Let’s Find Out Units

by

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Illinois Reading Council Conference
Springfield, Illinois
March 19, 2005
**Definition and Purpose of Classroom Inquiry**

**Scaffolding Inquiry Activities**

**Let’s Find Out Sequence: 10 Verbs**

- Explore
- Examine
- Collect
- Conduct
- Identify
- Analyze
- Synthesize
- Translate
- Share
- Reflect

**Tasks for Teachers**

- Select Umbrella Topic
- Design “Grab ’Em” Activity
- Collect Resources for Teacher
- Collect Resources for Students
- Develop Culminating Project(s) and Rubrics
- Design Reading and Writing Support
- Schedule Field Trips and Guest Speakers

**Print and Internet Resources**

**Examples of Let’s Find Out Units**
The elements of inquiry classrooms through the words of advocates:

**Problem-based learning:**
“The goal of PBL is viewed as learning for capability rather than learning for the sake of acquiring knowledge” (Ngeow & Kong, 2001).

**Critical thinking:**
“The importance of developing students’ abilities to direct their own recursive reading and writing activities through writing notes, reading source material, outlining, writing a draft, and reading a draft en route to thinking critically and conducting inquiry” (Hoffman, 1992, p. 123).

**Non-fiction texts:**
“Nonfiction breeds passionate curiosity” (Harvey, 2002, p. 15).

**Question-finding:**
“Asking questions for the joy of discovery is the pathway to wandering and wondering” (Ciardiello, 2003, p. 228).

Classroom inquiry provides students with opportunities to acquire procedural knowledge as well as content knowledge.

- The reading process and the writing process
- The research process of gathering, evaluating, synthesizing, and reporting information
- Deep knowledge (understanding) about a particular topic: “’Making connections among and between things, about deep and not surface knowledge, and about greater complexity, not simplicity’” (Perrone, 1994, as cited in Harvey, 2002, p. 13)

If questions are at the heart of education, then **CURIOSITY** is the blood that flows through those questions.


**Scaffolding Inquiry in the Classroom**

“Gradual Release of Responsibility” (P.D. Pearson)
The level of students’ experience with the inquiry process determines the amount of Teacher Modeling/Direction and Small-Group Inquiry.

The Issue of Topic/Research Question Selection:

Some teachers encourage students to explore any topic of interest. Other teachers prefer to have their students study something in common, generating a community of learners who stretch toward greater understanding of a mutual idea, culture, event, or period. Either way, it’s important to let the students choose. (Harvey, 1998, p. 32).

Teacher Modeling and Direction

- Let Us Find Out
- Generation of Curiosity
- Structure and Resources

Small-Group Inquiry

- Random Selection of Subtopics/Questions
- Division of Labor
- Peer Support

Independent Inquiry

- Culminating Project
- Identification of Individual Research Question
- Identification of Project Format
10 VERBS

1
EXPLORE

Prior knowledge

The topic and key questions (“wonderings”) about the topic

“Good research questions grow out of topic exploration - they do not precede it” (Short & Burke, 2001, as cited in Ciardiello, 2003, p. 235).

• Sincere questions vs. assessment questions (Harvey & Goudvis, 2000)
• Thick and Thin Questions (Harvey & Goudvis, 2000)

Don’t limit to K-W-L!

2
EXAMINE

Print and Non-Print Resources
• Short texts (Harvey, 2003)
• Internet sites

Analysis of Informational “Mentor Texts”

Text structure
• Description
• Sequence
• Comparison
• Cause and effect
• Problem and solution
Text features (Harvey, 1998, 2003)
• Font and special effects (headings, italics, etc.)
• Textual cues (signal words)
• Illustrations and photographs
• Graphics
• Text organization (index, etc.)

3
COLLECT

Additional Secondary Sources
1. Select Search Tool  
   Online catalog  
2. What subject do I need to find?  
   What kinds of resources?  
      Non-fiction  
      Fiction  
      Picture books  
3. Location keys:  
   Section (call #)  
   Shelf labels  
   Spine labels (call #)  
4. Did I find what I needed?  
   Title/copyright  
   Table of contents  
   Skim/scan  
   Index  

CONDUCT  

Primary research and find primary sources  

   Personal interviews (Harvey, 1998, pp. 108-115)  
   Diaries  
   Photographs  
   Artifacts  
   Letters  
   Internet sources  
      Smithsonian(www.si.edu)  
      NASA (www.nasa.gov)  
      U.S. Census (www.census.gov)  

IDENTIFY  

Important information  

Guidelines for Highlighting  
   • Look carefully at the first and last line of each paragraph.
• Highlight only necessary words and phrases.
• Don’t get thrown off by interesting details.
• Try not to highlight more than half of a paragraph. (Harvey, 1998, p. 76)

Note-Taking Strategies
• Use short phrases, not complete sentences.
• Use their own words.
• Jot down only the most important ideas.
• [Do] not be concerned about handwriting, spelling, and punctuation.
• Devise codes of their own to speed things up: initials, abbreviations, asterisks. (Harvey, 1998, p. 130)

Sifting the Topic from the Details (Harvey & Goudvis, 2000, pp. 134-137)

Opinions vs. facts

6
ANALYZE

Information from each source

The texts themselves as the subject of inquiry (Ciardiello, 2003, pp. 234-235)
• Whose voice is not being heard?
• Who benefits from this reading?
• How is the text trying to position me?
• What were the author’s intentions and motives in creating this text?

“Dynamic Duo Text Talks: Examining the Content of Internet Sites” (www.readwritethink.org/)

7
SYNTHESIZE

Information from multiple sources

This is usually the most critical step in classroom inquiry projects. Three strategies to support synthesis of information:

Paragraph Frames
Cudd & Roberts (1989); Lewis, Wray, & Rospiglioni (1994)
Although I already knew that …
I have learned some new facts. I learned that …
I also learned that …
Another fact I learned …
However, the most interesting thing I learned was ..

*Inquiry Charts* (Hoffman, 1992) and *Information Charts* (Randall, 1996)

Emphasis on research/questioning cycle
See attached examples.

*Skinny Books*
Epstein (1996)

“What is a skinny book? It is a collection - an anthology - of photocopied articles compiled from newspapers, magazines, microfiche, and book relating to a topic.”

“They learn to analyze and synthesize as they accumulate information. They decide what to include and exclude on the basis of repetition, writing quality, currency, or relevance to their mini-topic.”

“Constructing a vision of the whole subject by seeing each skinny book as a piece of the puzzle, we acknowledge the limitations of what we have learned as well as celebrate our growth.”

8
**TRANSLATE**

Translate into a presentation

Develop visual representations

“PowerPoint ese”

9
**SHARE**
What did **WE** find out?

Celebrate the **process** as well as the **product** of inquiry.

### REFLECT

What is left to learn?

Questions lead to more questions.

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**Tasks for Teachers**

*Select Umbrella Topic*

Is the topic significant and complex?

What is the relationship of the subject to contemporary concerns?

What is the relationship of the subject to curricular issues?

What specific learning outcomes will result?

Identify key questions to be addressed during the unit.

Check the Orbis Pictus awards for children’s nonfiction (NCTE)
Design “Grab ‘Em” Activity

Part of a teacher’s role is to CREATE INTEREST in topics that may not hold intrinsic interest for students.

   Anticipation Guides
   Opinionnaires
   Scenarios
   Role Play
   Discrepant Events (Ciardiello, 2003)

Collect Resources for Teacher

Collect Resources for Students

   Include a range of text formats.
   Include a range of text difficulty.

Develop Culminating Project(s) and Rubrics

What project(s) will provide evidence that students have attained the stated objectives and addressed the key questions?

   • Traditional research report
   • Travel brochure
   • First person narrative set in specified time period
   • Newspaper article on historic event
   • Article for the “Science” section of Newsweek or Time
   • Alphabet book

Design Reading and Writing Support

What mini-lessons and modeled lessons do students need in order to obtain the necessary information and to complete the culminating project?
What mini-lessons and modeled lessons do students need in order to synthesize the obtained information and to complete the culminating project?

*Schedule Field Trips and Guest Speakers*
Print Resources


Wenger, R., & Dunham, B. (2003). E is for “everyone,” not “easy”: Using picture books
Useful Internet Sites

Lesson Plans for Teachers

International Reading Association/National Council of Teachers of English (Learning through Language; Inquiry/Research)

http://www.readwritethink.org/

National Geographic Xpeditions

http://www.nationalgeographic.com/xpeditions/

National Endowment for the Humanities Edsitement

http://www.edsitement.neh.gov/

Best of History Web Sites

http://www.besthistorysites.net/

Professional Organizations

International Reading Association

http://www.reading.org/

National Science Teachers Association

http://www.nsta.org/

National Council for Social Studies

http://www.ncss.org/

Government and Other Sources

National Endowment for the Arts

http://www.arts.endow.gov/

U.S. Surgeon General

http://www.surgeongeneral.gov/
The History Channel
http://www.historychannel.com/

Smithsonian Institution
http://www.npr.org/

Public Broadcasting System
http://www.pbs.org/

NASA
http://www.nasa.gov/

National Weather Service
http://www.noaa.gov/

U.S. Census Bureau
http://www.census.gov/

Magazines for Young Inquirers

Click (ages 3-7), Ask (8-11), and Muse (8-14) magazines (history, math, science, the arts)
http://www.cricketmag.com

Cobblestone magazine (American history) (ages 9-14)
http://www.cobblestonepub.com

Ranger Rick (National Wildlife Federation) (ages 7-12)
http://www.nwf.org/rangerrick/

National Geographic World (ages 9-14)
http://www.nationalgeographic.com/world/
Examples of Let’s Find Out Units