledge—i.e., the library building, the periodical index, the monographic volume. In some cases, student learners obviously assumed, though they did not specifically state, that human thought was represented in these physical embodiments.

Typically, students’ consultation of library resources was presented in a perfunctory fashion with no elaboration. In contrast to other information domains, they seldom told stories about their library investigations. One individual, for instance, said of his consultation of a card catalog only that he found “several inches of cards on the Chinese.”

Her investigation on child support enforcement laws in the state required that another learner “had to do a lot of digging into the laws of Washington, specifically the *Revised Code of Washington’s* Chapter 74.20 and 26.18.” Yet another individual “went to the state capital library...what do you call it?...archives.” And, in investigating the funding of Washington state’s athletes, another person “did a search of the periodical indexes and got some information here.”

Two students who consulted special collections described some engagement with the substance of library resources. One said of her experience with primary material:

at the manuscripts division of the University of Washington Library... I was able to read the transcription of the minutes of the Japanese-American student club which was terrific because I read right up to March—oh, I think it was March 22nd—the day before they were evacuated.

The second reported her experience that information generated the need for more information. The creation of new meaning—in her case, a seeming contradiction—led to new questions for her.

most records are very poor... The most concrete evidence I found of the house [construction date] was in the Northwest Room in the Tacoma Public Library ... a fire insurance map, and the house was there in 1892. However, on my deed the land was platted in 1875.... So it’s really a mystery.

More typically, though, needed information was not obtained through consultation of library resources. One student spoke of her dissatisfaction in seeking a monograph on the Everett Massacre, a labor union, law enforcement conflict in the Pacific Northwest. Of her searching in the circulating collection of a public library, she said: “I was looking for one book that I knew existed. It had been

checked out. There were five copies of it and they were all gone. It took me a while to get back into doing anything about it because I was so stunned."

Librarians were typically seen as the necessary guides to the collection. In researching the Pierce County organization Alcoholics Anonymous, a student learner "went to the Northwest Room at the library. The librarian there gave me a folder of thousands of old and new clippings...." Contrasting the librarian's skill with her own, another individual found in investigating Gig Harbor's environmental problems that "the librarian was the chief source of information because I would never have thought of going to 'Environment Impact Reports'."

In referring to librarians, one individual even employed playful humor. She "found most of my information in the Washington Law Library" and also "found it very helpful to snuggle up to the librarian." The warmth embodied in these comments about librarians' assistance speaks to the potential satisfaction available to novices when they are expertly guided through the library environment.

Despite the availability of computer-based information systems in the local libraries, no one consulted machine-readable resources. There were, however, two acknowledgments of the potential value of such a service. One person noted that it would be "helpful to have a database in the library to support me.... I can just plug in and get what I want. It can save me a lot of time in going here and there...." Another also wanted "the data system to access this information [which]... would have saved me hours of research time...."

Both of the other comments on CD-ROM and online database searching attested to the disappointment of the learners who were unable to obtain needed information from computerized information systems in public institutions. As one individual said: "They indicated that it wasn't available in the form that I needed, but ... I would say that it ... seemed to be computer data because, from the way that I perceive it, it had to be there." Given the side-by-side availability of both traditional print indexing services and their machine-readable counterparts in most libraries visited by the student researchers, it is noteworthy that few attempted computer-based searching and that none successfully retrieved information from such systems. On the other hand, since most of the topics were local in scope, it is perhaps not surprising that those who tried reported failure.

Although many student researchers visited local libraries, in only a few cases did these repositories seem to come "alive." The "voices" embedded in library documentation did not "speak" to most. Rather, for most, library research was "flat" and, their remarks further

suggested, was characteristically unfamiliar and unsatisfying. They did not feel at home in the library, nor did they feel a part of the published discussions housed there.

### *Search Strategizing*

Learners typically reported where they went for information (as presented earlier), and, less frequently, how they got there and what they did there. In other words, less was reported by students about their search processes than their information resources, although interviews did reveal substantial existing knowledge about the processes of information gathering as reported by Bates (1979a, 1979b).

Overall, learners expressed significant conceptual awareness in describing information. For instance, the existence of pervasive lines of inquiry was recognized by one person who stated: "I didn't realize until I got into it that almost everything I was reading was party line. It was ... backing big business and U.S. forestry." Other frames of reference were inaccessible, as another individual discovered. "My original intent was to look at the prostitutes as individuals. I found absolutely no information on that, so I had to look at it more as an institution and how it influenced the growth and development of Seattle."

Some arguments in published literature appeared monolithic, other perspectives were absent, and other subjects were underrepresented. As one individual said of her research project: "My paper's on emerging women writers. I found research easy on northern European women.... But I also want to include information on women of color, and did not find that so easy to find." Another individual also reported poor coverage on his topic, the history of jazz in Seattle, Washington, from 1930 to the present. "There's a lot of information on acclaimed musicians. Of course, Quincy Jones came from Seattle, and you'll find lots of articles and other publications on Quincy Jones. But the common musician and the music after WWII ... there's very little material."

Some people recognized linkages within information domains. As one woman said of her experiences researching the history of nursing schools in Tacoma, Washington, through informal sources: "They'd give me the name of somebody else who would give me the name of somebody else who would give me the name of somebody else."

It was apparent from the many learners who reported consulting both informal and institutional sources that they understood there to be communication linkages, as well, between information in those

domains. They moved easily—sometimes effortlessly—along lines of inquiry both within and across the boundaries distinguishing informal, institutional, and library sources.

Through referrals, for instance, two individuals experienced a topical linkage from informal sources to library resources. One was referred by an informal source to a library source written with institutional sponsorship—i.e., “one book published by the librarian from Tacoma Community College. She did it for the Bicentennial Project.” For this individual, library access was simplified by this evaluative recommendation of a “known item.”

In examining sources from two domains, one person noted that there are differences in the information they provide. “I interviewed some members of the academic community.... I did a search of the periodical indexes.... I found different perspectives.” Another individual used this to advantage, comparing perspectives from two domains to evaluate his interpretations of information.

The librarian there gave me a folder of thousands of news clippings and, what I did, I tried to coordinate what she had said with what I found and get some sort of continuum on the situation, which basically I did. From there I went to a couple members of AA who had been around for twenty plus years and made sure that everything squared with what everybody was saying, [in the process] getting a little more detail and a little more perspective.

As interconnected as information sources appeared within and among the three resource domains, significantly, library research was not reported to have produced any referrals. Informal sources produced institutional and library encounters, and referrals to other informal sources. Institutional sources produced connections to other institutional sources and to informal sources. Library sources, however, were not reported as creating referrals to any other sources.

### THINKING LIKE A SEARCHER

Learners characteristically reported that, as one individual said: “I have a lot of information in myself....” Typically, out of their experiences, students capably identified a compelling question from something in that situation which did not make sense to them. Then, “thinking like a searcher” (Rubens & Huston, 1989), they applied their existing knowledge about where information resides in society to the identification of appropriate sources of information. In their negotiation of informal and institutional information sources, learners generally reported capably navigating their ways through the labyrinths of those communication networks.

Speaking for most of the participants, one person said: “I found out from my research how much information you can obtain yourself.” This was especially true for individuals who gathered information

from informal and/or institutional sources. Typically, they reported highly informative, interactive experiences between themselves and their informants. They reported making sense of the information they received, often simultaneous with its transmission, as in the case of their reports on interviews.

These information retrieval events were presented as "alive," "happening," perhaps due to the living, human nature of the information providers (who were functioning, in effect, as "interfaces" between the bodies of knowledge and the information requestors). Or perhaps their enthusiasm was attributable to their obvious familiarity with the informal and institutional environments. In any case, the levels of comfort and confidence in their remarks suggested that they felt "at home" in those environments.

While students largely reported on their strengths, two areas of need emerged in data analysis—library and database research. In the former, students expressed only qualified capability or actual dissatisfaction in information retrieval. No one reported success with CD-ROM or online information retrieval. Library and database research were presented as the least familiar environments. Unlike their accomplishments in the other two domains where researchers seemed to feel in control, individuals typically expressed either ambivalence or dissatisfaction about any but expertly guided retrieval experiences.

### CURRICULUM GENERATION THROUGH REFLECTIVE STUDY

The discovery that learners felt unable to navigate in library environments provided the impetus for conducting a second study of professionally trained academic researchers and, subsequently, generating a textbook (Huston, 1988). As an extension of the classroom conversations, *Making Connections: A Guide for Thinking Like a Searcher* references the familiar as a bridge to the unfamiliar. The instructional approach is described in the preface to the search guide as follows:

This guide ... offers a simple explanation of how to apply your existing knowledge for "making connections" to accessing information from scholarly communication networks. To orient you to "thinking like an academic searcher," I'll introduce you in Chapter One to some of the people who convinced me that our life experiences provide us with both the raw material for generating provocative research questions and for interrogating computerized database systems.

In Chapter Two you will read "insiders' " stories about the creation of learned knowledge. You will learn, for instance, that instead of talking over the proverbial "back fence," as occurs in many local communities, scholars exchange ideas across the lectern at conferences or through articles in journals. In both cases, new meanings are forged through the discussions. However, unlike personal conversations, scholarly communication is frequently transferred to paper and this allows you to access it in particular ways.

For instance, unlike the informative events occurring in the backyards of America, most of the phases of scholarly information creation are recorded in databases ... and that is the subject of Chapter Three. By the time you read Chapter Three, you will have been reminded of what you know from searching for information among communication systems in your communities. You will also be familiar with the structure and function of the interlinking scholarly communication networks which produce published literature. The last chapter will suggest how you can combine your old and new knowledges in conducting successful online information searches. The material in this guide should prepare you for "thinking like a searcher" capable of "making valuable connections" with scholars' ideas.

### **BUILDING ON LEARNERS' EXISTENT KNOWLEDGE**

This approach assumes that sensitive instruction to new users of computer-based information systems must acknowledge and enhance individuals' existent search knowledge if they are to develop conceptual understanding of the unfamiliar scholarly research process. It encourages information seekers to benefit from their previous experiences with information by recalling and restructuring their recollections, constructing new ways of categorizing them more appropriately for "thinking like a searcher."

More specifically, this approach presupposes that, for individuals unfamiliar with computers—or even the scholarship to which these retrieval tools provide access—explanations of human communication patterns and purposes can effectively bridge what they know from their own experiences to what they need to know about scholars' communication practices. First, information transfer is presented as a give and take process fundamental to both social and scholarly communication. Second, individuals, as members of both social and disciplinary groups, are represented as providing linkages between other individuals and their ideas.

When graphically represented, these information exchanges reveal networking patterns among members of various conversation groups. Establishing the similarities between familiar everyday conversations and not yet familiar scholarly conversations can create recognition among students of how, in a third way, scholars exchange information to create new ideas, just as through everyday conversations students' minds are influenced by exposure to new thoughts. Evaluation subsequently showed that such an approach enhanced novices' intellectual comfortableness and working familiarity with new technological applications for organizing, storing, and retrieving scholarly information (Huston & Oberman, 1989).

## DISCUSSION

Individuals might have a number of reasons for engaging in information seeking. They might, for instance, wish to reduce ambiguity, or to increase their ability to cope with a situation, or to make a decision. Or perhaps they wish to find something that will lessen their anxiety or to move themselves toward some wanted goal. "Information is a tool, not an end" (Fine, 1984, p. 445). In other words, the search process involves information applications, not merely information finding.

Implicit in such a notion is the recognition that throughout the search process, information seekers construe and reconstrue the topic under investigation. By extension, then, the search process is, in itself, a process of construction (Kuhlthau, 1988) in which topics change and evolve.

Information retrieval, then, is both acted on by individuals' states of thinking and acts of their states of thinking. In other words, external information from library sources are received in terms of individuals' existing constructions of the topic—as it were, within his or her head. In turn, this new information causes an individual's representations of a topic to change. From this perspective, users' cognitive structures can be portrayed as systems that create, motivate, and direct searches for relevant information, even as they are influenced by external information.

In short, the search process is one of "sense-making" (Dervin, 1977). As individuals proceed, externally generated and internally generated information dynamically interacts. To make sense of the new information they encounter, searchers reflect "backward" to validate and move "forward" to illuminate. This dynamic process, which is inherent in "thinking like a searcher," must be fueled through information education which encourages investigatory action through reflection.

## CULTIVATING "THINKING LIKE A SEARCHER" IN THE CLASSROOM

In a participant-centered classroom, student learners must feel encouraged to operate from their own domain of experience, rather than moving immediately into that of the educators' experience (Huston, 1983). Developing appropriate interpersonal relationships with learner groups (Huston & Enriquez, 1986) requires understanding of "how the phenomenological worlds of the students are constituted" (Bowers, 1984, p. 87). Only then is it possible to make explicit, important elements of the students' tacit knowledge.

In introducing prospective academic researchers to the nature of scholarly discourse, for instance, a librarian might start with

examples derived from the students' own language environment. In Hawaii, reference to "talking story" when "folks" "go [to the] beach" would acknowledge the language environment of the local people there. In other settings, reference to talking across a white picket fence or chatting after Sunday church services might better convey how information is exchanged among conversation groups in students' neighborhoods and, analogously, among scholarly communities in academic disciplines.

Through encouragement and coaching, student learners can be enlisted in identifying examples of appropriate cultural references for moving from one language environment to another. Not only will this approach yield rich and varied examples but, by starting with the students' phenomenological world, instructors have a guide for aiming the discussion at a level at which student learners can relate verbal abstractions to the concreteness of their own life worlds.

This approach also communicates an important message to students about the purpose of the learning process. By taking the students' phenomenological world seriously, the teacher is saying, in effect, that the students' culture deserves serious attention. "This is a fundamentally different message than is communicated when the teacher ignores the students' culture and proceeds to dispense the new culture that is supposed to confer respectability and success" (Bowers, 1984, p. 87).

Student learners can also benefit from faculty learners' insights. Giving students the language for naming different aspects of their phenomenological world, for instance, enables them to be aware of what previously existed as part of their tacit knowledge. In the earlier classroom example, guest presenters used both historical perspectives and cross-cultural perspectives to illustrate varying approaches to studying a single topic. In appealing to students' personal involvement with the topic "images of Blacks," they illustrated how investigators' purposes influenced their discoveries. By example, they encouraged student researchers, similarly, to critically evaluate both human and paper information sources.

## CONCLUDING CONVICTIONS

These dimensions of empowering information education can have an infinite number of variations, depending on the intellectual and experiential backgrounds of both teacher and student learners. But any such reconceptualization of research instruction must be grounded in the recognition that the pedagogical manner in which information is transferred can both constrain and limit thought.

The dialogue which constitutes such "transformative education" (Shor & Freire, 1987) embodies creation and re-creation. As co-creators

in a conversation group, teacher and student learners alike “stimulate the other to think, and to re-think the former’s thoughts.... Dialogue seals the act of knowing which is never individual, even though it has its individual dimension” (Shor & Freire, 1987, pp. 3-4). Inquiry, then, emerges from participants’ natural curiosity, from their desire to know. It follows that motivation occurs inside the action of study itself, inside learners’ personal recognition of the importance of knowing more (Shor & Freire, 1987). Rigor, then, develops out of inclusive communication which challenges others to take part in active inquiry.

Perhaps this is why so much traditional classroom instruction fails to motivate students. Students are not included in the search, in the activity of rigor. They are told the answers to memorize. “Knowledge is handed to them like a corpse of information—a dead ‘body of knowledge’—not a living connection to their reality” (Shor & Friere, 1987, p. 4). It is in the act of trying to know and to re-know that learning occurs.

While the benefits of “pedagogy in process” (Freire, 1978) are substantial, so too are the investments necessary for the discovery of appropriate purposes and ends for specific population groups. Transformation of traditional teaching methods requires, first, an understanding of the social context of teaching. Then, instructors must create a situation where “the teachers and students both have to be learners, both have to be cognitive subjects” (Shor & Freire, 1987, p. 33) and “sociologists of information” (Parson, 1984, p. 372). Additionally, the convictions of all members of the classroom must be respectfully considered in determining curricular directions. And, lastly, throughout, the teaching/learning environment which can harness participants’ tacit knowledge of “thinking like a searcher” must be infused with enthusiasm for the possibilities of inquiry.

## REFERENCES

- Bates, M. J. (1979a). Information search tactics. *Journal of the American Society for Information Science*, 30(4), 205-214.
- Bates, M. J. (1979b). Idea tactics. *Journal of the American Society for Information Science*, 30(5), 280-289.
- Bowers, C. A. (1984). *The promise of theory: Education and the politics of cultural change*. New York: Longman.
- Dervin, B. (1977). Useful theory for librarianship: Communication, not information. *Drexel Library Quarterly*, 13(3), 16-32.
- Fine, S. (1984). Research and the psychology of information use. *Library Trends*, 32(4), 441-460.
- Freire, P. (1978). *Pedagogy in process*. New York: Seabury Press.
- Huston, M. M. (1983). Rethinking our approach for research instruction. *Research Strategies*, 1(4), 185-187.

- Huston, M. M. (1988). *A theoretical framework and an instructional model for educating end-users of online bibliographic information retrieval systems: A research monograph (Making connections: A guide for thinking like a searcher)*. Unpublished doctoral dissertation, Union Graduate School, Cincinnati, Ohio.
- Huston, M. M. (1989). May I introduce you: Teaching culturally diverse end-users through everyday information seeking experiences. *Reference Services Review*, 17(1), 7-11.
- Huston, M. M., & Enriquez, L. (1986). *On extending hospitality in libraries: Dimensions of intercultural communication*. Paper presented at the ACRL Washington/Oregon Joint Chapters Conference, Menucha, Oregon, October.
- Huston, M. M., & Oberman, C. (1989). Making communication: A theoretical framework for educating end-users of online bibliographic information retrieval systems. *The Reference Librarian*, 24, 199-211.
- Huston, M. M., & Perry, S. L. (1987). Information instruction: Considerations for empowerment. *Research Strategies*, 5(2), 70-77.
- Keresztesi, M. (1982). The science of bibliography: Theoretical implications for bibliographic instruction. In C. Oberman & K. Strauch (Eds.), *Theories of bibliographic education* (pp. 1-26). New York: R. R. Bowker.
- Kuhlthau, C. C. (1988). Developing a model of the library search process: Cognitive and affective aspects. *RQ*, 28(2), 232-242.
- McInnis, R. (1982). Do metaphors make good sense in teaching research strategy? In C. Oberman & K. Strauch (Eds.), *Theories of bibliographic education* (pp. 47-74). New York: R. R. Bowker.
- Parson, W. L. (1984). User perspective on a new paradigm for librarianship. *College and Research Libraries*, 45(5), 370-373.
- Rubens, D., & Huston, M. M. (1989). Thinking like a searcher. In J. C. Fennell (Ed.), *Building on the first century* (Proceedings of the fifth national conference of the Association of College and Research Libraries, Cincinnati, Ohio, April 5-8) (pp. 337-42). Chicago, IL: Association of College and Research Libraries.
- Shor, I., & Freire, P. (1987). *A pedagogy for liberation: Dialogues on transforming education*. South Hadley, MA: Bergin & Garvey.
- Wilson, P. (1983). *Second-hand knowledge: An inquiry into cognitive authority*. Westport, CT: Greenwood Press.
- Wright, H. C. (1979). The wrong way to go. *Journal of the American Society for Information Science*, 30(2), 67-76.