

Information Fluency  
Key Instructional Word  
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Fluency is normally associated with the ability to speak and write easily, smoothly, and expressively. The levels of fluency change with communication challenges, audiences, and experiences. Practice in addressing various information problems across different situations and with various techniques helps one become fluent and better able to address new information problem situations.

Several definitions for information fluency have been suggested in recent literature associated with information literacy. A very broad definition will be offered here to illustrate how information fluency involves a wide range of skills and abilities across several literacy areas. What is offered here is not complete, but ties together some current notions on fluency as they relate to information inquiry.

Fluency should be considered as more than the ability to master one technique, strategy, or model for learning or teaching. Fluency should be considered on a much broader basis. A reasonable definition at this time: information fluency is the ability to analyze information needs and to move confidently among media, information and computer literacy skills resulting in the effective application of a strategy or strategies that will best meet those needs.

Fluency is also the ability to move among several models for the information search and use processes. The mature information literate student understands that elements of several models may be needed in order to deal adequately with the problem or project at hand (See Table 1.). To base instruction of how to obtain and use information on one model is to restrict the potential of the learner for greater exploration through their own critical and creative thinking. Some models are best for introducing basic skills and other models take students into more critical analysis of information. Ultimately, the person who is fluent in multiple literacy strands and strategies will be more successful in meeting the most complex information demands.

The mature information user understands and applies the guiding principles of scientific research methods. Most important, this mature information user seeks all evidence from as many legitimate sources as possible; analyzes the evidence gathered; is always open to new evidence; and makes decisions for actions based on the best evidence obtained. Those who have not matured on information fluency start with a conclusion and select limited evidence gathering for the purpose of locating only the information that will support their initial conclusion.

Defining Information Fluency in the Wired World

In a paper presented to the Australian Library and Information Association in 1993, Homer Stavely identified nine elements of information processing now greatly enhanced in the modern wired world: 1) configuration; 2) location; 3) concentration; 4) organization; 5) transformation; 6) representation; 7) distribution; 8) scale; 9) transformation. To move wired users toward information fluency, computer literacy should involve more than teaching how to use a new communications tool, but what can be done with application of this new tool to transform information across boundaries. Fluency is critical to exchanging information across cultural, gender, class, and ethnic boundaries.

In 1999, the Committee on Information Technology Literacy (CITL) distinguished fluency as a term connoting a higher level skill set and ability than the term competency or literacy. Some of the differences between fluency and competency are first, that fluency entails a lifelong learning process; second, that fluency implies personalization of skills on levels of sophistication; and third, that fluency is composed of three kinds of knowledge – contemporary skills, foundational concepts, and intellectual abilities.

An individual is computer literate when he or she is able to use the computer to satisfy personal needs. Skills leading to computer literacy usually include programming and operating skills, knowledge and awareness of computers, and a positive attitude toward computers. Some definitions of computer literacy move close to fluency by defining it as a collection of skills, knowledge, understanding, values and relationships that allow a person to function comfortably as a productive citizen in a computer-oriented society.

Ulla Bunz from the University of Kansas and Howard Sypher from Virginia Tech reported in 2001 on their efforts to define a computer fluency scale. They worked from a general definition of information literacy as an ability to express oneself creatively, reformulate knowledge, and synthesize information regarding new information technology. Web editing, extensive email management knowledge, and extensive web navigation abilities tend to be current indicators of emerging fluency within the Internet culture.

### Information Literacy and Fluency

Information literacy is a set of abilities that allow an individual to recognize when information is needed and apply those abilities to locate, evaluate and effectively use the needed information. An information literate person is able to:

- determine the extent of information needed
- access the needed information effectively and effectively
- evaluate information and its sources critically
- incorporate selected information into their knowledge base
- use information to accomplish a specific purpose
- understand the economic, legal, and social issues surrounding access and use of information
- access and use information ethically and legally

Information fluency involves the abilities to

- transfer information and media literacy skills to address new information need situations
- employ the use of modern computer technologies to obtain, select, analyze, infer conclusions from information
- employ critical thinking to derive evidence from information and creative thinking for the expression and application of that evidence to decision-making
- move across multiple strategies and evaluation levels in order to address different information needs found in academic, workplace and personal environments (See Figure 1.)

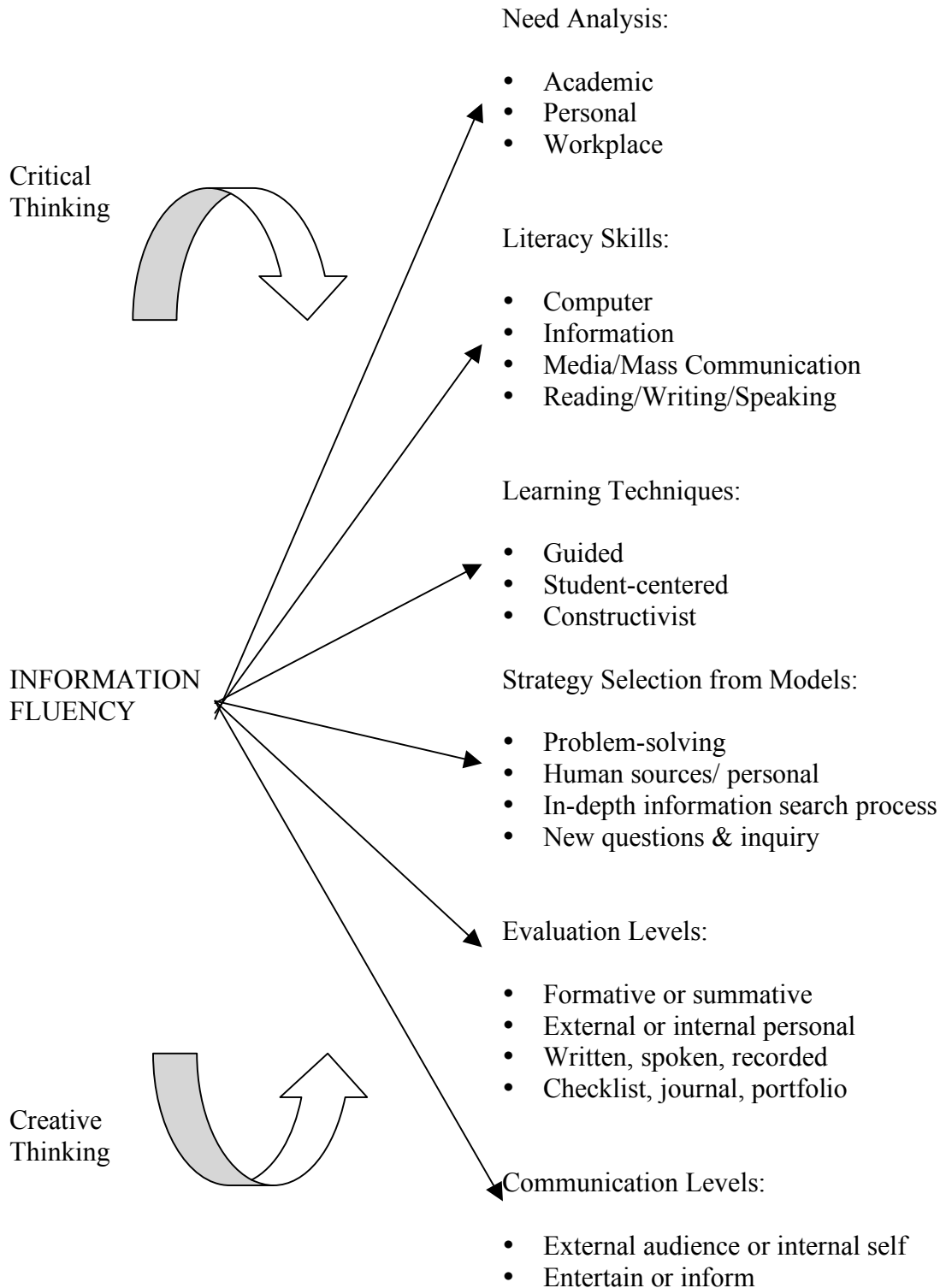


Figure 1: Selected Interactions and Relationships Defining Information Fluency

Table 1. Moving Among Models

| <u>Information Need</u>                        | <u>Model Characteristics</u>  |
|--|---|
| Practice information problem solving           | Specific, routine steps that organize and focus the approach; tasks often defined by teacher or authority not by student  |
| Emphasis on entertainment over information     | Concentrate on media literacy issues; consider multiple media options for presentation  |
| Explore human opinion and personal feelings    | Develop interview skills; enhance journaling abilities; give time to self-reflection  |
| Explore extensive in-depth information         | Move to advanced information search processes and student-centered learning techniques; develop critical analysis of information; link information to corroborate as evidence; read widely for scope and new ideas                                    |
| Formulate new questions; explore new knowledge | Apply inquiry-based and student-directed approaches to information seeking and selection; new paths for inquiry based on a wide range of information leads; modify and validate conclusions based on authoritative evidence not pre-conceived notions |

### For Further Reading

Bunz, Ulla K. and Howard E. Sypher. "The Computer-Email-Web Fluency Scale – Development and Validation." Annual Meeting of the National Communication Association. 2001. ERIC Document 458657.

Callison, Daniel. Key Words, Concepts and Methods for Information Age Instruction: A Guide to Teaching Information Inquiry. Baltimore: LMS Associates. 2003.

Committee on Information Technology Literacy. "Being Fluent with Information Technology." Washington, D. C.: National Academy Press. 1999.

Stavely, Homer. "Working in a Wired World." Australian Library and Information Association Conference. 1993. ERIC Document 368332.