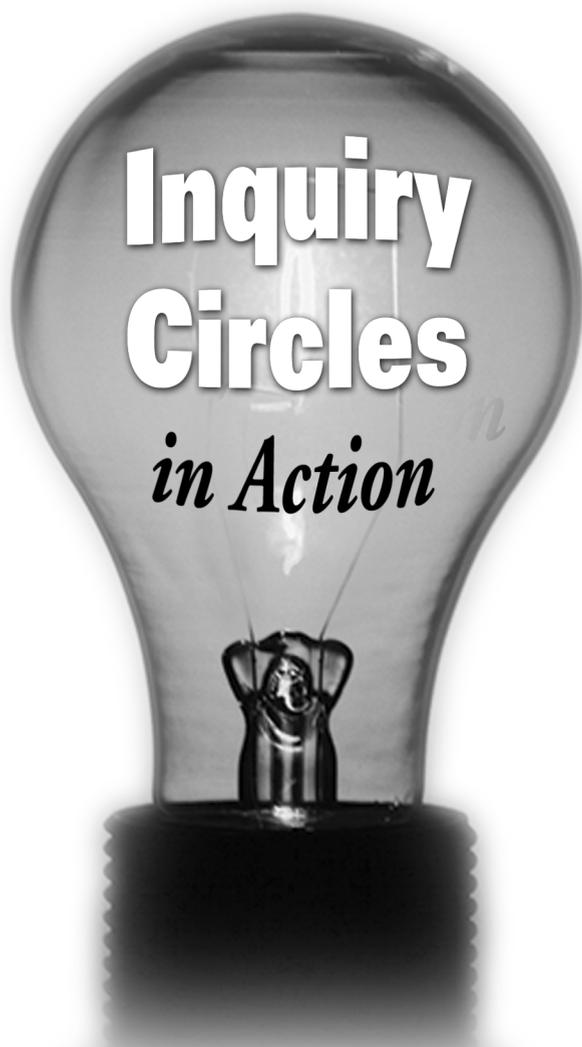


STEPHANIE HARVEY

HARVEY DANIELS



Heinemann
Portsmouth, NH

COMPREHENSION
COLLABORATION

Heinemann

361 Hanover Street
Portsmouth, NH 03801-3912
www.heinemann.com

Offices and agents throughout the world

© 2009 by Stephanie Harvey and Harvey Daniels

All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without permission in writing from the publisher, except by a reviewer, who may quote brief passages in a review.

The authors and publisher wish to thank those who have generously given permission to reprint borrowed material:

Excerpt from *Nonfiction Matters: Reading, Writing, and Research in Grades 3–8* by Stephanie Harvey. Copyright © 1998 by Stephanie Harvey. Published by Stenhouse Publishers. Reprinted by permission of the publisher.

Lyrics from “Rachel Delevoryas” by Randy Stonehill. Copyright © 1992 by Stonehillian Music (Admin. by Word Music, LLC) and Word Music, LLC. All rights reserved. Reprinted with permission.

Excerpt from *Strategies That Work: Teaching Comprehension for Understanding and Engagement, Second Edition* by Stephanie Harvey and Anne Goudvis. Copyright © 2007 by Stephanie Harvey and Anne Goudvis. Published by Stenhouse Publishers. Reprinted by permission of the publisher.

Excerpt from *Teaching The Best Practice Way: Methods That Matter, K–12* by Harvey Daniels and Marilyn Bizar. Copyright © 2005 by Harvey Daniels and Marilyn Bizar. Published by Stenhouse Publishers. Reprinted by permission of the publisher.

“Women of the Negro Leagues” by Mike Weinstein from *AppleSeeds* February 2000 issue: Jackie Robinson © 2000, Carus Publishing Company. Published by Cobblestone Publishing, 30 Grove Street, Suite C, Peterborough, NH 03458. All Rights Reserved. Used by permission of the publisher.

“Dedicated to Teachers” is a trademark of Greenwood Publishing Group, Inc.

Library of Congress Cataloging-in-Publication Data

Harvey, Stephanie.

Comprehension and collaboration : inquiry circles in action /

Stephanie Harvey, Harvey Daniels.

p. cm.

Includes bibliographical references and index.

ISBN-13: 978-0-325-01230-8

ISBN-10: 0-325-01230-X

1. Inquiry-based learning. 2. Active learning. 3. Group work in education. 4. Motivation in education. I. Daniels, Harvey II. Title.

LB1027.23.H37 2009

371.3'6—dc22

2009008395

Editor: Kate Montgomery

Production editor: Patricia Adams

Typesetter: Gina Poirier Design

Cover and interior designs: Lisa Fowler

Manufacturing: Louise Richardson

Printed in the United States of America on acid-free paper

13 12 11 10 09 ML 1 2 3 4 5

PREFACE	vii
ACKNOWLEDGMENTS	xiii

PART 1 Why Small-Group Inquiry Projects?

CHAPTER 1 Kids Want to Know	1
CHAPTER 2 What We Know About Comprehension	19
CHAPTER 3 What We Know About Collaboration	36
CHAPTER 4 What We Know About Inquiry	55

PART 2 Setting the Scene for Small-Group Inquiry

CHAPTER 5 Preparing Your Active Learning Classroom	75
CHAPTER 6 Surfing and Searching: Internet Research in School	96
CHAPTER 7 Key Lessons in Comprehension, Collaboration, & Inquiry	110

PART 3 Four Models of Small-Group Inquiries

CHAPTER 8 Mini-Inquiries	143
CHAPTER 9 Curricular Inquiries	165
CHAPTER 10 Literature Circle Inquiries	198
CHAPTER 11 Open Inquiries	228

PART 4 Growing Better Inquiry Groups

CHAPTER 12 Assessment and Evaluation	268
CHAPTER 13 Management Q&A	282

Appendices 293

Short Text Collections 293

Short-Short Stories 308 *(Also see the website for additional bibliographic resources)*

References 310

Index 317

Mini-Inquiries



We can't count the number of times we have waltzed into a classroom to model the inquiry process, only to hear groans and moans when we utter the word research. "I hate research" is, sadly, a common refrain among the older kids in our schools. Maybe this is not so surprising when you consider the dull drudgery that conventional schooling often dubs research. You know the type: mandatory animal reports in second grade, country reports in fifth grade, and term papers in high school, all of them sounding remarkably like encyclopedias, differentiated only by the name in the upper-left-hand corner.

Research is not a four-letter word, literally or figuratively. Research is not a boring endeavor reserved only for school reports. Authentic research is a process we go through every day, not just once a semester to produce a term paper. We do it when we buy a new bike, choose a brand of cereal, or head off to the polls. Research is central to making informed decisions in daily life. Research is a vibrant, dynamic process that we engage in to find specific information to learn about the world and deal with daily life. Research can and should be F-U-N!

Getting Started with Inquiry

Many books on literacy instruction focus heavily on teaching kids to ask questions. Teachers ask us all the time: "When do they get to answer all of these questions?" Our response: every single day, with what we call mini-inquiry. The purpose of asking questions, of course, is to find the answers. Mini-research inquiry projects—short-term small-group research that lets students search for and find information relatively quickly—give kids a wonderful opportunity to ask questions, find some answers, and satisfy their curiosity.

A powerful benefit of mini-research is that it offers the perfect avenue for getting started with small-group inquiry. As kids ask mini-research questions and search for answers, we can teach them important literacy, collaboration, and inquiry strategies. And there is much for us to teach and for kids to practice if we want them to work in small groups, think deeply, investigate questions, and demonstrate their learning and understanding. Taking students through the

Small-Group Inquiry Model Adapted for Mini-Inquiry Projects		
STAGE	TEACHER	KIDS
Immerse <i>Invite Curiosity and Wonder</i>	<ul style="list-style-type: none"> • Invites curiosity, questioning, engagement • Shares curiosity and models personal inquiry • Models how to ask authentic questions • Teaches kids to collaborate by turning and talking • Facilitates small-group formation to ensure heterogeneous groups with compatible interests • Confers with small groups and individuals 	<ul style="list-style-type: none"> • Express their own curiosity • Wonder and ask questions
Investigate <i>Develop Questions, Search for Information, and Discover Answers</i>	<ul style="list-style-type: none"> • Models how to read, listen, and view with a question in mind • Shares ways to get questions answered • Helps kids think about where to find information • Supports kids to work together and figure out roles • Confers with groups and individuals 	<ul style="list-style-type: none"> • Develop questions; then read, listen, and view to answer them • Searches through multiple resources and media to find answers • Divide the workload
Coalesce <i>Synthesize Information and Build Knowledge</i>	<ul style="list-style-type: none"> • Supports kids to find information and answer questions • Shares how to evaluate sources 	<ul style="list-style-type: none"> • Target key ideas and information • Synthesize information to answer questions • Continue to work together and share responsibilities
Go Public <i>Demonstrate Understanding and Share Learning</i>	<ul style="list-style-type: none"> • Builds in time for kids to share findings • Supports kids to share the learning 	<ul style="list-style-type: none"> • Demonstrate learning and understanding by sharing the answer to their questions and teaching others • Share additional information related to their question if they choose to • Pose new questions for further research that may emerge • Take action if motivated

mini-research process builds familiarity with the nature of inquiry and gives kids a head start on effectively using research and collaborative strategies so they can employ them in the longer, in-depth inquiry circles we describe in the following three chapters.

Getting started with small-group inquiry requires just a few basic precepts:

- Teachers model their own curiosity and occasional skepticism, sharing their authentic questions, and keeping a research notebook of their own.

- Teachers share a variety of ways to get questions answered.
- Teachers explicitly demonstrate their own inquiry process by showing kids how they go about researching a question, finding an answer, and acting in response to their findings.
- Teachers model several lessons during mini-research that will be foundational later on when kids are doing their own more in-depth inquiry projects.
- Teachers invite kids to be curious.
- Kids ask questions, search for answers, and share their new learning.

As you will see, mini-inquiry can be simply jumping online to answer a quick question or may mean spending several hours over the course of a week to investigate a concept. Either way, the questions most often posed in mini-inquiry are what we call Quick Finds (QFs)—questions that are answered in a relatively rapid and easy way. One bonus of encouraging kids to answer these Quick Find questions is that they often get more interested in the topic as they research it. So mini-inquiry sometimes evolves into a more in-depth research project, particularly if the learner gets stoked about the newfound information.

In this chapter we share examples of primary through secondary mini-research projects that take as little as fifteen or twenty minutes or as long as four or five hours. Keep in mind that mini-inquiry will not provide an in-depth, complex understanding of a large concept or essential question, but it does give us a bit more information about a question, helps to satisfy our curiosity, and often fuels our desire to find out even more. And from a teacher’s point of view, it offers the best natural opportunity to teach some important aspects of the research process in a relatively short period of time, so kids are better prepared for longer, in-depth inquiry projects later on.

Model Your Curiosity and Record Questions in Your Notebook

One morning Steph gathered thirty fifth graders in front of her. “I know this sounds terrible, but I didn’t used to recycle as much as I should,” she confessed. “It’s true. I’m embarrassed to admit it, but it was such a pain to separate all of the items into different bins—one for aluminum, one for paper, and one for plastic.” The kids looked as if every last drop of respect they had for Steph had disappeared along with the Coke cans and plastic bottles. She went on to explain that recently the recycling company had left a flyer titled “Recycling Without Sorting” on her front door. She flipped through and discovered that she would no longer have to sort plastic, glass, or paper items because of a new process called single-stream recycling. The recycling company would provide one large recycling bin for all of the family’s recyclables. So the very next day, Steph happily dumped paper products, plastic bottles, and aluminum cans all into the same recycling bin.



See Lesson 19, “Model Your Own Inquiry Process,” p. 134.



See Lesson 20, “Create Research Notebooks,” p. 135.

“But you know what? I’m curious by nature and I can’t stop wondering whether this is a good idea. It seems too easy. I wonder if this single-stream recycling is as good a method of recycling as sorted recycling. I really want to find this out. I’m going to write that question in my notebook,” Steph said as she opened a spiral notebook. “I jot down and record questions and thoughts in my research notebook so I won’t forget them. A curious fifth grader I knew called these notebooks ‘wonder books’ [Harvey 1998], but whatever you call them, they give me a place to hold my thinking. When my curiosity gets the best of me, I jot down what I wonder and then follow up later by doing some quick research. It is my curiosity that drives me to answer my questions and find out information. Richard Feynman, a very famous scientist, referred to this curiosity as his ‘puzzle drive.’ It is my puzzle drive that spurs me to solve puzzles and search for answers to my questions. And it is writing those questions down that reminds me to do the research.”

She added the new recycling question to her wonder list and then shared some other questions from her research notebook.

- *Are washing detergents all equal when it comes to cleaning clothes regardless of the price? Is Tide more expensive just because it is Tide, or is it better at cleaning the clothes? (A)*
- *How does a Toyota Highlander Hybrid handle in the snow? The brochure doesn’t have any pictures of it in snow. How will it perform in the mountains in a big snowstorm? (A)*
- *What exactly are credit default swaps? I have heard that they are the root of the recent recession.*
- *Is horse racing bad for horses? I have heard about some horses that died while racing or at the end of the race. I wonder why?*
- *Will it hurt my car to use a lower, cheaper grade of gasoline in the engine? The manual recommends premium gas. Does that mean I have to use it?*
- *Is recycling without sorting as environmentally sound as separating recycled items? How does it work? Does it take more energy in the long run?*

Share Different Ways to Answer Questions

Steph explained that she had already found answers to a few of these questions in her notebook, and others she still needed to research. “There are different ways to find answers to our questions. I went online to learn about the Highlander Hybrid. After a Google search, I found a website called ToyotaNation.com where people who own the cars talk about their performance—not the people who sell the cars, but people who own them. I think you can count on getting better information when someone is not trying to sell you something. It turns out the Highlander Hybrid is a terrific green car for energy savings, but not so good in a



See Lesson 6, “Ask Questions and Wonder About Information,” p. 121.

lot of snow. One Highlander Hybrid owner wrote on that site that his Hi Hy was like a boat anchor in the snow, meaning it could hardly move in snow. I called a local Toyota dealership and asked about this. They said if I wanted a really good snow car, I ought to look at their Toyota 4-Runner. So I got my question answered: the Highlander Hybrid is a fabulous green car, but not so good in snow, which means it's not for me, since I am looking for a car that is good in the mountains in winter. I haven't chosen one yet, because I still want a green car. So I am still looking. Does this make sense to you?" The kids nodded.

"Now, other times, it helps to ask a specialist or an expert for information. To answer the laundry detergent question, I interviewed a man who worked in the detergent industry and I learned there is a key ingredient in detergents known as a *surfactant* that allows water to get clothes cleaner. The more surfactant in the

detergent, the cleaner the clothes. Surfactants are expensive, however. Tide, it turns out, has more surfactants than most detergents, making it better at getting clothes clean, but also more expensive. However, this man also explained that some brands, particularly the Kirkland brand at Costco, have the same number of surfactants but are cheaper than Tide. So if I want to save money but still get clothes as clean as Tide does, I might change to the Kirkland brand of detergent. That's an example of how talking to a specialist can help us get information. So I marked both of these questions with an A for answer and then jotted down the answers in my notebook so I would remember the information."

After her explanation, Steph asked the kids to turn and talk about their thoughts and reactions to the inquiry process she had just explained. After several shared, she handed out research notebooks to each of them. Holding up her own, she said, "Like mine, these research notebooks are a place for you to hold your thoughts and questions as you

Questions and musings from
Cassie's research notebook.

I Wonder	
①	are there really other lifeforms out there, or is that just a myth?
②	if there are other lifeforms out there, are they intelligent and wonder about us too?
③	how did the first people learn to talk?
④	what were Africans thinking on the ship "Aristid" on the journey?
⑤	what came first, the chicken or the egg?
⑥	what is the purpose of life?
⑦	how does grass cause stains?
⑧	when did the first person say a word in English?
⑨	how do the buttons work on a remote control?
⑩	how long can a person say ahhhhh...?
⑪	how much carbon dioxide does a coke can contain?
⑫	what is the highest amount a cycle can have?
⑬	where did rabies come from?
⑭	what was Monet's first painting?
⑮	what does Isabell (my kitten) think while I'm gone?
⑯	on the inside, what is the difference between wheat and white bread?
⑰	how can a lightbulb burn out if running on electricity?
⑱	how long will the Leaning Tower of Pisa lean?
Cassie	



See Lesson 20, “Research Notebooks,” p. 135.

wonder about anything you are curious about. Take a moment to jot down several things you wonder about, maybe three or four questions that you want to find out about, just like I did with the laundry detergent and the hybrid car. Once you have a few questions written down, turn and talk and share them with a partner. We will keep these notebooks as we go through the inquiry process, adding our thoughts, questions, notes and findings.

Curiosity is at the heart of inquiry. We discover much information simply by being curious, keeping track of our questions, and taking the time to find answers. As teachers, we model our curiosity every day. We share a question or two that we have and record them in our notebooks. We share our “puzzle drive” so our kids will catch it and jot their wonderings in notebooks as well. A page from fifth grader Cassie’s notebook explodes with curiosity about a universe of topics and shows the broad spectrum of things kids wonder about every day. See Cassie’s list on the previous page.

One of the first words we teach in inquiry-based classrooms is *curiosity*. We model our own insatiable curiosity about life and the world. And above all, we celebrate our students’ curiosity.

Demonstrate Your Own Inquiry: Single-Stream Recycling

To show kids how research really works, we make our own inquiry process visible by modeling how we go about asking questions and finding out information. We can do this using either a mandated curriculum topic or a personal question of our own. Whichever we choose, we start our mini-inquiry with small questions that can be answered relatively easily.

We take kids through mini-research to encourage them to pursue their own questions and to show them some of the important aspects of the inquiry process. In the mini-inquiry process, the final product is often simply locating and sharing information or even making a decision based on newly discovered data. Answering authentic questions and then acting on them is what grown-ups do every day.

After explaining how she researched and found information about the Hybrid in snow and the most cost-effective detergent, Steph took her kids through the process more explicitly as she unpacked how she would go about answering her most recent question about recycling. “I am a better recycler since I began the single-stream recycling, but I still wonder if it is as good for the environment as regular recycling. I’m skeptical. Being skeptical means that you have some doubts. For instance, if sorting single-stream recyclables uses more energy than the extra amount of energy recycling saves, I might decide to stop recycling without sorting. So I decided to investigate to find out for sure. Skepticism pushes me to ask questions and find answers.”

Steph began modeling her own inquiry process by flipping through a recent *Newsweek* article on recycling. Although she gained some new information, she

One of the first words we teach in inquiry-based classrooms is curiosity. We model our own insatiable *curiosity* about life and the world. And above all, we celebrate our students’ curiosity.

didn't find an answer to her specific question. She explained that it was great to learn more information about the benefits of recycling and that incorporating this new information about recycling would build her background knowledge of the topic. But she was on a mission to get her specific question answered, so she needed to take a different tack. She decided to go online, and gathered the kids in front of a computer screen. She Googled *recycling*, only to find hundreds of sites. She showed how she narrowed her search by entering *recycling without sorting*. A number of articles came into view, all extolling the virtues of single-stream recycling.



See Lesson 7, “Stop, Think, and React to Information,” p. 122.

And then, voila, as if by magic, a video and an article titled “Recycling Without Sorting: Engineers Create Recycling Plant That Removes the Need to Sort” popped up on the screen (*Science Daily* 2007). Steph explained that this title indicated she might get some important information directly related to her question. So they watched together—stopping, jotting their thoughts, and discussing throughout. Sure enough, the video explained the entire single-stream recycling process from start to finish. It mentioned that a recently developed technology now allowed new recycling plants all over the country to take the sorting out of the public's hands through a new recycling technology. In this process, trucks dump the unsorted mess of paper, plastic, and metal onto a conveyor belt where magnets, air blowers, and optical scanners separate the items, making it possible for the plant to resort and recycle the different products.



See Lesson 5, “Annotate the Text: Leave Tracks of Thinking,” p. 120.

The article went on to explain that 30 percent more families are recycling now that sorting is no longer required. “What do you all think? Turn and talk about that,” Steph suggested. The kids burst with enthusiasm as they chattered away. Steph's curiosity nudged their own and, in light of the fact that so many more people were participating in single-stream recycling, most of the kids were immediately sold on the idea. Steph noted that they could get more information about this topic if they read the accompanying article. So she printed it and passed it out to the kids, suggesting they read it, mark it up, jot their thinking in the margins, and find two or three kids to talk to about the article when they finished reading it.

After they finished reading and discussing, Steph asked kids to share anything they learned or wondered about. Students jumped in with tons of thoughts and ideas about recycling, how they might use the recycling tips to get more people in the neighborhood to recycle, and how their own family recycled. A couple of kids mentioned that the article raised some questions in a section headed “Pros and Cons.” They noted that some people thought that single-stream recycling was not as good as sorted recycling, because the recycled materials were in some way degraded or diminished. As a result of their further reading, several kids rethought their position. Steph celebrated their skepticism and explained that the more we learn, the more we wonder. In this instance,

from what she had learned so far, she believed that the pros of single-stream recycling outweighed the cons. So for the time being, she was convinced that she would become a more committed recycler because of the convenience of single-stream recycling. However, she added that the jury was still out and that she would continue to search for more information that might change her mind in the future.

“This is so interesting; now that I know a little bit about single-stream recycling, I am really interested in this issue and want to know even more. And even though I find single-stream recycling very convenient, I always need to be willing to change my mind in light of new evidence and information,” Steph said.

Co-construct Meaning to Capture and Hold Thinking

After Steph modeled her own inquiry process on single-stream recycling, she asked the kids to share out what they noticed her doing. As they did this, Steph recorded their responses on a chart to make the collective thinking visible (see “How We Find Out Information”). This anchor chart remained posted for all to see so they could return to it for guidance when they engaged in their own small-group inquiry projects.

HOW WE FIND OUT INFORMATION...

- We are curious.
- We write our questions in notebooks.
- We care about finding answers to our questions.
- We are skeptical.
- We ask specialists and experts.
- We read articles and books.
- We go online.
- We narrow our online search with specific words.
- We are awake to new information about our topic and continue to gather information.
- We change our minds in light of new evidence.

What’s great about a lesson like this is that everyone learns about both the content *and* the process. After doing the research, Steph and the kids knew a lot

Co-constructing Anchor Charts, K-12

Gone are the days when we headed off to the Teacher Store in August and bought premade charts to decorate the room. We are teachers—not interior decorators! Also, gone are the days when secondary teachers left their walls bare, making it impossible to track ongoing thinking or projects across days and weeks. Anchor charts are for all teachers! They capture ideas and provide graphic representations of the collective thinking that comes to life in our classrooms when kids and teachers take their thinking public. Anchor charts visibly connect past teaching and learning to future teaching and learning. We hang them in the room so kids can refer to them as they practice what they have learned.

When we co-construct anchor charts with our kids, we solicit their responses, synthesize them, and add them to the chart. And although our thinking does not dominate the conversation, we are not afraid to weigh in with our own thoughts and opinions, particularly if we notice something missing. Teaching and learning in inquiry-based classrooms is a process of co-constructing meaning. Everyone builds knowledge, kids as well as the teachers.

more about single-stream recycling. But they also got a good idea of how the inquiry process works. Steph made her thinking visible in a number of ways:

- She shared and modeled her curiosity and her skepticism—thinking dispositions that drive further research.
- She demonstrated how she determined importance while reading in the effort to answer her question.
- She showed how she moved on to other sources when her question was not answered.
- She shared how she finally answered her question and how that answer would guide her as she moved forward.
- She recorded what she learned about the process on a chart.
- And above all, she pointed out how interested she now was in the issue of single-stream recycling, because the more we know about something, the more we care and wonder about it! This newfound interest spurs her even now to follow this issue closely and be open to changing her mind in light of new evidence.

We model the inquiry process and make our thinking visible for a number of reasons. Three important ones rise to the surface. When we go through the inquiry process ourselves:

- We show our kids that we value this kind of work. If it is important enough for us to do, it must be important for them too.
- We can teach the process by modeling it. There is no better way for kids to learn than by watching and doing.
- We learn something through our own inquiry that shows kids how our curiosity drives us even as adults, and enriches us in the process. You never stop learning!