

Information Search Process



Carol Collier Kuhlthau
Rutgers University

Uncertainty Principle

Uncertainty is a cognitive state which commonly causes affective symptoms of anxiety and lack of confidence. Uncertainty and anxiety can be expected in the early stages of the information search process.

Uncertainty Principle

The affective symptoms of uncertainty, confusion, and frustration are associated with vague, unclear thoughts about a topic or question. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence. Uncertainty due to a lack of understanding, a gap in meaning, or a limited construction initiates the process of information seeking.

Uncertainty Principle

Uncertainty initiates the process of information seeking

Corollary

Definition

Process

Constructing meaning

Formulation

Forming a focused perspective

Redundancy

Encountering the expected and unexpected

Mood

Assuming a stance or attitude

Prediction

Making choices based on expectations

Interest

Increasing intellectual engagement

Zone of Intervention

That area in which an information user can do with advice and assistance what he or she cannot do alone or can do only with great difficulty.

Zone of Intervention

Z1 **Problem self-diagnosed**

Search self-conducted

Z2-Z5 **Problem diagnosed through interview**

a. Problem statement of request

b. Background – task, interest, time, availability

c. Diagnosis using theory base: Product or Process

Product

Z2 Right source

Z3 Relevant sources

Z4 Sequence of sources

Process

Z5 a. Dialogue b. Explanation

c. Formulation d. Construction

e. Learning f. Application

Levels of Mediation

Level

Description

1. Organizer

No intervention

self service search in an organized collection

2. Locator

Ready Reference Intervention

single fact or source search; query / answer

3. Identifier

Standard Reference Intervention

subject search: group of sources in no particular order;

problem / interview / sources

Levels of Mediation

Level

Description

4. Advisor

Pattern Intervention

subject search: group of sources in recommended order;
problem / negotiation / sequence

5. Counselor

Process Intervention

constructive search: holistic experience;
problem / dialogue / strategy /
sources / sequence / redefinition

Levels of Education

<i>Level</i>	<i>Description</i>
1	Organizer No Instruction Self service search in an organized collection
2	Lecturer Orienting Instruction Single session: overview of services, policies and location of facilities and collection; no specific problem
3	Instructor Single-Source Instruction Variety of independent sessions: Instructions on one type of source to address specific problem

Levels of Education

Level

Description

4

Tutor

Strategy Instruction

Variety of independent sessions:

Instructions on a variety of sources to address specific problem

5

Counselor

Process Instruction

Holistic interaction over time:

Instructions on identifying and interpreting information to address evolving problem

Intervention Diagnostic Chart

<i>Zone of Intervention</i>	<i>Levels of Mediation</i>	<i>Levels of Education</i>	<i>Intervention</i>
Z1	Organizer	Organizer	Self service
Z2	Locator	Lecturer	Single Source
Z3	Identifier	Instructor	Group of Sources
Z4	Advisor	Tutor	Sequence of Sources
Z5	Counselor	Counselor	Process Intervention

Criteria for Choices in the Information Search Process

Criteria

Question

Task **What am I trying to accomplish?**

Time **How much time do I have?**

Interest **What do I find personally interesting?**

Availability **What information is available to me?**

Strategies for Intervening in the Information Search Process

Ability

Definition

Collaborating

Working jointly with others

Continuing

Proceeding at more than one point in time

Choosing

Selecting what is interesting and pertinent

Charting

Visualizing ideas, issues, questions and strategies

Conversing

Talking about ideas for clarity and further questions

Composing

Writing to identify what is formulated and what is missing

Four Basic Information Literacy Abilities

Strategy

Definition

Recall

Remembering ideas from what has been gathered

Summarize

Organizing ideas in capsulized form and placing in meaningful sequence

Paraphrase

Retelling in one's own words

Extend

Fitting ideas into what one already knows to form new understandings

Primary Inhibitors

- Lack of time
- Confusion of roles
- Poorly designed assignments

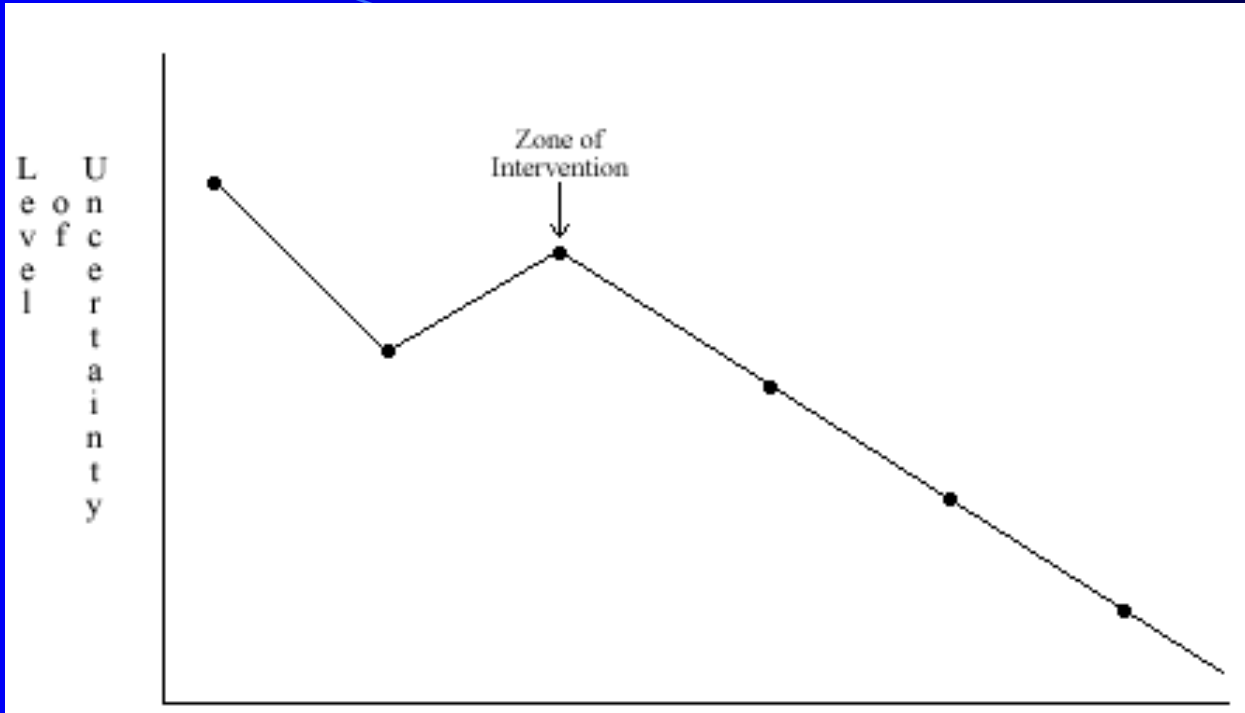
Basic Enablers

- **Constructivist view of learning**
- **Team approach to teaching**
- **Competence in designing process assignments**
- **Commitment to developing information literacy**

Evidence of Process in Work Tasks

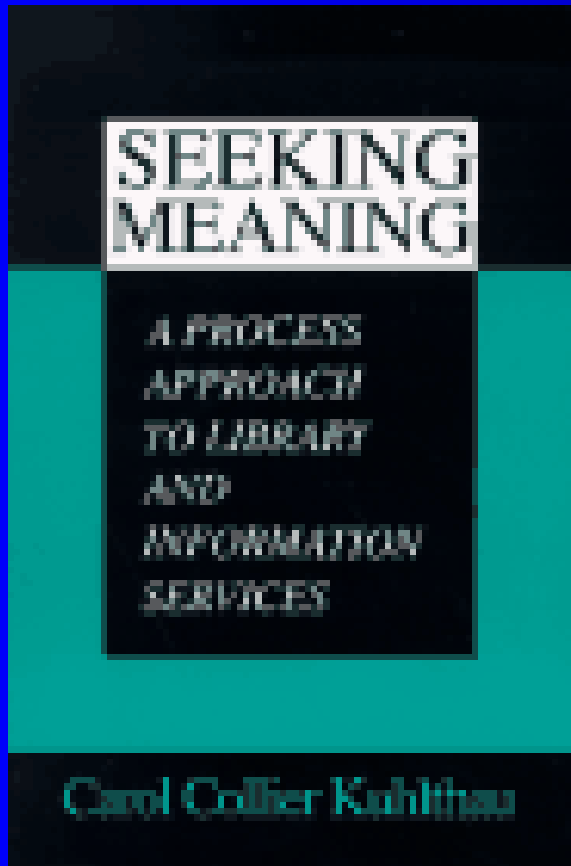
<i>Task Type</i>	<i>Routine Tasks</i>	<i>Complex Tasks</i>
Uncertainty	low	high
Construction	low	high
Stages in the ISP	low	high

Model of the Information Search Process



Tasks	Initiation	Selection	Exploration	Formulation	Collection	Presentation
Feelings (affective)	uncertainty	optimism	confusion/ frustration/ doubt	clarity	sense of direction/ confidence	satisfaction or disappointment
Thoughts (cognitive)	vague			focused		
Actions (physical)	seeking relevant information exploring			seeking pertinent information documenting		

Reference



Kuhlthau, C. C.
Seeking Meaning: A
Process Approach to
Library and Information
Services.

Norwood, New Jersey
Ablex, 1993