International Reading Literacy Symposium

University of Tokyo, Japan, 1/13/2013

Keynote – Carol Kuhlthau, Professor II Emerita, Rutgers University USA

Children's Reading in Guided Inquiry

I am pleased to be here today to speak about children's reading in the information age and to have this opportunity to think together about the vital role of teachers teaming with school librarians to prepare children to meet the challenges they face in this new environment.

Learning to read is a transformational experience in a young child's life. Of course, children who have been read to from the time they were infants are at a great advantage in learning to read. Reading is not a natural ability that develops with age, like talking and walking. For most children learning to read involves a struggle to put letters, sounds and meaning together so that they gradually develop the ability to read. Once it is acquired, reading seems so natural that we can easily forget the struggles of learning to read. Learning to read is a crucial step in a child's education. It provides the requisite skills for reading to learn.

Reading opens up the fascinating world of ideas. Across cultures, children's literature is rich in stories of fiction and fantasy that engage and enliven a child's imagination. Informational texts offer facts, knowledge, and theories for children to construct their own understanding of the world around them. Reading opens up new worlds to experience vicariously and to stimulate a child's curiosity.

Learning to Read – Reading to Learn

Learning to read also prepares a child for reading to learn. Reading to learn is a fundamental reason for learning to read. Too often educators concentrate on teaching the skill of learning to read without attention to the complexities of reading to learn. Reading to learn is not a natural ability that automatically follows learning to read. Reading for meaning and deep understanding requires a wide range of complex skills, targeted strategies and thoughtful concentration, combined with lots of diligent practice.

Primary school teachers focus on narratives and stories that engage children as they are learning to read. The problem is that as children enter upper grades they need to be prepared for the informational texts they are expected to read in order to learn. They can pronounce words correctly and sound out words they don't know, but many are unable to understand the meaning of what they are reading. They have difficulty determining importance from everything in a text. They aren't able to decide on the most important ideas or able to distinguish what is meaningful to them in their lives.

Learning in the information environment of early 21st century requires sophisticated skill in reading all kinds of texts, particularly informational texts (sometimes referred to as

expository texts or nonfiction). The Internet brings all kinds of informational texts into the school and into the child's world outside of school. Reading to learn involves the process of constructing personal knowledge from this wide range of sources of information. Competency in reading informational texts for clear, deep understanding is essential for every child in this information age.

Reading to learn in the information age involves constructing personal meaning from a variety of sources of information. Maniotes' research on third space describes the necessity of creating a learning space where the child's experience and the school curriculum meet and merge. First space is the child's world and knowledge from outside of school. Second space is the content of the curriculum of the school. In third space, the child's world and the school's curriculum meet in a learning space where meaningful and thus deep understanding takes place. Creating third space is the essential challenge for every educator, teacher and librarian in the information age school. How do teachers and librarians create this learning space? My research on the Information Search Process and our work on Guided Inquiry show ways for teachers and school librarians to meet this challenge.
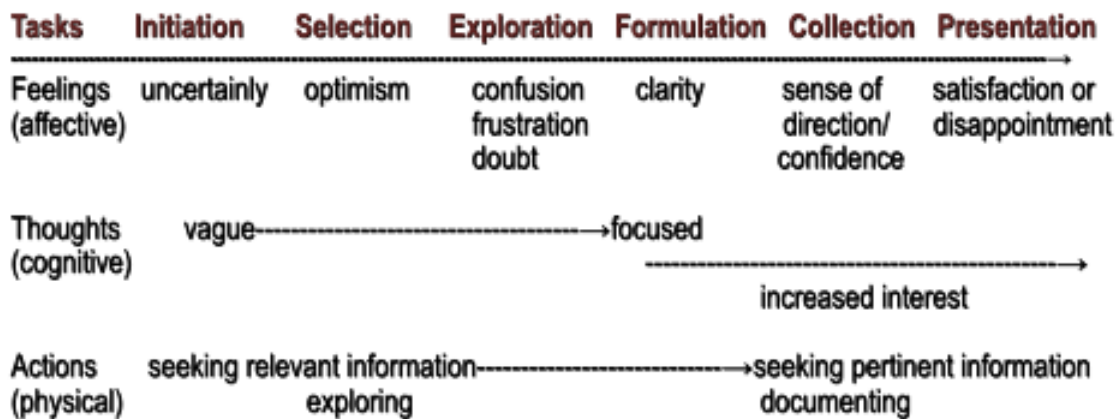
Information Search Process (ISP)

For many years I have been conducting research on the process of reading to learn from a variety of sources of information in student research projects (Kuhlthau 1985, 2004). My work has revealed important insight into a student's experience in constructing personal knowledge from informational texts. I looked at students' feelings as well as their thoughts and actions when they were learning from various sources of information. This research opened up a new way of looking at learning from informational texts as a process of construction. What students' experience in the process of constructing from reading a variety of sources of information is described in my model of the Information Search Process (ISP). A simple report or a routine term paper is actually a complex process of reading to learn that requires guidance, instruction, and assistance for optimal learning for every child.

In these studies I investigated students' thoughts, feelings and actions while they were involved in extensive research projects. I found that they progress through six identifiable stages, which I named for the main task to accomplish in each stage, plus a seventh assessment stage.

- Initiation: initiating a research project
- Selection: selecting a topic
- Exploration: exploring for focus
- Formulation: formulating a focus
- Collection: collecting information on focus
- Presentation: preparing to present
- Assessment: assessing the process (Kuhlthau, 1985)

Model of the Information Search Process

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

(Kuhlthau, 2004, p. 82.)

Stages in the Information Search Process (ISP)

These studies showed that students' thoughts are charged with emotions that influence the actions they take. Students experience a dip in confidence and an increase in uncertainty when they least expect it, during the Exploration stage. They often expect to be able to simply collect information and complete the assignment. This simple view of the research process sets up stumbling blocks in the Exploration stage. When their expectations do not match what they are experiencing, they become confused, anxious and frustrated. The early stages of the ISP reveal the struggle they experience in reading to learn in an extensive research project. Feelings are important and indicate when students are having difficulty and when they are doing well on their own (Kuhlthau, 2004).

Let's take a closer look at each stage in the ISP.

Initiation: Initiating a Research Assignment

Students often feel apprehensive and uncertain about what is expected of them and overwhelmed at the amount of work ahead. Talking with other classmates is a natural action to take, but some feel they should be "going it alone" and that checking with others might not be "entirely fair." It is important to make sure that students understand that it is not only fair to talk about their ideas and questions, it is necessary to have these conversations at this stage to begin to get their thinking going.

Selection: Selecting a Topic

Many students want to select a specific topic or question quickly and dive right into collecting information and to complete the assignment. This is where students can go astray right at the beginning. They need lots of groundwork before they can form meaningful questions that they want to pursue and that are worth investigating. Selection is a time for introducing and expanding on the general topic to be researched.

Exploration: Exploring for a Focus

In preparation for forming important questions, students need to build background knowledge on the general topic and to discover interesting ideas. A common problem is that many students skip over the Exploration and Formulation stages and attempt to move on to the Collection stage without having formed a focus for their research. For most students, the Exploration stage is the most difficult in the research process. As they browse information about their topics, they become confused by ideas that don't fit together. They encounter inconsistencies and incompatibilities of different perspectives and differing points of view. They have difficulty determining importance in from everything in a text. They need to understand that there are different kinds of reading for different stages in their learning process. At this stage they are exploring for interesting ideas rather than collecting detailed information. They need to learn to browse through a variety of texts, skimming and scanning to get a general picture. They need to recognize when to stop to read more thoroughly to gain sufficient background knowledge and to pick up interesting ideas. Exploration is best achieved by jotting down interesting ideas from a variety of sources rather than taking extensive, detailed notes from one text. Students need support, structure, and strategies for learning from different sources of information to assimilate new ideas and form a focused question from the ideas that arise in their reading.

Formulation: Formulating a Focus

Formulating a focus marks the turning point of the ISP when students identify a focus, an area of concentration, "something to center on," and clarify their research question. Once they have formulated a focus for their research, their feelings of uncertainty and confusion begin to diminish and confidence increases. It is important to note that forming a focused question comes at the midpoint of the ISP not at the beginning as often expected.

Collection: Collecting Information on Focus

A good focus is one in which ideas continue to grow and evolve based on concentrated reading of information and detailed note taking in the Collection stage. A clear focus

enables students to determine importance in what they are reading. It helps them to discriminate between less significant facts and more important ideas. A good focus can be adapted and altered as they continue to learn while they read and collect information. Interest in the project deepens as students get further along in constructing an understanding of their focused question.

Presentation: Preparing to Present

The Presentation stage marks the beginning of the writing process that introduces another set of challenges. Students who construct their ideas as they collect information are better prepared for writing and presenting what they have learned. They experience fewer writing blocks because they have been constructing their learning all the way through the research process. These students often express a sense of accomplishment and satisfaction in what they have learned from their reading. Students that merely collect facts in a cut and paste fashion have difficulty preparing an original presentation and often express disappointment and boredom with their project.

Assessment: Assessing the Learning

The way students feel at the close of a research project is a good way to assess what went well and what problems they encountered in the research process. Feelings of satisfaction and accomplishment indicate that they constructed their own understanding of their topic. Feelings of disappointment and boredom indicate a "cut and paste" approach with little real learning. Self-assessment gives students a sense of how to approach future research assignments. After several research projects, these students showed that they had internalized the stages in the ISP as their own "process" explaining that this is the "way I learn."

Over the years the ISP research has changed the way many librarians and teachers help students with project-based learning. It has opened a window into what students are experiencing when they are constructing new understandings and learning from multiple sources in the dynamic information environment. It has revealed ways to guide students in their learning. Students need considerable guidance and intervention in reading to learn throughout the research process in order to construct personal understanding. Without guidance, they tend to expect a simple collecting and presenting assignment that leads to copying and pasting with little real learning. With guidance, they are able to construct new understanding in the stages of the ISP and gain personal knowledge and transferable skills in reading to learn from a wide variety of information sources.

From the ISP to Guided Inquiry

GUIDED INQUIRY DESIGN FRAMEWORK

What Students are doing in ISP	STAGES of ISP	PHASES of GUIDED INQUIRY
Initiating the research project	INITIATION	OPEN
Selecting a Topic	SELECTION	IMMERSE
Exploring information	EXPLORATION	EXPLORE
Formulating a focus	FORMULATION	IDENTIFY
Collecting information on focus & seeking meaning	COLLECTION	GATHER
Preparing to present	PRESENTATION	CREATE and SHARE
Assessing the process	ASSESSMENT	EVALUATE

Kuhlthau, Maniotes, and Caspari 2012

The ISP model describes what students' experience in the phases of the inquiry process. These studies provide solid evidence on how to guide learning in the inquiry process that prepares students for learning, living and working in the information age. Guided Inquiry is what the learning team (teachers and school librarians) does to guide students in each phase of the inquiry process to foster deep personal learning. The Guided Inquiry Design framework is built around the ISP with specific direction for guiding students in each phase of the inquiry process.

Guided Inquiry opens the inquiry process at Initiation, immerses students in background knowledge at Selection, guides in exploring interesting ideas at Exploration, enables identifying an inquiry question at Formulation, supports gathering to address the question at Collection, intervenes for creating and sharing at Preparation, and assesses throughout the inquiry process and evaluates at the close. Let's take a closer look the Guided Inquiry Design Framework.

Guided Inquiry Design Process

Create   Share   Evaluate

Gather

Identify

Immerse

Open

Explore
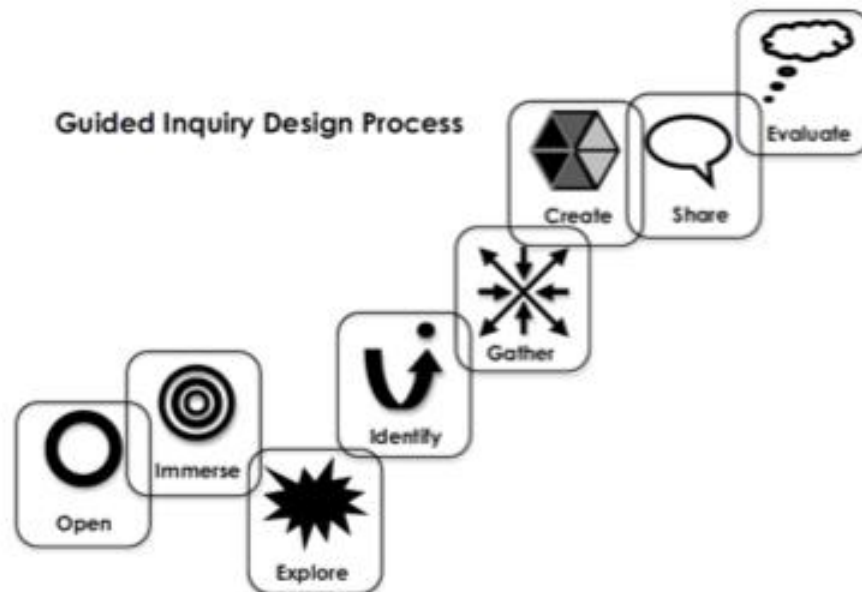
Kuhlthau, C., Maniotes, L., Caspari, A. GUIDED INQUIRY © 2012

Guided Inquiry Design Framework

The Guided Inquiry Design process begins with Open the inquiry to catch students' attention, get them thinking, and help them make connections with their world outside of school. Next is Immerse, which is designed to build enough background knowledge to generate some interesting ideas to investigate. Then Explore those ideas for an important, authentic engaging inquiry question. Next, pause to Identify and clearly articulate the inquiry question before moving on to Gather information. After gathering, Create and Share what students have learned and then Evaluate to reflect on content and process and assess achievement of learning. The shape of the Guided Inquiry Design Process follows the flow of confidence and interest of students in the inquiry process that will help you guide students in reading to learn. This is a general framework for designing an inquiry approach across all curriculum subjects for students of all ages. Think of inquiry as a way of learning in the information age school, not simply as an occasional research assignment.

Now let's look at each phase in the inquiry process and think about how to design student learning in each phase.

Open:

      Invitation to inquiry

      Open minds

      Stimulate curiosity

Open is the invitation to inquiry at the beginning of the inquiry process. It is a distinct and important phase of the process that sets the tone and direction of the inquiry. Once the learning team has decided on the learning goals, they need to create a powerful opener that invites the learners in and introduces the general topic to engage all of the students. The main goal is to open students' minds and stimulate curiosity and inspire them to want to pursue the inquiry. The opener is designed to spark conversations and stimulate students to think about the overall content of the inquiry and to connect with what they already know from their experience and personal knowledge. It sets the stage for reading to learn.

Immerse:

      Build background knowledge

      Connect to content

      Discover interesting ideas

In the Immerse phase, the students build background knowledge together through an immersion experience. The learning team designs engaging ways for students to immerse in the overall ideas of the curriculum area under study, for example reading a book, story, or article together; viewing a video; or visiting a museum, a field site, or an expert. The main task of Immerse is to guide students to connect with the overall content and to discover interesting ideas that they want to explore further. As they build background knowledge, students reflect on ideas that matter to them and are worth further reading and investigation.

Explore:

      Explore interesting ideas

      Look around

      Dip in

In the Explore phase of Guided Inquiry, students browse through various sources of information exploring interesting ideas to prepare to develop their inquiry question. The learning team guides students to apply the reading strategies of browsing and scanning a variety of sources. Students dip into a few texts to read in order to make sense of the information they find and to raise lots of questions. "Dipping in" is a reading strategy that enables students to go further into interesting ideas without becoming overwhelmed

by a multitude of specific facts. Students can easily become overwhelmed by all the information and confused by facts that don't fit together. The learning team guides them to keep an open mind as they explore and reflect on new information they are reading and to begin to find questions that seem particularly important to them. Guiding students through the Explore phase leads them to form a meaningful inquiry question.

Identify:

Pause and ponder

Identify inquiry question

Decide direction

In the Identify phase learners pause in the inquiry process to develop a meaningful inquiry question and form a focus. In Guided Inquiry they have had lots of preparation for this phase. Students are ready to identify an important question for their inquiry because of the time they have spent immersing and exploring to build enough background knowledge to ask meaningful questions. The main task of the Identify phase is to construct an inquiry question from the interesting ideas, pressing problem and emerging themes they have explored in reading various sources of information. The team introduces strategies that enable each student to think through information and ideas to clearly articulate a focused question that will frame the rest of their inquiry.

Gather:

Gather important information

Go broad

Go deep

A clearly articulated question gives direction for the Gather phase. Gather sessions are designed to help students collect detailed information from a variety of sources. In this way they are learning to determine importance in what they are reading. The learning team guides students in locating, evaluating and using information that leads to deep learning. The main task of the Gather phase is for students to choose what is personally meaningful and compelling about their inquiry question in the information sources they find and read. The learning team guides students in a structured approach for managing their search and documenting what they are learning. First students "go broad" to find a range of sources that are useful for understanding their inquiry question. Next students "go deep," by choosing a core of the most useful sources to read closely as they find connections and gain personal understanding.

Create:

Reflect on learning

Go beyond facts to make meaning

Create to communicate

After students have gathered enough information to construct their own understandings of their inquiry question, they are ready to organize their learning into a creative presentation during the Create phase. Creating a way to communicate what they have learned about their inquiry requires students to articulate what is most important about their subject and enables them to integrate their ideas more firmly into deep understanding. The learning team guides students to go beyond simple fact finding and reporting and to summarize, interpret and extend the meaning of what they have read and create a way to share what they have learned. Create sessions are designed to guide students to reflect on all they have learned about their inquiry question and decide what type of presentation will best represent their ideas for a particular audience. The learning team guides students in creating a meaningful, interesting, clearly articulated, well-documented presentation that tells the story of what they have learned.

Share:

Learn from each other

Share learning

Tell your story

Share is the culminating phase in the inquiry process when students share the product they have created to show what they have learned. Students have become experts on the question for their inquiry community. They now have the opportunity and responsibility to share their insights with their fellow students and communicate their learning to others. Their inquiry products may be shared with a wider audience, such as their parents or another group of students in their school or in another school, perhaps online. An important component of Guided Inquiry is the collaborative learning that takes place when students share what they have learned in the inquiry process.

Evaluate:

Evaluate achievement of learning goals

Reflect on content

Reflect on process

The Evaluate phase, which occurs at the close of the inquiry process, is an integral part of Guided Inquiry. Although Guided Inquiry incorporates assessment for determining student progress throughout all of the phases of the inquiry process, evaluation occurs at the end when the learning team evaluates students' achievement of the learning goals. In

addition, the learning team guides students in reflection for self-assessment of their content learning and their progress through the inquiry process. Students' self-reflection takes place while the entire process is fresh in their minds to reinforce content learning and establish good habits and competencies for reading to learn.

Children's reading in Guided Inquiry

Competency in reading all kinds of texts for clear, deep understanding is essential for every child in today's world. Guided Inquiry provides opportunities for children to learn strategies for reading to learn throughout the inquiry process. Starting at youngest age, children are introduced to inquiry as a way to learn that prepares them for living and working in the information age. Guided Inquiry creates an environment that motivates them to want to read to learn and puts all of their reading strategies and skills into action. It engages them in locating, evaluating and using informational texts and in determining importance and meaning in what they are reading. It connects the curriculum with the students' world in third space for deep meaningful learning.

Guided Inquiry for teaching and learning in the information age

Guided Inquiry is a team approach to teaching and learning where teachers and school librarians together design and implement learning that involves children in constructing personal knowledge while reading a wide range of sources of information. School librarians have a vital role on the learning team in the information age school. The Guided Inquiry Design framework is an innovative, dynamic approach to teaching and learning for providing information age education for children all over the world.

References

Kuhlthau, Carol, Leslie Maniotes and Ann Caspari. *Guided Inquiry: Learning in the 21st Century, Libraries* Unlimited, 2007.

Kuhlthau, Carol, Leslie Maniotes and Ann Caspari. *Guided Inquiry Design: A Framework for Inquiry in your School,* Libraries Unlimited, 2012.

Kuhlthau, Carol. *Seeking Meaning: A Process Approach to Library and Information Services,* 2nd ed. Libraries Unlimited, 2004.

Kuhlthau, Carol. *Teaching the Library Research Process*, Scarecrow Press, 1985.