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Telling Your Story

Having made it through the data analysis process, you now face the challenge of putting together the findings of your research. The most important thing to do as you tell this story is to present compelling evidence for your claims and to make a thoughtful, insightful, and clear analysis of it.

You may experience a pleasant surprise when you get involved in the process of writing up the story of what you have learned. If you planned your study carefully and analyzed your data throughout to extract major themes or ideas, you may find that the writing part can be a creative and rewarding experience.

There are many ways to tell your story. You can tell it as a straightforward report, describing what you saw through vignettes and quotations from the data. You can enhance this report with illustrations, photos, work samples, or other summarized data, perhaps displayed in charts or graphs, which show how often and under what contexts you saw certain behaviors or reactions. Another way to tell your story is to weave your themes, backed up by your data, into a narrative written in either the first or third person. Or, you can craft your findings into an account of an event or events from the perspective of different participants. Still other ways to share your findings are to use your evidence to put together a hypothetical "day-in-the-life" of a child or a classroom, or to paint a portrait of a child. Or, you might string together "telling cases" that epitomize your major themes. A metaphor might even emerge that will serve as the organizer for your story.

All along, since you first thought of your research topic, you may have had a sense of the final product. For you, the selection of a writing

format and style for your findings may flow from your research questions and the problems you explored in your inquiry. However, if you have not yet considered how to tell the story of your research and if you are not sure what format or style might be a good fit with your research questions, one way to begin to craft the final research product is to look at published qualitative studies or unpublished teacher research that have captured your attention in the past. Reading studies of others' research can help you select a style of writing for your findings that matches with your research topic and questions. In Appendix 1 at the end of the book, we have gathered some references of published teacher research that we think you might find instructive.

Different ways to tell your story

There is no single correct way to write up your research. In the work of the many teacher researchers we know, we have seen numerous and creative ways to report findings. Many teacher inquirers mix two or more ways of writing up findings—some provide student work to illustrate changes over time; some even use photographs to tell what they have learned from their studies.

A report of the themes in the data *A report of the themes in the data*
Typically teacher researchers share what they have learned in a report format that identifies and explains the themes of their findings. Often, the researcher gives each important theme or pattern that emerged in the data analysis a separate subsection and a subtitle in the write-up. Each theme is introduced by explaining how often this theme came up in the data and under what conditions. A study that is rich with examples from the data of student talk, work samples, and other sources should help its reader imagine the classroom setting.

Here is an example of how to present the themes of your findings in the form of a report. It is excerpted from Natalie's study of how to support students' independent literacy learning in centers. Organized around the themes that she developed through her data analysis, Natalie began with a simple introduction.

Over the course of the sixty days I researched my kindergarten class, I found several main themes (some the same as my subquestions and other slightly different) emerge from my data.

Natalie then listed her themes, devoting a section to an explanation of each, selecting examples, quotes, and pictures that best represented the recurring patterns that she identified. Here is an excerpt from one section of Natalie's findings about the theme "Children teach themselves and each other through self-discovery, collaboration, and sharing."

I witnessed many conversations and collaborative work during the reader's and writer's workshop center play. Here [referring to a displayed photo] we see a group of students working with their independent reading texts and discussing what they are writing.

Another area where I saw a lot of collaborative planning and discussion was the block area. The children decided what they wanted to build first, and then worked together to accomplish the goal. Oftentimes one suggested standing on a chair or enlisted the help of a taller student to get the job done. The point is that the children came up with creative ways to problem solve and be successful.

On January 27th I witnessed some collaborative discovery when one literacy center group was making flip books and was trying to figure out how to work the minitapler I had bought. One child took charge, manipulated it for a few seconds, and then showed everyone else in the group how to use it.

I frequently saw children helping or coaching each other through the learning process. On February 23rd I saw Aryana looking over Jed's shoulder as he was reading. She was encouraging him and talking about the book. On February 25th I witnessed two boys and one girl writing sentences to go with the paintings they just made. The girl was going from one boy to another, helping them sound out and reminding them to leave spaces. I often saw children reminding each other to write the date on their papers.

I have also witnessed my children take initiative in their learning. In February, Ronald was in the flip books center and he told me that there were no flip books in there he liked and he was going to make his own.

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It is clear from the observations that the kindergartners relate to each other in ways that help them create deeper understandings. One way they effectively act on these understandings is through play.

Notice how Natalie continually used examples and references from her data to back up and explain her ideas.

Writing a narrative Narrative writing is another form you can select to write up your findings. There are many choices of writing styles even within narrative writing. Some researchers write in the first person, telling a story from their own perspective. In the following example, Shenaz presented the findings of her research in a story that detailed the process of her own inquiry. She recounted how she did her study, explaining both the process she went through as well as what she learned, by referencing examples from the data she collected. Here is an excerpt from one part of her story that describes how she learned to manage reading conferences during her Reading and Writing Workshop:

When I started [my study], my goal was to meet with four to five students. This was difficult because conferences last about five minutes. Meeting with four students alone requires my students to be reading for twenty minutes! That is a lot to ask of a first grader in October and November. On November 20, 2003, I noted in my personal journal that it was hard to meet with four or five students. I was meeting with two, sometimes three. It wasn't until December 3rd that I realized that it was acceptable not to be able to meet with so many students individually during reading workshop.

Shenaz continued her narrative by describing how she came to manage writing conferences and what she did with the information about her students that she gained through the conferences, describing each child she studied and how each developed. Samples of students' work, as well as excerpts from students' records and Shenaz' journal were used to illustrate the points that she made. She ended her story with reflections about what she still needed to do to continue to improve both her reading and her writing conferences:

In my personal journal I note on several occasions (11/20, 12/02, 12/11, 1/06, 1/14, and 1/19) that I am not commenting on what my students are doing well or what strategies they are using. I know that this is an important part of the conference. Not only does it make them feel good, but it also gets them thinking and talking about the strategies. If students are aware of the strategies they are using, then they will more likely use them.

An account utilizing the perspective of different participants For teacher researcher Kisha Pressley's findings from her study of how three parents of the children in her kindergarten class supported their children's literacy at home, she composed narratives of the three mothers in which they discussed their personal learning histories and their philosophies of educating their own children. After the narrative section of the findings, Kisha looked across all three of the narratives for commonalities in the mothers' beliefs. Here she discusses one of the themes that she found: How the mothers support their children's emergent literacy by making learning materials available in their homes.

Karen says that Alicia has her own bookshelf with about one hundred books passed on from an older cousin. "Alicia has a lot of books with cassettes to it and she'll play them over and over again." She bought Alicia workbooks and has magnetic letters on the refrigerator. She also informed me that her daughter has a laptop at home. Karen plays monopoly with Alicia because she feels that it will strengthen her weak mathematic skills. She also wants her to learn to count money. "I want her to learn to count better."

Pamela tells me that Carl is in a book club where she orders his CD-ROMs. Carl has a "whole little library of books he reads at home." She believes firmly that he learns from those. He has cassette tapes of storybooks and he also has "interactive books and toys." In addition to this he uses the Internet at his grandmother's house. Although Pamela says she does not know "where he learns much of the stuff," she told me that she bought him a basic curriculum book for pre-K and was able to tell me all the areas of the curriculum it covers.

Rosalind told me that Tameka has her own books stored away in a hutch that she is able to reach. "I belong to a book club and so does Tameka." Tameka has interactive ABC books and other interactive books. She has letter magnets, alphabet blocks, toys, and puzzles. Rosalind says she recently got a new computer and is currently looking for CD-ROMs for Tameka. Rosalind subscribes to *Essence* and *Vibe* magazines. In fact, she tells me that it is not uncommon to find Tameka trying to read the magazines.

A day in the life of a child Michelle, who conducted a study asking how she could better serve a child (Kareem) with special needs in her mainstream classroom, decided to share her data as "A Day in Kareem's Classroom Life." She looked through the data for examples that were representative of what she saw everyday. For example:

It's 8:15 AM and Kareem enters the classroom with his sister and brother. He says "Good morning" and puts his coat in his cubby and washes his hands. He goes to the Math Center and begins to play with dominoes and explains his understanding of how to play the game to me. He says "When you get this game youb [sic] have, two bive [sic] of dees [sic] you put them right here," (pointing to two sets of five orange circles on the dominoes and then placing them five orange circles to five orange circles) (tape recording, 3/13/03). He continues to explore math using the counting bears. He begins by using his right hand to take out a green bear, a yellow bear, and then a blue bear . . .

Using her documented observations as evidence, Michelle continued in the story of her findings to show Kareem's understanding of math concepts and his fine motor skills. After sharing one representative observation, Michelle explained how Kareem generally approached math problems and then discussed his strengths and weaknesses in this area. Michelle's story of Kareem's day provides rich details for the reader and leaves the reader with a strong sense of this child.

A day in the life of a school If you decide to use the narrative form of "a-day-in-the-life" to share the findings of your study, it is important that you use great care to choose what data to include and not include. Each example should represent evidence you have seen repeatedly and that effectively characterizes your research subject or events.

Allison presented her findings from her study of multiple intelligences by creating a "day-in-the-life" of the classroom that she studied for almost a year. It is a collage of carefully chosen excerpts from her conversations with students and teachers, photographs of the classroom, and samples of children's work. Her description began with the morning transition from home to school and followed the children throughout the school day to the morning meeting, time spent at reading and writing workshops, music, math, science, dance, art, and the afternoon transition from school to home. Although the activities depicted did not all actually happen during the course of one day, Allison's portrait wove them together hypothetically to demonstrate how the teaching she observed was responsive to the differing strengths, needs, and styles of learning of the diverse learners in the class. Here is an excerpt from her story:

It is 8:30 AM. The halls of the school are busy with families, teachers, and school personnel getting to where they're going. As I meander through the crowd, toward the K-1 class I am observing, I see a child reaching toward his representation of one hundred things, to show his dad. I hear a mother asking her child where to put his lunch box as the child is taking his two-year-old brother into his classroom. As I enter the classroom I see another two-year-old sibling notice the other and exclaim, "Eli!" as he rushes to hug him. Meanwhile, the students of the class begin their work. Some children go to read the greeting board, which has the morning activity of: "Find a word from a poem that you can read and write it here." The children enthusiastically go about the task, often using another peer or a parent for help or reassurance. Some children are busy signing in on the attendance sheet and putting their name on the attendance board. I notice the classroom teacher take notice of a child having a tough time after separation from her mom. The teacher asks, "Are you OK?" and

the child nods a response. "Are you sure?" the teacher asks while touching the child.

Other children have moved to observe and draw representations of the crickets [cricket drawings are provided].

Three children move to the block area and work together on a structure that was left from the previous day [a photo of children in the block area is provided].

Other children go to observe the mealy worms [photo is provided]. "My worm was picking his head up." "Mine isn't walking." "Mine is doing gymnastics!"

After a verbal cue to finish within five minutes, the teacher then uses a musical cue to begin the transition to the meeting area. She claps a rhythm pattern and children mimic the pattern. She then moves to a song countdown as children put away projects ... and move to the rug.

Allison's written descriptions are enriched by a stunning photographic display and are interspersed with her own commentary that offers an ongoing analysis of the story:

In this sample of the typical morning rush and transition from home to school, I am made aware of all the learning that is occurring. Support for naturalistic, linguistic, spatial, and personal intelligences intermingle as the morning begins. The naturalistic intelligence is supported by the fact that the classroom is an ongoing science laboratory, evidenced by youngsters choosing to study the crickets and mealy worms, and record their observations in drawings as they share with each other what they see. Support for linguistic intelligence abounds as children sign in; read the greeting board; work on the activity; talk with their peers, parents and teacher, etc. ...

Portrait of a child For teacher researcher Tabitha Perez's findings about her study of her experience teaching one of her first grade students how to read using the Orton-Gillingham approach, she "painted a picture of John's learning experiences" in her classroom. She did this by first describ-

ing both John's background and her own. She then described John as a learner at the beginning of the year by carefully analyzing work samples. Next, she explained her teaching philosophy and how she used the Orton-Gillingham approach with John. Then, through work samples, she showed how John's reading evolved during the course of the year. She also included how his attitude changed and how his mother's hard work played an important role in the changes in his abilities throughout the year. Tabitha's meticulous collection of work samples and accompanying analysis of John's work document his experiences over a school year in an almost visual way that provide the reader with a clear picture of what happened in her classroom.

In the following example, Tabitha discusses one of her identified themes: John's increasing excitement about reading throughout the school year. She supports this theme with ample evidence and citations from her data. Tabitha begins this section of her findings with a subtitle and an introduction:

John's Excitement for Reading

The biggest change that I have seen from John is his excitement for reading. John's confidence as a reader has soared.

This wasn't apparent at the very beginning of the school year. After a short while I noticed him taking books out of his desk more frequently, going over to the library area after he completed his work, and ordering books from the Scholastic Book Club that the class participates in.

Tabitha continues to describe this theme by providing examples from her different data sources (in the following section she cites her research journal). Note how she uses words like "often" and "once" to give the reader a sense of how common these occurrences were.

Often now, when John has finished his work, he will take a book out of his desk and use his book marker to keep track of the words while he is reading (Journal, p. 1, 5, and 6). When John reads he concentrates deeply. It is almost like he is inside the book. Once John was on the rug reading a book and there were children mumbing around him and he paid them no attention. Even when I sat next to him he just looked up at me and them back down at the book (Journal, p. 7).

Tabitha goes on to cite conversations she had with his mother about John's interest in the public library, and his improvement in standardized test scores. Her examples from multiple data collection sources show the reader how she has triangulated her data—she has seen John's excitement about reading from a variety of perspectives.

Although each of these examples demonstrates how findings can be reported in a different way, the element that they have in common is their constant referencing of evidence to support the assertions made.

Finding a "good fit"

As you approach the write-up of your findings, it is important to select a style of writing that matches with your research topic and questions. For instance, if your study is a "shadow study" in which you followed a child through a day of his or her life (Burnaford, 2001) and the purpose of the study is to see school from the perspective of this child, you may want to write the findings as a narrative from the point of view of the child. On the other hand, if you are studying one teaching method in the context of your classroom, you may want to share some themes from the data that show your classroom's unique community and context, and share charts that demonstrate the regularity of certain behaviors in relation to the methods you are studying. Or, if you are looking at one child's growth during the course of a school year, you may write about the big issues you have identified about his development and show his progression through work samples that you annotate for the reader.

To ensure a "good fit" for your study, you may want to play with the themes you developed as you analyzed your data and try out different styles to see what might make the most sense. As you sit down to write, it is important to think about the potential readers of your study. Who would you like to read the study, and what would you like them to get out of it? How can you make this material accessible? To help you decide how to proceed, it may be helpful to get outside input. Try sharing sample findings written in different styles with a critical friend.

Getting started

Once you have selected a way of writing up your findings, look back over your data analysis notes and choose data you want to use to illustrate what you have learned. You may choose to display your data explicitly or use it to craft your story in creative ways, such as the "day-in-the-life" or "portrait"

examples presented earlier. Ely et al. (1999) suggest sharing both representative examples from the data and powerful single examples. For example, you may see a clear pattern in your data of your students demonstrating a certain reaction. You can look through these examples and share one or two quotations or vignettes of these reactions as representative examples. On the other hand, there may be a single moment that surprised you for some reason, that caused you to think about your research project differently, or that made you question your assumptions in some way. These anomalies may be illuminating and should also be shared with the reader.

Describing your choices as a researcher

As you think through your choices in writing your findings, you may want to open an additional document on your computer or paper notebook where you can jot down your thoughts. Your decisions of what to share in your findings should be as systematic as possible. Make sure to include data that are representative. What is not representative should be examined to determine whether it reveals something else important that you want to discuss. You may choose to include it for that reason. Reflect on your choices by asking yourself some of the following questions:

- What examples are you leaving out of the findings and why?
- Why are you choosing to include certain elements of the story of the study and not others?
- Are there areas of the data that seem too messy, inconclusive, or contradictory that you are ignoring?
- What are you going to do about these "messy" pieces of data?

These reflections are important to note so that, when writing up your findings, you can describe these decisions for the readers of your study. In addition, look back at the research journal you have been keeping and include in this section other aspects of the study, such as the conditions of data collection and how your thinking changed throughout the process. As mentioned earlier, being explicit about the choices you have made is an important way to ensure a reliable study. By sharing your perspective and thinking in constructing the findings, you are acknowledging that yours is only one way to tell this research story, that it is not the absolute "truth." Barone (1995) reminds us that "a story never tells the absolute truth"

(p. 64), and reminds researchers that storytelling, or narrative, is "historically contingent, never impervious to social conditions within a specific culture and time" (p. 64). Remember that the research story you present is influenced by the participants' and your own experiences, words, and beliefs, as well as by various research and social conventions.

Creating a complex picture

Regardless of the style or format of writing that you select for sharing your findings, you want to strive to create a complex picture of the participants (Ely et al., 1999), rather than a simple two-dimensional portrayal. Everything in your study will not fit together neatly. Don't try to force it to do so. Instead, embrace the complexity of your study. It is only when you have to think through seemingly contrary ideas that you can share a more complicated and honest picture with the reader. In creating this complex picture, you will likely want to provide the reader of your study with a careful description of the lives of all the participants in the study—teachers, students, parents and guardians, or others. You can quote from your data to highlight aspects of their lives. When doing this, you may want to reference the data sources in the same way that you cited authors within the text of your literature review (as seen in the previous examples of teacher researchers' work). By doing this, you help to establish your study's reliability. If readers want to reanalyze your study and data, they can use these citations to help them.

Conducting a member check

Just as you did for your data analysis, you can conduct a "member check" of your findings. Doing this offers the potential to provide you with valuable information. A member check for your findings usually entails sharing your working findings with the participants of the study and asking them for their thoughts and feelings about how they are depicted. Many qualitative researchers insist that member checks are necessary to ensure that the voices and perspectives of the participants are represented. "[S]ilence is created when those who are the subjects of research have little or no power in the construction of accounts about them, no access to texts, and no avenues into the corridors of knowledge—production power" (Lincoln, 1993, p. 32).

After sharing the findings with the participants, you may want to include in your final version of the findings how the participants reacted to your draft of the findings. Did anything about their reaction surprise you? Did their analysis give you any insights you had not originally seen?

Valuing your teaching actions as part of the research

Often teacher researchers find that their research has helped the participants of their study with an issue they discovered while conducting it. During the course of the study the teacher researchers, because of what they have learned from their investigation, may have had occasion to call community agencies on a student's behalf; visit a student's home, find resources for families, or tutor children after school—all while wearing their joint teacher/researcher hats. Actions like these are enormously relevant to your teacher research study (they are often examples of the "action" part of action research) and should be included in the findings.

For example, Michelle, who studied her special needs student, Kareem, interviewed his mother as part of the data collection process. During the interviews Michelle learned that Kareem's mother, who Michelle had previously thought was in denial about her son's needs, had a strong interest in her child's education. From that point on, Michelle and Kareem's mother worked together. Michelle included a description of this revelation and of her developing relationship with Kareem's mother in her story of her study. She described sharing with the mother both the readings she did for her study as well as information that she found about a related local service agency that could provide speech services for the child while he was in daycare. Michelle also directed the mother to Internet links related to speech issues in young children, and even a website that had a chat room for caregivers of children with speech delays. In the write-up of her findings, Michelle discussed how she helped Kareem's mother by serving as a person who listened to her concerns. These details enriched Michelle's story as well as demonstrated the impact of her study.

Drawing conclusions and implications from your inquiry

As you come to the end of your research journey, take some time to reflect on what you have learned so that you can formulate some conclusions. Review the big ideas you discovered in your findings and summarize them. Connect them to ideas you have read about from other authors. Think about what these findings mean, not only for you as a teacher, but for other teachers and others in our profession as well. Consider what new questions have been generated by your investigation. And finally, think about the process you went through as you conducted your investigation.

Summarize your findings As you review what you have learned to draw your conclusions, think about if you found something new or if your study provided evidence for prior notions that were only intuitive. What do you think about what you learned? What, if any, realizations has your study brought forth—about your teaching, about children, about curriculum, etc.? As a result of your study, did you become aware of something you had not noticed before? Have you come to appreciate something you had not valued before?

Connect your understandings to the literature you read Think back to the literature you read about your questions. Did you confirm what you read earlier or did your study lead you to disagree? Has conducting your study led you to uncover something new or to see the literature in a different light? Did the context of your classroom or school affect your study's results differently than in other studies you read?

Draw implications for yourself as a teacher How has your study changed your thinking and/or your teaching practice? Ask yourself the following questions:

- How have your understandings of your students as learners changed?
- What kind of input have you received from your students that has changed your teaching?
- What new understandings did you gain about your students' caregivers, your colleagues, your administrators, or the school community?
- What did you learn about your teaching methods?
- How might you adapt your teaching in the future based on your findings?
- What have you learned about yourself as a learner and how will this impact your future teaching?

Your study may also lead to implications beyond your own classroom. You may ask yourself additional questions such as the following:

- If your study involved others, did it help them to develop new understandings or to ask new questions? How?
- Did your relationships with administrators change during this process? In what ways?

- How might what you have learned in this study be helpful to others—teachers, administrators, families, your community, the profession at large?
- How can you share what you have learned with your colleagues in your school, district, or the profession?

Questions to study further Often questions lead to other questions. Consider the following: What questions that you had when you began your study still remain unanswered? What new questions have emerged through the process of investigating? What might you do next to follow up on these questions?

Reflect on your inquiry journey So much has happened since you began your study. What were some of the best moments you experienced? What problems and challenges did you face? How has the research process impacted you as a learner?

In the following study, Natalie describes what she learned during her study, how she grew from its inception, and what her learning means for her future teaching:

I set out originally to investigate how I could improve the way I support independent learning through literacy center play. I knew from the start the impact that play has on development (National Association for the Education of Young Children, 1986, 1988, 1989, 1997), but I wanted to concretize my understandings by directly observing my students and simultaneously reflecting on what I was seeing.

I found that during learning center time, my children, while engaged in meaningful literacy activities, made some of the most important discoveries and were approaching many of the milestones on the continuum of child development. Young children need to be actively involved in everything they are learning. Whether it is with manipulatives, with dramatic play and props, with creative art activities, planning what to construct in the blocks, or even just adding their own prior knowledge to an activity, they internalize at an optimal level when they are active. The way for young children to be active is to play.

In my classroom, since I have begun teaching with the balanced literacy approach as a model, I am creating situations in centers, where the children have a space to play, control their own learning, and absorb the information. Kindergarten is about sorting through the massive amount of sensory experiences, emotional stresses, and cognitive strains that are put on a child so young. Play allows a certain amount of freedom from risk and limitations, allowing the children to become more autonomous.

In observing my class of kindergarten students I was able to see how crucial it is for the teacher to be in tune with the needs and interests of the children in front of her. I was able, by taking anecdotal notes, and in turn, reflecting on said notes, to explore exactly what my children kept coming back to and what they really enjoyed. I then proceeded to make curriculum adjustments and differentiated lesson plans to accommodate the varied desires of my students. This approach has afforded me the power to know what each child needs and how to address these needs.

This study has reminded me of the importance of reflecting on my own practice to improve it and to avoid becoming stagnant. The little people who sit in front of me every day are constantly changing, growing, and experiencing through school and other places. It is my job to give them certain tools, especially related to literacy and math, in order for them really to understand their sensory experiences. I think what I have learned is highly significant because I am becoming a more reflective individual who is dedicated to scaffolding young independent learners. I can only hope that my continued reflection, adjustment, and accommodation can benefit the majority of my students.

Putting together a report of your study

When you have finished writing about your findings and your conclusions, you will need to put them together with the rest of the material that you have produced for your study. Review the following outline to guide you.

Your Research Study Report

1. Statement and explanation of your research question
2. Review of literature
3. Research methodology
 - a. Description of the participants and setting
 - b. Data sources
 - c. Data collection methods
 - d. Data analysis methods
 - e. Permissions/interview and/or survey questions
 - f. Time line
4. Findings
5. Conclusions/implications
6. References
7. Appendix (this should include the supporting evidence for your study such as your original notes and other data that you collected)

Each element noted (and explained in each chapter) should be a part of the final version of your research study report. For it, you can follow the template just provided or you can craft a presentation format of your own. Instead of a report, you might want to write an article, make a PowerPoint presentation, create a parent or teacher guide, or set up a website to convey your information. Depending on what format you choose, you will likely need to change what you wrote earlier from the future to the past tense (i.e., sections about research methodology should now describe how you *conducted* rather than *will conduct* your research). If you made changes between what you proposed to do in your study and what you actually did, then include what these changes were and why they happened.

As you review what you are putting together, check to ensure that you have made your findings clear, that you have explained your ideas and backed them up with the evidence that you collected during your investigation, that the ideas from the review of research are connected to the research done for this project, and that you have carefully thought through and explained the implications of what you learned from your study.

How you write your story will make all the difference. It will affect what your readers understand about what you are trying to say as well as affect the impact the findings will have on them. You can increase the power of your ideas by paying attention to the way you develop and organize your ideas, to the language you use, and by making sure that you have mastery over the conventions and mechanics of English, our common language, so that your writing is understandable to all.

Idea development, organization, and language use Make sure that you have fully explained and elaborated on your ideas. Often writers do not do this enough; what lands on the page is only a portion of the information that is in their heads. Remember, your reader does not have all the context and background information that you have. To bridge the gap between your experience and your readers', you need to provide details and examples as well as clear and focused explanations for all your ideas. These will make your story come alive and be grasped fully by your readers.

Organization is another element of writing that impacts its effectiveness. Try to express your thoughts in a logical progression, moving the reader through the text to showcase and enhance the central ideas of your story. Make sure you have an inviting introduction, thoughtful transitions, and writing that flows smoothly toward a satisfying conclusion.

Choose your words strategically to convey effectively what you want to say. Use your own words instead of language paraphrased or borrowed from books, always citing any authors whose words or ideas you may have used. As you write, listen to the way your words sound and to the cadences of your phrases. Employ the active rather than passive form of verbs. (This makes your writing more direct and understandable.) Make your style appropriate for your purpose and audience.

Keeping these suggestions in mind should help you to unleash and establish your own unique voice.

Mechanics and the conventions of English Although the most important challenge in any writing is to make it coherent, compelling, and engaging, to show your reader why your topic is important, and to provoke him/her to think about the issues, it is important, too, to pay attention to mechanics and standard writing conventions. This will enhance your writing's readability. Check to make sure that spelling, punctuation, paragraphs, quotation marks, grammar, sentence structure,

and other conventions of the English language are used accurately and correctly. Make sure as well that your references and citations follow the appropriate format.

Drafting: Revising and redeeming your ideas Don't expect to complete the write-up of your study without going through lots of review and revision. All writers need time and lots of drafts to get ideas from the brain onto the paper. "First drafts are for learning what your [work] is about. Revision is working with that knowledge to enlarge and enhance an idea, to reform it" (Malamud, 1975, p. 48). Just as you teach your students to go through "the writing process," you need to go through it as well.

As you try to get your ideas into print, it is not uncommon to feel like you have no idea of what you are doing. Many of the difficulties of writing are really difficulties of clarifying your thinking. What follows are a few suggestions that might help you get your ideas flowing.

Before beginning, try a "free write" (Elbow, 1973). The idea is to write down anything that comes into your head with the rule that you must keep your pen moving continuously. Three pages in a notebook is a good amount. Let the writing take any shape, form, or style and let the content flow in any direction. Don't cross anything out; keep moving forward. This exercise may help you free up your thinking and feel more comfortable putting ideas into words.

Draft an outline, sketch, or "visualization" of the ideas you want to put together in your findings. Refer to these while you are writing to help you stay focused on your intentions.

Once you have gotten started with your writing, you may feel so close to it that you can't see it properly anymore. Try reading through it aloud and jotting down words in the margins that describe what each paragraph is about. After you have finished with this process, review your notes to see if your ideas are progressing or if you are repeating what you already said before.

Once you have completed a draft, utilize peer review—first for content and later for editing details. Ask someone not familiar with your topic to read what you have written to ascertain if the content is understandable. Often we are so familiar with our subject matter that we leave out or gloss over important information. Because this information is "in our heads," we sometimes assume that we have explained it when we have not. Your reader should not have to "second guess" what you have

written. Ask your reader to point out the parts that need further explanation or that are not expressed clearly (Darling, 2003).

During the early stages of revision, focus on content issues. Concentrate on coherence and organization. Do not obsess about grammatical details. Rearrange or delete sentences, paragraphs, or sections until you feel that your ideas are well communicated. Then review your writing for grammar, punctuation, and other writing conventions. When you are done, ask a friend to review it.

Sharing the final project

When you have completed putting together your final report or story of your study, look for venues to share what you have learned. By "going public" with your work, you help to reveal the dilemmas so many teachers experience in their isolated classrooms (Sanford, 2004).

There are many ways to share your work. You could begin by verbally sharing your learning. You could try getting together in your own "backyard" with other teachers in your grade level or in your school. You could also make a presentation or lead a workshop with other educators in your district or region. Teacher researcher Teresa Roman did both of these kinds of presentations after completing her study of how to support English language learners. She led workshops with the teachers in her school and her district where she shared the strategies and tools she acquired through her study.

If you feel braver, you might even consider writing a proposal to present at a professional conference. Both local and national professional organizations generally hold annual meetings at which members present to each other. Look up the dates on their websites for instructions about how to apply. Be aware that proposal deadlines usually are due many months in advance of the conference. Neurys Bonilla, a Spanish/English-speaking dual-language teacher who did research on the benefits of a multilingual classroom, wrote a proposal to present at a professional conference with her colleagues in a teacher research group that she joined after completing her first study. They put together a symposium on classroom-based inquiry that they presented at the University of Pennsylvania's annual Forum on Urban Ethnography.

If you are pleased with your writing and want to share it, there are several ways to do it. You might want to create your own website and post your story for all to see. Or you might want to submit your writing to a journal. Increasingly, journals (both on-line and traditional paper versions) are seeking articles that give voice to teachers' perspectives and

concerns. You can find out which ones are interested in teacher research by conducting an Internet search. At each journal's website you should look for its mission statement, call for papers, and/or author guidelines. Review these carefully so that you can have a sense of how to shape your article to increase the likelihood of its being accepted for publication.

If you want to use your writing skills a little bit closer to home, think about writing a newsletter, brochure, or guide that you can use to share information from your study with the families, teachers, and/or administrators in your school or district. This is what teacher researcher Patricia Edwards did after completing her study of how to increase parent involvement. She wrote a report about what she learned and she submitted it to the director of her daycare center. The director found it so informative that she and Patricia turned it into a guide for the teachers in their school.

Kisha did something similar after completing her study of mothers who successfully support their children's literacy development. From her study she identified things that parents can do to support their children's learning. Then she created a guide for parents that was shared with each family in the school community. This guide was particularly helpful to them because it was informed by the experiences of peers from their own community. Kisha explains:

By using practices in my guide that I learned from parents who share the same culture and context as the other parents in my school, I hope to be increasing the likelihood that others will try some of the suggestions. If I can tell them that these are some of the techniques other single, working parents with "x" number of children have used to produce successful literacy, then they, hopefully, will feel confident that they can achieve the same results with their children.

There are still other ways to share what you learned from your investigation. You might use it to transform not only your own practice but to ignite change in your school and community. This is what colleagues Mercedes Orozco, a native of Mexico, and Betty Kouassi, a native of Harlem, where they both work, did together in their school after they each completed an inquiry about their practice. They were so inspired by the experience that they teamed up to co-teach. Together they worked on transforming their classrooms into communities of inquiry. They reached out to utilize the resources of their community, to connect to the families of the children in their classes, and to lead change initiatives with their

colleagues, first in their school and later in their district. In addition, they sought National Board for Professional Teaching Standards certification and presented their change initiatives at national conferences. Mercedes credits the research experience as the inspiration for these changes:

We gained confidence to do this as a result of our research.

From it we learned how to choose what we wanted to study and how to think and produce. We learned that research is a never-ending endeavor; that we have to reflect continually on our practices and rethink constantly the understandings of our discipline.

Helping children put together their findings, conclusions, and presentations from inquiry projects

As the investigation and analysis part of children's inquiries draws to a close, it is important to engage them in some kind of culminating project to help them consolidate and reflect on their learning. A culminating project for an inquiry can take different forms, depending on whether the inquiry was conducted by an individual or a group. It will also vary according to the age and skill level of the students.

Individual studies

Much of what has been discussed about your own process for putting together the findings from a study can be applied to how you can help children report their individual investigations. Although a lot of this process involves writing, we do not focus on writing here because there are many excellent books that offer guidance about how to do nonfiction writing with children (see Appendix 5). These are worth consulting to help you hone your skills and get new ideas. Here, however, we offer for your consideration some activities and ideas about how to support children through the process of presenting the learning that they have acquired through their inquiries.

The starting point for writing a report is the data the children collected and analyzed (see Chapter 7). They can begin by looking at their analysis charts and jotting down what they believe are the main themes of findings in their studies. They should be able to explain how these findings relate to the research question and they should be able to elaborate with details, examples, and/or illustrations. Figure 8-1 offers an example of a worksheet that students can use to help them organize their findings.

Figure 8-1. Developing Your Research Findings

What is your research question?

Finding #1:

Explain this finding with details and/or examples.

How does this finding relate to your research question?

Discuss what you think about what you found out. Is it different from what you thought might be the answer? Does this finding raise new questions for you?

Finding #2:

Explain this finding with details and/or examples.

How does this finding relate to your research question?

Discuss what you think about what you found out. Is it different from what you thought might be the answer? Does this finding raise new questions for you?

Finding #3:

Explain this finding with details and/or examples.

How does this finding relate to your research question?

Discuss what you think about what you found out. Is it different from what you thought might be the answer? Does this finding raise new questions for you?

After completing these worksheets, children can share them with each other in pairs or in groups and respond to their classmates' working findings. They can be asked to answer questions such as the ones in Figure 8-2.

The children can respond to these questions in written or discussion forms, depending on their age and the development of their skills. The feedback from these forms can then be given back to each child to use as a resource when writing.

When each student researcher believes that he or she has three to five strong findings, he or she is ready to begin writing about them. The written findings should address the questions listed earlier; be backed up with details, examples, and explanations (including pictures and drawings if the children choose); and include a conclusion. The conclusions section should summarize the findings and describe implications and any looming questions. Figure 8-3 presents some questions you might ask the children to answer as they prepare to write their conclusions.

Figure 8-2. Peer Response to Working Findings

Does each finding and how it relates to the research question make sense?

Are there examples to explain each finding?

Are the examples clear? Do they offer details and descriptions?

What would you like to know more about?

What questions do you have about the study?

Figure 8-3. Questions to Answer as You Write Your Conclusions

What did you learn?

How does what you learned from your study fit together with what you knew about this topic before?

What do you think about what you learned?

What would you like to find out about this topic or a related topic in the future?

After the children have gone through these processes, they should be ready to put together a completed report. Here is a suggested format to use:

List of questions

An introduction

The written findings (including the children's pictures, drawings, photos, or other evidence)

A conclusion

References

As the children write, they may need assistance with such issues as how to put information from books into their own words, how to organize ideas, how to eliminate repetitive thoughts, how to elaborate ideas, and how to use varied and interesting language. You may want to hold mini lessons about these skills to assist them along the way.

Group studies

Culminating experiences of group studies help the whole group to consolidate the learning that takes place in a study. There are numerous kinds of culminating experiences. One is for the class to produce a book that recounts each stage of the group's investigation. The book could include photos, drawings, or other visuals that are annotated and explained by the children's writing or the teacher's writing of children's dictated responses (if the children are very young). The book might even include write-ups of related inquiries conducted by individuals within the context of the group investigation.

Other possibilities for culminating experiences include presentations; constructions such as maps, blueprints, or block building; displays of experiments or art work; or dance, drama, spoken word, or musical performances. Some teachers we know conclude their class' studies with Writers' Celebrations to which they invite their students' families as well as other teachers and students in the school. The visitors read the presenting class' writings and record their responses, impressions, or questions in guest books that are placed around the room. Other teachers we know organize museums in their class at the end of each study. They set up exhibits of the work they have completed for their study and invite different classes and the families of the children to the class to view it. Visitors go around the room to the different displays and listen to a student docent explain what was done and what was learned. Sometimes these events include multimedia presentations, like a puppet show or a play or some other kind of performance.

Generally, culminating experiences for inquiries offer the possibility for students to use a range of modalities to express their learning so that children's different learning styles and strengths can be supported and showcased. The next chapter provides some detailed images of how different classrooms conduct inquiries, put them together, and share them with others.

Exercise 1: Review guide for writing up research findings

Ideas and Content

- Main points are clear and focused with anecdotes.
- Details are provided to support the main ideas.

Just as you did with your own inquiry, the children should continually review their work, first to revise and reorganize the content to ensure that it is clear and understandable, then to edit for mechanics and the details of grammar. The writing process can include individual and peer editing, as well as conferencing with you, the teacher.

In addition to writing reports, you may want to have children simultaneously work on projects that demonstrate an aspect of what they are learning. For these, a range of modalities can be used—art, music, drama, and other types of presentations. For example, a study of bridges might be accompanied by a suspension bridge built out of tongue depressors and cord, a study of the blues guitarist B. B. King could feature a music mix of the artist's work, a study of gymnastics might incorporate a gymnastic demonstration, a study of the sun could include a model of the solar system (Falk & Margolin, 2005).

Completed reports and projects can be put on display in the classroom. A presentation of the written report, accompanied by the project, can be a culminating event of the process. Presentations can be followed by class discussions. Here are some guidelines that one class developed to help them listen to each other carefully, process what they heard, and ask useful questions of each other during class discussions (Falk & Margolin, 2005):

Does the question make sense?

Has somebody else already asked this question?

Why are you asking this question?

Pay attention to what has been said.

Think about what it is you want to ask.

Postpresentation conversations have the potential to reveal what the children understand, the connections they are making, or any misunderstandings they may have. For example, in a fourth grade class discussion after a presentation about Rosa Parks, some of the children were confused about the chronology between slavery and the civil rights movement, a common phenomenon among young children. Only by hearing their questions and comments at a class meeting could their teacher know that she needed to use a time line to explain the history of these events (Falk & Margolin, 2005).

Presentations and discussions about individuals' projects can provide the whole class with important information, inspire deep thinking, as well as give them an opportunity to express their feelings and points of view.

Analysis

- Evidence for claims is compelling.
- Analysis is thoughtful, insightful, and clear.

Conclusion/Implications

- Central findings are summarized.
- The reader is shown why the topic is important, and is provoked to think about the issues and problems in the study.
- The significance and implications of these findings for the researcher and for teaching in general are discussed.

Organization

- Thoughts are expressed in a logical progression, moving the reader through the text to showcase and enhance the central ideas of the story.
- There is an inviting introduction, thoughtful transitions, and writing that flows smoothly toward a satisfying conclusion.

Language use

- Words are chosen strategically to convey effectively what you want to say.
- Your own words are used instead of language paraphrased or borrowed from others.
- Words or ideas from other authors are cited.
- Writing has a sense of your own unique voice.

Mechanics and the conventions of English

- Spelling, punctuation, paragraphs, quotation marks, grammar, sentence structure, and other conventions of the English language are used accurately and correctly.
- References and citations follow the appropriate format.