A close-up photograph of a metal padlock resting on a rough, textured surface. The padlock is slightly open, and its keyhole is visible. The lighting is dramatic, with a strong shadow cast to the right.

“We need to teach content within a context that is meaningful to students, and that connects to their own lives and experiences... Too often, the curriculum is taught in isolation, with little effort put into helping students see how the information is, or could be used in their lives. Too many students never comprehend... how the content they are learning fits in the larger scheme of things.”

Patricia Wolfe. Ed.D.
Brain Matters: Translating Research into Classroom Practice



Brain Matters: Translating Research into Classroom Practice. 2001, Association for Supervision and Curriculum Development: Alexandria, VA



We Must Teach Students to:

1. Ask the right questions
2. Access (the information)
3. Analyze (the information)
4. Apply
5. Assess/Evaluate (in their own words)




Patricia Wolfe, Ed.D.

Brain Matters: Translating Research into Classroom Practice workshop



Brain Matters: Translating Research into Classroom Practice. Workshop Presentation, June 4-6, 2003. Sponsored by Project SEAM and MSDPT.



Some of Higher Education's Expectations for Our Students

- ◆ Be aware that research is a process (non-linear)
- ◆ Be able to think critically about a resource
- ◆ Be aware of basic search strategies
- ◆ Know some criteria to evaluate electronic & print resources
- ◆ Understand some concepts of plagiarism & copyright



The Media Message






It is Crucial for Educators to:

Share a common language among
teachers, students, and library
media specialists.

Jean Donham
Inquiry-Based Learning:
Lessons From Library Power




So Why the Inquiry Process?

- ◆ Students have access to so much information.
- ◆ Students do not know how to ask THE question.
- ◆ Students do not know how to define the question.
- ◆ Students need help narrowing down the information.
- ◆ Students need help finding the best sources.
- ◆ Students need help in the research and product/writing process.


“One seeks to equip the child with deeper, more gripping, and subtler ways of knowing the world and himself.”
Jerome Bruner, Psychologist






What is Inquiry?

- ◆ The process of formulating appropriate research questions;
- ◆ Organizing the search data;
- ◆ Analyzing and evaluating the data found;
- ◆ Communicating the results in a coherent fashion.






So What Does the Inquiry Process Do For Students?

- ◆ Helps students get organized.
- ◆ Sets out expectations at the outset
- ◆ Lets the students learn about the BEST source available.
- ◆ Puts ownership on the student.
- ◆ Helps students become more comfortable with information resources, including people.

“Knowledge is power, but enthusiasm pulls the switch.”
Ivern Ball




Student Opinion on Inquiry Research

- ◆ Do this for next year!
- ◆ I learned a lot!
- ◆ I think it was a good, useful project. It was very well planned out!
- ◆ This was a good assignment!
- ◆ I learned a lot of information I didn't know before.
- ◆ I learned how to research in our library, for not only this project, but more to come!
- ◆ I think this was a good idea and it worked very, very well. I learned a lot.
- ◆ Good job. It was a big task for ALL of us, you included!




How Does Inquiry Fit into the Indiana Academic Standards and National Standards & Best Practices?

◆ Question	◆ Write	◆ Assess
◆ Learn & Apply	◆ Create	◆ Compare
◆ Identify	◆ Discuss	◆ Observe
◆ Connect	◆ Understand	◆ Illustrate
◆ Locate	◆ Interpret	◆ Investigate
◆ Demonstrate	◆ Clarify	◆ Retell
◆ Classify	◆ Explain	◆ Distinguish
◆ Interpret	◆ Organize	◆ Criticize
◆ Analyze	◆ Compare	◆ Participate



4 Steps to Incorporating Inquiry

- ◆ Allow students the intellectual opportunity to select and specify a topic to investigate.
- ◆ Allow students to use a variety of traditional and non-traditional sources which allow for opportunities to interpret, analyze, and evaluate.
- ◆ Offer a variety of options for project conclusion and include a peer evaluation aspect.
- ◆ Evaluate the research process as much as the final product.



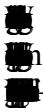
Why is Inquiry Important?

Allows students to be Independent Thinkers!

<p>◆ Report Writer to Researcher:</p> <ul style="list-style-type: none"> - Reading - Investigating - Thinking - Presenting 	<p>◆ Skills Students Develop:</p> <ul style="list-style-type: none"> - Critical Thinking - Creative Thinking - Problem Solving - Meaningful Learning - Effective Communication
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“Encyclopedia is a good place to start, but not a good place to stop.”

Kym Kramer, Library Media Specialist, Fishback Creek Elementary



School Library Media Quarterly

School Library Media Researcher




Student Learning Styles




- ◆ VISUAL
- ◆ AUDITORY
- ◆ KINESTHETIC





5 Stages of INQUIRY


1. Orientation
2. Exploration
3. Strategy
4. Investigation
5. Conclusion & Reflection



“Seeking one answer is never enough. Raising additional questions is always a goal.”

Dr. Daniel Callison, Professor and Executive Associate Dean,
Indiana University School of Library and Information Science






Planning for Inquiry

- ◆ The curriculum and standards initiate the research and should be used as a base for research.
- ◆ Expect to spend time planning, designing, and assessing.
- ◆ Keep yourself and students organized by creating a research journal, notebook, or folder. Put all expectations, guidelines and requirements in writing.
- ◆ Make modifications for what works for one unit in future units.
- ◆ Acknowledge that it is a fulfilling, challenging and creative process, instead of traditional and mechanical.

Middle Ground

School Library Media Quarterly

School Library Media Quarterly



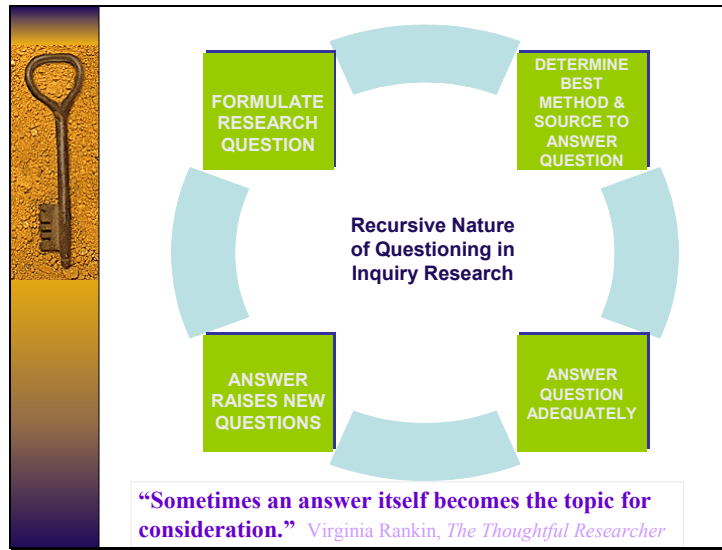
PHASE 1: ORIENTATION


GOAL: Give students a basic knowledge of the topic and a basis for inquiry/research.

- Brainstorm: What do I all ready know?
- Categories: Sort the broad curriculum topic into categories to find a smaller, researchable topic of interest.
- Questioning: What makes me curious about this topic? What questions do I have?

“Young people need to feel their ideas and skills are valued.”
Joe Nathan



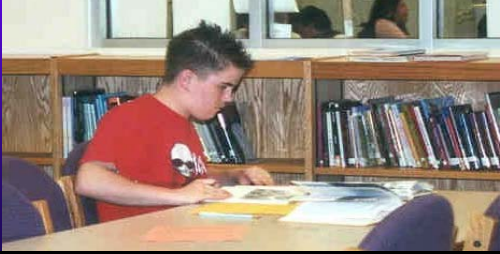





PHASE 2: EXPLORATION

GOAL: Develop a topic of inquiry

- Personal Reflection: Why did I choose my topic for research?
- Burning Questions: What are the researchable questions that need and want answered?






PHASE 3: STRATEGY

GOAL: Select appropriate resources for answering inquiry questions.

- Critical Question: What are the important and critical questions for my topic?
- Keywords: What words should I be looking for when using a resource?
- Source: What sources would be best for finding information to answer my critical questions?



Daily Reflection



PHASE 4: INVESTIGATION

GOAL: Use Information Inquiry methods to attempt to find answers to researchable questions.

- Source Notes: Take notes on key facts that help answer critical questions.
- Storyboard: How will I share what I've learned? What information will I include?
- Peer Conference: What can I improve based on my peer's advice?

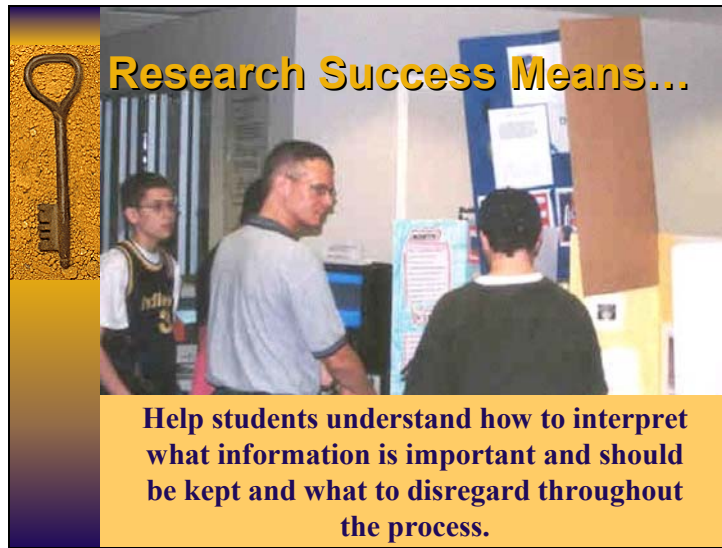
"There is no shame in asking for help."
William Glasser, MD



Source Notes


Peer Conference





Research Success Means...

Help students understand how to interpret what information is important and should be kept and what to disregard throughout the process.




PHASE 5: CONCLUSION & REFLECTION

GOAL: Conclude inquiry through dissemination and personal assessment strategies.


- Organization: Gather Source Notes & Storyboard as I develop my final product.
- Dissemination: Share what I've learned.
- Peer Evaluation: What does my peer think are my final product's strengths and weaknesses?
- Bibliography: Annotated bibliography to give credit to the source and describe the resource.
- Self Evaluation: What did I learn? What did I do well? What can I do better next time?





“Grading...was not such an overwhelming task this year because I already knew the students had been successful. I knew they had learned something. They were familiar and comfortable with the library and the inquiry process. This was what was important to me and what I had struggled with in the past...”


Julie Sumrall, Teacher
Freshman Intensive English
Jefferson High School



Evaluation

- ◆ **Process**
 - Meeting Deadlines
 - On-Task Behavior
 - Selecting Sources
 - Asking for Help
 - Keeping Notebook/Journal
 - Self & Peer Assessment
- ◆ **Product**
 - Written & Oral Aspect
 - Aesthetics
 - Accuracy
 - Coherent
 - Annotated Bibliography

Investigate: To follow up step by step by patient inquiry or observation; to trace or track mentally; to search into; to inquire and examine into with care and accuracy; to find out by careful inquisition. *Webster's Revised Unabridged Dictionary*



Successful Information Inquiry


- ◆ Build from a student's base knowledge.
- ◆ Help students keep organized.
- ◆ Show students examples of quality work.
- ◆ Give students the skills to use the information tools necessary.
- ◆ Guide students through the whole process (beginning through assessment).
- ◆ Give students an audience other than the teacher.
- ◆ Allow student success by offering product options that meet most learning styles.



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“The future ain’t what it used to be.”
Yogi Berra



Student Inquiry in the Research Process

[http://pmms.msdp.k12.in.us/
imc/Inquiry/index.htm](http://pmms.msdp.k12.in.us/imc/Inquiry/index.htm)

Leslie Preddy
Library Media Specialist
Perry Meridian Middle School

Student Inquiry in the Research Process

This website has been designed to help guide fellow educators toward developing lesson plans for student inquirers. Peruse the suggested reading to further your understanding, sample the Instructor Guides, and use the worksheets and overheads that have been tested in K-12 classrooms and library media centers.

INTRODUCTION

- What is inquiry research?
- How does research inquiry fit into my curriculum and lessons?
- Why is inquiry research important?
- Who can use inquiry in curriculum and lessons?
- When do I use inquiry research?

DEVELOPING INQUIRY LESSONS

- What will the Teachers, Library Media Specialist, and Administrators need to do?
- What do we hope to accomplish with this website?
- What will inquiry research do for your students?
- How do you create successful student inquirers?

ON-LINE TUTORIALS

Navigation Menu: Home, Introduction, Developing Lessons, Standards & Goals, Strategy, Investigation, Conclusion & Reflection, Presenter Notes, Research Journal, Primary Sources, Annotated Bibliography, Assessment.



http://pemis.msdpa.k12.in.us/enc/inquiry/overhead-skimscan.pdf - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites History Mail Print Discuss

Address http://pemis.msdpa.k12.in.us/enc/inquiry/overhead-skimscan.pdf

100%

Skim & Scan for Information
Things to look for:

- Contents page
- Index
- Your Inquiry Research Keywords**
- Guidewords
- Words in Bold or Italics
- Pictures & their Captions
- Charts
- Graphs
- Statistics
- Summary Boxes
- Timeline/Chronology
- Glossary

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