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ABSTRACT

This collection of materials for a 2-day workshop on collaborative teaching, cooperative learning, critical thinking, and critical assessment of resources includes an agenda for each day; workshop goals; guidelines for preparing an annotation; a letter to participants that accompanied four articles for them to read before the workshop; information on each of the presenters; bibliographies or lists of suggested readings on library and faculty collaboration in undergraduate teaching, library skills instruction and critical thinking, and ideas for library assignments and teaching; a workshop evaluation form; and copies of 21 overhead transparencies that are keyed to the workshop outline. (DB)

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**Collaborative Teaching and Critical Assessment of Resources:
A Workshop for Faculty and Librarians**

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October 1991

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**Research Strategies: Collaborative Teaching and
Critical Assessment of Resources**

Luther College
Decorah, Iowa
Wednesday, May 29, 1991
Thursday, May 30, 1991

Workshop Leaders:
Mary Jane Petrowski
Betsy Wilson

AGENDA

Introduction
Goals and Objectives
Logistics

Form Cooperative Groups
Three-Step Interview

Why Faculty - Librarian Collaboration?
Think - Pair - Share

Critical Thinking
Mini-Lecture

Student Research and Critical Thinking
Rountable

BREAK

Research Process Model
Mini-Lecture

Student Research Problems
Group Brainstorming

Sample Critical Thinking Assignment
Annotated Bibliography

Overcoming Student Problems
Pass a Problem

Wrap-Up

**Research Strategies: Collaborative Teaching and
Critical Assessment of Resources**

Luther College

May 29 and 30, 1991

Mary Jane Petrowski and Betsy Wilson

WORKSHOP GOALS

Workshop participants will:

- * Reflect on the nature and value of collaboration between librarians and faculty;
- * Gain an understanding of critical thinking and the process of research;
- * Examine problems students experience with respect to critical thinking and the process of research;
- * Focus on practical ways to enhance collaboration between librarians and faculty;
- * Identify mechanisms to enhance student research and critical thinking.

Rationale: Librarians and faculty are partners in the educational enterprise. Through collaborative efforts, they can work together to enhance student research and critical thinking skills.

Faculty/Librarians
Thurs. AM: Open

1-2:45 (8-9:45)

I. Introduction	15 min.
A. Goals/objectives	
B. Agenda	
C. Logistics/ground rules/quiet	
D. Collaborative/group processing/feedback	
E. MJP/BW introduce each other	
II. Group formation (OH1) Famous pairs	10 min.
III. Group introductions (OH1.1) <u>3-step interview</u>	15 min.
IV. Why We Can/Need to Work Together? (OH15) <u>Think/pair/share</u> (OH15.1) Group process	15 min. 10 min.
V. Critical Thinking Approaches Define CT/bring in information literacy Mini-lecture/overheads (OH15.2-15.4)	10 min.
VI. Perspectives on student research & critical thinking (OH16) <u>Roundtable</u> (OH16.1) Group process	15 min. 10 min.
	<hr/>
	100 min. of 105 min.
BREAK	
2:45-3:10 (9:45-10:10) (OH3)	
VII. Research Process Model (OH17) Mini-lecture Overhead (OH17.1-H17.8) Handouts	10 min.
VIII. Critical Thinking Fix for One Problem Area Annotated Bibliography (work time) Group Process	20 min. 15 min.
IX. Ways to Integrate in Subject Classes	15 min.
X. Overcoming Student Problems (OH19) Identify ways to improve assignments/ instruction <u>Pass a problem</u> - take problem identified	

in (OH8)
Group process

10 min.

XI. Closure (OH9)
Cooperative Learning
Summary
Evaluation
Cartoon
Thanks

15 min.

100 of 110
min.

Preparing an Annotation

The purpose of an annotation is to describe the cited material. It should provide sufficient information to enable the reader to determine whether the actual book or article should be consulted or not. Each annotation need not address all of the following points, but so far as that is possible, addressing them would improve decision making and simplify the reader's work. Annotations can be of any length, but usually are about 100 to 150 words.

- 1) Who is the author? What is his/her occupation, position, education, experience, etc.? Is the author qualified (or not) to write the article? What are the author's credentials?
- 2) What is the purpose for writing the article or doing the research? Is the purpose specifically stated or implied? Does the author have a particular message?
- 3) To what audience is the author writing? Is it intended for the general public, for scholars, interested laymen, students, policy makers, teachers, professionals, practitioners, etc.? Is this reflected in the author's writing style, subject matter or vocabulary?
- 4) Does the author have a bias or make assumptions upon which the rationale of the article or the research rests? Does the author express a particular point of view? Is this reflected in the author's writing style, vocabulary, choice of illustrations or supporting evidence? How so?
- 5) What method was used to obtain the data for the article? Is the article based on personal opinion or experience, interviews, original research, questionnaires, library research, laboratory experiments, empirical observation, standardized personality tests, etc.?

- 6) What conclusions does the author draw? Are the conclusions specifically stated or are they implied?

- 7) Are the conclusions justified from the research or experience? Are the conclusions in sync with the original purpose of the research and supported by the data, etc.? Are the conclusions skewed by bias?

- 8) How does this study compare with similar studies? Is it in agreement or in conflict with conventional wisdom, established scholarship, governmental policy, etc.? Are there specific studies or writings cited with which this one agrees or disagrees? Are there any opinions not cited with which readers should be aware? Is the evidence balanced or weighted in favor of a particular perspective?

- 9) Are there significant attachments or appendices such as charts, maps, bibliographies, photos, documents, tests or questionnaires? If not, should there be?

Special thanks to Eugene Engeldinger for permission to reproduce and use this exercise.

University of Illinois
at Urbana-Champaign

UNIVERSITY LIBRARY

Undergraduate Library

217 333-1031

Undergraduate Library Building
1402 West Gregory Drive
Urbana
Illinois 61801

May 20, 1991

Dear Colleague:

We are looking forward to meeting you and working with you during the upcoming workshop "Research Strategies: Collaborative Teaching and Critical Assessment of Resources." The workshop is designed to actively involve all participants in what we hope will be stimulating, engaging, and fun sessions.

In order to help set the stage for the workshop, we are enclosing four readings we ask you peruse before the sessions. John Luban's "Chaos or Order" discusses faculty expectations and instructional realities of how students learn to use the library. Mona McCormick argues for the need for critical thinking in her article "Critical Thinking and Library Instruction." In "The Idea of Evidence in Bibliographic Inquiry," Jon Lindgren encourages use to instruct students to engage in a dialog with the evidence. And lastly, Carl Kuhlthau challenges us to consider the affective dimension of the information search process. We hope you find these articles stimulating.

Cordially,

Mary Jane Petrowski
and
Betsy Wilson
Workshop Co-Leaders

BW/jj

attachment

WORKSHOP LEADERS

MARY JANE PETROWSKI

Undergraduate Library
1408 West Gregory Drive
University of Illinois
Urbana, IL 61801

Work Phone: (217) 244-3769
FAX: (217) 244-0398
EMail: Petrowsk@VMD.CSO.UIUC.EDU

- * Assistant Undergraduate Librarian and Assistant Professor of Library Administration
- * Directs one of the nation's largest course-integrated bibliographic instruction programs, annually teaching over 6,000 students in classroom settings.
- * Undergraduate Instruction Award winner.
- * Co-author of Research Guide: Introduction to the Basics, a required text for freshmen composition classes.
- * Received Apple Computer Seedling Award to develop more effective classroom teaching using desktop presentation software.
- * Taught library skills to undergraduate students at military installations in Germany.
- * Has designed library instruction for multicultural learners, including international and minority students.
- * Has introduced collaborative learning techniques into bibliographic instruction at Illinois.
- * Serves on numerous Association of College and Research Libraries Bibliographic Instruction Section committees.
- * Has developed training programs for teaching librarians and graduate students to teach.

LIZABETH (BETSY) WILSON

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Urbana, IL 61801

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- * Head, Undergraduate Library and Associate Professor Library Administration.
- * Eleven years teaching and instructional design experience.
- * National leader and researcher in instruction in libraries.
- * Elected chair of the Bibliographic Instruction Section of ACRL, an organization of over 4,000 librarians involved in excellence in library instruction.
- * Author of books, chapters, articles, and papers on bibliographic instruction.
- * Recipient of an Amoco Foundation Award for Improvement in Undergraduate Education.
- * Undergraduate Instructional Award winner.
- * Teaches a graduate course on instruction in libraries and has been cited on the "Incomplete List of Teachers Ranked Excellent by Their Students."
- * Member of a national think tank on the future of bibliographic instruction.
- * Commission on Higher Education consultant on integrating bibliographic instruction into the accreditation process.

Librarians and Faculty Members:
Partnerships for Improving Undergraduate Instruction

Baker, Betsy. "Bibliographic Instruction: Building the Librarian/Faculty Partnership," Reference Librarian 24 (1989): 311-328.

Bailey, Liz, Buchanan, Nancy E. and Margaret Hollerman. "The LRC's Role in Helping Faculty Internationalize the Community College Curriculum," New Directions for Community Colleges 71 (Fall 1990): 31.

Elliot, Paula. "The View from Square One: Librarian and Teaching Faculty Collaboration on a New Interdisciplinary Course in World Civilization," Reference Librarian 24 (1989): 87-112.

Ford, James E. "The Natural Alliance Between Librarians and English Teachers in Course-Related Library Use Instruction," College & Research Libraries 43 (September 1982): 379-384.

Moran, Barbara. "Library Classroom Partnerships for the 1990's," C&RL News 51 (June 1990): 511-514.

Simon, Rose Ann. "The Faculty/Librarian Partnership," New Directions for Teaching and Learning no. 18 (June 1984): 55-61.

Werrell, Emily L. and Threasa L. Wesley. "Promoting Information Literacy Through a Faculty Workshop," Research Strategies 8 (Fall 1990): 172-180.

Washington Center News 5 (Winter 1991).

Entire issue explores innovative ways in which librarians and faculty are working together to integrate library instruction into the curriculum.

CRITICAL THINKING
Suggested Reading Bibliography

Beyer, Barry K. "Critical Thinking: What Is It?" SOCIAL EDUCATION 49 (April 1985): 270-276.

Bodi, Sonia. "Critical Thinking and Bibliographic Instruction: The Relationship." JOURNAL OF ACADEMIC LIBRARIANSHIP 14 (July 1988): 150-153.

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Fink, Deborah. "Information Technology and Library Research" in CONCEPTUAL FRAMEWORKS FOR BIBLIOGRAPHIC EDUCATION. Libraries Unlimited, 1987.

_____. "What You Ask for is What You Get: Some Do's and Don'ts for Assigning Research Projects." RESEARCH STRATEGIES 4 (Spring 1986): 91-93.

Frick, Elizabeth. "Information Structure and Bibliographic Instruction." JOURNAL OF ACADEMIC LIBRARIANSHIP 1 (September 1975): 12-14.

Heiman, Marcia and Joshua Slomianko. CRITICAL THINKING SKILLS Washington, D.C.: National Education Association, 1985.

Keeley, Stuart and M. Neil Browne. "Assignments that Encourage Critical Thinking." JOURNAL OF PROFESSIONAL STUDIES 12 (Winter 1988): 2-11.

Krapp, JoAnn Vergona. "Teaching Research Skills: A Critical Thinking Approach." SCHOOL LIBRARY JOURNAL 34 (January 1988): 32-35.

Kuhlthau, Carol Collier. "Cognitive Development and Students' Research." SCHOOL LIBRARY JOURNAL 33 (August 1987): 46.

_____. "Developing a Model of the Library Search Process: Cognitive and Affective Aspects," RQ (Winter 1988): 232-242.

_____. "Information Search Process: A Summary of Research and Implications for School Library Media Programs." SCHOOL LIBRARY MEDIA QUARTERLY 18 (Fall 1989): 19-25.

_____. "Perceptions of the Information Research Process in Libraries: A Study of Changes from High School through College." INFORMATION PROCESSING AND MANAGEMENT 24, no. 4 (1988): 419-427.

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- _____. TEACHING THE LIBRARY RESEARCH PROCESS.
West Nyack, NY: The Center for Applied Research in Education,
1985.
- Meyers, Chet. TEACHING STUDENTS to THINK CRITICALLY: A GUIDE FOR
FACULTY IN ALL DISCIPLINES. San Francisco: Jossey-Bass,
1986.
- Plum, Stephen H. "Library Use and the Development of Critical
Thought." In Kirk, Thomas G., ed. INCREASING THE TEACHING
ROLE OF ACADEMIC LIBRARIES. (NEW DIRECTIONS FOR TEACHING AND
LEARNING, no. 18) San Francisco: Jossey-Bass, 1984.
- Ruggiero, Vincent R. TEACHING THINKING ACROSS THE CURRICULUM. New
York: Harper & Row, 1988.

Betsy Wilson
Mary Jane Petrowski
May 1991

The following copyrighted bibliography was removed prior to filming:

Cooper, James L., and Mueck, Randall. (1989, Fall). Cooperative/collaborative learning: Research and practice (primarily) at the collegiate level. *Journal of Staff, Program & Organization Development*, 7(3): 143-147.

Suggested reading dealing with applied work and research work in cooperative/collaborative learning at the college level.

Published by Forum Press, PO Box 876, Stillwater, OK 74076.

Ideas for Library Assignments and Teaching

- Dickerson, Mary Jane. "The Implications of Collaborative Writing: A Dialogue." (March 1989), 16 p. ED 305 644
- Engeldinger, Eugene E. "Teaching Only the Essentials - The Thirty-Minute Stand." Reference Services Review 16(4) (1988): 47-50+.
- Farber, Evan. "Alternatives to the Term Paper." In T. Kirk (ed.), Increasing the Teaching Role of Academic Libraries (San Francisco: Jossey-Bass, 1984).
- Fister, Barbara. "Teaching Research as a Social Art: Collaborative Learning and the Library." RQ 29(4) (Summer 1990): 505-509.
- Gibson, Craig. "Alternatives to the Term Paper: An Aid to Critical Thinking." The Reference Librarian 24 (1989): 297-309.
- Greene, Mark A. "Using College and University Archives as Instructional Materials: A Case Study and an Exhortation." Midwestern Archivist 14(1) (1989): 32-38.
- McCutcheon, Randall. "Library Scavenger Hunts: A Way Out of the Bewilderness." Wilson Library Bulletin 64(5) (January 1990): 38-40.
- Schaus, Margaret. "Hands-on History." College & Research Libraries News 51(9) (October 1990): 825-831.
- Sheridan, Jean. "The Reflective Librarian: Some Observations on Bibliographic Instruction in the Academic Library." Journal of Academic Librarianship 16(1) (March 1990): 22-26.
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**Research Strategies: Collaborative Teaching and
Critical Assessment of Resources**

May 29 and 30, 1991

WORKSHOP EVALUATION

Please rank your opinion of the following workshop features:

1. **OVERALL EVALUATION OF WORKSHOP**

Excellent	Very Good	Average	Fair	Poor
5	4	3	2	1

2. **PRESENTATION STYLE**

Excellent	Very Good	Average	Fair	Poor
5	4	3	2	1

3. **INSTRUCTORS' KNOWLEDGE OF THE SUBJECT**

Excellent	Very Good	Average	Fair	Poor
5	4	3	2	1

4. **HANDOUTS AND PACKET**

Excellent	Very Good	Average	Fair	Poor
5	4	3	2	1

5. **USEFULNESS OF CONTENT**

Very	Somewhat	Not Very	Useless	Don't Know
5	4	3	2	1

6. **MY EXPECTATIONS WERE MET**

Fully	Mostly	Somewhat	Not At All	Don't Know
5	4	3	2	1

7. What I liked best about this workshop was...

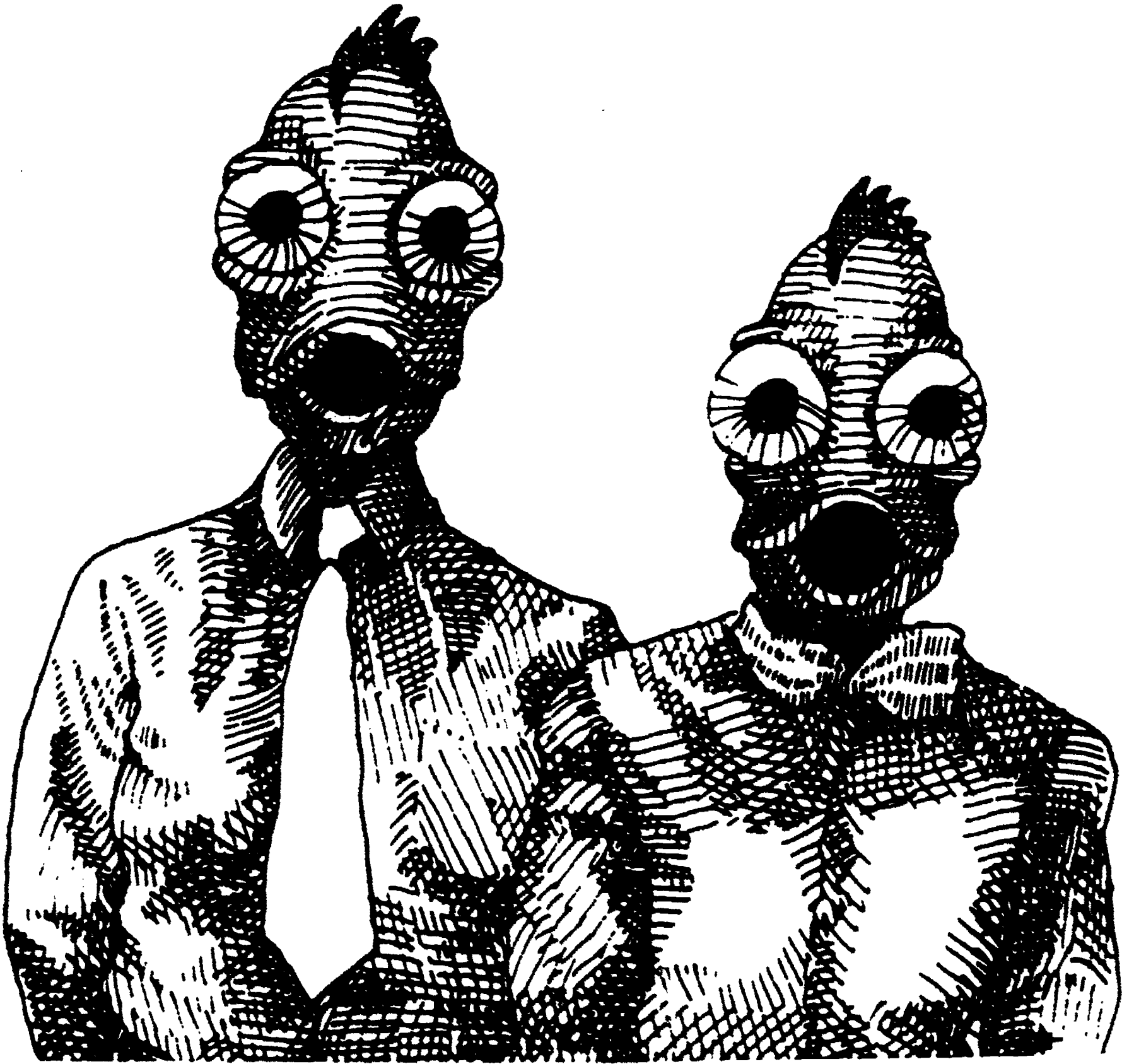
8. What I liked least about the workshop was...

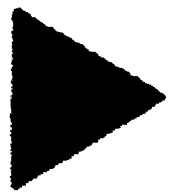
Comments?

Thank you!

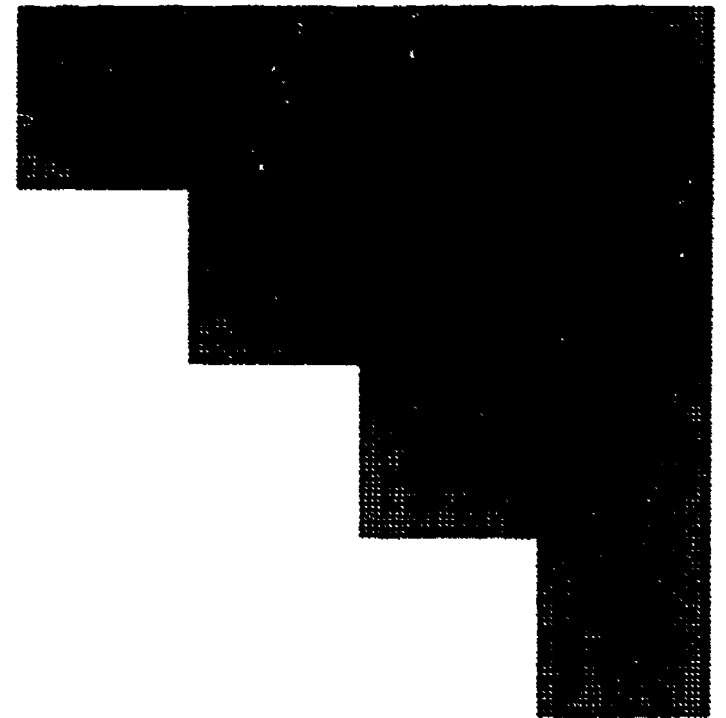
OVERHEADS

- * In Order of Use**
- * See Workshop Outline**
- * Designated by OH on Outline**





3-Step Interview



• Form pairs.

• A interviews B (3.5 minutes).

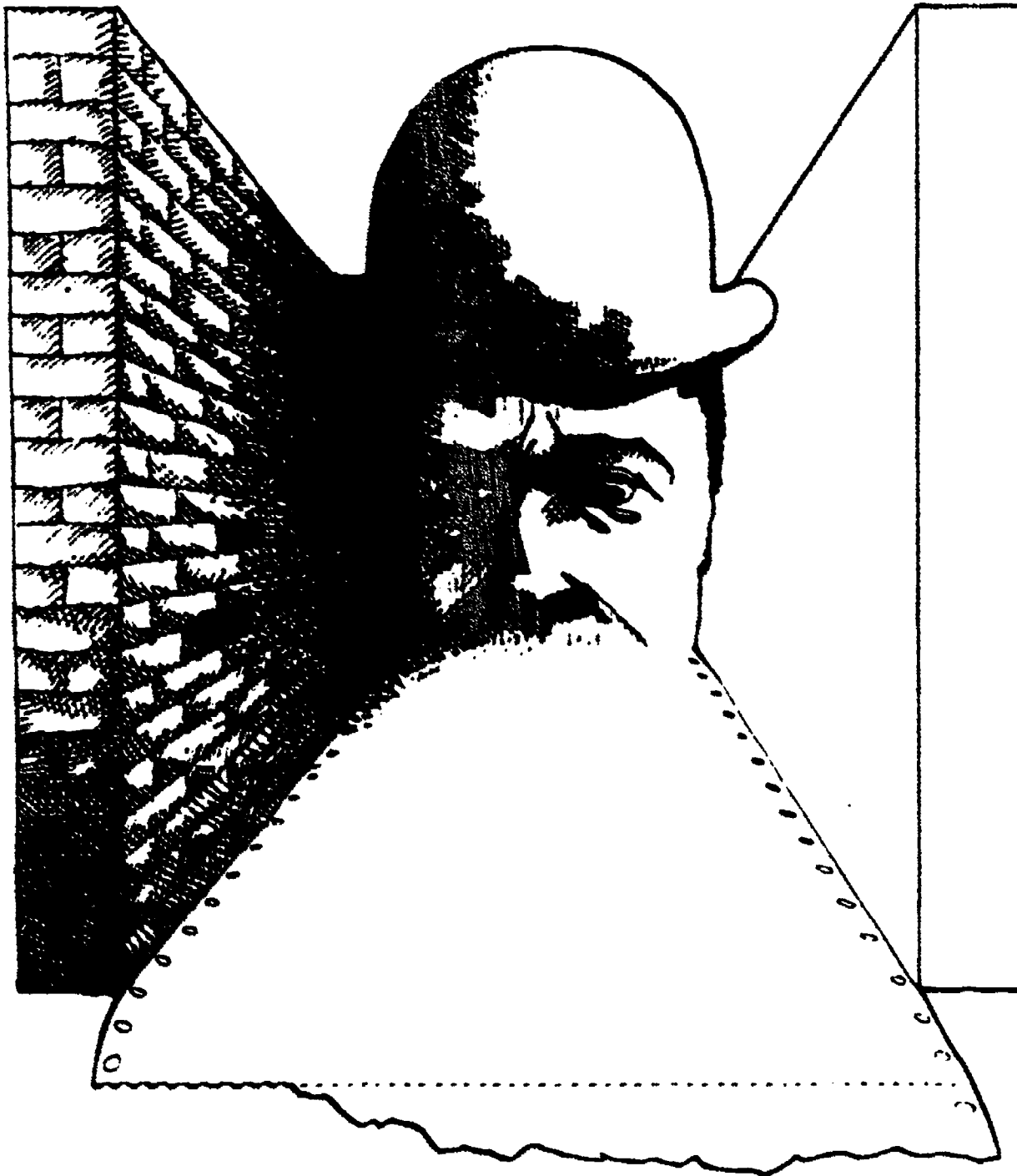
• B interviews A (3.5 minutes).

• Review/rehearse.

• Pairs form groups of 4 with same color dots.

• Share introductions: "I'd like you to meet Karen. Something unusual about her is"

Get out of Your Box



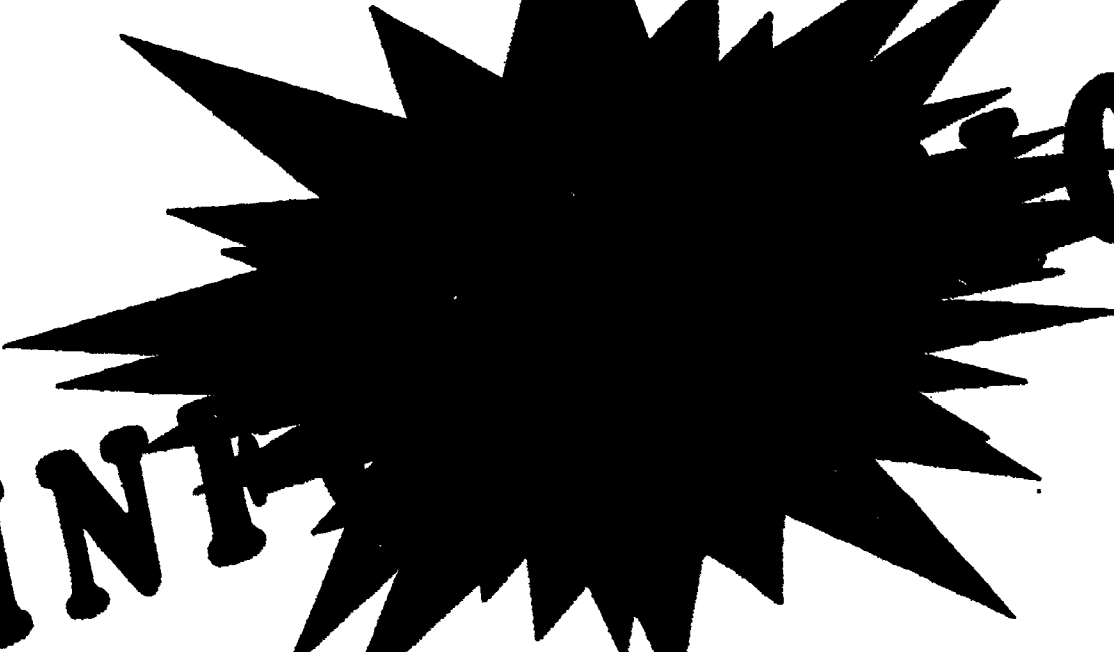
3 Each culture, industry, and organization has its own way of looking at the world. Often the best ideas come from cutting across disciplinary boundaries and looking into other fields. As journalist Robert Wieder put it, “Anyone can look for fashion in a boutique or history in a museum. The creative explorer looks for history in a hardware store and fashion in an airport.” **In what outside areas can you look for ideas?**

Think - Pair - Share

- **Why do librarians and faculty need to work together?**
 - **Think and write response (2 minutes)**
 - **Pair and discuss responses (3 minutes each)**
 - **Each one shares response within small group (1 minute each)**
-

• Weekly edition of the New York Times contains more information than the average person was likely to come across in a lifetime in 17th-Century England.

• Americans bought 73.2 million tons of newspapers in 1988.



INFORMATION

• The collections of large research libraries have doubled in the past 14 years.

• Over one million books are published annually; over 1000 per day worldwide.

• The English language now contains 500,000 words; five times more than in Shakespeare's time.

**The person who
does not know how
to collect informa-
tion, analyze it or
synthesize it, is
*going to have
trouble in the
future.***

**Dr. Marvin Cetron
Forecasting International**

" When we get into arguments that focus and fully engage our attention, we become avid seekers of relevant information. Otherwise, we take in information passively--if we take it in at all"

--Christopher Lasch

Look Somewhere Else



2 Finding new ideas is like prospecting for gold. If you look in the same old places, you'll find tapped out veins. But if you venture off the beaten path, you'll improve your chances of discovering new idea lodes. Remember: you can't see the good ideas behind you by looking twice as hard at what's in front of you. **Where else can you look for ideas?**

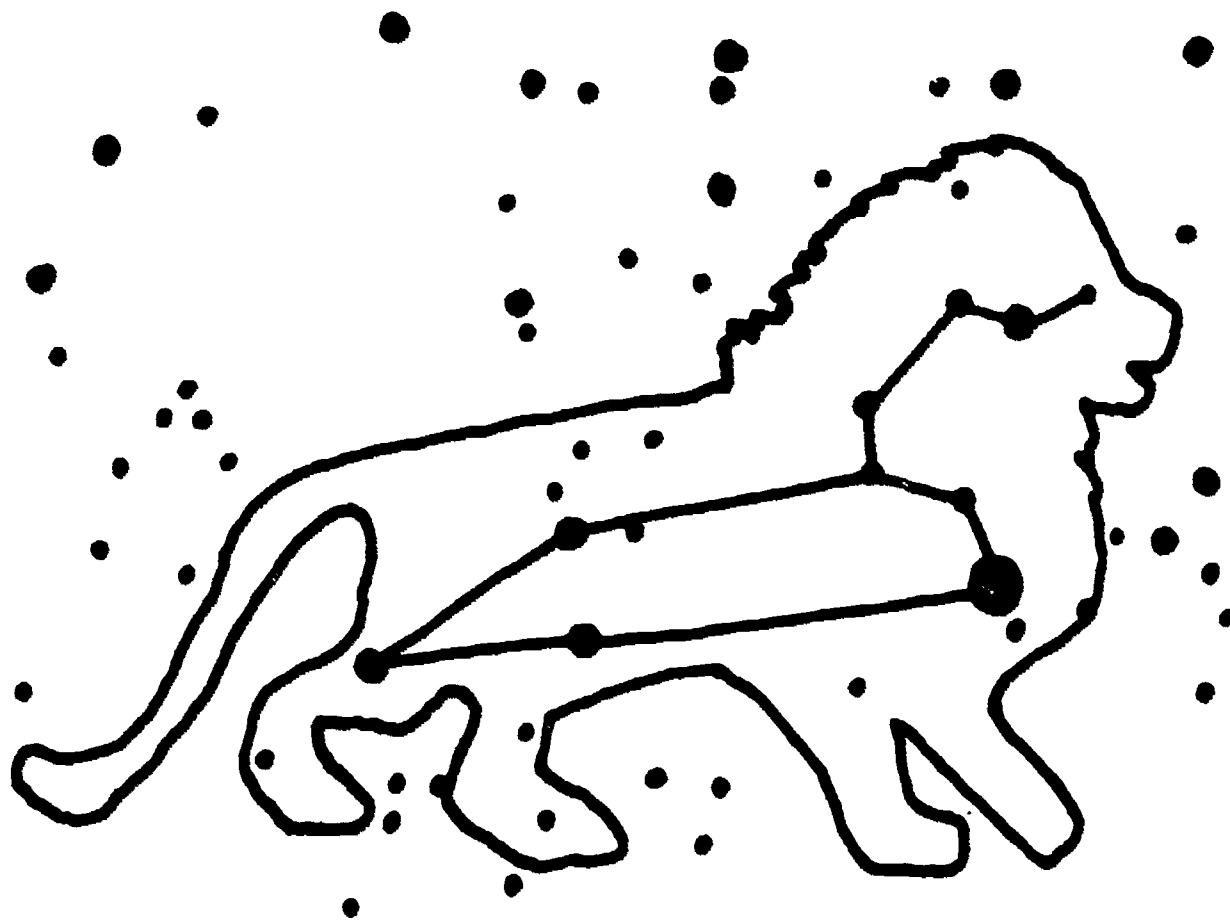
ountable

- **Purpose:** To identify problems students have with research.
- **One person** writes task at top of pad.
- **Next person** writes 1 idea, reads aloud, passes pad to left.
- **Brainstorm** until time is called.

Pause for a Bit

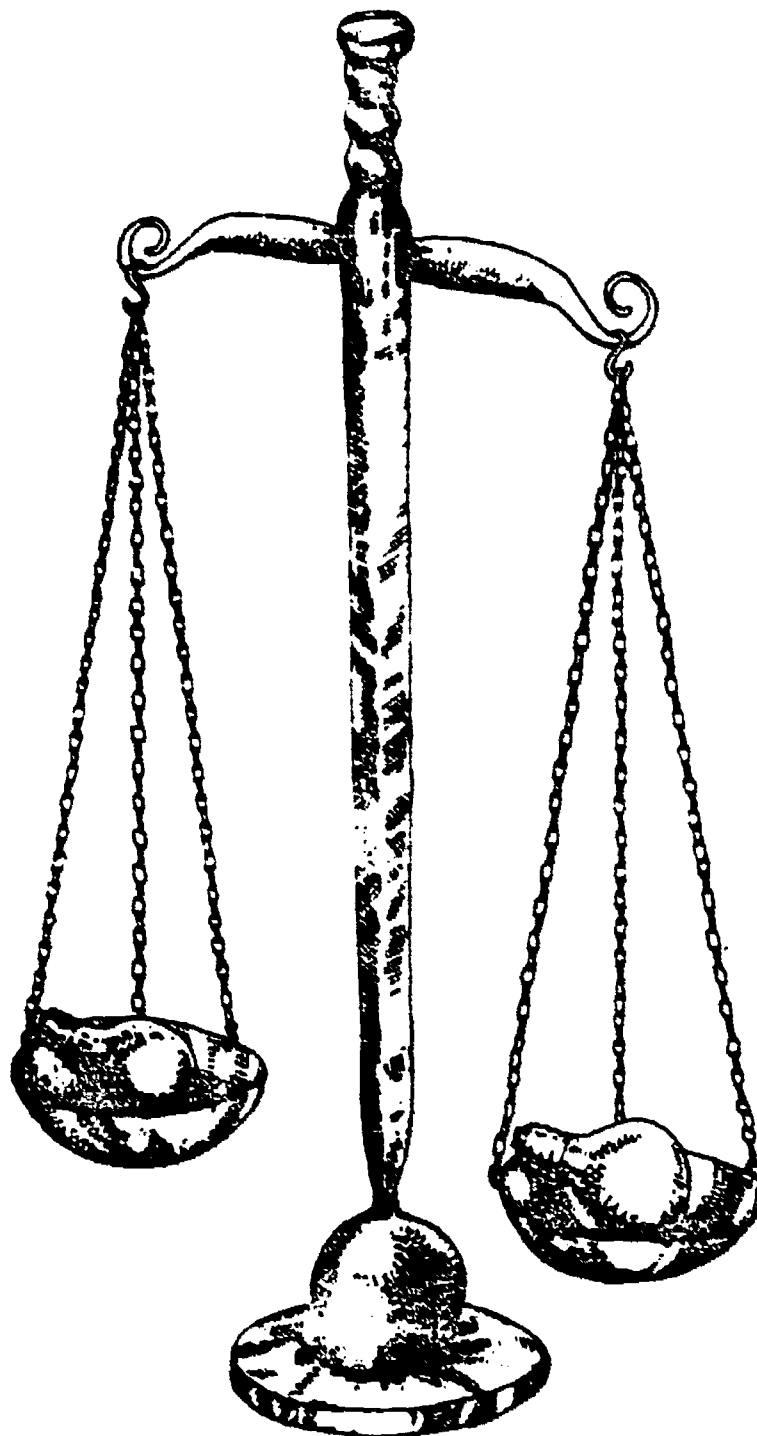


Find A Pattern



10 Much of what is called “intelligence” is our ability to recognize patterns. We recognize sequences (the order in which you put on your clothes), cycles (bird migrations), processes (how to convert flour, eggs, and milk into waffles), tendencies (if I smile at the checkout-counter girl, she’ll smile at me), shapes (the stars that make up the constellation Leo), and probabilities (the likelihood of throwing a “seven” at a crap table). **What patterns can you use to better understand your idea?**

Use Good Ideas



48 “Don’t let your search for the great idea blind you to the merely good idea,” advises inventor Bob Metcalfe. “Reject everything except for the very best and you’ll end up with nothing.” Educator Donald Kennedy has similar feelings: “A lot of disappointed people have been left standing on the street corner waiting for the bus marked *Perfection.*” What good ideas can you use?

Stages	Task Initiation	Topic Selection	Prefocus Exploration	Focus Formulation	Information Collection	Search Closure	Starting Writing
Feelings	uncertainty	optimism	confusion/ frustration/ doubt	clarity	sense of direction/ confidence	relief	satisfaction or dissatisfaction
Thoughts	<p>ambiguity $\xrightarrow{\hspace{15em}}$ specificity</p> <p style="text-align: center;">$\xrightarrow{\hspace{10em}}$ increased interest</p>						
Actions	<p>seeking relevant information $\xrightarrow{\hspace{15em}}$ seeking pertinent information</p>						

Figure 1. Kuhlthau Model of the Search Process

Fig. 2. Stages of the Search Process - Task Initiation

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 1 - TASK INITIATION					
<ul style="list-style-type: none"> • To prepare for the decision of selecting a topic 	<ul style="list-style-type: none"> • Contemplating assignment • Comprehending task • Relating prior experience and learning • Considering possible topics 	<ul style="list-style-type: none"> • Apprehension at work ahead • Uncertainty 	<ul style="list-style-type: none"> • Talking with others • Browsing library collection 	<ul style="list-style-type: none"> • Brainstorming • Discussing • Contemplating possible topics • Tolerating uncertainty 	<ul style="list-style-type: none"> • Primarily • Invitational

Fig. 3. Stages of the Search Process - Topic Selection

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 2 - TOPIC SELECTION					
<ul style="list-style-type: none"> To decide on topic for re-search 	<ul style="list-style-type: none"> Weighing topics against criteria of personal interest, teacher's requirements, information available, and time allotted Predicting outcome of possible choices Choosing topic with potential for success 	<ul style="list-style-type: none"> Confusion Sometimes anxiety Brief elation after selection Anticipation of prospective task 	<ul style="list-style-type: none"> Consulting with informal mediators Making preliminary search of library Using reference collection 	<ul style="list-style-type: none"> Discussing possible topics Predicting outcome of choices Using general sources for overview of possible topics 	<ul style="list-style-type: none"> Primarily Indicative

Fig. 4. Stages of the Search Process - Prefocus Exploration

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 3 - PREFOCUS EXPLORATION					
<ul style="list-style-type: none"> To investigate information with the intent of finding a focus 	<ul style="list-style-type: none"> Becoming informed about general topic Seeking focus in information on general topic Identifying several possible focuses Inability to express precise information needed 	<ul style="list-style-type: none"> Confusion Doubt Sometimes threat Uncertainty 	<ul style="list-style-type: none"> Locating relevant information Reading to become informed Taking notes on facts and ideas Making bibliographic citations 	<ul style="list-style-type: none"> Reading to learn about topic Tolerating inconsistency and incompatibility of information encountered Intentionally seeking possible focuses Listing descriptors 	<ul style="list-style-type: none"> Primarily Invitational

Fig. 5. Stages of the Search Process - Focus Formulation

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 4 - TASK INITIATION					
<ul style="list-style-type: none"> To formulate a focus from the information encountered 	<ul style="list-style-type: none"> Predicting outcome of possible foci Using criteria of personal interest, requirements of assignment, availability of materials, and time allotted Identifying ideas in information from which to formulate focus Sometimes characterized by a sudden moment of insight 	<ul style="list-style-type: none"> Optimism Confidence in ability to complete task 	<ul style="list-style-type: none"> Reading notes for themes 	<ul style="list-style-type: none"> Making a survey of notes Listing possible foci Choosing a particular focus while discarding others or Combining several themes to form one focus 	<ul style="list-style-type: none"> Primarily Indicative

**Fig. 6. Stages of the Search Process -
Information Collection**

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 5 - INFORMATION COLLECTION					
<ul style="list-style-type: none"> • To gather information which defines, extends, and supports the focus 	<ul style="list-style-type: none"> • Seeking information to support focus • Defining and extending focus through information • Gathering pertinent information • Organizing information in notes 	<ul style="list-style-type: none"> • Realization of extensive work to be done • Confidence in ability to complete task • Increased interest 	<ul style="list-style-type: none"> • Using library to collect pertinent information • Requesting specific sources from librarian • Taking detailed notes with bibliographic citations 	<ul style="list-style-type: none"> • Using descriptors to search out pertinent information • Making comprehensive search of various types of materials, i.e. reference, periodicals, nonfiction, biography • Using indexes • Requesting assistance of librarian 	<ul style="list-style-type: none"> • Combination of indicative and invitational

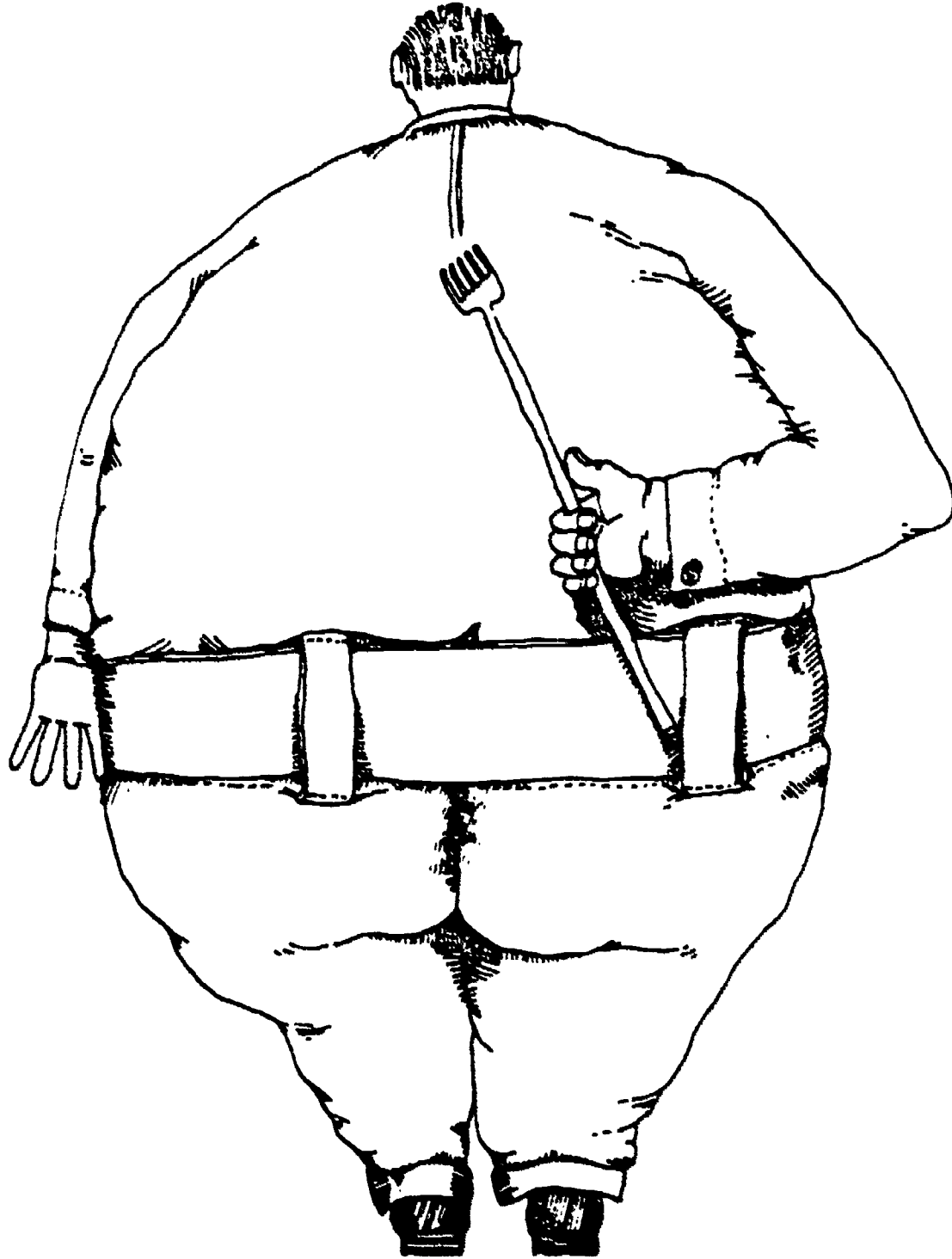
Fig. 7. Stages of the Search Process - Search Closure

TASK	THOUGHTS	FEELINGS	ACTIONS	STRATEGIES	MOOD
STAGE 6 - SEARCH CLOSURE					
<ul style="list-style-type: none"> • To conclude search for information 	<ul style="list-style-type: none"> • Identifying need for any additional information • Considering time limit • Diminishing relevance • Increasing redundancy • Exhausting resources 	<ul style="list-style-type: none"> • Sense of relief • Sometimes satisfaction • Sometimes disappointment 	<ul style="list-style-type: none"> • Rechecking sources for information initially overlooked • Confirming information and bibliographic citations 	<ul style="list-style-type: none"> • Returning to library to make summary search • Keeping books until completion of writing to recheck information 	<ul style="list-style-type: none"> • Indicative

Pass a Problem

- Write group choice on envelope.
- Brainstorm and find concensus solution.
- Put idea in envelope.
- Pass to next group.
- Repeat process until envelopes rotate back to home group.
- Read and prioritize solutions.

Give Yourself a Pat on the Back



64 What have you done well lately? Where have you made progress? What have you accomplished? What obstacles have you overcome? Congratulations! Give yourself a pat on the back. Now go out and earn another one.